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Presentation: ISAG – European Business School

ISAG - Instituto Superior de Administração e Gestão, is an establishment of private higher education polytechnic, created in October 1979 and officially recognized by Decree-Law nº. 375/87, of 11th December.

As a conclusion of a fusion process started in November 2000, which had as first stage the merger by incorporation of the founding entities ESE/ENFOC in June of 2005, there occurred the merger of ISAG – Instituto Superior de Administração e Gestão and ISAI – Instituto Superior de Assistentes e Intérpretes in a single institution of higher education with the designation of ISAG – Instituto Superior de Administração e Gestão.

ISAG has as fundamental objectives the education, the divulgation and the development in the areas of Science Management, Applied Languages, Tourism and Hotel Management in the Northern Region of the Country, through the implementation of a philosophy of higher education that prepares students for the exercise of highly qualified professional activities.

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For this purpose, ISAG has been paying constant attention to the needs of the society and the Portuguese economy, giving special consideration to those relevant to the construction of the European Union and globalisation of markets. Thus, the institution recently assumed the designation of ISAG – European Business School.
Presentation: International Conference on Applied Business and Management

On the 25th and 26th of June 2020, the third edition of the International Conference on Applied Business and Management (ICABM2020) was held at ISAG - European Business School, Porto. The third edition featured more than a hundred presentations by national and international researchers, namely with the following nationalities: Brazil, Colombia, Spain, Georgia, Indonesia, Lithuania, Nigeria, Portugal, among others.

As an Organizing Committee, we presented a scientific program with a strong multidisciplinary character, to increase the levels of scientific knowledge about management, from a transversal perspective and also to promote the collaboration and networking of researchers. The main research areas present at ICABM2020 were: accounting, economics, marketing, hospitality, industrial management, human resources, innovation or tourism. Due to the COVID-19 pandemic, the conference dates were changed from 7 and 8 May to 25 and 26 June.

On the first day the Plenary Session was promoted by Prof. Doctor Paulo Mourão (University of Minho) with the theme: “The economics of viruses and the reaction to the socio-economic pandemic reality?”. The Plenary Session of the second day was the responsibility of Dr. Micael Sousa from the University of Coimbra who brought the theme: “Introduction to serious board games: applications for enterprises, businesses, and projects”.

ICABM2020 researchers had the opportunity to submit articles in the following modalities: full paper and abstract (extended abstract). Articles and abstracts were subjected to a peer review process. Accepted and presented papers will be published as an e-book and will be sent, after the event, to be indexed in SCOPUS and for Web of Science (WoS).

ICABM2020 also allows the opportunity to publish in a special issue dedicated to the event, which will feature a selection of the best articles from the conference, in the European Journal of Applied Business and Management (EJABM). EJABM is currently indexed in the international Google Scholar, ICI Copernicus Journals Master List, DRJI and Latindex databases.
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EFFICIENT TAXATION AND INTANGIBLE ASSETS: AN ANALYTICAL NOTE
António Martins ¹; Daniel Taborda ²; Cristina Sá ³

Abstract
Purpose: Firms investment is a relevant element in economic growth. Therefore, it is important to consider the factors that influence it. In this context, the tax variable has a high impact on the investment decision. The purpose of this paper is to discuss how investing in intangible assets makes the computation of the effective corporate income tax rate especially complex.

Methodology: The methodology applied is based on the method designated “legal research”, in the legal-fiscal and accounting aspects. In this method, the analytical discussion of tax and accounting rules relevant to a given phenomenon allow us to assess the potential impact of a certain legal framework on business decisions.

Originality: Economic models have traditionally incorporated the tax variable corresponding to the nominal rate of income tax for corporations. However, in the Portuguese tax legal framework there is a wide range of situations in which the tax framework differs from the accounting rules. When this happens, the nominal tax rate does not adequately capture the impact of the tax policy on investment results. This consideration is particularly relevant if the analysis focuses on investments that strongly integrate intangible elements into their composition

Findings: Economic methodologies relating to investment and taxation will gain by specifying further the relationship between the nominal tax rate and the effective tax rate, particularly in the area of investments largely composed of intangible assets. Hypotheses of empirical investigation may follow from this study.

Practical implications: At the corporate or macroeconomic level, the tax variable is increasingly complex in its determination. In fact, under corporate income tax, and for intangible assets, deductions to income, collection and other benefits can significantly create distance between nominal tax rate and effective tax rate.

Research limitations: It is an analytical approach, which does not develop empirical studies, but leaves clues of statistical investigation.

References

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in the EU and US before and since the Great Recession and its contribution to productivity growth." Journal of Infrastructure, Policy and Development, 2(1):11-36.

**Keywords**: Corporate taxation; Investment; Effective corporate tax rate; Intangibles.
IMPLEMENTATION OF AN ABC COSTING MODEL IN A COMPANY DEDICATED TO THE PRODUCTION AND DEVELOPMENT OF MASTERBATCH
Patrícia Quesado 1; Daniela Araújo 2

Abstract
Purpose: The aim of this study is to present a proposal to implement an activity-based costing (ABC) model for a company dedicated to the production and development of colour concentrates and additives (masterbatch) for the plastics processing industry, identifying the cost of each activity present in the production process and investigating the activities that consume more or less resources, as well as those that add value or not.

Methodology: We use a qualitative approach as a methodology, with an exploratory case study, using matrix calculation to apply the ABC system in the organization under study. Qualitative data were collected from interviews conducted with employees of the organization and all the accounting and financial documents provided were analysed, combining direct observations.

Originality: We believe that the model proposal presented is the main contribution of this work since we believe that after its implementation, it will allow gathering information that will enable the company to focus on its essential issues, determining its costs in a more realistic and enabling the identification of activities that add value or not. In addition, there are few studies in the literature on the application of the ABC system in these types of organizations, a fact that allows us to give this study an innovative approach.

Findings: It was possible to identify the cost of each activity present in the production process and determine the activities that consume more or less resources, being the extrusion activity and the reception activity of the raw material, respectively. We also determined that, from the customer’s perspective, the preparation for delivery activity does not add visible value to the product, so its cost must be as low as possible. We also concluded that the ABC system is an asset as a management tool, and can be applied to this type of organization, giving more accurate, relevant and timely information to managers and administrators, since it highlights the cost of each activity and contributes to increase the efficiency and effectiveness of the production process, in the sense that it facilitates the detection of anomalies that may have occurred during the same.

Keywords: Activity-Based Costing System; ABC; Matrix Calculation; Management Accounting.

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DETERMINANTS OF PROFITABILITY: A CASE OF NON-FINANCIAL COMPANIES FROM PORTUGAL
Nuno Coimbra 1; Alexandrino Ribeiro 2; Estela Vilhena 3

Abstract
Purpose: The main objective of this work is to study the ROE determinants of Portuguese non-financial companies and what type of influence they have. In addition, it is intended to investigate whether these determinants vary with the size of the companies.

Methodology: The sample is composed of 104 Portuguese non-financial companies, which were subsequently separated according to their size into three subsamples (small, medium and large companies), with the period studied between 2014 and 2017, and using a multiple linear regression model to estimate the results. Company-specific variables and a macroeconomic variable were selected.

Findings: The results obtained suggest that small companies benefit from the level of inventories they have, but that their size and the tangibility of the asset negatively affect their profitability. In relation to medium-sized companies, the capital structure and the tangibility of the asset negatively affect profitability. In the case of large companies, age affects profitability in a positive way, while the size and capital structure affects it in a negative way.

Originality/value: In the empirical study, by dividing the sample into sub-samples, taking into account whether the companies are small, medium or large, it was possible to conclude, from the results obtained, that the determinants of profitability vary according to the size of the companies.

Research limitations: One of the limitations of the study is that it is only applied to Portuguese companies, making it impossible to generalize the results to other countries. To overcome this limitation in future investigations, companies from other countries should be included in the sample.
On the other hand, as only non-financial companies were used, it is not possible to generalize the results obtained for financial companies. Future investigations focused exclusively on non-financial companies will be able to assess whether the explanatory variables of the profitability of non-financial companies are identical to those that explain the profitability of non-financial companies.

Keywords: Profitability; Determinants; Dimension.

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GENEALOGY OF A PROFESSION: THE FIRST CERTIFIED ACCOUNTANTS IN PORTUGAL (1770)
Cecília Duarte 1; Miguel Gonçalves 2; Cristina Gonçalves Góis 3

Abstract
Purpose: The purpose of this paper is to make known the list of bookkeepers, Portuguese and foreign, registered in the Board of Trade under the Charter of Law of August 30, 1770, as well, the economic institutions in which they exercised their profession at the time. This legislative diploma is recognized as the first attempt to regulate the profession of certified accountant in Portugal, being of such importance abundantly cited in the literature.

Methodology: For the realization of the above, the distinction between methodology and method is crucial. Silverman (2001) defines methodology as the way to study a problem, while the method understands how the data for its resolution are collected. As for the first topic, the research is defined as qualitative, given that, “although accounting deals intensely with numbers, it is a social science, not an exact science […] which justifies the relevance of using the qualitative approach” (Raupp & Beuren, 2006, p. 92). The unpublished archive data were collected in Torre do Tombo National Archive and the other primary sources used were collected in Municipal Library of Anadia.

Originality: This is the first presentation ever to reveal to the accounting history community the first Portuguese certified accountants through their registration in the regulatory body of the profession, the Board of Trade, in 1770.

Findings: This contribution adds to the accounting knowledge unpublished data about bookkeepers in Portugal (year 1770) from the accounting offices of the main national economic institutions, such as the Board of Trade, the Monopoly Companies of Commerce and the Royal Silk Factory. In spite of this, it is concluded that the norm under analysis was not fully applied, since the bookkeepers of one of the most important national public bodies – the Royal Treasury – did not register.

References

Keywords: Bookkeepers; Regulation of the profession; Letter of law of August 30, 1770; Board of trade.

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THE EXPECTED IMPACT OF IFRS 16 LEASES: EVIDENCE FROM COMPANIES LISTED ON THE PORTUGUESE STOCK EXCHANGE

Jéssica Lima 1; Kátia Lemos 2; Sónia Monteiro 3, Verónica Ribeiro 4

Abstract
Purpose: The International Financial Reporting Standard (IFRS) 16 – Leases, is mandatory since January 2019, replacing the current standard International Accounting Standard (IAS) 17. This new standard requires the accounting of operating leases in the lessee’s balance sheet, recognizing a right-of-use asset and the corresponding liability. The aim of this paper is to analyze the potential effects of IFRS 16 on financial statements and their impacts on financial indicators, as well as the way in which the transition to the new standard will be made.

Methodology: Content analysis of 2018 reports and accounts from a sample of Portuguese listed companies, in order to analyze the financial impact of capitalizing off-balance lease. In relation to the financial structure ratios analyzed, we have compared the values existing in 2018, before the adoption of IFRS 16, with those predicted after its adoption.

Originality: This paper contributes to ongoing international debate and research concerning lease-accounting, by providing empirical evidence in our country, Portugal, where existing studies are still scarce.

Findings: Our results allowed us to conclude that the majority of the companies in the sample (84%) will adopt the modified retrospective transition option, while the rest (16%) will adopt the full retrospective transition, in which case it is mandatory to re-express the comparative information. Regarding the impact of the new standard on the financial statements’ elements, we have concluded that assets and liabilities will increase, while equity will decrease, consequently affecting the balance sheet. Regarding the income statement, the results reveal the decrease in supplies and external services, which will allow an increase in EBITDA. On the other hand, there is an increase in financial and amortization/depreciation expenses. After comparing the financial indicators, between 2017 and 2018, it is expected that the debt ratio will increase, while the financial autonomy and solvency ratios will decrease. We have confirmed that the sector of activity most affected by IFRS 16 will be the retail sector and that the sector of basic resources is the one that will experience the least impact.

Practical implications: The capitalization of lease accounting has implications on levels of indebtedness and performance measures. The lease-accounting regulatory change can affect the investors decisions and the managers’ behavior, concerning the financing decisions and earning management. This paper findings can help lessors, preparers and analysts to understand the expected impact of the implementation of IFRS 16.

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Keywords: Leases, IFRS 16; Impact of capitalization; Impact assessment; Off-balance-sheet
1. Introdução

Atualmente, as entidades podem recorrer a diversos meios de financiamento de médio/longo prazo, existentes no mercado. Um modo de financiamento muito comum é o financiamento por meio de locação. A locação pode ser definida como o direito de utilizar um ativo, sem ter que pagar antecipadamente o seu valor.

O International Accounting Standards Board (IASB) em cooperação com o Financial Accounting Standards Board (FASB) têm como função a atualização e publicação de normas de contabilidade e de relato financeiro de elevada qualidade, aplicáveis a nível internacional, por diversos países. O objetivo primordial destes dois organismos normalizadores passa por tornar as demonstrações financeiras das várias empresas comparáveis e transparentes para todos os stakeholders, ainda que as entidades apliquem normativos distintos.

Devido ao crescente número de organizações que opta pelo a recurso a locações, ao invés da aquisição de ativos, o IASB e o FASB têm dado maior ênfase a esta temática e desenvolveram um projeto conjunto no sentido de publicarem novas normas sobre o tema das locações. Deste modo, em janeiro de 2016, o IASB publicou a International Financial Reporting Standard (IFRS 16) – Leases em substituição da International Accounting Standard (IAS 17) – Leases, aplicável a partir de 1 de janeiro de 2019.

De facto, o anterior normativo que regulamentava as locações – a IAS 17 Leases – foi alvo de várias críticas por considerar, na ótica do locatário, um tratamento contabilístico distinto para as locações, em função da sua classificação como operacionais ou financeiras, sendo que as primeiras, ao contrário das últimas, eram conhecidas por “locações fora do Balanço”, afetando apenas a demonstração dos resultados. Assim, a literatura é unânime ao considerar que a contabilização dual das locações pode influenciar significativamente as demonstrações financeiras das entidades intervenientes, obrigando a um esforço de compreensibilidade por parte dos investidores.

A IAS17 vigorou durante vários anos, até que a necessidade de um melhor reconhecimento e mensuração das locações se tornou cada vez mais notória, motivando a sua revogação e aprovação da nova norma, a IFRS 16. Desde já é possível salientar que a grande mudança introduzida com o este novo normativo tem maior incidência na contabilização das locações como forma de financiamento, apresentando um resumo do novo normativo IFRS 16, permitindo a sua comparação com a IAS 17. O segundo ponto é dedicado a uma breve revisão de estudos empíricos sobre a aplicação da FRS 16, que facilitarão a comparação com os nossos resultados. O terceiro ponto é dedicado ao estudo empírico, começando pela apresentação dos objetivos e da
metodologia de investigação adotada. Define-se e caracteriza-se a amostra utilizada e o estudo empírico finaliza com uma análise e discussão dos resultados obtidos. Por último, apresentam-se principais conclusões e limitações do estudo, apontando também algumas sugestões para investigação futura.

2. Enquadramento contabilístico das locações

2.1. Críticas ao normativo contabilístico IAS 17 Leases: um impulso para a IFRS 16

A IAS 17 Leases entrou em vigor em 1 de janeiro de 1984, definindo uma locação como um acordo pelo qual o locador transmite ao locatário o direito de usar um ativo durante um período de tempo acordado, em troca de uma renda (IAS 17, §4).

A IAS 17 original era, contudo, omissa quanto ao tratamento contabilístico dos custos diretos iniciais, incorridos por um locatário na negociação e garantia dos acordos de locação. Ao longo dos anos, foram surgindo algumas revisões ao normativo, como por exemplo a substituição do conceito de “renda” por “um pagamento ou série de pagamentos”.

A IAS 17 obrigava a que a distinção entre locação financeira e locação operacional fosse visível na sua contabilização, impondo um modo dual de contabilização das mesmas. Ou seja, ao nível do locatário:

- As locações financeiras eram, de acordo com o §20 da IAS 17, registadas no Balanço do locatário, no início do prazo de locação, como ativos e passivos, por quantias iguais ao justo valor da propriedade locada ou, se inferior, ao valor presente dos pagamentos mínimos da locação. Este tratamento dava origem ao reconhecimento de depreciações do ativo, que eram reconhecidas como gasto durante o seu período de vida útil.

- Por outro lado, no caso das locações operacionais, os pagamentos efetuados eram reconhecidos como um gasto, numa base de linha reta, durante o prazo da locação. Ou seja, eram apenas refletidos na Demonstração dos Resultados, como gasto do período (IAS 17, §33). Seguindo o pressuposto do acréscimo, o gasto é reconhecido no período a que diz respeito, independentemente do seu pagamento.


As críticas ao normativo contabilístico IAS 17 Leases foram, pois, um impulso para a IFRS 16. Segundo a Ernst & Young (2010), as críticas apontadas ao modelo anterior relacionam-se com o facto das operações de arrendamento economicamente semelhantes serem tratadas contabilisticamente de forma diferente; evidenciaram também o facto de ativos e passivos com relevância, decorrentes de operações de locações operacionais não serem registados e, por último, o facto de os valores estimados no início do contrato de locação não serem reavaliados posteriormente.

Passos e Niyama (2011) defendem também que as operações de leasing representam uma importante fonte de financiamento para as empresas e que, num cenário global, a existência de diferentes padrões de contabilidade pode prejudicar a qualidade da informação contabilística e reduzir a comparabilidade dos relatórios financeiros das várias entidades. Num mesmo ponto de vista, a PwC (2018) explica que a orientação das locações financeiras até então vigente, nomeadamente do leasing, foi frequentemente criticada por não fornecer aos usuários as informações necessárias, uma vez que não permite uma compreensão abrangente dos custos totais da propriedade, essenciais para a atividade, nem como esses custos foram financiados.
Alves (2018) defende que uma contabilização dual de locações distorce a leitura das demonstrações financeiras na medida em que as entidades poderiam, para operações econômicas similares, contabilizá-las de forma distinta, tratando de forma diferente o que em substância é igual. Além disso, defende também que o anterior normativo não permitia comparar claramente a exposição ao risco por parte dos locadores aquando da celebração de locações operacionais.

Para empresas com dificuldade na obtenção de financiamento, a locação operacional é uma opção ambicionada uma vez que encobre o risco associado, pois não é reconhecido nenhum passivo - as chamadas locações off-balance-sheet (locações fora do balanço). Deste modo, apenas era contabilizado, na Demonstração dos Resultados, o gasto inerente à prestação de serviços. Este tratamento contabilístico põe em causa a transparência e fiabilidade da informação financeira, principal crítica ao modelo até então vigente.

Face ao exposto, conclui-se que a implementação da IAS 17 por parte das empresas podia causar distorções nas indicadores econômicos e financeiros, o que levava a que a percepção dos investidores e credores sobre a saúde financeira da empresa pudesse ser posta em causa. Justificava-se, pois, procurar melhorar a qualidade e comparabilidade da informação.

Daqui resultou a necessidade de o IASB e o FASB realizarem um projeto de revisão das regras contabilísticas aplicáveis às locações, iniciado em 2006, que veio, então, dar origem ao normativo IFRS 16, emitido pelo IASB, em 13 de janeiro de 2016. O FASB emitiu, em fevereiro do mesmo ano, o Accounting Standards Update (ASU) Locações, aplicável nos EUA. Dos dois normativos ficou claro que, quando um locatário faz um contrato de locação, este origina um ativo (o direito de uso do ativo) e o correspondente passivo (o compromisso financeiro assumido perante o contrato). No ponto seguinte analisaremos pormenorizadamente a IFRS 16 Leases.

2.2 A IFRS 16: breve caracterização

A IFRS 16 deve ser aplicada a todas as locações (§3), havendo isenção de reconhecimento no caso de contratos de locação a curto prazo (com duração inferior a 12 meses) ou em contratos de locação em que o ativo subjacente tenha pouco valor (§5). Caso o locatário opte pela não aplicação da IFRS 16, deve então reconhecer os pagamentos associados a esse contrato como gastos, refletidos apenas na Demonstração dos Resultados (§6).

Deste modo, o ponto de partida é, então, definir se o contrato constitui ou contém uma locação (§B9).

2.2.1 Identificação de uma locação

Para que seja considerado um contrato de locação tem que existir o direito de uso sobre um ativo identificado. Os §§ B9–B31 apresentam orientações para determinar se um contrato constitui, ou contém, uma locação. Para avaliar se um contrato constitui o direito de controlar o uso de um ativo identificado, por um certo período de tempo, uma entidade deve avaliar se, durante todo o período de utilização, o “cliente” dispõe (§B9): a) do direito de obter todos os benefícios económicos do uso do ativo (§B21), por exemplo, pelo uso exclusivo do ativo ao longo do período de utilização e no âmbito definido previamente. b) do direito de orientar o uso do ativo durante o período de utilização por parte do cliente (§B24).

2.2.2 Tratamento contabilístico da locação na ótica do locatário

Na esfera dos locadores, a IFRS 16 não vem alterar a forma como contabilizam os seus contratos. A decisão entre registar uma locação financeira ou operacional depende da

1 Uma explicação mais detalhada da norma é apresentada no apêndice 1- Apresentação da IFRS 16
substância da transação e não da forma do contrato (IFRS 16, §63). Isto é, continua a existir a opção de registar a locação como financeira, caso se verifique, no fim do contrato, a transferência substancial de todos os riscos e benefícios inerentes à propriedade do ativo. Caso contrário, a locação deve ser registada como operacional (§62).

O maior impacto do novo normativo das locações é precisamente na ótica do locatário, pelo que importa proceder à sua análise, nomeadamente no que respeita à mensuração inicial e subsequente, conforme se descreve:

✔ Reconhecimento e mensuração inicial: quando o locatário tem à sua disposição o ativo, este deve reconhecer simultaneamente um ativo sob direito de uso e um passivo da locação (§22).

- A mensuração inicial do ativo sob direito de uso deve ser feita pelo seu custo (§23, que inclui (§24) (cfr. Esquema 1):

**Esquema 1 - Mensuração inicial do direito de uso do ativo**

| Direito de Uso (ROU) | = | Valor inicial do passivo | + | Pagamentos de locação efetuados – incentivos recebidos | + | Custos direitos iniciais | = | Estimativa dos custos de desmantelamento e remoção do ativo subjacente |

*Fonte: Torres e Olmedo (2017a:15), adaptado*

- Quanto à mensuração inicial do passivo da locação (§26), o locatário deve mensurar-lo pelo valor presente dos pagamentos de locação que não estejam pagos nessa data, que devem ser descontados segundo uma taxa de juro implícita na locação. Se essa taxa não puder ser facilmente determinada, o locatário deve utilizar a taxa incremental de financiamento do locatário.

✔ Mensuração após o reconhecimento inicial:

- Relativamente à mensuração subsequente do ativo sob direito de uso (§29), o locatário aplica um Modelo do Custo ou Modelo da Revalorização previsto na IAS 16 Ativos Fixos Tangíveis, onde pode optar por aplicar o modelo de revalorização ao ativo sob direito de uso, caso já o faça para uma classe de ativos fixos tangíveis. O Modelo do Custo baseia-se no custo do ativo sob direito de uso, menos as depreciações (efetuadas de acordo com a IAS 16) e perdas por imparidade acumuladas (tendo por base a IAS 36).

- No que respeita à mensuração subsequente do passivo da locação (§36), o locatário deve mensurar o passivo da locação pelo custo amortizado nos termos da IFRS 9 Instrumentos Financeiros, uma vez que estamos perante um passivo financeiro. Note-se que a IFRS 16 não especifica se um “ativo sob direito de uso” é um ativo tangível ou intangível. Todavia, quando a norma se refere ao reconhecimento de depreciações do ativo, remete para a IAS 16, sobre ativos fixos tangíveis. No entanto, segundo Neto (2019), o direito de uso é um ativo intangível das empresas. De igual modo, a Ordem

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2 A taxa de juro implícita na locação é a taxa de desconto que, no início da locação, faz com que o valor presente agregado: (a) dos pagamentos mínimos da locação; e (b) do valor residual não garantido, seja igual à soma do justo valor do ativo locado e de quaisquer custos diretos iniciais do locador (Sistema de Normalização Contabilística para administrações públicas – SNC-AP - NCP 6 Locações).

3 A taxa de juro incremental de financiamento do locatário é a taxa de juro que o locatário teria de pagar numa locação similar ou, se tal não for determinável, a taxa que, no início da locação, o locatário teria de suportar com um empréstimo, durante um período similar e com uma garantia similar, para obter os fundos necessários para comprar o ativo (SNC-AP - NCP 6 Locações).

4 A não ser que aplique o Modelo do Justo Valor da IAS 40 Propriedades de Investimento para todos os ativos que satisfaçam a definição de propriedade de investimento
dos Contabilistas Certificados (OCC), no seu parecer técnico (PT21290) de 10 novembro de 2018, considera que deve ser reconhecido um ativo intangível. No nosso entendimento, o mais correto seria o reconhecimento de um ativo intangível uma vez que, o que está em causa, é o direito de uso de um ativo identificado e não o bem em si. Até porque, na ótica do locador, este continua a evidenciar, no seu ativo tangível, o bem do qual é proprietário, efetuando as respetivas depreciações. Deste modo, faria sentido o locatário reconhecer como intangível o direito de uso daquele ativo tangível.

2.2.3 Transição
A IFRS 16 entrou em vigor para períodos com início em 1 de janeiro de 2019, embora fosse possível uma aplicação antecipada no caso das entidades que também aplicassem a IFRS 15 - Rédito de Contratos com Clientes. Como expediente prático, uma entidade não é obrigada a reavaliar se um contrato é, ou contém, uma locação à data de aplicação inicial (§C3). Os locatários devem aplicar, retroativamente, a IFRS 16 aos contratos de locação (§C5), podendo utilizar:

- Método integral: efetua a transição a cada período de relato anterior apresentado, sendo necessária uma reexpressão dos comparativos (§C5a);
- Método modificado: efetua a transição com o efeito cumulativo da aplicação inicial da norma reconhecido à data da aplicação inicial (§C5b), sendo que neste caso não deve reexpressar a informação comparativamente. Ou seja, deve ser reconhecido esse efeito cumulativo como um ajustamento ao saldo de abertura de resultados transitados, à data de aplicação inicial (§C7).

Partilhamos da opinião de Neto (2019), de que a opção de transição escolhida pela empresa tem subjacente uma análise custo-benefício. Acrescenta a autora que a opção de transição escolhida pode estar também relacionada com a existência de benefícios fiscais, uma vez que ainda não existe esclarecimento do efeito desta transição numa ótica fiscal. Segundo o parecer técnico (PT21290) da OCC, o tratamento fiscal irá acompanhar o tratamento contabilístico, atendendo às limitações fiscais atualmente já existentes a nível de depreciações e amortizações de alguns ativos (p.e. viaturas ligeiras de passageiros) - artigo 34.º do código do imposto sobre o rendimento das pessoas coletivas (CIRC), ou nos gastos de financiamento (artigo 67.º do CIRC). Todavia, até à data não existe ainda qualquer alteração no Código do IRC ou legislação complementar, de modo a refletir a transição fiscal para o novo tratamento das locações.

3 Revisão de estudos empíricos
A principal alteração que a introdução da IFRS 16 implica prende-se com a contabilização das locações operacionais que anteriormente eram contabilizadas apenas como gasto (refletido na Demonstração dos Resultados) e agora passam a ser contabilizadas no balanço, através do direito de uso de um ativo identificado e do respetivo passivo da locação, como de aquisições de ativos financiados se tratasse. Deste modo, como defendido por Liviu-Alexandru (2018) é expectável um impacto tanto mais significativo quantos mais arrendamentos extrapatrimoniais (off-balance-sheet) as empresas possuírem. Com a aplicação da IFRS 16, as empresas vão passar a estar mais endividadas (pelo aumento do passivo) e deverão refletir as despesas financeiras e as correspondentes amortizações nas suas demonstrações de resultados. Essa nova realidade terá, certamente, um impacto importante no financiamento, uma vez que os níveis de dívida são determinantes para as condições dos próprios empréstimos. Com o intuito de antecipar os efeitos decorrentes da aplicação deste normativo para as locações, há vários estudos que procuraram analisar o seu contexto e as possíveis

5 Para a análise sobre o eventual tratamento fiscal da aplicação da IFRS16 vejam-se as opiniões técnicas de Lucas (2019) e Santos (2019)
consequências que a sua aplicação vai trazer para as entidades (Torres & Olmedo, 2017; Chérrez, 2017; Sá, 2018; Alves, 2018; Santos, 2018; Villiers & Middelberg, 2013; Sieverding, 2018; Matos & Niyama, 2018).

Alguns estudos (Bunea, 2017; Monteiro & Lopes, 2017; Albuquerque et al., 2017; Cerqueira, 2018) centram-se no tipo de pressões, conhecidos por lobbying, exercidos sobre o IASB/FASB por distintos stakeholders (preparadores da informação, auditores...), que antecederam o processo de emissão e aprovação da IFRS 16. Outros estudos centram-se na revisão de literatura (com base em estudos anteriormente realizados), focando-se apenas na pesquisa bibliográfica e documental, com o intuito de retirar ilações sobre o impacto da norma nas demonstrações financeiras (Matos & Niyama, 2018; Alves, 2018), bem como o seu impacto a nível geográfico e/ou setores de atividade (Torres & Olmedo, 2017a). Finalmente, há ainda estudos que assentam na análise de conteúdo, mais concretamente na análise das demonstrações financeiras das várias entidades que aplicaram a IFRS 16, através de rácios e indicadores financeiros (Torres & Olmedo, 2017 b; Sá, 2018).

Da revisão de estudos empíricos sobre o impacto da adoção da IFRS 16, podemos afirmar que os resultados apontam para a existência de alguma uniformidade nos impactos esperados na análise económico-financeira das empresas, nomeadamente o aumento do ativo e do passivo (Torres & Olmedo, 2017a e b); Sá, 2018; Santos, 2018; Alves, 2018; Sousa 2018; Morales-Díaz, J. & Zamora-Ramírez, 2018; Bragança, 2018) e do EBITDA (PwC, 2016; Sá, 2018; Santos, 2018; Alves, 2018; Gomes, 2019) e da diminuição do ROA (Villiers & Middelberg, 2013, Sá, 2018; Santos, 2018) e do capital próprio (Bragança, 2018; Gomes, 2019).

Quanto aos rácios, os resultados dos estudos analisados apontam para um aumento do endividamento (Villiers & Middelberg, 2013; PwC, 2016; Sá, 2018; Santos, 2018; Morales-Díaz, J. & Zamora-Ramírez, 2018) e da solvabilidade ao contrário da autonomia financeira e da liquidez, em que se conclui por uma diminuição (Torres & Olmedo, 2017a; Alves; 2018; Bragança, 2018).

Bragança (2018) conclui ainda que os setores mais afetados são aqueles em que se verificam valores mais elevados do rácio da despesa com locações operacionais sobre o passivo total, isto é, empresas de retalho, transportes, hotéis, software e setores de serviços.

4. Estudo Empírico

4.1. Objetivos do estudo

Neste ponto propom-nos efetuar o estudo no sentido de prever o impacto que o tratamento contabilístico homogéneo das locações, preconizado na IFRS 16, terá numa amostra de empresas cotadas em Portugal. A aplicação do normativo terá, certamente, impactos ao nível das demonstrações financeiras das entidades e, por conseguinte, nos seus indicadores financeiros, que importa analisar. Estes impactos esperam-se tanto mais significativos, quantas mais locações operacionais as empresas possuírem, as chamadas "off-balance-sheet", uma vez que estas vão passar a constar no ativo e no passivo, como "direito de uso" e valor presente dos pagamentos, respetivamente, eliminando, desta forma, os gastos relacionados com o arrendamento, até então reconhecidos na demonstração dos resultados. Face ao exposto, a questão de investigação proposta, que pretendemos ver respondida é: Qual o impacto que a IFRS 16-Leases terá nas empresas portuguesas não financeiras, cotadas em bolsa?

Assim, o objetivo primordial deste trabalho consiste em compreender as implicações da adoção desta nova norma (a partir de 1 de janeiro de 2019) ao nível do relato financeiro das empresas cotadas, obrigadas a aplicar o normativo contabilístico do IASB, analisando especificamente o caso português. Para além do estudo dos efeitos que esta norma irá produzir ao nível das demonstrações financeiras do locatário, procura-se também avaliar o impacto previsto ao nível dos rácios e indicadores financeiros.
Será também pertinente analisar as decisões tomadas pelas empresas quanto ao modo de transição para a nova norma, isto é, como vão ser (re)avaliados os contratos de locações já existentes, assim como os ajustamentos de contabilização à data da transição, visto que o normativo permite adotar duas formas de transição para as locações já existentes, anteriormente analisadas.

4.2 **Metodologia de investigação**

Para cumprir com os objetivos previamente definidos, realizamos um estudo de natureza exploratória e descritivo, para entendimento do contexto e obtenção dos *insights* iniciais quanto ao impacto esperado com a adoção do novo normativo contabilístico. Para recolha dos dados recorremos à técnica de análise de conteúdo, tendo-se utilizado, como fonte de obtenção dos dados, os Relatórios e Contas (R&C) das empresas objeto de estudo.

4.2.1. **Definição e caracterização da amostra**

Dado que o principal objetivo deste estudo é o de analisar o impacto esperado da adoção da IFRS 16 *Leases* nas empresas portuguesas não financeiras, cotadas em bolsa, para a obtenção da informação necessária para o presente estudo empírico consultámos o *website da Euronext Lisboa*, no dia 11 de novembro de 2019, de onde extraímos uma listagem com as empresas cotadas nessa data na bolsa de valores portuguesa.

No que concerne à definição da população objeto de estudo, em estudos prévios vários autores (Alves, 2018; Santos, 2018; Sousa, 2018) optaram por analisar uma só empresa, enquanto outros optaram pela comparação entre empresas de um mesmo setor (Sá, 2018; Gomes, 2019), ou de setores diferentes (Morales-Díaz & Zamora-Ramírez, 2018). A nossa escolha recaiu sobre as empresas cotadas no Mercado de Cotações Oficiais da *Euronext Lisboa*, à semelhança também de alguns estudos anteriormente realizados nesta área de investigação (Torres & Olmedo, 2017b; Villiers & Middelerg, 2013; Pwc, 2016). Esta decisão deveu-se, essencialmente, à maior facilidade na obtenção das contas anuais e, particularmente, por ser uma população representativa de vários setores de atividade. Por outro lado, atualmente, as sociedades cotadas são as únicas que, em Portugal, estão obrigadas à adoção do normativo do IASB, na elaboração das suas contas consolidadas, sendo por isso as empresas que terão, certamente, impactos com o novo normativo.

Para a constituição da amostra final foram utilizados os seguintes critérios:

a) as empresas constam na lista que foi retirada do site da *Euronext Lisboa* no dia 11 de novembro de 2019;

b) os R&C das empresas estão disponíveis no *site* da Comissão de Mercado de Valores Mobiliários (CMVM) ou no *website* da própria entidade;

c) não são consideradas as empresas financeiras nem as sociedades anónimas desportivas, assim como empresas com períodos de relato diferentes (período de relato válido para o presente estudo: 01-01-2018 a 31-31-2018);

d) as empresas divulgam os impactos que vão ter com a aplicação da norma a partir de 2019 e/ou as empresas aplicam o normativo antes da obrigatoriedade da sua aplicação.

Na data indicada na alínea a), estavam cotadas no *site da Euronext Lisboa* 56 empresas, que constituem a população do nosso estudo. Uma vez que a norma em estudo é, apenas, de aplicação obrigatória a partir de 1 de janeiro de 2019, foram analisados os dados constantes nos R&C anuais consolidados mais recentes disponíveis, designadamente do ano de 2018. Começamos por analisar se as empresas cumprem os critérios propostos acima. Quanto ao primeiro critério (a), todas cumpriram. No que concerne ao critério b) eliminámos as empresas Sociedade Águas da Curia S.A. e Euronext Lisbon –
Sociedade Gestora de Mercados Regulamentados, S.A., uma vez que não conseguimos obter os seus R&C de 2018.

O critério c) fez-nos eliminar também da amostra as sociedades anónimas desportivas (Sport Lisboa e Benfica-Futebol, SAD; Futebol Clube do Porto - Futebol, SAD; Sporting Clube De Braga - Futebol, SAD; Sporting Clube de Portugal, Futebol, SAD) e as empresas financeiras (Banco Comercial Português S.A.). Eliminamos, também, tendo por base este critério, a empresa Flexdeal, SIMFE, S.A., uma vez que o seu período económico não coincide com o período em estudo.

Além disso, excluímos desta análise as empresas que pertenciam a um mesmo Grupo de empresas já em estudo, nomeadamente a EDP Renováveis e Glintt - Healthcare Solutions, S.A. pertencentes à EDP – Energias de Portugal, S.A. e Farminveste S.G.P.S., S.A., respetivamente, uma vez que se analisaram as contas consolidadas de cada Grupo.

Para aplicar o critério d), das 46 empresas resultantes da aplicação dos critérios a) a c), fomos analisar quais as que divulgaram, nos seus R&C de 2018, informação relativamente aos impactos da IFRS 16. De um total de 46 empresas, 28 empresas (61%) divulgaram nos seus R&C de 2018 informações sobre os impactos que esperam vir a ter a partir do momento de aplicação do normativo, enquanto 18 empresas (39%) não divulgaram qualquer informação sobre a IFRS 16. Das 28 empresas que divulgaram informação, duas afirmaram que não esperam vir a ter impactos significativos com a aplicação do normativo no futuro (REN - Redes Energéticas Nacionais, S.G.P.S., S.A. e Reditus, S.G.P.S., S.A.), e outra (Sociedade Comercial Orey Antunes S.A.) afirmou que, à data de publicação das demonstrações financeiras, não possuía compromissos de locação operacional. Deste modo, as três empresas foram também eliminadas da amostra final, pelo que ficaram apenas 25 empresas divulgadoras.

Ainda no que respeita ao critério d), relativo à possibilidade de adoção da norma antes da sua obrigatoriedade (em 1 de janeiro de 2019), conforme previsto no §C1 do normativo, verificamos que, das 25 empresas divulgadoras, nenhuma optou por aplicar o normativo antecipadamente. Deste modo, a nossa amostra final compreende um total de 25 empresas, sobre as quais irá incidir a nossa análise.

No sentido de caracterizar a amostra objeto de estudo, analisamos primeiramente o setor de atividade das várias empresas e a localização das suas sedes, construindo a tabela que consta no apêndice 2, a partir de informação divulgada no site da Euronext Lisboa.

Assim, no que respeita ao setor, e considerando o “Super Setor” em que cada empresa desenvolve a sua atividade, é possível repartir a amostra da seguinte forma (tabela 1):

<table>
<thead>
<tr>
<th>Tabela 1 - Divisão da amostra por setor de atividade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setores de atividade</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Bens pessoais e domésticos</td>
</tr>
<tr>
<td>Comidas e bebidas</td>
</tr>
<tr>
<td>Construção e Materiais</td>
</tr>
<tr>
<td>Cuidados de saúde</td>
</tr>
<tr>
<td>Gás e petróleo</td>
</tr>
<tr>
<td>Indústria de bens e serviços</td>
</tr>
<tr>
<td>Media</td>
</tr>
<tr>
<td>Recursos básicos</td>
</tr>
<tr>
<td>Retailo</td>
</tr>
<tr>
<td>Serviços de utilidade pública</td>
</tr>
<tr>
<td>Serviços financeiros</td>
</tr>
<tr>
<td>Tecnologias</td>
</tr>
<tr>
<td>Viagens e Lazer</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Como podemos observar, das 25 empresas que compõem a amostra final, os setores mais recorrentes são o setor dos media e dos recursos básicos, ambos com 16% do
total de empresas, correspondendo a 4 empresas em cada setor. Os setores com menor frequência são: bens pessoais e domésticos; comidas e bebidas; cuidados de saúde; gás e petróleo; serviços de utilidade pública; serviços financeiros; e tecnologias, aos quais corresponde, para cada um, apenas uma empresa da amostra (4%).

É, também, possível dividir as empresas por localização, de acordo com a Nomenclatura das Unidades Territoriais para Fins Estatísticos (NUTS) II. Verificamos assim que 60% das empresas (15) são sediadas na Área Metropolitana de Lisboa, e que as restantes 40% (10 empresas) se situam na região Norte (conforme gráfico 1 abaixo).

Gráfico 1 - Sede das empresas - NUTS II

Fonte: Elaboração dos autores.

4.2.2. Recolha e tratamento dos dados

Uma vez que a metodologia adotada se baseia numa análise de conteúdo, procedemos à recolha dos R&C através da consulta da página eletrónica da CMVM, assim como dos websites das próprias entidades, a fim de realizar o estudo através de uma abordagem quantitativa de natureza exploratória. Posteriormente, avançamos, então, para a análise de conteúdo dos documentos recolhidos, onde extraímos os dados necessários para o nosso estudo.

A escolha dos relatórios anuais como fonte de informação prende-se, essencialmente, com o facto de se obter facilmente os dados necessários para a realização do estudo empírico, uma vez que estes relatórios são de elaboração legalmente imposta e, ainda, por serem informações certificadas.

Começámos por efetuar uma análise de conteúdo às demonstrações financeiras, procurando informações divulgadas sobre a IFRS 16, nomeadamente: (a) divulgação de informação sobre os impactos esperados com a aplicação do normativo; (b) tipo de informação divulgada; (c) definição do órgão responsável pela certificação legal de contas; (d) modo de transição a ser adotado e, (e) opção pela isenção dos contratos de baixo valor e curta duração.

De modo a poder avaliar o impacto que as empresas esperam obter com a aplicação do normativo, extraímos também os valores do ativo e do passivo, capital próprio, EBITDA, entre outros, expressos nas demonstrações financeiras consolidadas das empresas, e simulamos as mudanças expectáveis, em termos absolutos, que vão ocorrer com a entrada em vigor da IFRS 16, somando em cada variável o valor do impacto quantitativo previsto e expresso nos R&C das empresas, bem como analisámos
a variação existente em vários rácios e indicadores financeiros, comparando os valores existente antes da IFRS e os valores previstos com a adoção da norma.

O uso dos rácios e indicadores financeiros como métrica, permite analisar de forma mais objetiva os impactos da aplicação do normativo, além de facilitar a comparabilidade dos resultados com outros estudos. A escolha dos indicadores a analisar depende sempre dos objetivos da análise, da natureza financeira ou econômica dos factos a analisar ou mesmo de ambas, assim como das fontes de informação utilizadas. À semelhança de outros estudos, os rácios selecionados para análise foram os seguintes: Endividamento, Autonomia Financeira e Solvabilidade.

Escolhemos analisar estes rácios e indicadores por duas razões. A primeira razão prende-se com o facto dos dados quantitativos disponibilizados pelas várias empresas não serem tão abrangentes como o esperado. A maior parte das empresas apenas divulgou dados quantitativos das alterações previstas no ativo e no passivo. A segunda razão está relacionada com a importância destes rácios e indicadores financeiros para o estudo em causa, pois esperam-se grandes impactos, conforme referido na revisão de literatura. Na tabela 2, a seguir, podemos observar os rácios selecionados e quais as suas principais caraterísticas, de modo a melhor compreender a análise que será posteriormente efetuada a cada um deles. Está também evidenciado na tabela qual o impacto que os vários autores esperam nesses indicadores, com a entrada em vigor do normativo.
### Tabela 2 - Rácios e indicadores financeiros em análise e impactos esperados

<table>
<thead>
<tr>
<th>Indicadores</th>
<th>Fórmula de cálculo</th>
<th>Significado</th>
<th>Impacto esperado</th>
<th>Autores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endividamento</td>
<td>Passivo/Ativo</td>
<td>Representa a intensidade com que uma empresa utiliza capital alheio no financiamento das suas atividades. Valores referência: ≥ 2</td>
<td>+</td>
<td>Sá (2018); Torres &amp; Olmedo (2017); Alves (2018); Villiers &amp; Middelberg (2013)</td>
</tr>
<tr>
<td>Autonomia Financeira</td>
<td>CP/Ativo *100</td>
<td>É um indicador complementar ao rácio de endividamento, que proporciona informação quanto à proporção dos ativos que são financiados através do capital próprio da empresa. Este indicador varia entre 0 e 1, sendo que, quanto maior for, maior é a capacidade de recurso a capital alheio e menor é o risco de insolvência. Valores referência: &gt;35%</td>
<td>-</td>
<td>Fülbier et. al. (2008); Alves (2018)</td>
</tr>
<tr>
<td>Solvabilidade</td>
<td>CP/Passivo</td>
<td>Representa a capacidade de uma empresa dispor de meios financeiros para satisfazer todos os seus compromissos para com terceiros. Através da solvabilidade de uma empresa é possível retirar ilações acerca da dependência da empresa face a financiadores. Valores referência: &gt;0,5</td>
<td>+</td>
<td>Alves (2018); Morales-Díaz &amp; Zamora-Ramírez (2018)</td>
</tr>
</tbody>
</table>

**Fonte: Elaboração dos autores.**


Como a maioria das empresas da amostra não divulgam os impactos esperados em termos de resultados ou apenas o fazem de forma qualitativa, não existem dados suficientes para analisar rácios de liquidez ou de rentabilidade, nos quais se espera que ocorram as maiores transformações.

No entanto, é sempre pertinente avaliar o impacto que a adoção do normativo das locações terá em determinados rácios de estrutura financeira. No caso do Capital Próprio, nem todas as empresas divulgaram o impacto quantitativo que este vai ter. Deste modo, assumimos o pressuposto que, no caso das empresas que quantificaram o impacto no ativo diferente do impacto no passivo, que a alteração no Capital próprio seria a diferença entre os dois, pela lógica do princípio básico da contabilidade: Ativo = Capital Próprio + Passivo.
4.3. Análise e discussão dos Resultados

A análise de conteúdo efetuada às demonstrações financeiras permitiu-nos recolher a informação divulgada pelas empresas no que respeita aos impactos da IFRS 16, a qual sintetizamos de seguida.

a) Transição para a IFRS 16

Começamos por dividir as empresas tendo por base a opção de transição para o normativo IFRS 16. Isto é, tentamos perceber se as empresas vão optar majoritariamente por aplicar o normativo retrospectivamente a cada período (§C5 a) ou se o vão fazer retrospectivamente com o efeito cumulativo (§C5 b), também denominadas de retrospectiva integral e modificada, respetivamente (conforme gráficos 2 e 3).

Gráfico 2 - Opção de transição da amostra para a IFRS 16

<table>
<thead>
<tr>
<th>Opção de transição</th>
<th>Porcentagem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retrospetiva integral</td>
<td>16%</td>
</tr>
<tr>
<td>Retrospetiva Modificada</td>
<td>84%</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Gráfico 3 - Opção pelo método retrospectivo modificado

<table>
<thead>
<tr>
<th>Opção retrospectiva modificada</th>
<th>Porcentagem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retrospetiva modificada 1</td>
<td>19%</td>
</tr>
<tr>
<td>Retrospetiva modificada 2</td>
<td>76%</td>
</tr>
<tr>
<td>Retrospetiva modificada 3</td>
<td>5%</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

No que respeita à opção de transição a ser escolhida pelas empresas, observamos que:

- 4 empresas (16% da amostra) vão optar pela aplicação da norma através da opção de transição retrospectiva integral (com reexpressão da informação comparativa),

- 21 empresas (84% da amostra) vão aplicar a IFRS 16, de acordo com a opção de transição retroativa prevista no §C5b, através da qual não é necessário efetuar a reexpressão da informação comparativa. No âmbito desta opção, e dentro do permitido no §C8 (b.i), 19% das empresas irão reconhecer o ativo sob direito de uso como se a IFRS 16 sempre tivesse sido aplicada, enquanto que 76% das empresas vão registar na data da transição um ativo igual ao passivo da locação (§C8,b.ii). Os 5% em falta correspondem à empresa Cofina, S.G.P.S., S.A. que optou pela mensuração definida no parágrafo C8 (b).ii) para os contratos em geral, exceto relativamente à locação do edifício da Cofina Media o qual foi mensurado tendo em consideração o preconizado no parágrafo C8 (b.i).

Do total das 25 empresas que compõem a amostra final, apenas uma (Nos, S.G.P.S., S.A.) afirma não vir a adotar a isenção prevista para contratos de locação a curto prazo ou contratos em que o ativo subjacente tenha pouco valor (§5-8).

Relativamente ao tipo de informação divulgada pelas empresas nos R&C, pretendemos agora analisar, em primeiro lugar, se essa informação foi fornecida em termos qualitativos ou quantitativos (cfr. Gráfico 4).

Gráfico 4 - Tipo de informação disponibilizada pela amostra sobre a IFRS 16

<table>
<thead>
<tr>
<th>Quantitativa</th>
<th>Qualitativa + quantitativa</th>
</tr>
</thead>
<tbody>
<tr>
<td>24%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

É possível verificar que todas as empresas divulgaram impactos de forma quantitativa e que 7 empresas o fizeram também de forma qualitativa (24%). Resta-nos, então, saber que tipo de informação foi quantificada, de modo a prosseguir com o nosso estudo.

b) Impacto nas demonstrações financeiras

No apêndice 3 é possível observar, de forma sintetizada, sobre que itens as empresas avaliaram o impacto da norma, assim como qual a variação que esperam vir a verificar, isto é, se esperam que um certo valor aumente ou diminua devido à capitalização dos arrendamentos operacionais. Verificamos que os itens analisados por parte das empresas foram semelhantes. Foi possível obter informações acerca do Ativo e do Passivo, do Capital Próprio, dos Fornecimentos e Serviços Externos (FSE), dos Gastos Financeiros, das Depreciações/Amortizações, do Resultado Líquido do Período (RLP), do RAI, do EBITDA e dos fluxos de caixa operacionais e de financiamento. No entanto, nem todos os parâmetros foram quantificados, sendo apenas possível analisar se o impacto esperado é positivo ou negativo.
Todas as empresas divulgaram e quantificaram o impacto que a adoção da IFRS 16 vai ter no ativo e no passivo, quer através de valores absolutos, quer através de intervalos de valores (neste último caso, evidenciamos o ponto médio). É de realçar que todas preveem um aumento destes dois itens do Balanço Patrimonial, relacionados, majoritariamente com arrendamento de lojas, armazéns, viaturas, ou até mesmo terrenos onde se encontram instalados parques eólicos (no caso da EDP - Energias de Portugal, S.A.), entre outros, que vão originar um ativo sob direito de uso e o respetivo passivo da locação. O ativo das empresas vai aumentar em média 202M€, o passivo 208M€ e o Capital Próprio diminuir em média 22M€ (cfr. tabela 3). Observamos também que, em média, o passivo das empresas reconhecido vai ser superior ao ativo. O Grupo que espera um impacto superior, em termos absolutos, é o grupo Jerónimo Martins, S.G.P.S., S.A., sendo esperado um aumento de 2400M€ relativos ao direito de uso e passivo de locação no mesmo montante. Pelo contrário, a empresa que espera um impacto menor em termos absolutos do ativo e do passivo é a Estoril Sol, S.G.P.S., S.A. (espera um aumento dos ativos e passivos no montante de 500.000€).

Tabela 3- Impacto nos elementos do Balanço

<table>
<thead>
<tr>
<th>Ativo</th>
<th>Passivo</th>
<th>Capital Próprio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Média 202 327 316,38 €</td>
<td>208 504 556,38 €</td>
<td>-22 061 571,43 €</td>
</tr>
<tr>
<td>Máximo 2 400 000 €</td>
<td>2 400 000 €</td>
<td>-90 000 000,00 €</td>
</tr>
<tr>
<td>Mínimo 500 000,00 €</td>
<td>500 000,00 €</td>
<td>-1 400 000,00 €</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.


Relativamente à Demonstração dos Resultados, as empresas divulgaram informações sobre os gastos financeiros e sobre as depreciações/amortizações, assim como sobre os Fornecimentos e Serviços Externos (FSE). Os resultados foram, também, semelhantes, concluindo para uma diminuição dos FSE contrariamente aos gastos financeiros e depreciações/amortizações, os quais vão sofrer um aumento (cfr. Tabela 4).

Tabela 4 - Impacto nos elementos da Demonstração dos Resultados e dos fluxos de caixa

<table>
<thead>
<tr>
<th>FSE</th>
<th>Gastos Financ</th>
<th>Amort/Deprec</th>
<th>Fluxos caixa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Média -18 281 666,67 €</td>
<td>10 497 142,86 €</td>
<td>14 306 400,00 €</td>
<td>3 850 400,00 €</td>
</tr>
<tr>
<td>Máximo -138 000 000,00 €</td>
<td>68 000 000,00 €</td>
<td>90 000 000,00 €</td>
<td>8 152 000,00 €</td>
</tr>
<tr>
<td>Mínimo -227 000,00 €</td>
<td>11 000,00 €</td>
<td>190 000,00 €</td>
<td>190 000,00 €</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Na tabela 4 podemos verificar que, em média ,os FSE vão diminuir 18M€, sendo que, o impacto máximo de 138M€ corresponde ao impacto divulgado pela Sonae, S.G.P.S., S.A. e o mínimo, de 227m€ corresponde à empresa Estoril Sol S.G.P.S., S.A.. Neste caso, a empresa Jerónimo Martins, S.G.P.S., S.A. não divulgou os impactos que virá a ter na rúbrica dos FSE. Caso contrário, era expectável que fosse esta empresa a atingir o valor máximo de redução dos mesmos.
Como sabemos, a capitalização dos arrendamentos operacionais tem como consequência a diminuição dos gastos (FSE) registados na Demonstração dos Resultados mas, em contrapartida, é necessário reconhecer os gastos financeiros e as amortizações/depreciações dos ativos sob direito de uso. Deste modo, as empresas, em média vão aumentar os gastos financeiros e as amortizações/depreciações em 10M€ e 14M€, respectivamente.

É ainda de salientar que, nos vários R&C, foi possível retirar informações quantitativas sobre os fluxos de caixa operacionais (FCO) e sobre os fluxos de caixa de financiamento (FCF). De acordo com as divulgações, as empresas esperam que os FCO aumentem em detrimento da diminuição dos FCF, uma vez que o fluxo de saída dos fluxos de caixa operacionais vai ser menor, permitindo que os FCO aumentem e, em contrapartida os FCF diminuam com o aumento dos pagamentos. Em média, os FCO vão aumentar 3M€ em detrimento da diminuição dos FCF pelo mesmo valor.


Tendo por base a revisão de estudos empíricos, esperávamos que a avaliação quantitativa dos impactos no RAI e no EBITDA fosse superior, uma vez que a literatura assume que é nestas rubricas que o impacto do normativo se vai sentir mais. No entanto, apenas uma empresa – a Novabase,S.G.P.S., S.A. – quantifica diretamente o impacto no RAI, a qual espera que este sofra um aumento de 200M€. Em relação ao EBITDA, apenas em dois R&C (NOS, S.G.P.S., S.A. e Novabase,S.G.P.S., S.A) se veem quantificados os impactos, sendo para ambos um aumento de 11M€ e 2,5M€, respetivamente. Das restantes empresas que abordam o impacto no EBITDA, é notório que todas apontam para um aumento do mesmo. Este aumento está relacionado com a diminuição dos FSE por incorporação do direito de uso no ativo das empresas e respetivo passivo da locação.

c) Impacto nos indicadores

Após esta análise do impacto da IFRS nas demonstrações financeiras, iremos analisar a forma como se refletem nos indicadores de estrutura financiera. É importante, contudo, evidenciar que a maioria das empresas apenas quantificou os impactos que esperam no ativo e no passivo, o que nos limitou a análise que pretendemos realizar. Assim, para o cálculo da variação do rácio de endividamento foram analisadas as 25 empresas que compõem a amostra final. No entanto, para os outros dois rácios, apenas avaliamos as empresas que divulgaram quantitativamente os impactos no capital próprio e aquelas em que conseguimos aplicar o pressuposto definido no ponto 3.2.2.

No apêndice 4 apresentamos uma tabela com a variação dos rácios por empresa. De seguida apresentamos os valores globais, nomeadamente a variação média, mínima e máxima.

• O Rácio de Envidamento sofreu um aumento de 0,04 valores o que indica que, em média, com a capitalização das locações, o passivo vai aumentar mais que o ativo. Quer isto também dizer que as empresas vão aumentar o uso do capital alheio no financiamento das suas atividades.

A empresa que previu uma variação maior foi a Corticeira Amorim, S.G.P., S.A. com um aumento deste rácio de 0,44. No entanto, pela análise ao apêndice 4, é possível concluir que são várias as empresas, cujos rácios do endividamento não vão sofrer alterações.
A Tabela 5 apresenta a análise aos rácios de endividamento antes e após a aplicação do normativo. A média dos rácios de endividamento antes e após a aplicação do normativo mostra uma pequena variação:

**Tabela 5- Análise aos rácios de endividamento**

<table>
<thead>
<tr>
<th></th>
<th>Antes</th>
<th>Após</th>
</tr>
</thead>
<tbody>
<tr>
<td>Média</td>
<td>0,69</td>
<td>0,73</td>
</tr>
<tr>
<td>Máximo</td>
<td>1,71</td>
<td>1,71</td>
</tr>
<tr>
<td>Mínimo</td>
<td>0,41</td>
<td>0,42</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

- O Rácio de Autonomia Financeira (AF) mostra que, em média, este rácio vai aumentar 0,02 valores. No entanto, pela informação constante no apêndice 4, observamos que as empresas analisadas apresentam rácios de AF mais baixos com a aplicação do normativo. Esta diferença resulta provavelmente de a sub-amostra neste caso ser bastante inferior.

Deste modo, consideramos como possíveis razões para este rácio diminuir:

  i. o ativo das empresas vai sofrer um aumento com a incorporação do direito de uso;
  ii. o capital próprio pode diminuir uma vez que o resultado do exercício tende a ser menor nos primeiros anos de vigência do contrato.

A empresa que viu uma variação maior neste rácio foi a Sonae Capital, S.G.P.S., S.A. com uma diminuição de 7%, enquanto a C.T.T. Correios de Portugal S.A. apenas viu uma diminuição de 1%.

A Tabela 6 apresenta a análise aos rácios de autonomia financeira antes e após a aplicação do normativo. A média dos rácios de autonomia financeira antes e após a aplicação do normativo mostra uma pequena variação:

**Tabela 6- Análise aos rácios de autonomia financeira**

<table>
<thead>
<tr>
<th></th>
<th>Antes</th>
<th>Após</th>
</tr>
</thead>
<tbody>
<tr>
<td>Média</td>
<td>0,31</td>
<td>0,33</td>
</tr>
<tr>
<td>Máximo</td>
<td>0,59</td>
<td>0,47</td>
</tr>
<tr>
<td>Mínimo</td>
<td>-0,71</td>
<td>0,07</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

- O Rácio de Solvabilidade sofreu, em média, uma diminuição de 0,04 valores. Quer isto dizer que:
  
  i. o passivo das empresas vai sofrer um aumento com a incorporação do passivo da locação;
  ii. o capital próprio pode diminuir uma vez que o resultado do exercício tende a ser menor nos primeiros anos de vigência do contrato.

Este rácio sofreu uma maior alteração no caso da empresa Sonae Capital, S.G.P.S., S.A. (diminuição de 0,27 valores) e no caso dos C.T.T. Correios de Portugal S.A. ocorreu a menor variação (0,01 valores).

A Tabela 7 apresenta a análise aos rácios de solvabilidade antes e após a aplicação do normativo. A média dos rácios de solvabilidade antes e após a aplicação do normativo mostra uma pequena variação:

**Tabela 7- Análise aos rácios de solvabilidade**

<table>
<thead>
<tr>
<th></th>
<th>Antes</th>
<th>Após</th>
</tr>
</thead>
<tbody>
<tr>
<td>Média</td>
<td>0,57</td>
<td>0,53</td>
</tr>
<tr>
<td>Máximo</td>
<td>1,41</td>
<td>0,87</td>
</tr>
<tr>
<td>Mínimo</td>
<td>-0,42</td>
<td>0,08</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Face ao exposto, e conforme gráfico 5, podemos verificar que o setor com maior impacto será o setor do retalho (67%), tal como defendido por Fülber et. al. (2008) e PwC (2016), seguido do setor dos media (22%) e do setor de comidas e bebidas (11%).
d) Comparação dos resultados com outros estudos


Relativamente à Demonstração dos Resultados das entidades, apesar das empresas que constituem a amostra não avaliarem, todas, o impacto quantitativo nas rubricas mais propícias a alterações, podemos concluir para a diminuição dos FSE (e consequente aumento do EBITDA), o aumento dos gastos financeiros e o aumento das amortizações/depreciações, o que vai de encontro aos resultados de estudos anteriormente realizados (Alves, 2018; Sá, 2018; Pwc, 2016).

No que concerne aos rácios de estrutura financeira, apesar de não ter sido possível analisá-los para todas as empresas, observamos que todos eles, em média, vão sofrer alterações. O rácio do endividamento vai, em média, aumentar, enquanto o de autonomia financeira e de solvabilidade vão, em média, diminuir.

Relativamente ao rácio do endividamento, o nosso resultado foi de encontro aos estudos de vários autores, nomeadamente Sá (2018), Torres e Olmedo (2017), Alves (2018), Villiers e Middelberg (2013). Tanto o ativo como o passivo vão aumentar mas é possível que o passivo aumente mais que o ativo, levando a um aumento do rácio em causa.

Quanto ao rácio de autonomia financeira, os estudos de Fülbier et. al. (2008) e Alves (2018) apontam para uma diminuição, devido ao aumento do ativo, nomeadamente do ativo sob direito de uso. Por outro lado, o CP pode ainda diminuir, levando a que o rácio sofra, igualmente, uma diminuição. O nosso estudo vai, também, de encontro a essas investigações já realizadas.

Por último, quanto ao setor de atividade que será mais afetado com a entrada em vigor da IFRS 16 verificamos que, tal como defendido por Fülbier et al. (2008) e PwC (2016), será o setor do retalho.

5. Conclusão

A IAS 17 sobre locações exigia que, no início da locação, o gestor fizesse uso do seu julgamento para classificar uma locação como operacional ou financeira, dependendo da sua substância e não da forma da transação, o que conduziria a uma distinção na forma de contabilização destes dois tipos de locação. Esta foi, pois, a razão principal que impulsionou a criação da IFRS 16.

O ano de 2019 foi marcado pela entrada em vigor da IFRS 16, sendo que a nova norma refere-se apenas à existência de locações, refletindo sempre as mesmas no balanço do locatário, introduzindo um novo conceito - o “direito de uso”.

A principal alteração face à IAS 17 prende-se com a classificação e o reconhecimento das locações nas demonstrações financeiras dos locatários. Na ótica dos locatários, todas as locações passam a ser reconhecidas no Balanço. Deixa, assim, de existir a necessidade de classificar as locações como financeiras ou operacionais. Deste modo, para as locações operacionais (também conhecidas por locações “fora do Balanço”) deixa de existir o tratamento previsto anteriormente de reconhecimento dos encargos com locações como gastos, exceto nos casos em que os contratos têm duração inferior a 12 meses ou o ativo subjacente tenha pouco valor.

O reconhecimento das locações no Balanço do locatário implicará o reconhecimento de um ativo (a norma não esclarece se estamos perante um ativo intangível ou tangível), referente ao direito de uso do ativo locado, e o reconhecimento de um passivo, pela obrigação de pagamento dos encargos ao locador. A mensuração inicial do ativo é feita pelo valor presente dos pagamentos das rendas da locação, descontado ao juro implícito na locação (passivo), adicionado dos custos iniciais diretos relacionados com a locação. Na mensuração subsequente, o direito de uso do ativo é sujeito a depreciações em função da estimativa de vida útil nos termos da IAS 16 - Ativos fixos - Tangíveis, podendo ser aplicado, ou o modelo do custo, ou modelo da revalorização, nos termos daquela norma; aplica-se igualmente a IAS 36 - Imparidade de ativos para o reconhecimento de eventuais perdas por imparidade.

O tratamento contábil previsto na IFRS 16 apenas está disponível para as sociedades cotadas, obrigadas a usar as IFRS. As restantes empresas nacionais, abrangidas pelo SNC, devem cumprir com a NCRF 9 - Locações, cujo conteúdo é similar à IAS 17. Como tal, para estas empresas (ainda) não é possível a aplicação do tratamento contábil previsto na IFRS 16, embora seja expectável o seu acolhimento no normativo nacional.

No que respeita ao estudo empírico realizado, centrámos a nossa análise numa amostra de 25 empresas cotadas em Portugal, que divulgam, nos R&C de 2018, informação sobre os impactos previstos com a adoção da IFRS 16 em 2019. Procurámos, assim, analisar o impacto da norma ao nível dos elementos das demonstrações financeiras e dos indicadores financeiros, bem como a forma como será feita a transição para o novo normativo. Os resultados obtidos permitiram concluir que a maioria das empresas da amostra (84%) vai optar pela opção de transição retrospectiva modificada, enquanto que as restantes (16%) vão optar pela transição retrospectiva integral, sendo que neste caso é obrigatório a reexpressão da informação comparativa. Observou-se ainda que apenas uma empresa não irá adotar a isenção prevista para contratos de locação de curto prazo ou cujo ativo subjacente seja de baixo valor.

No que respeita ao impacto nos elementos das demonstrações financeiras, analisámos o impacto em termos de valores absolutos e concluímos que o ativo e o passivo vão aumentar, mas o capital próprio vai sofrer uma diminuição, afetando consequentemente o balanço patrimonial. No que concerne à demonstração dos resultados, comprovámos
a diminuição dos FSE, o que vai permitir um aumento do EBITDA. Por outro lado, há um aumento dos gastos financeiros e das amortizações/depreciações.

Em relação aos rácios de estrutura financeira analisados, comparámos os valores existentes em 2018, antes da adoção da IFRS 16, com os previstos após a sua adopção. Assim, prevê-se que o rácio do endividamento vai, em média, aumentar, enquanto o de autonomia financeira e de solvabilidade vão, em média, diminuir. Depois de avaliar todos os indicadores, confirmámos que o setor de atividade mais afetado pela norma do IASB, será o setor do retalho.

Como limitação ao estudo realça-se o facto de ter sido realizado com uma amostra reduzida a 25 empresas mas, ainda assim, os resultados foram de encontro a outros estudos. O facto da norma ser apenas de aplicação obrigatória a partir de 2019, e nenhuma empresa a ter adotado antecipadamente, leva a que os nossos resultados sejam interpretados como uma projeção do impacto da norma, abrindo portas para investigação futura.

Assim, e com a entrada em vigor da IFRS 16 no ano 2019, será importante proceder à análise dos R&C do primeiro ano de aplicação obrigatória da norma, para verificar os efetivos impactos do novo normativo e as opções realizadas pelas empresas na sua transição, e compará-los com os impactos que eram previsíveis. Segundo Morales-Díaz e Zamora-Ramírez (2018), a IFRS 16 afetará as políticas das empresas em relação à gestão dos contratos de locação e espera-se que as empresas com um alto nível de endividamento, antes da adoção da IFRS 16, reduzam a sua intensidade de contratos de locação para não terem problemas de endividamento quando a norma for implementada. Neste sentido, a investigação longitudinal da aplicação da IFRS 16 e do recurso a contratos de locação como forma de financiamento reveste-se de extrema importância.

O impacto da IFRS no normativo nacional deve também merecer a atenção no futuro, sobretudo se a norma internacional vier a ser acolhida no SNC, através da revogação da NCRF 9. Um dos efeitos mais visíveis do reconhecimento das locações operacionais no balanço é o aumento do total do ativo. Sendo o total do ativo um dos critérios determinantes para a categorização das entidades (como micro, pequenas, médias ou grandes), e sendo as locações uma fonte comum de financiamento das empresas portuguesas, partilhamos da opinião de Bragança (2018) que a alteração contabilística subjacente à IFRS 16, com o consequente aumento do ativo, poderá conduzir à alteração da configuração do tecido empresarial português, composto essencialmente por micro e pequenas entidades.

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6 Conforme previsto no art. 9º do Decreto Lei nº 158/2009 que aprovou o SNC, alterado pelo DL 98/2015, de 2 de junho.
Apêndice 1. Apresentação da IFRS 16

1. Objetivo e âmbito de aplicação

A IFRS 16 – Leases (§1) estabelece os princípios aplicáveis ao reconhecimento, mensuração, apresentação e divulgação de locações. O objetivo do normativo passa, então, pela garantia de que os locadores e locatários fornecem informações pertinentes sobre as transações realizadas entre si, de modo que os utilizadores das demonstrações financeiras possam avaliar o efeito das locações na posição financeira, desempenho e fluxos de caixa das entidades.

A IFRS 16 deve ser aplicada a todas as locações (§3), havendo isenção de reconhecimento no caso de contratos de locação a curto prazo (com duração inferior a 12 meses) ou em contratos de locação em que o ativo subjacente tenha pouco valor (§5).

A norma não define um valor exato como limite, no entanto diz que a avaliação sobre o valor de um ativo é efetuada em termos absolutos, não sendo “afetada pela dimensão, natureza ou situação do locatário, pelo que diferentes locatários deverão chegar às mesmas conclusões sobre se um determinado ativo subjacente tem pouco valor” (§B4).

O valor do ativo subjacente tem por base o seu valor enquanto novo, independentemente da sua idade na data do contrato. A título de exemplo, o normativo reconhece que um automóvel não pode ser considerado como um ativo de baixo valor, uma vez que um automóvel novo não terá, certamente, pouco valor (§B6). Um ativo subjacente de baixo valor pode ser, segundo §B8, “tablet e computadores pessoais, pequenos artigos de mobiliário de escritório e telefones”.

Caso o locatário opte pela não aplicação da IFRS 16, deve então reconhecer os pagamentos associados a esse contrato como gastos, refletidos apenas na demonstração dos resultados (§6). Deste modo, o ponto de partida é, então, definir se estamos perante um contrato de locação ou um contrato de prestação de serviços.

2. Identificação de uma locação

A primeira etapa será definir se o contrato constitui ou contém uma locação (§B9). Para que seja considerado um contrato de locação tem que existir o direito de uso sobre um ativo identificado.

Os §§ B9–B31 apresentam orientações para determinar se um contrato constitui, ou contém, uma locação. Para avaliar se um contrato constitui o direito de controlar o uso de um ativo identificado, por um certo período de tempo, uma entidade deve avaliar se, durante todo o período de utilização, o “cliente” dispõe (§B9):

• do direito de obter todos os benefícios económicos do uso do ativo (§B21), por exemplo, pelo uso exclusivo do ativo ao longo do período de utilização e no âmbito definido previamente;

• do direito de orientar o uso do ativo durante o período de utilização por parte do cliente, o que acontece se (§B24):
  i. o cliente tiver o direito de orientar o modo e a finalidade com que o ativo é usado durante todo o período de utilização;
  ii. as decisões pertinentes sobre o modo e as finalidades para que o ativo é usado tiverem sido previamente determinadas;
  iii. o cliente tiver direito de explorar o ativo sem que o fornecedor tenha o direito de alterar essas instruções de exploração;
  iv. o cliente tiver concebido o ativo (ou aspetos específicos do mesmo) de uma forma que determine previamente o modo e a finalidade com que o ativo será usado durante todo o período de utilização.

Relativamente ao modo e finalidade com que o ativo é usado (§B25–§B26), o cliente só tem esse mesmo direito se puder alterá-lo durante todo o período de utilização. Para

7 Isto é, se houver limite de utilização do ativo num determinado território, só devem ser considerados os benefícios económicos obtidos nesse mesmo território.
isso têm-se em conta os direitos de tomada de decisão, que são mais relevantes quando afetam os benefícios económicos a obter do uso. Seguem-se exemplos de direitos de tomada de decisão, no âmbito do direito de uso do cliente, que concedem o direito de alterar o modo e a finalidade com que o ativo é usado:

i. direito de alterar o tipo de resultados produzidos pelo ativo;
ii. direito de alterar o momento da produção;
iii. direito de alterar o local de produção;
iv. direito de alterar a própria decisão de produção e a respetiva quantidade.

A IFRS 16 inclui no seu guia de aplicação o seguinte fluxograma de modo a facilitar as entidades na avaliação dos contratos, isto é, a determinar se são contratos de locação ou se contêm locações.

Figura 1. Avaliação se um contrato é ou contém uma locação


Sim

O cliente tem o direito de obter substancialmente todos os benefícios económicos do uso do ativo durante todo o período de utilização? Consulte os parágrafos B21-B21.

Não

Sim

O cliente, o fornecedor, ou nenhuma das partes, tem o direito de orientar o modo e a finalidade com que o ativo é usado durante todo o período de utilização? Consulte os parágrafos B23-B30.

Nenhum deles, o modo e a finalidade com que o ativo será utilizado estão previamente determinados

Não

Sim

O cliente tem o direito de explorar o ativo durante todo o período de utilização, sem que o fornecedor tenha o direito de alterar as instruções de exploração? Consulte o parágrafo B24 alínea b), subalínea i).

Não

Sim

O cliente concebe o ativo de uma forma que determina previamente o modo e a finalidade com que o ativo será usado durante todo o período de utilização? Consulte o parágrafo B24 alínea b), subalínea ii).

Não

Sim

O contrato contém uma locação

Não

O contrato não contém uma locação

Fonte: Guia de aplicação IFRS 16, §B31
3. Separação dos componentes de um contrato e prazo da locação

O direito de uso de um ativo é um componente de locação distinto, se o locatário puder beneficiar do uso do ativo subjacente de forma isolada ou em conjunto com outros recursos que estejam imediatamente à sua disposição como, por exemplo, bens ou serviços que são vendidos ou locados separadamente (§B32, a.).

Ao determinar o prazo da locação e avaliar a duração do período não cancelável de uma locação, uma entidade deve aplicar a definição de contrato e determinar o período para o qual o contrato tem força executória, que deixa de existir quando o locatário e o locador têm o direito de rescindir o contrato de locação sem autorização da outra parte e apenas uma sanção insignificante (§B34).

Se o direito de rescindir um contrato de locação apenas couber ao locatário, considerase que esse direito é uma opção de rescisão. No entanto, se esse direito couber ao locador, o período de locação não cancelável inclui o período abrangido pela opção de rescisão da locação (§B35). O prazo da locação começa na data de entrada em vigor e inclui eventuais períodos de aluguer gratuito oferecidos pelo locador ao locatário (§B36).

4. Tratamento contabilístico da locação na ótica do locatário

Na esfera dos locadores, a IFRS 16 não vem alterar a forma como estes contabilizam os seus contratos. A decisão entre registar uma locação financeira ou operacional depende da substância da transação e não da forma do contrato (§63).

Assim, o locador de ativos detidos sob uma locação financeira deve reconheceu-los no seu balanço e apresentá-los como uma conta a receber por uma quantia igual ao investimento líquido na locação (§67). Posteriormente, deve reconhecer o rendimento financeiro obtido durante o período da locação, com base num modelo que reflita uma taxa de retorno periódica constante sobre o investimento líquido do locador na locação (§75). No caso das locações operacionais, o locador deve reconhecer os pagamentos das locações operacionais como rendimento (§81).

Para os locadores continua a existir a opção de registar a locação como financeira, caso se verifique, no fim do contrato, a transferência substancial de todos os riscos e benefícios inerentes à propriedade do ativo. Caso contrário, a locação deve ser registada como operacional (§62).

O maior impacto do novo normativo das locações é precisamente na ótica do locatário, pelo que importa proceder à sua análise.

4.1. Reconhecimento e mensuração inicial

Segundo a IFRS 16 Leases, o item que carece de apresentação e classificação no balanço das empresas é o direito de uso (right-of-use ou simplesmente RoU) que pode ser entendido, segundo Areal (2019), como “um direito de controlar o uso de um ativo identificado por um certo período de tempo”, tendo em conta que o locatário obtém substancialmente todos os benefícios económicos do uso do ativo e orienta o uso desse mesmo ativo identificado. O direito de uso é, então, contabilizado no ativo dos locatários em simultâneo com o respetivo passivo.

Na data de entrada em vigor da locação, isto é, quando o locatário tem à sua disposição o ativo, este deve reconhecer simultaneamente um ativo sob direito de uso e um passivo da locação (§22). O locatário deve efetuar mensuração inicial do ativo sob direito de uso pelo seu custo (§23), o que inclui (§24):

- O montante da mensuração inicial do passivo da locação;
- Pagamentos de locação efetuados na data de entrada em vigor ou antes desta, deduzidos os incentivos à locação recebidos;

Quanto aos montantes que o locatário poderá ter que pagar ao locador por atividades ou custos que não transfiram um bem ou serviço para o locatário, estes dão origem a um componente separado do contrato, mas considera-se que fazem parte da retribuição total imputada aos componentes separadamente identificados do contrato (B33).
- Custos diretos iniciais, incorridos pelo locatário;
- Estimativa dos custos a serem suportados pelo locatário com o desmantelamento e remoção do ativo subjacente, e outras restaurações necessárias.

Quanto à mensuração inicial do passivo da locação (§26), o locatário deve mensurar o valor presente dos pagamentos de locação que não estejam pagos nessa data, que devem ser descontados segundo uma taxa de juro implícita na locação. Se essa taxa não puder ser facilmente determinada, o locatário deve utilizar a taxa incremental de financiamento do locatário. Deste modo, os pagamentos de locação incluídos na mensuração do passivo da locação compreendem (§27):
- Os pagamentos fixos deduzidos os incentivos à locação a receber;
- Os pagamentos de locação variáveis que dependam de um índice ou taxa, mensurados inicialmente utilizando o índice ou taxa à data de entrada em vigor;
- As quantias que deverão ser pagas pelo locatário a título de garantias de valor residual;
- O preço do exercício de uma opção de compra se o locatário estiver razoavelmente certo de exercer essa opção;
- Os pagamentos de sanções por rescisão da locação, no caso de o prazo da locação refletir o exercício de uma opção de rescisão do contrato por parte do locatário.

4.2. Mensuração após o reconhecimento inicial

Relativamente à mensuração subsequente do ativo sob direito de uso (§29), o locatário aplica um Modelo do Custo, a não ser que aplique o Modelo do Justo Valor da IAS 40 Propriedades de Investimento para todos os ativos que satisfaçam a definição de propriedade de investimento ou Modelo da Revalorização previsto na IAS 16 Ativos Fixos Tangíveis, onde pode optar por aplicar o modelo de revalorização ao ativo sob direito de uso, caso já o faça para uma classe de ativos fixos tangíveis.

O Modelo do Custo baseia-se no custo do ativo sob direito de uso, menos as depreciações e perdas por imparidade acumuladas (§30). Ou seja:
- as depreciações devem ser efetuadas de acordo com a IAS 16 anteriormente referida (§31). Caso no contrato esteja estabelecida a transferência de propriedade do ativo para o locatário, no fim do prazo da locação, ou se o custo do ativo sob direito de uso refletir o facto de o locatário exercer uma opção de compra no futuro, o locatário deve depreciar esse ativo desde a data de entrada em vigor até à data de término da sua vida útil, ou até ao final do prazo da locação caso este seja anterior (§32).
- relativamente à imparidade de ativos (§33), o locatário deve basear-se na IAS 36 Imparidade de Ativos a fim de determinar se o ativo sob direito de uso está com imparidade, reconhecendo assim qualquer perda por imparidade na demonstração dos resultados, pela diferença positiva entre a quantia escriturada e o valor recuperável do ativo sob direito de uso.

No que respeita à mensuração subsequente do passivo de locação (§36), o locatário deve mensurar o passivo da locação pelo custo amortizado nos termos da IFRS 9 Instrumentos Financeiros, uma vez que estamos perante um passivo financeiro. No caso de uma eventual remensuração do passivo da locação em que os locatários poderão ter que ajustar o valor da quantia escriturada do ativo sob direito de uso, o locatário deve fazê-lo da forma a seguir discriminada:

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9 A taxa de juro implícita na locação é a taxa de desconto que, no início da locação, faz com que o valor presente agregado: (a) Dos pagamentos mínimos da locação; e (b) Do valor residual não garantido, seja igual à soma do justo valor do ativo locado e de quaisquer custos diretos iniciais do locador (Fonte: Sistema de Normalização Contabilística para administrações públicas – SNC-AP – Norma de contabilidade pública (NCP) 6 Locações)

10 A taxa de juro incremental de financiamento do locatário é a taxa de juro que o locatário teria de pagar numa locação similar ou, se tal não for determinável, a taxa que, no início da locação, o locatário teria de suportar com um empréstimo, durante um período similar e com uma garantia similar, para obter os fundos necessários para comprar o ativo (Fonte: SNC-AP - NCP 6 Locações)
- Aumentar a quantia escriturada de modo a refletir os juros sobre o passivo da locação (a contrapartida será o reconhecimento de um gasto financeiro na demonstração dos resultados);
- Reduzir (debitar) a quantia escriturada de modo a refletir os pagamentos de locação efetuados ao longo do prazo.

5. Apresentação nas demonstrações financeiras e divulgação
Um locatário deve apresentar na demonstração da posição financeira (i.e., no balanço) ou divulgar nas notas, os ativos sob direito de uso e os passivos da locação, separadamente dos outros ativos e passivos, respectivamente (§47).
Na demonstração dos resultados e de outro rendimento integral, o gasto de juros relativo ao passivo da locação é também separado do gasto de depreciação do ativo sob direito de uso, uma vez que é uma componente dos custos de financiamento (obrigatório pela IAS 1 Apresentação de Demonstrações Financeiras, §49).
Quanto à demonstração dos fluxos de caixa (§50), o locatário deve classificar os pagamentos de caixa relativos à parte do capital do passivo da locação no âmbito de atividades de financiamento e, à componente dos juros pagos, devem ser aplicados os requisitos previstos na IAS 7 Demonstrações dos Fluxos de Caixa.
No que respeita à divulgação (§51), é importante a divulgação das locações separadamente nas demonstrações financeiras e nas notas. O locatário deve divulgar informações sobre as suas locações numa única nota ou numa secção separada das suas demonstrações financeiras (§52). É importante que o locatário divulgue as quantias seguintes em relação ao período de relato, se possível em tabelas (§53):
- Custo de depreciação dos ativos sob direito de uso por classe de ativos subjacentes;
- O gasto de juros relativo aos passivos da locação;
- A despesa relativa a locações de curto prazo;
- A despesa relativa a locações de ativos de baixo valor;
- A despesa relativa a pagamentos de locação variáveis não incluída na mensuração dos passivos da locação;
- O rendimento obtido pela sublocação de ativos sob direito de uso;
- O total das saídas de caixa para locações;
- Os acréscimos aos ativos sob direito de uso;
- Os ganhos ou perdas resultantes de transações de venda e relocação;
- A quantia escriturada de ativos sob direito de uso no final do período de relato por classe de ativo subjacente.

6. Transição
A IFRS 16 entrou em vigor para períodos com início em 1 de janeiro de 2019, embora fosse possível uma aplicação antecipada no caso das entidades que também aplicassem a IFRS 15 Rédito de Contratos com Clientes. Como expediente prático, uma entidade não é obrigada a reavaliar se um contrato é, ou contém, uma locação à data de aplicação inicial (§C3).
Os locatários devem aplicar, retrospetivamente, a IFRS 16 aos contratos de locação (§C5), podendo:
- fazê-lo a cada período de relato anterior apresentado, sendo necessária uma reexpressão dos comparativos (§C5a), utilizando como taxa de desconto, a taxa no início da locação; ou
- com o efeito cumulativo da aplicação inicial da norma reconhecido à data da aplicação inicial (§C5b), sendo que neste caso não deve reexpressar a informação comparativamente. Ou seja, deve ser reconhecido esse efeito cumulativo como um ajustamento ao saldo de abertura de resultados transitados, à data de aplicação inicial (§C7).
O parágrafo C8 diz-nos também que, se um locatário optar por aplicar a presente norma de acordo com o parágrafo C5 b) deve:
- Em relação às locações anteriormente classificadas como locações financeiras (à luz da IAS 17): deve ser reconhecido o ativo sob direito de uso e o passivo da locação pela quantia escriturada que teriam imediatamente antes da aplicação inicial da IFRS 16 (§C11).

- Em relação às locações anteriormente classificadas como operacionais (à luz da IAS 17), tem a opção de (§C8b):
  o mensurar o ativo sob direito de uso por valor igual ao passivo da locação, sendo feita a atualização dos pagamentos remanescentes da locação ao valor presente com base na taxa de desconto na data da transição, ou
  o mensurar o ativo sob direito de uso, como se a norma tivesse sido sempre aplicada, considerando todos os pagamentos da locação previstos durante a totalidade do contrato e atualizando os mesmos ao presente com base na taxa de desconto na data da transição.

O locatário não é, contudo, obrigado a proceder a ajustamentos na transição das locações (anteriormente classificadas como operacionais) cujo ativo seja de baixo valor (§C9 a), nem a proceder a ajustamentos na transição das locações anteriormente contabilizadas como propriedade de investimento, usando o modelo de justo valor (§C9 b).

Todavia, nas locações anteriormente contabilizadas como locações operacionais, e que serão contabilizadas como propriedades de investimento segundo o modelo do justo valor da IAS 40, o locatário deve mensurar o ativo sob direito de uso pelo justo valor à data de aplicação inicial das locações. O locatário deve contabilizar o ativo sob direito de uso e o passivo por locação decorrente dessas locações, nos termos da IAS 40 e da IFRS16, a partir da data de aplicação inicial da norma (§C9 c).
### Apêndice 2 - Listagem da amostra em estudo, indústria, setor e localização

<table>
<thead>
<tr>
<th>Número de Empresa</th>
<th>Empresa</th>
<th>Indústria</th>
<th>Setor de Atividade (superSector)</th>
<th>Localização (concelho)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Altri, S.G.P.S., S.A.</td>
<td>Industrials</td>
<td>Industrial Goods &amp; Services</td>
<td>Porto</td>
</tr>
<tr>
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<td>Cofina, S.G.P.S., S.A.</td>
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<td>Media</td>
<td>Porto</td>
</tr>
<tr>
<td>3</td>
<td>Corticeira Amorim, S.G.P.S., S.A.</td>
<td>Industrial Goods</td>
<td>Food &amp; Beverage</td>
<td>Santa Maria da Feira</td>
</tr>
<tr>
<td>4</td>
<td>C.T.T. Correios de Portugal S.A.</td>
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<td>Industrial Goods &amp; Services</td>
<td>Lisboa</td>
</tr>
<tr>
<td>5</td>
<td>EDP - Energias de Portugal, S.A.</td>
<td>Utilities</td>
<td>Utilities</td>
<td>Lisboa</td>
</tr>
<tr>
<td>6</td>
<td>Estoril Sol, S.G.P.S., S.A.</td>
<td>Consumer Services</td>
<td>Travel &amp; Leisure</td>
<td>Cascais</td>
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<tr>
<td>7</td>
<td>Farminveste, S.G.P.S., S.A.</td>
<td>Health Care</td>
<td>Health Care</td>
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<tr>
<td>8</td>
<td>Galp Energia, S.G.P.S., S.A.</td>
<td>Oil &amp; Gas</td>
<td>Oil &amp; Gas</td>
<td>Lisboa</td>
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<tr>
<td>9</td>
<td>Ibersol, S.G.P.S., S.A.</td>
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<td>Travel &amp; Leisure</td>
<td>Porto</td>
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<tr>
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<td>Impresa, S.G.P.S., S.A.</td>
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<tr>
<td>11</td>
<td>Inapa Portugal – Distribuição de Papel, S.A.</td>
<td>Basic Materials</td>
<td>Basic Resources</td>
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<tr>
<td>12</td>
<td>Jerónimo Martins, S.G.P.S., S.A.</td>
<td>Consumer Services</td>
<td>Retail</td>
<td>Lisboa</td>
</tr>
<tr>
<td>13</td>
<td>Lisgráfica – Impressão e Artes Gráficas S.A.</td>
<td>Industrials</td>
<td>Industrial Goods &amp; Services</td>
<td>Oeiras</td>
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<tr>
<td>14</td>
<td>Grupo Media Capital, S.G.P.S., S.A.</td>
<td>Consumer Services</td>
<td>Media</td>
<td>Oeiras</td>
</tr>
<tr>
<td>15</td>
<td>Mota Engil – Ambiente e Serviços S.G.P.S., S.A</td>
<td>Industrials</td>
<td>Construction &amp; Materials</td>
<td>Porto</td>
</tr>
<tr>
<td>16</td>
<td>Nos, S.G.P.S., S.A.</td>
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<td>Media</td>
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<tr>
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<td>Ramada – Investimentos e Indústria S.A.</td>
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<td>Basic Resources</td>
<td>Porto</td>
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<td>Lisboa</td>
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<td>Sonae Capital, S.G.P.S., S.A.</td>
<td>Financials</td>
<td>Financial Services</td>
<td>Maia</td>
</tr>
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<td>23</td>
<td>Teixeira Duarte S.A.</td>
<td>Industrials</td>
<td>Construction &amp; Materials</td>
<td>Oeiras</td>
</tr>
<tr>
<td>24</td>
<td>The Navigator Company, S.A.</td>
<td>Basic Materials</td>
<td>Basic Resources</td>
<td>Setúbal</td>
</tr>
</tbody>
</table>

Fonte: Elaboração própria
Referências Bibliográficas


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THE ACCOUNTANT PROFESSION'S HISTORY IN PORTUGAL, WITH SPECIAL FOCUS ON THE 18TH CENTURY
Bruno Lobo 1; José Manso 2; Miguel Gonçalves 3

Abstract
Purpose: To develop and explain the relevant facts of the 18th century in Portugal in relation to accounting, paying special attention to the contribution of the Marquês de Pombal (1699-1782) to Portuguese accounting. The paper gives attention in a chronological order, to the most important accounting events that occurred in Portugal in the 18th century, giving emphasis to the Lisbon School of Commerce (1759), the first official educational institution to compulsory teach double-entry bookkeeping in the world. To sum up, the work aims to answer the following three research questions: “What was the Portuguese political, social and economic context in the 18th century”; “What were the main accounting events of that period?”; and, finally, “What was Marquês de Pombal’s contribution to the development of Portuguese accounting?”.

Methodology: The paper is based on the bibliographic method (secondary sources were used in the text).

Originality: The research corresponds to a text whose main originality is the fact that it was prepared by a student of the 3rd year of an accounting and auditing degree (bachelor’s degree), a circumstance with which the Portuguese higher education system should be pleased with.

Findings: The study concluded, in terms of its results, that the second half of 18th century became the Age of Gold of Portuguese accounting due to the political action of a Government ruler, the Marquês de Pombal.

Practical Implications: The article contributes to help students of the area of economic and business sciences to better understand the background and genesis of the accounting profession in Portugal. This will increase their motivation to study accounting beyond its technical, mechanical and neutral aspects.

Keywords
Accounting history; 18th century; Portugal; Double-Entry bookkeeping; Pombal.

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ANALYSIS FACTORS THAT INFLUENCE PASSION-DRIVEN BEHAVIOR TOWARD A BRAND IN FASHION INDUSTRY
Pelangi Madagaskat ¹; Elevita Yuliati ²

Abstract

Purpose: This study wants to investigate the relationship among perceptions of advertising, sales promotions (monetary and non-monetary), brand love, brand trust, and the development of passion-driven behaviour. Based on the established research model of factors toward a brand, this study proposes and test a research model that attempts to understand the inter-relationship between the two dimensions of advertising (i.e. advertising spending and attitudes toward advertisements), two dimensions of sales promotions (i.e. monetary promotions and non-monetary promotions), brand prestige, brand love, brand trust, and passion-driven behaviour.

Methodology: This study was tested based on responses from 215 fashion brand customers in Indonesia (i.e. 60 from Zara, 142 from Uniqlo and 13 from Forever 21). Data were analysed using validity, reliability, confirmatory factor and correlation analysis, the structural equation modelling and descriptive analysis method.

Findings: The verified model confirmed that brand prestige was influenced by attitudes toward advertisement and monetary promotion. Brand love was affected by monetary promotion and brand prestige. Brand trust was significantly impacted by brand love. Lastly, passion-driven behaviour was significantly impacted by brand love and brand trust.

Originality/value: This research illustrates the influences of the two dimensions of advertising and two types of sales promotions on brand prestige and brand love. Also, the influence of brand trust, which in turn led to passion-driven behaviour from customers of fashion brand.

Practical implications: The study suggests that a fashion brand manager or marketer may want to develop the marketing strategy that focuses on monetary promotion with an effective and an efficient investment. Create a creative and original content of advertisement also important to raise consumer awareness and build the positioning as a prestige fashion brand that costumers liked. Build the feeling of love and trust are crucial for the brand manager and marketer to create passion from customers toward a fashion brand which can led to purchases.

Research limitations: This research was limited to sample numbers and use three fashion brands in Indonesia. This research was testing seven factors of passion-driven behaviour in the framework.

Keywords: Advertisement; Sales promotion; Brand prestige; Brand love; Brand trust; Passion-driven behaviour.

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1. Introduction

Fashion is one of human primary needs, hence fashion retail is always growing bigger and become interesting to investigate it further (Sugih & Soekarno, 2015). Specialty retailers of private label apparel (SPA) or commonly known as fast fashion, grow and become global companies. This fast fashion brand has wider understanding toward costumer's preferences, as well as it has a short fashion cycle (Lee et al., 2014), short production and distribution, can provide uncertain demand and offers fashionable and trendy fashion products (Cachon & Swinney, 2011). In Indonesia, fast fashion consumption increases as the purchasing power increases, especially women costumers who are affected by the widespread international culture and who wants to keep the style with the latest fashion trend (Shihab, 2019).

A brand can help to determine costumer's life and become the important parts of consumer behaviour (Noel Albert et al., 2013), therefore many brands had made marketing strategy to create a strong emotional engagement with their customers. Many researchers and marketers had investigated to understand about the topic because consumer relationship with the brand can give significant impact to the company’s profit. Moreover, by having a strong relationship between costumer and brand can create a sustainable brand, as predicted through the incremental of company’s value. So, the relationship between a brand and customers become an important topic in brand management (Rageh Ismail & Spinelli, 2012).

In prior research, measuring brand dimensions to analyse the impact of marketing strategy in short or long term, such as advertisement and price promotion had been used (Kim & Kim, 2018). Compared to the other marketing activities, advertising spending and promotions can give the most significant impact to a brand. High advertising spends, high price, highly intensity distribution and distribution through retail with good image store can build brand equity (Buil et al., 2013) and advertising spend gives impact to company revenue in the short term as well (Joshi & Hanssens, 2010). Other researchers had investigated the impact on advertising spend and frequency of monetary and non-monetary promotion toward brand equity, while attitudes toward advertisement contributed to consumer’s perceptions toward particular brand as well (Buil et al., 2013). This positive attitude toward a brand (or brand love) can be a positive word-of-mouth and costumers can tolerate the brand’s failure and lead to brand loyalty (Kim & Kim, 2018). Connecting various marketing elements in brand prestige and brand love provide perspective that can be used to maintain brand power. Prestige brands were chosen by costumers because they can reflect an ideal and actual self-individual and offer self-image and social-economy status. Even though consumptions of prestige brands in Indonesia has increased, but still lacking for academic research study especially in fashion context (Casidy et al., 2015). Positive attachment, passion, and attitude from costumers toward a brand that they love can influence the desire feeling while doing shopping fashion (Liapati et al., 2015). Brand prestige and brand love contribute in developing “willingness or strong desire” (or passion-driven behaviour) that needs to be investigated further (Kim & Kim, 2018). Some researchers have found that brand trust can influence consumer’s passion toward a brand as well because trust is an antecedent of commitment which is involved in marketing relationship and can improve relationship value for consumers (Noel Albert et al., 2013). Trust also influence loyal attitude and loyal purchase. Costumers who is loyal to a particular brand can have a strong will to pay more because they believe that they can give a unique value from the brand and there is no alternative brand to replace. Loyalty to a brand can generate higher market share when a brand is purchased continuously by a loyal customers (Chaudhuri & Holbrook, 2001). So, build relationship between customer and a brand needs to develop brand passion that can create a strong relationship (Ghorbanzadeh et al., 2020a). Customers who has passion toward a brand or passion-driven behaviour, are willing to do anything for the brand (Noel Albert et al., 2013) and invest their money, energy, and time more for the brand (Thomson et al., 2005).
The purpose of this study is to get more understanding about advertising by focusing on advertising spending and individual's attitude toward advertisement, examine the influence of two types of sales promotions (i.e. monetary promotions and non-monetary promotions), and explore inter-relationship among brand prestige, brand love, brand trust, and passion-driven behaviour.

Due to high and frequent demand for fashion, this industry has potential to grow bigger as well as financial benefits and expand its portfolio. Thus, this research needs to be conducted to understand the important factors that can be the determinants of costumer's passion-driven behaviour toward a brand.

2. Literature review

2.1. Passion-driven behaviour
Passion is defined as dimension of brand love that has a meaning of strong will to invest the energy mentally and emotionally to increase and maintain the relationship between the object and individual (Ahuvia et al., 2014). In previous study explained that passion in consumption context is impactful, has a positive attitude toward brand that can turn into emotional attachment and have influence to relevant attitude toward factors. Passion also become the core of the strength and a high quality of relationship between costumers and brand (Swimberghe et al., 2014). Passion-driven behaviour reflect the need to invest resources in certain brands, to interact with brands frequently, and to show between consumers the strong will to use the brand (Batra et al., 2012). Consumers with passion-driven have invested their energy, money, and more time to the brand. Consumers tend to be insensitive toward price because they love the brand and can be anxious if they lose the brand (Thomson et al., 2005). Passion-driven behaviour is considered as consumer's behaviour toward a particular brand based on brand passion and the most emotional relationship with the brand. So that costumers personally will invest themselves to the brand rather than into someone they love (Swimberghe et al., 2014). With the power of brand passion, customer's passion-driven behaviour will become the main element from the brand success and can change into brand loyalty.

Thus, this topic about the antecedent of passion-driven behaviour needs to be analysed further to build a strong relationship between a brand and its costumer (Kim & Kim, 2018).

2.2. Advertising spending
A high-quality brand from a company with high advertising spending and use the advertising as a sign to do the claim that the product or service from that brand is reliable (Rao et al., 1999). Based on consumer-brand equity perspective, high advertising spends, high price, high distribution intention and distribution through retailers with good store image can contribute in developing a positive perspective with brand quality, high brand awareness and stronger brand association which also led to build brand equity (Yoo et al., 2000). In previous study, the research results about positive relations between advertising spending with perceived quality are also proven through research in the shopping environment (Buil et al., 2013). So, the higher advertising spending, the stronger and more various associations that generated in consumer's mind (Gil et al., 2007).

Hypotheses 1: advertising spending has a positive influence on brand prestige (H1a) and brand love (H1b)

2.3. Attitudes Toward Advertisement
In previous study mentioned that consumer attitudes or individual towards advertising are influenced by attitudes toward advertisement in general (Usman et al., 2010). When a consumer likes particular advertising because of many reasons, the liking can be transferred into the product from a certain brand (Sallam, M. A., & Algammash, 2016). Young people in society are influenced by advertising. Culture has strong influence as
moderator in hedonism and social relationship which can affect the attitudes toward advertisement in general (Usman et al., 2010). Furthermore, advertising can influence children and individuals in following the latest trend and fashion to build their self-image. Individual attitudes toward advertisement holds an important role in perceived quality, brand awareness, and brand association (Buil et al., 2013). In previous study explained when an individual uses an advertisement as source of product information, social role and source of pleasure or use of hedonism. Those dimensions can give a positive impact to attitudes toward advertisement in general which can stimulate purchase decision (Petrovic & Marinov, 2007). Consumers build trust about products by searching relevant information, then evaluate the beliefs and build the feeling about the product that can turn into buying or rejecting the brand (Solomon, 2018). Moreover, the consumer’s positive experience can impact to the emotional feeling toward the brand, like brand love (Kim & Kim, 2018).

Hypotheses 2: attitudes toward advertisement has a positive influence on brand prestige (H2a) and brand love (H2b)

2.4. Monetary Promotions

Many previous researches have investigated sales promotions which focused on monetary promotions, such as price discounts and coupons (Buil et al., 2013). Monetary promotion, such as price discount, has direct and indirect brand performance in decreasing price. Monetary promotion gives more impact to deal-prone on discount (Yi & Yoo, 2011). Monetary promotion has the power for short term goals, including introducing product consumption and pushing the brand changes (Chandon et al., 2000). Consumer perspective toward sales promotion can be different depending on promotion type. Consumers tend to see monetary promotion as one of price type that can be integrated easily into price information and change it as loss reduction by lowering the price (Yi & Yoo, 2011). Costumer’s positive experience relate to sales promotion gives influence to the brand evaluation emotionally to which brand that can develop and maintain the relationship of brand love (Kim & Kim, 2018).

Hypotheses 3: monetary promotion has a positive influence on brand prestige (H3a) and brand love (H3b)

2.5. Non-Monetary Promotions

Non-monetary promotion is one of sales promotion types based on pleasure and attachment (Yi & Yoo, 2011). Non-monetary promotion offers pleasure to consumers through free gifts and premiums, buy one get one, contests, sweepstakes, and bonus (Chandon et al., 2000). Non-monetary promotions have been used for long-term goals (such as, developing brand loyalty and promotions through brand image between consumers) (Yi & Yoo, 2011). So, non-monetary promotions can give more happiness and value to particular brands (Buil et al., 2013; Reid et al., 2015; Thomson et al., 2005). Non-monetary promotion gives hedonic benefits (Chandon et al., 2000). The benefits can be entertainment and exploration that are similar to emotional experience, pleasure, and confidence, thus non-monetary promotions can be more associated with brand personality, good experience, feeling, and emotion. Some of researches also connect the non-monetary promotion to the better and positive brand association. Non-monetary promotion has a significant positive influence to the perceived quality and positive relationship toward brand association. So, using non-monetary promotion can contribute to building brand equity (Buil et al., 2013). In previous study, non-monetary promotion does not affect price reference, so it does not damage the image and brand quality (Yi & Yoo, 2011).

Hypotheses 4: non-monetary promotion has a positive influence on brand prestige (H4a) and brand love (H4b)

2.6. Brand Prestige
In previous study, prestige is a wide concept that emphasizes luxury (Kim & Kim, 2018). Brand prestige is defined as high status in brand positioning (Steenkamp et al., 2003). In previous study, where explained about psychological side says that if consumers buy and search the prestige brand for product or service, consumers will feel the uplift of social image and value, because brand prestige play the role as sign or social power, status, or wealth which consumers want and accept the high price (Kim & Kim, 2018). Other research says that consumer’s decision to buy prestige brands not because of the perceived quality, but because of the offering of social meaning that can be used to portray the self-image and economic-social status (Bao & Mandrik, 2004). The result of the picture of ourselves create a positive emotional in customer and passion-driven behaviour toward a brand (Batra et al., 2012). Consumer also tend to relate the prestige of the brand with the self-identity to increase confidence. So, extreme identification toward a brand can caused by prestige in a brand and impact to the enthusiasm feeling and a strong passion (Ghorbanzadeh et al., 2020b).

Hypotheses 5: brand prestige has a positive influence on brand love (H5a) and passion-driven behaviour (H5b)

2.7. Brand Love
In previous study, brand trust was found to has a positive influence toward an affection construct, such as brand affect and brand love (Noel Albert et al., 2013). Meanwhile, love has been assumed as one of significant components from consumer’s relationship with certain brands (Batra et al., 2012). Brand love is made based on positive evaluation, attachment, passion, positive emotion, and love proposal to particular brand (Carroll & Ahuvia, 2006). Consumers that express brand love tend to be biased and have perception of the brand better than other brands (Noël Albert et al., 2008). In previous study, some consumers feel the love toward certain brands after going through several situations (Kim & Kim, 2018). Brand love can feel different for each consumer, depending on perceived quality or relationship duration between brand and consumer. Consequences of brand love is that loyalty to brand (Noel Albert & Merunka, 2013), where brand love is linked to the high level of loyalty to brand and positive word-of-mouth (Noël Albert et al., 2008). Brand love can influence consumer’s passion-driven behaviour, like willing to invest their energy, time and other resources, and has a strong will to use particular brand (Batra et al., 2012).

Hypotheses 6: brand love has a positive influence on brand trust (H6a) and passion-driven behaviour (H6b)

2.8. Brand Trust
In previous study, brand trust is one of key constructs in marketing relationships (Noel Albert et al., 2013). Brand trust has a positive impact to the affection construct, such as brand affect, brand love, and brand passion (Ghorbanzadeh et al., 2020b). Brand trust is defined as the average consumer’s willingness to depend on the capability of a brand to work as its functions. Trust influences loyalty attitude and purchase loyalty. Loyalty to brand can result in bigger market share when the brand is bought frequently by loyal consumer. Those loyalty can be determined because of trust in the brand and feeling of effect that comes from the brand (Chaudhuri & Holbrook, 2001). Trust is an important antecedent of commitments in marketing because trust consist of high value of relationships. Trust and commitment can increase relationship value to consumer, because commitment can represent sacrifice potential and powerless consumer, where they need to believe before commit to the brand (Garbarino & Johnson, 1999).

Hypothesis 7: brand trust has a positive influence on passion-riven behaviour (H7)

3. Data and Method
This study chose a fast fashion segment as the research setting. Zara, Uniqlo, and Forever 21 are included in top 5 fast fashion retail with the highest brand share in
Indonesia (Euromonitor, 2019). Fast fashion retail has philosophy in general which said that the system is combining of two components, such as short production and distribution, can provide ready stock in uncertain demand, and has modern and trendy product design (Cachon & Swinney, 2011). Fast fashion retail use strategy to control consumer behaviour by providing limited product with fashionable design and reasonable price. This strategy can boost the desire of costumer to pay with full price (Sugih & Soekarno, 2015). Fast fashion consumption in Indonesia keep increase every year as the purchasing power increases, especially for women purchasers who get international culture impression, and Indonesia women actively maintaining their style with the latest fashion trend (Shihab, 2019).

This study sampled customers of the three fast fashion brands, which have been well recognized by customers in Indonesia. Data collection was conducted between February and April 2020 by spreading the questionnaire online. In the questionnaire, we have a screening question to filter the respondents who have bought fashion in Zara, Uniqlo, or Forever 21 in the last 3 months and asked which brand the shop fashion, either offline or online the most. The questioned will follow the respondent's brand option. Among 339 responses received, 124 responses were deleted for unqualified response and excessive missing data that could bias the findings. Thus total 215 responses were used for data analysis (i.e. 60 from Zara, 142 from Uniqlo, 13 from Forever 21. The minimum number of the sample size is 160 when the number of questions is multiple by five (Hair, J.; Anderson, R.; Tatham, R.; Black, 2010). Sample used for the pre-test is 31 respondents and for the main-test is 215 respondents.
Each latent variable was measured with multiple items which were validated in prior research. All items were measured on a seven-point Likert-type scale anchored by "1 = strongly disagree" to "7 = strongly agree". This study, including advertising spending (consumers’ perceptions of high advertising spending), attitudes toward advertisement (consumers’ perceptions of advertising as creative, original and different from other competitor brands), monetary promotion (direct discounts and coupons) and non-monetary promotion (free gifts, free samples, sweepstakes and contests) were measured from Buil et al. (2013) study. Brand prestige was measured with three items from Baek et al.’s 2010 study. Brand love was measured with ten items from Carroll &
Ahuvia's (2006) study. Brand trust was measured with three items from Chaudhuri & Holbrook's (2001) study. Passion-driven behaviour was measured with four items from Batra et al.’s (2012) study, reflecting a consumer’s decision to invest their resources into the brand.

3. Results

All measures used in the survey were tested using LISREL 8.7 and conducted a structural modelling technique which is well suited for predictive model (Bentler & Chou, 1987). Before testing the hypothesized relationships, the study used Cronbach’s Alpha coefficients to assess reliability, ranging from 0.84 to 0.97.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Construct Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Spending</td>
<td>0.839</td>
<td>0.635</td>
</tr>
<tr>
<td>Attitudes Toward Advertisement</td>
<td>0.893</td>
<td>0.736</td>
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<tr>
<td>Monetary Promotion</td>
<td>0.930</td>
<td>0.817</td>
</tr>
<tr>
<td>Non-Monetary Promotion</td>
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<tr>
<td>Brand Prestige</td>
<td>0.922</td>
<td>0.798</td>
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<tr>
<td>Brand Love</td>
<td>0.964</td>
<td>0.730</td>
</tr>
<tr>
<td>Brand Trust</td>
<td>0.917</td>
<td>0.787</td>
</tr>
<tr>
<td>Passion-Driven Behaviour</td>
<td>0.849</td>
<td>0.586</td>
</tr>
</tbody>
</table>

The recommended acceptable coefficient should exceed 0.70 (Nunnally & Bernstein, 1999). To test validity, confirmatory factor analysis (CFA) was conducted with all measures (Anderson & Gerbing, 1992). Convergent validity, which was examined by using the construct reliability (CR) and average variance extracted (AVE), demonstrated how the items are related to each other and whether they can be in the same measurement or not. The lower acceptable value for Construct Reliability (CR) is 0.70 and for Average Variance Extracted (AVE) is 0.5 (Fornell & Larcker, 1981). As presented in Table 2, CR of each variable is more than 0.7 and AVE of each variable is more than 0.5 which means convergent validity is achieved. The recommendation level of factor loadings is 0.5 and all standardized factor loadings exceeded 0.50 (p < 0.01), which signified evidence of convergent validity (see Table 3).
### Table 3 – Standard Loading and Error Variance

<table>
<thead>
<tr>
<th>Constructs and Variables</th>
<th>Standardized Loading</th>
<th>Error Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advertising spending</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This brand is intensively advertised</td>
<td>0.83</td>
<td>0.30</td>
</tr>
<tr>
<td>This brand seems to spend a lot on its advertising compared to advertising for competing other brands</td>
<td>0.71</td>
<td>0.49</td>
</tr>
<tr>
<td>The advertisements for this brand are frequently shown</td>
<td>0.84</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Attitudes toward advertisement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The advertisements for this brand are creative</td>
<td>0.91</td>
<td>0.17</td>
</tr>
<tr>
<td>The advertisements for this brand are original</td>
<td>0.83</td>
<td>0.31</td>
</tr>
<tr>
<td>The advertisements for this brand are different from the advertisements for competing other brands</td>
<td>0.83</td>
<td>0.31</td>
</tr>
<tr>
<td><strong>Monetary promotion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This brand frequently offers price discounts</td>
<td>0.95</td>
<td>0.09</td>
</tr>
<tr>
<td>This brand often uses price discounts</td>
<td>0.86</td>
<td>0.26</td>
</tr>
<tr>
<td>This brand uses price discounts more frequently than competing other bands</td>
<td>0.90</td>
<td>0.20</td>
</tr>
<tr>
<td><strong>Non-monetary promotion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This brand frequently offers gifts</td>
<td>0.93</td>
<td>0.14</td>
</tr>
<tr>
<td>This brand often uses gifts</td>
<td>0.98</td>
<td>0.04</td>
</tr>
<tr>
<td>This brand uses gifts more frequently than competing other brands</td>
<td>0.94</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Brand prestige</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This brand is very prestigious</td>
<td>0.91</td>
<td>0.18</td>
</tr>
<tr>
<td>This brand has high status</td>
<td>0.96</td>
<td>0.09</td>
</tr>
<tr>
<td>This brand is very upscale</td>
<td>0.81</td>
<td>0.34</td>
</tr>
<tr>
<td><strong>Brand love</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This is a wonderful brand</td>
<td>0.73</td>
<td>0.46</td>
</tr>
<tr>
<td>This brand makes me feel good</td>
<td>0.83</td>
<td>0.31</td>
</tr>
<tr>
<td>This brand is totally awesome</td>
<td>0.85</td>
<td>0.28</td>
</tr>
<tr>
<td>I have special feelings about this brand</td>
<td>0.86</td>
<td>0.25</td>
</tr>
<tr>
<td>This brand makes me very happy</td>
<td>0.91</td>
<td>0.18</td>
</tr>
<tr>
<td>I love this brand</td>
<td>0.89</td>
<td>0.21</td>
</tr>
<tr>
<td>I have particular feeling about this brand</td>
<td>0.91</td>
<td>0.18</td>
</tr>
<tr>
<td>This brand is a pure delight</td>
<td>0.89</td>
<td>0.21</td>
</tr>
<tr>
<td>I am passionate about this brand</td>
<td>0.88</td>
<td>0.23</td>
</tr>
<tr>
<td>I am very attached to this brand</td>
<td>0.78</td>
<td>0.39</td>
</tr>
<tr>
<td><strong>Brand trust</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This is an honest brand</td>
<td>0.84</td>
<td>0.29</td>
</tr>
<tr>
<td>I trust this brand</td>
<td>0.94</td>
<td>0.21</td>
</tr>
<tr>
<td>This brand is safe</td>
<td>0.88</td>
<td>0.23</td>
</tr>
<tr>
<td><strong>Passion-driven behaviour</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have invested a lot of time, energy or money in this brand</td>
<td>0.80</td>
<td>0.36</td>
</tr>
<tr>
<td>I am willing to spend extra time experiencing this brand</td>
<td>0.87</td>
<td>0.25</td>
</tr>
<tr>
<td>I have been involved with this brand in past</td>
<td>0.67</td>
<td>0.55</td>
</tr>
<tr>
<td>I have interacted a lot with this brand</td>
<td>0.71</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Source: Processed by researchers (2020)

The results of tested structural model are presented in Figure 1 and Table 4. The model fit indices suggested that the model acceptably fits the data. Relationship of seven hypotheses between variables were found statistically significant, while six hypotheses were not significant. The results showed that H1a, advertising spending (coefficient = 0.089, t-value = 0.88) and H4a, promotional non-monetary (coefficient = 0.081, t-value = 1.01) did not significantly affect brand prestige. While H2a, attitudes toward advertisement (coefficient = 0.290, t-value = 2.83) and H3a, promotion monetary (coefficient = 0.170, t-value = 2.47) were significantly influenced brand prestige.
Moreover, H1b, advertising spending (coefficient = 0.081, t value = -1.00); H2b, attitudes toward advertisement (coefficient = 0.087, t value = 1.05); and H4b, promotion non-monetary (coefficient = 0.014, t value = 0.22) were not significantly affect brand love. While H3b, promotion monetary (coefficient = 0.120, t value = 2.04) and H5a, brand prestige (coefficient = 0.660, t value = 8.83) were found significantly influenced brand love. Further, H6a, brand love (coefficient = 0.770, t value = 10.20) significantly affect brand trust. Lastly, H5b brand prestige (coefficient = -0.003, t value = -0.04) were not found significantly influenced passion-driven behaviour, while H6b, brand love (coefficient = 0.530, t value = 4.65) and H7, brand trust (coefficient = 0.340, t value = 3.68) were significantly affect passion-driven behaviour.

### Table 4 – Hypothesis Testing

<table>
<thead>
<tr>
<th>Path</th>
<th>Standardized Estimates</th>
<th>T-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a Advertising Spending → Brand Prestige</td>
<td>0.089</td>
<td>0.88</td>
<td>Rejected</td>
</tr>
<tr>
<td>H1b Advertising Spending → Brand Love</td>
<td>0.081</td>
<td>-1.00</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2a Attitude Towards Advertising → Brand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prestige</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2b Attitude Towards Advertising → Brand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Love</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3a Monetary Promotion → Brand Prestige</td>
<td>0.170</td>
<td>2.47</td>
<td>Supported</td>
</tr>
<tr>
<td>H3b Monetary Promotion → Brand Love</td>
<td>0.120</td>
<td>2.04</td>
<td>Supported</td>
</tr>
<tr>
<td>H4a Non-Monetary Promotion → Brand Prestige</td>
<td>0.081</td>
<td>1.01</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4b Non-Monetary Promotion → Brand Love</td>
<td>0.014</td>
<td>0.22</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5a Brand Prestige → Brand Prestige</td>
<td>0.660</td>
<td>8.83</td>
<td>Supported</td>
</tr>
<tr>
<td>H5b Brand Prestige → Passion-Driven Behaviour</td>
<td>-0.003</td>
<td>-0.04</td>
<td>Rejected</td>
</tr>
<tr>
<td>H6a Brand Love → Brand Trust</td>
<td>0.770</td>
<td>10.20</td>
<td>Supported</td>
</tr>
<tr>
<td>H6b Brand Love → Passion-Driven Behaviour</td>
<td>0.530</td>
<td>4.65</td>
<td>Supported</td>
</tr>
<tr>
<td>H7 Brand Trust → Passion-Driven Behaviour</td>
<td>0.340</td>
<td>3.68</td>
<td>Supported</td>
</tr>
</tbody>
</table>

**Source:** Processed by researcher (2020)
Additionally, the goodness-of-fit indices indicates the model did fit the data very well; $X^2 = 664.67$, df = 401 ($X^2$/df = 1.66), $p < 0.0000$, RMSEA = 0.055, GFI 0.840, AGFI = 0.790, NFI = 0.970, CFI = 0.990.

5. Discussion

The relationship between the brand and customers can give impact significantly to the company’s profit. Moreover, by having strong relationship between customer with the brand can create brand sustainability which predicted through incremental in company’s financial value. So, the relationship between customer with the brand become an important topic in brand management (Rageh Ismail & Spinelli, 2012). This study examined the relationship for passion-driven behaviour variable and its factors.

Hypothesis (H1a) and (H1b) stated that number of advertising shows that how much the cost spent for advertising by fashion brand is not giving impact to costumer’s perception of prestige in a brand and also it is not relevant in developing love toward a fashion brand. The result of relationship advertising spending with brand prestige is consistent with the study Buil et al., (2013), but the result of relationship advertising spending with the brand love is contrary to the Kim & Kim (2018) study.

Hypothesis (H2a) and (H2b) stated that attitudes toward advertisement has positive effect to brand prestige. This result is in line with study Kim & Kim (2018). However, the creative, original, and different creative advertising is not giving an effect on brand love. This result is contrary with the Kim & Kim (2018) study.

Hypothesis (H3a) and (H3b) stated monetary promotion has positive effect on brand prestige and brand love. These results are in line with the study of Buil et al., (2013) and Kim & Kim (2018).

Hypothesis (H4a) and (H4b) hypotheses suggested that non-monetary promotion has no positive effect on brand prestige and brand love. These results are contrary to the Buil et al., (2013) and Kim & Kim (2018) study.

Hypothesis (H5a) and (H4b) suggested that brand prestige has positive effect on brand love which in line with the Batra et al., (2012) study, but brand prestige is not giving effect on passion-driven behaviour which is contrary to the Batra et al., (2012) study.

Hypothesis (H6a), (H6b), and (H7b) suggested that brand love has positive effect on brand trust and passion-driven behaviour. Also, the result shows a positive influence of brand trust to passion-driven behaviour. These results are in line with the Carroll & Ahuvia (2006); (Chaudhuri & Holbrook, 2001); and Batra et al., (2012) study.

6. Conclusions

This study wants to understand factors that influence of customer’s passion-driven behaviour that can be implemented by brand manager or marketer in fashion industry. After done the research with 215 respondents, the research results conclude that the advertising spending is not giving influence to brand prestige or brand love toward a fashion brand in Indonesia. This indicated that costumers did not give that much attention on the advertisement that can influence on costumer's perception toward a brand prestige and it also cannot build the love into a fashion brand. Attitude toward advertisement can give influence toward a brand prestige but there is no impact on brand love. This indicated that advertisement format which original, creative, and different can increase costumer's perception toward a prestige brand. However, this is not enough to make costumer loves the fashion brand. Monetary promotion has a positive influence to brand prestige and brand love. This indicates that costumer loves a direct discount or any related to money-benefit. While non-monetary promotion has no positive influence to brand prestige or brand love. This indicates that fashion customer prefers discount type promotion rather than free gift or bonus sample type of promotion. Brand prestige has positive effect on brand love but not passion-driven behaviour. This indicates that fashion customer loves fashion prestige brand, but not ready to invest more of their
energy, time, and money to buy that prestige brand. Moreover, brand love has positive impact on brand trust and passion-driven behaviour; also brand trust has effect of passion-driven behaviour. This indicates that customers who love the brand will trust and willing to invest more on their money, energy, and time to buy and use the fashion brand they love and trust.

References


DOES CUSTOMER-BASED REPUTATION ADD TO SOCIAL AND MASS MEDIA REPUTATION IN JUDGING SOCIAL RESPONSIBILITY OF BANKS?
Raquel Rebelo 1; Nelson Campos Ramalho 2; Pedro Fontes Falcão 3

Abstract
Purpose: Reputation is a critical asset for finance and banking organizations where the mere suspicion of a problem suffices to trigger media turmoil with high risk of market share losses. Investing in media to build reputation has been therefore a priority for banks. However, another source of reputation may stem from direct front-office contact and it is yet unknown to which extent it plays a role when confronted with the widespread social and mass media reach. This study aims at testing the extent of the importance of customer-based reputation, as against media-based reputation, in explaining customer outcomes.

Methodology: A sample of 135 bank customers that use multiple communication channels with their banks answered an online questionnaire comprehending measures of media-based reputation, customer-based reputation, customer outcomes, and sociodemographic variables. Customer outcomes pertain customer orientation, good employer, reliable and financially strong bank, product/service quality, and social and environmental responsibility. After testing for the validity and reliability of the measures, a hierarchical multiple linear regression analysis was conducted to test the incremental validity of customer-based reputation after controlling for sociodemographic and media-based reputation.

Originality: The proposed model is original in the sense that it extends Walsh & Beatty (2007) model on bank reputation by introducing social and mass media-based reputation as a competitive variable to customer-based reputation in explaining customer outcomes.

Findings: Hypotheses were supported with the hierarchical multiple linear regression showing the model explained 68% of customer outcomes of which 49% was accounted by media-based reputation, after controlling for sociodemographic variables. The variance accounted by customer-based reputation (19%) is unique and attributable to the perception clients gather from directly contacting with their bank front offices.

Practical implications: Banks tend to invest in mass media as a basis to build corporate reputation but the investment in customer-based reputation, namely in training the front office, will exert positive effects on corporate reputation in a way that is not accountable by mass and social media investment.

Research limitations: The self-report nature of the measures and the sample modest size may advise caution in extrapolating findings although no sign of common method bias was found.

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References

Keywords: Reputation; Banking; Social media.
THE MEDIATING EFFECT OF POSITIONING AND MARKET ORIENTATION ON THE RELATIONSHIP BETWEEN BRAND AND COMPETITIVE ADVANTAGE

Orlando Rua ¹; Catarina Santos ²

Abstract

**Purpose:** The purpose of this paper is to analyze the relationship between brand and competitive advantage (through differentiation), as well as the mediating effect of positioning and market orientation in this relationship.

**Methodology:** Using a quantitative methodological approach, an empirical study was developed, having as object of study Portuguese exporting companies in the footwear industry, to which a questionnaire survey was applied.

**Findings:** The results show that 1) brand have a significant direct impact on positioning and market orientation and competitive advantage through differentiation, 2) competitive advantage through differentiation is directly impacted by positioning, 3) market orientation does not have a significant direct impact on competitive advantage through differentiation, and 4) positioning have a mediating effect on the relationship between brand and competitive advantage through differentiation, and market orientation does not have on it.

**Originality/value:** A pioneering study in the footwear industry analyzing the mediating effect of positioning and market orientation on the relationship between brand and competitive advantage.

**Practical implications:** Adoption, or readjustment, of competitive strategies and practices that encourage superior performance on traditional industries.

**Research limitations:** Non-probabilistic convenience sample for members of the Portuguese Association of Footwear, Components, Leather Goods and its Substitutes (APICCAPS).

**Keywords:** Brand; Positioning; Market orientation; Competitive advantage; PLS-SEM.

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1. Introduction

High market demand and the diversification of competition, both grounded in a gradually geographical world, have reshaped the Portuguese business prism, where most traditional industries, such as the footwear industry, saw internationalization as a response to the arduous task of remaining competitive. Knight (2015) argues that internationalization is defined by the ability of companies to understand the differences between markets and how they can achieve a competitive advantage based on recognized and differentiated brands (Popoli, 2015). Therefore, Beig and Nika (2019, p. 1) argue that “brands are critical for the firm’s success as they become the major source of differentiation between other competitive offerings in the market”. The brand thus takes a leading role in defining sustained and differentiated international strategies (Holt, Quelch & Taylor, 2004; Fakhrutdinova, Kolesnikova & Yurieva, 2014), which can lead to competitive advantage (Morgan & Pritchard, 2004). The current consumer at the moment of their choice takes much more into consideration than simply the physical characteristics of the product or service, looking for brands to identify with as a consumer, but also as a human being (Popoli, 2015). In this way, companies live in an increasingly competitive and demanding reality, characterized by increasing pressure to maintain the behavior required by their consumers, depending on their assessment of all existing information according to external filters and criteria (van Gelder, 2003).

Baloglu and Brinberg (1997) argue that branding has a central value in positioning, which contributes to differentiation among consumers and competitors (Crompton, Fakeye & Lue, 1992; Kapferer, 2008). On the other hand, market orientation enables the company to understand and respond to market characteristics by shifting focus from the internal to the external environment (Kohli & Jaworski, 1990; Kirca, Jayachandran & Bearden, 2005) and leading to the implementation of strategies. differentiation that meets the needs of the markets (Popoli, 2015).

Howard (1977) argues that the possibility of creating a competitive advantage based on brand value lies precisely in the components of emotional and cognitive perception and that the development of trust by the organization will be grounded precisely in these elements. The perceived mark can then be assessed using the Attitude Model based on the interaction of three components: cognition, affectivity, and connectivity (Rosenberg & Hoveland, 1960; Schiffman & Kanuk, 2007). Therefore, competitive advantage and perceived differentiation are then increasingly centered on “technological and performance characteristics and increasingly on the value resulting from intangible resources” (Popoli, 2015, p. 24).

This study proposes to study the role that the brand has in competitive advantage through differentiation in an international context, in order to present strategic orientations to the footwear industry, with cross-sectional validity, considering the mediating effect of positioning and market orientation. From this emerges the following research questions: - How can the brand influence achieve international competitive advantage through differentiation? Do positioning and market orientation have a mediating effect on this relationship?

2. Literature Review and Research Hypotheses

According to Keller (2000), branding is the main source for creating associations between consumers and organizations, and hence the fundamental basis for creating brand equity and differentiation. On the other hand, knowing that the brand is one of the most fundamental intangible resources (Kayo, 2002). Fakhrutdinova et al. (2014) state that this should be the cornerstone of a sustained and differentiated international strategy that can ensure the organization’s competitive advantage and clearly communicate its positioning to its audiences (Morgan and Pritchard, 2004).

Holt, Quelch and Taylor (2004) argue that brand value is even more relevant in an international context, where competitiveness levels are also higher. Thus, it should
convey a unified and coherent idea, but it must also be adapted to local specificities, ie, it should be oriented to the markets in which it operates (Kirca et al., 2005), ensuring an effective response to consumers' needs and demands (Kohli et al., 1990). Based on the preceding discussion the following hypotheses were developed for this study:

H1: Brand have a positive effect on positioning.

H2: Brand have a positive effect on market orientation.

H3: Brand have a positive effect on competitive advantage through differentiation.

Positioning, as mentioned above, arises for the main purpose of highlighting differentiating elements from other competition, and is essentially based on the fact that all consumer choices derive from a comparison process with the various offers on the market. Thus differentiation emerges not only as a result of positioning but must also have double acting serving as the starting point and guiding thread in the development of positioning strategy (Crompton et al., 1992). The following research hypothesis was then tested:

H4: Positioning has a positive effect on competitive advantage through differentiation.

Market orientation is the concern of an organization to understand and respond to the characteristics of the market in which it operates (Kohli et al., 1990), shifting its focus from an internal perspective to an external perspective (Kirca, Jayachandran and Bearden, 2005). Popoli (2015) argues that the organization’s direct link to the needs of its markets is central to the effective and full realization of a strategy through differentiation, so the present study aimed to test the following hypothesis:

H5: Market orientation has a positive effect on competitive advantage through differentiation.

Kapferer (2008) argues that positioning aims to differentiate the brand in an appealing way to the market, additionally, Baloglu and Brinberg (1997) specify that the brand has a central value in the emotional association of positioning. Contrarily, Qu, Kim and Im (2011) propose an inverse order in which positioning originates the brand, that is, there is the definition of the desired positioning and only later are developed brands that can convey the desired values in the minds of consumers, and only then can brands achieve a position of differentiation in the market. That is, positioning allows the definition and creation of brands with the desired values, which favor a differentiation strategy, where consumers privilege brands that represent their values, emotions, and personality, facilitating and simplifying consumer preferences in an overwhelmed world. by several continuous choices (Botha et al., 1999; Buhalis, 2000; Calantone et al., 1989; Crompton et al., 1992; Fan, 2006; Go & Govers, 2000; Mihalic, 2000; Mykletun et al., 2001; Uysal et al., 2000). It was then intended to test the following hypothesis:

H6: Positioning mediates the relationship between brand and competitive advantage through differentiation.

There is a progression where internationalization is defined by the “specific priorities of a country, institution or a specific group of stakeholders” (Knight, 2015, p. 2), and where the success of its implementation depends not only on the costs of but of the ability of organizations to understand differences in the home and international markets, as well as to develop competitive advantage and respond to the difficulties that arise from this heterogeneity (Brouthers et al., 2008; Hitt et al., 2007; He, 2012), through a recognized and differentiated brand (Popoli, 2015). The following research hypothesis was then defined:

H7: Market orientation mediates the relationship between brand and competitive advantage through differentiation.

Figure 1 shows the operationalization of the above hypotheses in the respective research model.
4. **Data and Method**

3.1. *Population, sample and data collection process*

The decision to choose the population considered Portuguese exporting companies that are manufacturers of footwear or shoe components, with a majority Portuguese capital stock. In this first selection, no account was taken of whether the company exported or not, as part of the study aimed to clarify the percentage of companies that actually have international activity. Thus, a mandatory question was inserted in the questionnaire to segment the companies not exporting at this time, in which case the questionnaire is terminated.

It was then used a database provided by the Portuguese Association of Industries of Footwear, Components, Leather Goods and its Substitutes (APICCAPS) with the contact of 231 companies.

The companies were contacted by email with a link to a *google doc* to answer the questionnaire. The confidentiality of the respondents was ensured, containing no question that could identify the respondent or the employer.

The application of the questionnaire began on 10 October 2017 and ended on 7 November 2017, during which time two requests were made.

According to the Portuguese Association of Footwear, Components, Leather Goods and its Substitutes Industries (APICCAPS, 2017), there are 1473 companies in the footwear industry, of which 380 have an exporting profile and 367 with more than 50% share capital. Portuguese

We used a non-probabilistic sample for convenience, having obtained 102 answers, of which 86 companies answered having an exporting profile. The response rate was 36%.

3.2. **Method**

The quantitative methodology was used through the distribution of a questionnaire (Bryman & Cramer, 2012). Responses will be evaluated on a Likert scale, allowing to translate qualitative responses into quantitative data, which is one of the main reasons
for their popularity within academia (Lindwall et al., 2012; Rodebaugh, Woods, & Heimberg, 2007; Roszkowski & Soven, 2010; Sonderen, Sanderman, & Coyne, 2013). With regard to data collection and further analysis, based on Mintzberg (1979, p. 585) “regardless of sample size or area of interest”, effective and structured analysis is indispensable.

3.3. Survey structure, operationalization and measurement of variables
The instrument used was the questionnaire survey, in the sense that no variable was manipulated and all data related to the variables were collected at the same time (Bryman & Cramer, 2012).

The questionnaire consists of 27 closed questions. The first 15 questions are intended to collect information on respondents’ gender, age, education, income, job performance, seniority, etc. The following questions, with a five-point Likert scale (1 – strongly disagree; 5 strongly agree), are related to the brand, positioning, market orientation and competitive advantage by differentiation (Table 1).

<table>
<thead>
<tr>
<th>Items</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brand</strong></td>
<td></td>
</tr>
<tr>
<td>B1: Brand Recognition.</td>
<td></td>
</tr>
<tr>
<td>B2: Consumer connection with brand culture and personality.</td>
<td></td>
</tr>
<tr>
<td><strong>Positioning</strong></td>
<td>Adapted from Kayo (2002) and Tsai et al. (2012)</td>
</tr>
<tr>
<td>P1: Experience and history.</td>
<td></td>
</tr>
<tr>
<td>P2: You generally believe that your company makes risky decisions that are better than the competition.</td>
<td></td>
</tr>
<tr>
<td>P3: Regarding the rest of the competition, it considers that your company values and seeks to develop the innovation of its products.</td>
<td></td>
</tr>
<tr>
<td>P4: It believes that the company values employees who take an entrepreneurial position in search of new, more competitive options.</td>
<td></td>
</tr>
<tr>
<td>P5: Considers that your company’s brand is better known than its international competitors.</td>
<td></td>
</tr>
<tr>
<td><strong>Market orientation</strong></td>
<td></td>
</tr>
<tr>
<td>MO1: You think your company often launches new models.</td>
<td></td>
</tr>
<tr>
<td>MO2: It feels that the company has the ability to quickly analyze market changes and respond effectively to them.</td>
<td></td>
</tr>
<tr>
<td><strong>Competitive advantage (differentiation)</strong></td>
<td>Source: Own.</td>
</tr>
<tr>
<td>CA1: Product quality.</td>
<td></td>
</tr>
<tr>
<td>CA2: Differentiation.</td>
<td></td>
</tr>
<tr>
<td>CA3: Innovation</td>
<td></td>
</tr>
</tbody>
</table>

4. Results

4.1. Descriptive analysis
Based on the results of the surveys, it was concluded that:
(1) The footwear industry is dominated by male managers (55%);
(2) Regarding the age of respondents, 38% are between 41-50 and 35% between 31-40 years old;
(3) There is a clear trend towards revitalizing the industry through the qualification of human resources, given that the majority of respondents (43%) reported having qualifications at the undergraduate level, followed by 30% with a masters degree;
(4) Most top managers (66%) have net earnings of around € 1001- € 1500, with only 3% reporting earnings below € 500.
(5) 28.5% of respondents are in the marketing sector and 28.4% in management.
(6) Most of these employees (46.1%) have only worked in the footwear industry for 5 years, which may be mainly related to the high growth of the area in recent years.
(7) Most are located in Northern Portugal, specifically in two of the clusters that were indicated by APICCAPS: Felgueiras (29%) and Guimarães (28%).

(8) Regarding the legal characterization of companies, 77.5% of respondents say they are commercial companies and 21.6% sole trader.

(9) There is a high concentration of companies between 11-30 employees (44.1%), but the percentage of enterprises (37.3%) that replied that they have up to 10 employees is also quite representative.

(10) Two trends in the footwear industry are confirmed as regards the age of companies. On the one hand, it is observed that the industry is still dominated by companies with significant experience and track record, however, on the other hand, there is a tendency for young companies to try to invest and create new DNA in the market.

(11) There is a very significant international trend, where currently only a small part of the companies surveyed (16%) choose to restrict their activity to the national territory.

(12) 27.7% of exporting companies have been doing so for at least 6 years, followed by 16% of newly exporting companies. These results show that not only is there already a strong international experience of the industry, but there is also a growing awareness of international growth and return opportunities.

(13) 69% of companies surveyed exports to more than 6 countries. Although it is already a substantial value, it is important to note that the second most significant value is a lower value (2-5 countries), so significant development in this area will be important so that the industry is more competitive.

(14) The majority in about 63% export only as a producer, that is, it can be said that the industry still depends to a large extent on third-party brands in terms of notoriety to the final consumer.

(15) Regarding the destination of exports, the most significant is Europe, but a new trend and opportunity for innovation in other continents, especially in Africa and America.

4.2. Reliability analysis

The reliability analysis was performed using Cronbach’s alpha, so that it is possible to guarantee the consistency and stability of the answers gathered, taking into account the heterogeneity of respondents and consequently their opinions, according to Pestana and Gageiro (2008). The sample reliability is very good (0.866) for all variables.

4.3. Inferential analysis

After completing the reliability analysis, and in accordance with statistical practices, the Kaiser-Meyer-Olkin (KMO) analysis was performed in order to test the suitability of the variables and consistency of the data collected, as well as to establish covariance relationships between variables. hidden factors, and Bartlett’s sphericity test (Marôco, 2011). For KMO evaluation we also use the scale proposed by Pestana and Gageiro (2008).

Table 2 shows a KMO=0.793, averaging data consistency for a significance level of 99%, α=0.001, with a p-value<0.001. Bartlett’s test of sphericity was used to assess the adequacy, resulting in a chi-square approximation of 447.556.

<table>
<thead>
<tr>
<th>Table 2 - KMO and Bartlett’s sphericity test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
</tr>
<tr>
<td>Bartlett’s Test of Sphericity</td>
</tr>
<tr>
<td>df</td>
</tr>
<tr>
<td>Sig.</td>
</tr>
</tbody>
</table>

Source: Own.

Therefore, factor analysis is considered appropriate. In this context, exploratory factor analysis was carried out, in which factor extraction was performed through principal component analysis (PCA), with Varimax rotation that allows for factors that are easier to interpret and, theoretically, with greater significance.
Such extraction followed the recommendations of Hair et al. (2009). Figure 2 and Table 3 show the extraction of 4 factors: (1) positioning, (2) competitive advantage (differentiation), (3) brand and (4) market orientation.

**Figure 2 - Total variance explained**

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>2</td>
<td>1.928</td>
<td>14.828</td>
<td>51.261</td>
</tr>
<tr>
<td>3</td>
<td>1.324</td>
<td>10.187</td>
<td>61.448</td>
</tr>
<tr>
<td>4</td>
<td>1.018</td>
<td>7.829</td>
<td>69.277</td>
</tr>
<tr>
<td>5</td>
<td>.743</td>
<td>5.713</td>
<td>74.990</td>
</tr>
<tr>
<td>6</td>
<td>.699</td>
<td>5.381</td>
<td>80.371</td>
</tr>
<tr>
<td>7</td>
<td>.653</td>
<td>5.020</td>
<td>85.391</td>
</tr>
<tr>
<td>8</td>
<td>.395</td>
<td>3.039</td>
<td>88.430</td>
</tr>
<tr>
<td>9</td>
<td>.300</td>
<td>2.490</td>
<td>91.412</td>
</tr>
<tr>
<td>10</td>
<td>.234</td>
<td>1.877</td>
<td>93.280</td>
</tr>
<tr>
<td>11</td>
<td>.205</td>
<td>1.607</td>
<td>94.887</td>
</tr>
<tr>
<td>12</td>
<td>.215</td>
<td>1.657</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Source: Own.
Table 3 - Rotated component matrix*  

<table>
<thead>
<tr>
<th>Items</th>
<th>Components 1) P</th>
<th>Components 2) CA-DIF</th>
<th>Components 3) B</th>
<th>Components 4) MO</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2: You generally believe your company makes risky decisions that are better than the competition.</td>
<td>.778</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P5: Considers that your company’s brand is better known than its international competitors.</td>
<td>.742</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1: Experience and history</td>
<td>.738</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4: It believes that the company values employees who take an entrepreneurial position in search of new, more competitive options.</td>
<td>.616</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3: Regarding other competitors, do you consider that your company values and seeks to develop innovation in its products</td>
<td>.531</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA1: Product quality.</td>
<td></td>
<td>cc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA2: Differentiation.</td>
<td></td>
<td>cc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA3: Innovation.</td>
<td></td>
<td>cc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1: Brand recognition.</td>
<td></td>
<td>cc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2: Consumer connection to brand culture and personality.</td>
<td></td>
<td>cc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MO1: our company often launches new models.</td>
<td>.827</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MO2: It feels that the company has the ability to quickly analyze market changes and respond effectively to them.</td>
<td>.461</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization; *Rotation converged in 13 iterations.

Source: Own.

4.4. Partial least squares

The structural equation model is designated as a multiple regression method with the objective of establishing relationships between variables (Marôco, 2010), with a minimum relational value of 0.7 to ensure that it is greater than the error variance (Carmines & Zeller, 1979).

Partial least squares regression is an exploratory analysis method that allows the development of currently little tested theory (Roldán, Cegarra & Cepeda, 2014). This method is capable of generating structural models based on small samples, less than 250 observations as is the case of the present study (86) (Reinartz, Haenlein & Henseler, 2009). At the same time, it allows maximizing the variance of the various dependent variables (Chin & Newsted, 1999; Reinartz, et. Al, 2009), as well as calculating formative and reflective models of calculation (Chin, 2010).

Through Cronbach’s alpha-based internal stability and consistency, the reliability of the variables used in the research is calculated, with a minimum required level of 0.7 (Nunally, 1978; Chin, 2010).

In the present study, Cronbach’s Alpha levels were reached between 0.702 and 0.792, as shown in Table 4, which is considered acceptable (Pestana & Gageiro, 2008).

Table 4 – Cronbach’s alpha

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Cronbach’s Alpha</th>
<th>P values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>.781</td>
<td>.000</td>
</tr>
<tr>
<td>Market orientation</td>
<td>.702</td>
<td>.000</td>
</tr>
<tr>
<td>Positioning</td>
<td>.745</td>
<td>.000</td>
</tr>
<tr>
<td>Competitive Advantage - Differentiation</td>
<td>.792</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Own.
The reliability coefficient was also used to test the constructs’ validity (Chin, 1998). As can be seen from Table 5, using the parameters of Gefen and Straub (2005) that advocate a minimum level of 0.6, the variables exponentially exceed the reference value.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Composite reliability</th>
<th>( p ) values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>.861</td>
<td>.000</td>
</tr>
<tr>
<td>Market orientation</td>
<td>.756</td>
<td>.000</td>
</tr>
<tr>
<td>Positioning</td>
<td>.820</td>
<td>.000</td>
</tr>
<tr>
<td>Competitive Advantage - Differentiation</td>
<td>.876</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Source:** Own.

In this test usually, the convergent validity analysis is performed, where the indicators represent only one construction (Reinartz et al., 2009), as well as the discriminant validity.

In the present study, the method proposed by Fornell and Lacker (1981) was used, which proposes the use of the Average Variance Extracted (AVE) with a minimum value of 0.5 to prove convergent validity. As can be seen in Table 6, only the positioning did not reach the required value.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>AVE</th>
<th>( p ) values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>.756</td>
<td>.000</td>
</tr>
<tr>
<td>Market orientation</td>
<td>.612</td>
<td>.000</td>
</tr>
<tr>
<td>Positioning</td>
<td>.574</td>
<td>.000</td>
</tr>
<tr>
<td>Competitive Advantage - Differentiation</td>
<td>.702</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Source:** Own.

Discriminant validity is determined by construction and is related to the level at which it differs and stands out from the other constructs of the model, thus making it necessary to have no correlations with other latent variables. It can be gauged from the principle that all crossloads cannot be higher than the loading of each indicator. On the other hand, the Fornell–Larcker (1981) criterion argues that AVE should be greater than the variance between constructions of the same model. Referring to the separation of Chin’s (1998) explanatory power between moderate and substantial, it can be seen in Table 7 that satisfactory results were obtained regarding the validity of discrimination and consequently that the constructions are significantly different.

<table>
<thead>
<tr>
<th>Fornell-Larcker Criterion</th>
<th>B</th>
<th>CA-DIF</th>
<th>MO</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>.870</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market orientation</td>
<td>.438</td>
<td>.838</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positioning</td>
<td>.239</td>
<td>.360</td>
<td>.783</td>
<td></td>
</tr>
<tr>
<td>Competitive advantage - Differentiation</td>
<td>.619</td>
<td>.632</td>
<td>.632</td>
<td>.689</td>
</tr>
</tbody>
</table>

**Source:** Own.

According to Table 8, only two hypotheses were not significant according to Chin (1998) who advocate a minimum structural coefficient of 0.2. The bootstrapping technique was used to calculate the relative strength of each exogenous construct.
Table 8 - Path coefficients

| Hypotheses | Original Sample (O) | Sample Mean (M) | Standard Error (STERR) | T Statistics (|O / STERR|) | p values |
|------------|---------------------|-----------------|------------------------|-----------------------------|-----------|
| H1: B -> + P | .619                | .623            | .080                   | 7.738                       | .000 **   |
| H2: B -> + MO | .239                | .249            | .129                   | 1.856                       | .063 ***  |
| H3: B -> + CA-DIF | .232               | .240            | .100                   | 2.320                       | .020 **   |
| H4: P -> + CA-DIF | .343               | .374            | .187                   | 1.835                       | .067 ***  |
| H5: MO -> + CA-DIF | .097               | .104            | .141                   | .689                        | .491 **** |
| H6: B -> + P -> + CA-DIF | .209              | .220            | .113                   | 1.845                       | .065 **   |
| H7: B -> + MO -> + CA-DIF | .023              | .020            | .039                   | .597                        | .551 **** |

Notes: * p <0.001; ** p <0.05; *** p <0.1; **** not significant.

Source: Own.

In the following figure, it is possible to observe the final model of the research structure, already taking into consideration both direct and indirect effects.

Figure 3 – Structural model

Source: Own.

5. Discussion

The fundamental objective of this study is to analyze the relationship between brand and competitive advantage (differentiation), as well as the mediating effect of positioning and market orientation in this relationship.

The tests supported H1, demonstrating that the brand positively and significantly influences positioning. Thus, following the present research, we confirm that the fact that branding is one of the main pillars in creating associations in the minds of consumers regarding organizations, products, and services (Keller, 2000) becomes similarly central in achieving desired positioning (Morgan & Pritchard, 2004).

H2 was supported, so the brand positively and significantly influences market orientation. Bearing in mind that the brand should not only convey the personality of an organization, product or service (Keller, 2000) but also establish an emotional and behavioral connection with its consumers (Popoli, 2015). That is, brands should progressively adopt
an extrinsic, market-oriented focus on their wants, needs, and requirements (Kirca et al., 2005), enabling them to achieve exponential levels of loyalty (Hsieh & Li, 2008).

In turn, H3 was also supported, confirming what was previously argued, it was shown that the brand as an intangible resource promotes a competitive advantage strategy through differentiation (Kohli et al., 1990; Holt, Quelch and Taylor, 2004; Kirca et al., 2005).

The tests equally support H4, demonstrating that there is indeed a positive and significant relationship between positioning and gaining competitive advantage via a differentiation strategy. That is, the organization choosing a differentiation strategy should establish linkages with positioning to create synergies between them and convey a clear, effective and persuasive message to their target audiences (Crompton et al., 1992).

On the other hand, H5 was not supported, i.e., there was no positive and significant link between market orientation and differentiation. The study then showed that the fact that the organization seeks to understand the needs and wants of the markets and then adapt to them (Popoli, 2015) does not ensure that the organization is able to do so uniquely vis-à-vis other competitors and thus achieve competitive advantage by differentiation (Franzen et al., 2001).

H6 is also supported, therefore positioning has a mediating effect between the brand and competitive advantage (Botha et al., 1999; Buhalis, 2000; Calantone et al., 1989; Crompton et al., 1992; Fan, 2006; Go et al., 2000; Mihalic, 2000; Mykletun et al., 2001; Uysal et al., 2000).

The tests did not support H7, thus it was not found that market orientation has a mediating effect between the brand and competitive advantage by the path of differentiation. Therefore, the influence of market orientation does not change the influence of the brand in a differentiation strategy.

6. Conclusions

After the conclusion of the present study, it is possible to conclude that many ideas generally established in the academic world were not supported, underlining the need for further research on a theme that is itself overwhelmed by subjectivity and doubt, such as intangible resources.

The footwear industry is currently experiencing a moment of revitalization, which has been proactively focusing on international markets, initially relying on closer destinations, but with a growing vision to explore more and more distant destinations, such as the Asia and Oceania. This geographical movement should, however, be accompanied by constant rather specific market analyzes, where the cultures and valences of these markets should be considered as starting points for the development of possible new or at least hybrid positions.

It has also been shown that the brand plays a central role in international strategy, where it will allow for deeper connections with different consumers, and consequently result in higher levels of loyalty, which will be even more crucial in operating in an international arena. However, although the brand is often associated as an intangible resource directed at differentiation strategies, this has not been supported, which may, on the one hand, hinder the performance of Portuguese brands as they seek, due essentially to the difficulty in competing with different brands. Prices practiced by Asian export markets focus on target markets that value quality and innovation over appealing prices.

Due to the very high level of competition experienced in the international footwear industry, not only because of its ability to reduce prices but also because of the international experience that some exporting countries already have, the domestic industry faces a major challenge. And for this reason, it is crucial that this revitalization that has been proven in the present study continues not only through importing destinations, but mainly through continued investment in resource education and training, which is known to be characterized as an of the poorest in the country.
This study can be attributed to theoretical and practical contributions, as it explores the complementarity between academic value and current business practice, allowing a closer connection between knowledge development and its application. This will encourage visible improvements in the footwear industry, in particular through the adoption of effective international development strategies. In addition, the study deepened the subject of intangible resources, which still remains largely neglected by both the corporate and corporate worlds.

Any scientific development is subject to certain limitations. In the present case, we highlight as main limitations the following: the sample is centralized in the Northern Region, being, therefore, a non-probabilistic and convenience sample which may bias the obtained answers, the five-point Likert scale promotes average responses, and the results are generalized exclusively to APPICAPS members. Finally, given that this is a topic still underdeveloped developed by the academy, it is suggested that this study can be applied to other industries with a strong international trend.

Acknowledgments
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References


HOW RELATIONSHIP MARKETING INFLUENCE INTANGIBLE RESOURCES? THE MEDIATING EFFECT OF LOYALTY

Dayanna Rosa 1; Orlando Rua 2

Abstract

Purpose: This study aims to analyse the relationship between relationship marketing and intangible resources, considering the mediating effect of loyalty.

Methodology: Based on a survey-based methodology, data were collected from a sample of Portuguese footwear sector’s companies. Data were analysed using the quantitative methodology of structural equations using Partial Least Squares.

Findings: The results obtained by the research show that relationship marketing influences customer loyalty and that customer loyalty positively influences the company’s intangible resources, so that relationship marketing intervenes through the mediation of loyalty in the relational and reputational resources of companies in the Portuguese footwear sector.

Originality/value: This research provides interesting insights into the relationship between relationship marketing, loyalty, intangible resources where such research is lacking.

Keywords: Relationship marketing; Loyalty; Intangible resources; Footwear sector.

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1. Introduction

Barney (1991) explains that what makes companies different from each other is the management and development of existing resources and capacities within the organization. Thus, for a company to build the bases for sustained competitiveness, it is necessary to consider innovation and the dynamic learning capacity (Rua & Melo, 2015). The relationships marketing (RM) intends to retain the customer (Sheth & Parvatiyar, 1995), as maintaining a long-term relationship (Grönroos, 1994) will bring benefits to the company (Porter 1993; Vrana 1993). In addition to stimulating satisfaction (Berry, 1995; Bitner, 1995; Kotler, 1996), value creation (Ravald & Grönroos, 1996; Grönroos, 1997; Sheth & Parvatiyar 2000), trust (Mckenna, 1997) and commitment (Morgan & Hunt, 1994; Harker, 1999).

Aaker (1998) argues that by developing customer loyalty, the company will be strengthening a barrier to the entry of new competitors, this is because, when consumers are loyal or are satisfied with the brand, the competition requires the formulation of strategies to encourage consumers to change brands. These costs for redirecting customer loyalty can spend excessive resources. The loyal clients tolerate any lapses and problems in care, not needing so be persuaded with great marketing because they know the characteristics of the brand and preferred products (Grewal & Levy, 2011). Besides, they can also indicate the products to said for satisfaction with the mark for the people living in the social environment (Kotler et al., 2017).

Wernerfelt (1984), under the influence of the fundamentals presented by Penrose (1959), named this strategic approach of acquiring competitive advantage from the company’s resources and competences as resource-based theory - Resource-Based View (RBV), relating the firm’s growth with the strategies adopted for the exploration and development of existing resources and how these resources provide high returns. Its main objective is to explain the creation, maintenance and renewal of competitive advantage based on the internal resources of companies, to associate the explanation of competitive advantage and its dynamics with the characteristics of these internal resources and how they change with the time (Foss, 1997).

Intangible resources (IR) are related to the history of the organization, so they are unique and characteristic of each company, accumulated over time and hard to imitate (Hitt, Ireland & Hoskisson, 2008). The integration between intangible resources and tangible resources provides a valuable experience for customers because when there is the action of intangible resources on tangible ones, the product is no longer equal to that of the competition, it has added value, a unique differentiation, which will characterize and leverage the product (Laud et al., 2015). Relational resources are associated with the existing relationships between the company and its suppliers, distributors, customers, partners, among others (Morgan & Hunt, 1994). These can refer to the quality of relationships, trust, commitment, satisfaction between the parties involved, knowledge sharing, among others. The combination of these relational resources with the company’s ability and ability to manage them will assist in the success of the company’s relationships. Hennig-Thurau and Hansen (2000) state that these benefits influence the creation of competitive advantage for the company since however much the competition tries to copy the relationship strategies, they depend on internal and external agents.

Reputational resources are considered an intangible strategic asset because we can not measure the value of the reputation of a company (Aaker, 1996). For Obloj and Oblo (2007) this is understood that the way a company is perceived in the market is built based on its long-term behavior history. If the company is dishonest, failing to deliver, it will develop a bad reputation; if it is reliable, credible and responsible, it will develop a good reputation. So, when the reputation is high, the organization has greater influence and flexibility in its transactions.

The search for a prominent position, among the variety of offers in the market, requires companies to have an authentic personality and the development of differentiated and/or innovative business strategies within the value chain. Kotler and Keller (2012, p. 19),
explain that “attracting a new customer can cost five times more than maintaining an existing one and relationship marketing emphasizes customer retention.”.

2. Theoretical framework and research hypotheses

Relationship marketing is characterized by the integration between the parties involved in the company, mainly with the development of long-term relationships with customers, when these customers realize that there is trust, commitment and satisfaction in the relationship, they end up establishing loyalty with the company (Agariya & Singh, 2011; Kotler & Keller, 2012; Oliver, 2014; Gummerus et al., 2017; Kotler et al., 2017; Mariano, Rosa & Rocha, 2017). Accordingly, the following research hypothesis is proposed:

H1: Relationship marketing has a positive effect on loyalty.

Relationship marketing develops and maintains relationships between the parties involved, aiming at engaging with the organization and strengthening the company's value creation, specifically in the relational and reputational intangible resources (Shani and Chalasani, 1992; Hennig-Thurau & Hansen, 2000; Freire, Lima & Leite, 2009; Kotler & Keller, 2012; Kotler et al., 2017; Scussel et al., 2018). We intend to test that:

H2: Relationship marketing has a positive effect on intangible resources.

Considering the premise that customer loyalty to the brand is a source of value creation for the company (Dick & Basu, 1994; Aaker, 1991; Grewal & Levy, 2011; Grönroos & Voima, 2013; Augusto & Almeida Júnior, 2015; Lovelock & Wirtz, 2016; Guede, 2017). The benefits of the company in developing customer loyalty are many, a loyal customer repeatedly uses the same brand and is less sensitive to the company's price change, even having other options within the same category. He is more likely to recommend the company in the social environment through positive word of mouth and defend the product if necessary. Thus:

H3: Loyalty has a positive effect on intangible resources.

H4: Loyalty has a mediating effect on the relationship between relationship marketing and intangible resources.

3. Data and method

3.1. Setting and data collection

To test the hypothesis a sample of Portuguese footwear companies was used, that meet the following criteria: companies in which at least 50% of income comes from exports of goods, or companies in which at least 10% of income comes from exports of goods and the export value is higher than 150,000 Euros (INE, 2011).

Data collection was implemented through an electronic questionnaire, associating a link to the survey that was online. We were provided with a database of 367 companies. Only 180 companies fulfilled the parameters and were contacted by email by APICCAPS to respond to the questionnaire. Subsequently, all companies were contacted by the authors via e-mail and telephone, to ensure a higher rate of valid responses. The questionnaires began on April 11 and ended on November 11, 2019. After finishing the data collection period, 67 valid questionnaires were received, representing a 37% response rate. This response rate is considered quite satisfactory, given that the average of top management survey response rates is in the range of 15%-20% (Menon, Bharadwaj, Adidam & Edison, 1999).

In this research, we chose a non-probabilistic and convenient sample since it respondent were chosen for being members of APICCAPS.

3.2. Measures

To assessment relationship marketing’s construct it was used the following items, for its three dimensions (satisfaction, trust, commitment and relationship) (Table 1).
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfaction</strong></td>
<td>S1 - I believe that a good relationship between my company and my client can generate greater satisfaction on the part of my client.</td>
<td>Seithaml et al. (2014)</td>
</tr>
<tr>
<td></td>
<td>S2 - I believe that the greater my client's satisfaction, the greater his loyalty to my company.</td>
<td>Aaker (1998)</td>
</tr>
<tr>
<td></td>
<td>S3 - I believe that my clients will switch to the competition if they do not have a good shopping experience.</td>
<td>Oliver (2014)</td>
</tr>
<tr>
<td><strong>Trust</strong></td>
<td>C1 - I think it is important to be interested in solving my customers' problems with my product/service.</td>
<td>Lopes and Nohara (2009)</td>
</tr>
<tr>
<td></td>
<td>C2 - I think it is important not to have errors in the products and delivery times of my product.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C3 - Transmitting the correct information on the deadlines for the execution of services to customers is important.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C4 - My client's interest is a priority in relation to my company's other problems.</td>
<td></td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
<td>O1 - I believe that my clients remain at my company because they have a strong bond with it.</td>
<td>Meyer and Allen (1997)</td>
</tr>
<tr>
<td></td>
<td>O2 - I believe that my client has few alternatives so he continues to buy at my company.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O3 - My company is committed to my client and deserves their loyalty.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O4 - I believe that my client feels part of my company.</td>
<td></td>
</tr>
<tr>
<td><strong>Relationship</strong></td>
<td>R1 - I believe it is important to keep a relationship with customers who have already purchased / contacted my company's service.</td>
<td>Hutz and Souza (1998); Kotler (2000)</td>
</tr>
<tr>
<td></td>
<td>R2 - I believe that understanding the needs of my clients and meeting those needs is important for him to become loyal to my company.</td>
<td>Kotler (2000); Zineldin (2006)</td>
</tr>
<tr>
<td></td>
<td>R3 - I believe that maintaining a relationship with my client can bring benefits to both parties (client and company).</td>
<td>Kotler (2000); Sheth and Parvatiyar (2000)</td>
</tr>
<tr>
<td></td>
<td>R4 - I prefer to spend more resources on an old customer than on winning a new customer.</td>
<td>Reichheld and Sasser (1990)</td>
</tr>
</tbody>
</table>

*Source: Own elaboration.*

To measure the loyalty construct this study used the following items (Table 2).
Table 2 – Items of the loyalty’s construct

<table>
<thead>
<tr>
<th>Item</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 - I believe it is important for my client to consider my company as their first choice for purchasing services.</td>
<td>Jones e Sasser (1995); Aaker (1998)</td>
</tr>
<tr>
<td>L2 - I believe that a loyalty program will ensure that my customer will continue to buy at my company.</td>
<td>Moutella (2004); Marques (2014)</td>
</tr>
<tr>
<td>L3 - I believe that a customer’s recommendation can influence the purchase of a possible customer.</td>
<td>Zeithaml, Berry and Parasuraman (1996); Sirdeshmukh et al. (2002), Mariano, Rosa and Rocha (2017)</td>
</tr>
<tr>
<td>L4 - I believe that my customers will continue to consume my products even if prices increase a little.</td>
<td>Aaker (1998)</td>
</tr>
<tr>
<td>L5 - I believe that my clients pay a higher price than that proposed by the competition due to the benefits that my company offers.</td>
<td>Aaker (1998); Augusto and Almeida Júnior (2015)</td>
</tr>
<tr>
<td>L6 - I believe that classifying my customers according to the number of sales will identify my loyal customers.</td>
<td>Ruyter, Wetzels and Bloemer (1998); Leenheer et al., (2007); Marques (2014)</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

For assessment of the intangible resources' dimensions of relational resources and reputacional resources we have used Morgan et. al.'s (2006) scale (Table 3).

Table 3 – Items of the dimensions of intangible resources's construct

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational resources</td>
<td>RC1 - The proximity of relationships with current customers.</td>
<td>Morgan et al. (2006)</td>
</tr>
<tr>
<td></td>
<td>RC2 - The strength of the relationship with customers.</td>
<td>Morgan et al. (2006)</td>
</tr>
<tr>
<td></td>
<td>RC3 - The duration of the relationship with current distributors.</td>
<td>Morgan et al. (2006)</td>
</tr>
<tr>
<td></td>
<td>RC4 - The quality of the circle of relationships.</td>
<td>Morgan et al. (2006)</td>
</tr>
<tr>
<td></td>
<td>RR1 - Brand recognition.</td>
<td>Morgan et al. (2006)</td>
</tr>
<tr>
<td>Reputational resources</td>
<td>RR2 - The distinction of the brand image.</td>
<td>Morgan et al. (2006)</td>
</tr>
<tr>
<td></td>
<td>RR3 - The attractiveness of the brand’s &quot;personality&quot;.</td>
<td>Morgan et al. (2006)</td>
</tr>
<tr>
<td></td>
<td>RR4 - The strength of the brand image.</td>
<td>Morgan et al. (2006)</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

A five-point Likert scale was used to measure all items, where 1 means “strongly disagree” and 5 “strongly agree”.

4. Results

4.1 Reliability analysis

The experimental models require tests to verify their reliability. For this effect, Cronbach’s Alpha analysis was carried out, which aims to ensure the internal consistency of the scale. It is interesting to note that the value obtained is related to the variability of respondents' answers, as they have different opinions on the subject (Pestana & Gageiro, 2008). The scale used to measure the alpha is the one proposed by these authors.
The sample’s reliability is very good, with a Cronbach’s Alpha (α) value of 0.851, for all variables. With regard to constructs, relationship marketing presents a α=0.877 (very good), Loyalty α=0.700 (good) and intangible resources α=0.904 (excellent).

4.2. Exploratory factor analysis
Exploratory factor analysis consists of statistical techniques that assist in the analysis and clarification of quantitative data, to explore this information without predetermination (Damásio, 2012). One of the functions of factor analysis is to reduce the number of observed variables, which are correlated with each other, in a simplified way when establishing covariance relationships, generating underlying factors not observed (King, 1985).

In the present work, the technique used to extract the interrelationships of the variables and explain to them employing the proposed dimensions was the principal component analysis (PCA). The objective was to synthesize the original variables into main components with the minimum loss of information, using Varimax rotation, a method adopted to minimize the number of variables for each factor, which makes it possible to obtain more understandable and theoretically more significant factors (Pestana & Gageiro, 2008; Figueiredo Filho & Silva Júnior, 2010).

The relationship marketing, loyalty and intangible resources constructs’ were tested by the Kaiser-Meyer- Olkin test (KMO) and by the Bartlett sphericity test to prove the adequacy of the variables and consistency of the data collected for the application of factor analysis (Marôco, 2011). According to Pestana and Gageiro (2008), the KMO test enables measuring the adequacy of the sample of all the variables and the suitability of the sample of each factor with ranges between 0 and 1. Since the Bartlett’s sphericity test assesses the hypothesis that the correlation matrix is equal to the identity matrix, that is, the hypothesis that the proposed variables do not correlate them.

For the analysis of RM’s construct we have obtained four factors, which explain 64.24% of the total variance: 36.04% of the variance explained by satisfaction (1st factor), 11.54% by trust (2nd factor), 9.11% by commitment (3rd factor) and 7.56% for relationship (4th factor).

In the respective factorial structure, the items present loadings that vary according to the following: 1st factor between 0.890 and 0.751; 2nd factor between 0.769 and 0.312; 3rd factor between 0.831 and 0.686; and 4th factor between 0.756 and 0.556. The KMO test indicates that there is a reasonable correlation between the variables (0.739).

For Bartlett’s sphericity test, a value of $\chi^2 (105, n=67)=426.489, p<0.05$, was recorded, immediately referring to the distribution table of $\chi^2$, it appears that $\chi^2 > \chi^2_{0.95}$, so the null hypothesis is rejected, that is, the variables are correlated.

Concerning the loyalty’s construct analysis three factors were extracted that explain 65.37% of the total variance, 30.55% of the variance explained by the 1st factor, 19.62% by the 2nd factor and 15.20% by the 3rd factor. The items have the following loadings: 1st factor between 0.648 and 0.534; 2nd factor between 0.670 and 0.536; 3rd factor between 0.712 and 0.699; and 4th factor between 0.756 and 0.556. The KMO test indicates that there is a reasonable correlation between the variables (0.599).

For Bartlett’s sphericity test presents a value of $\chi^2 (10, n=67)=37.502, p<0.05$, was recorded, immediately referring to the distribution table of $\chi^2$, it appears that $\chi^2 > \chi^2_{0.95}$, so the null hypothesis is rejected, that is, the variables are correlated.

Finally, from the intangible resources’ construct analysis two factors were extracted, which explain 77.45% of the total variance, 51.48% of the variance explained by the 1st factor (Reputational Resources) and 25.98% by the 2nd factor (Relational Resources). In the respective factorial structure, the items present loadings that vary according to the following: 1st factor between 0.951 and 0.909; and 2nd factor between 0.833 and 0.696.
The KMO test indicates that there is a good correlation between the variables (0.819). For Bartlett’s sphericity test, a value of $\chi^2 (28, n=67)=418.158, p<0.05$, was recorded, immediately referring to the distribution table of $\chi^2$ it appears that $\chi^2 > \chi^2_{0.95}^2$, so the null hypothesis is rejected, that is, the variables are correlated.

4.3. Partial least squares
As explained in the methodology, the structural equation model, according to Kline (2015), encompasses a series of statistical technical procedures that include the covariance matrix, regression, correlation, analysis of variance, factor analysis, cluster analysis and multidimensional scaling. According to Hershberger, Marcoulides and Parramore (2003), SEM exposes hypothetical cause and effect relationships between model variables considering the statistical methods used by the model. The relationships between the variables must have a minimum value of 0.7 to ensure that the error variance is greater (Carmines & Zeller, 1979). However, to use the method, some requirements are necessary, such as the reliability analysis of an item, analysis of composite reliability, analysis of the extracted average variation (AVE) and analysis of the discriminant validity (Reinartz et al., 2009; Ramirez et al., 2014).

Cronbach’s Alpha analysis was used to calculate the reliability of the items used in the investigation to measure the veracity of the questions. According to Nunnally (1978) and Chin (2010), the minimum values required to ensure stability and internal consistency is 0.7, so that the more correlated these indicators are, the greater the explanatory capacity of the variable. As shown in Table 4, all values are above 0.7 and are considered very good, good and excellent, respectively (Pestana & Gageiro, 2008).

| Table 4 – Cronbach’s alpha |
|-----------------------------|----------|--------|
| Constructs                  | Cronbach’s Alpha | p values |
| Relationship Marketing      | .877     | .000   |
| Loyalty                     | .700     | .000   |
| Intangible Resources        | .904     | .000   |

Source: Own elaboration.

We used the coefficient composite reliability to test the validity of the model construction, as indicated by (Chin, 1998). The parameters indicated by Gefen and Straub (2005) indicate the minimum value of 0.6, it is possible to see in Table 5 that the variables exponentially exceed the indicated value.

| Table 5 - Composite reliability |
|---------------------------------|----------|--------|
| Constructs                      | Composite reliability | p values |
| Relationship marketing          | .906     | .000   |
| Loyalty                         | .867     | .000   |
| Intangible resources            | .934     | .000   |

Source: Own elaboration.

The method used was the Average Variance Extracted (AVE), was proposed by Fornell and Lacker (1981), which is used to explain if the indicators of the existing variables are different from the existing indicators in the other variables. According to Falk and Miller (1992) for the AVE to be positive, the indicators must differ by 50%, that is, the minimum value to prove the convergent validity is 0.50. The model obtained values above 0.5 (Table 6).
Table 6 - Convergent validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>AVE</th>
<th>p values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship marketing</td>
<td>.616</td>
<td>.000</td>
</tr>
<tr>
<td>Loyalty</td>
<td>.766</td>
<td>.000</td>
</tr>
<tr>
<td>Intangible resources</td>
<td>.746</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

Discriminating validity is associated with the level of distinction between the variables proposed in the model so that there is no correlation with the other variables. That is, this test will indicate whether a variable has characteristics that make it different and unique compared to the other variables. According to the explanation of Chin (1998), it is possible to verify in Table 7 that the results are satisfactory, which means that each construct is different from the others.

Table 7 - Discriminant validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Loyalty</th>
<th>Marketing Relationship</th>
<th>Intangible Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyalty</td>
<td>.547</td>
<td>.598</td>
<td>.710</td>
</tr>
<tr>
<td>Relationship marketing</td>
<td>.519</td>
<td>.274</td>
<td></td>
</tr>
<tr>
<td>Intangible resources</td>
<td>.351</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Own elaboration.

After fulfilling the requirements for model validation, it is possible to proceed to the hypotheses validation stage through Path Coefficients, which connects the relationships between the dependent and the independent variables of the research model. The bootstrapping technique was used to calculate the relative strength of each variable. (Table 8).

Table 8 - Path Coefficients

| Hypotheses                  | Original Sample (O) | Sample Mean (M) | Standard Error (STERR) | T Statistics (|O/STERR|) | p values |
|-----------------------------|---------------------|-----------------|------------------------|----------------|----------|
| H1: RM -> L                 | .563                | .576            | .086                   | 6.564          | .000     |
| H2: RM -> IR                | -.029               | -.032           | .161                   | .181           | .856     |
| H3: L -> IR                 | .344                | .357            | .138                   | 2.498          | .013     |
| H4: RM -> L -> IR           | .194                | .533            | .111                   | 4.835          | .033     |

Notes: Key: RM - Relationship marketing; L - Loyalty; IR - Intangible resources; * p <.001; ** p <.05; *** not significant.

Source: Own elaboration.

The assessment of the structural model by PLS focuses on the degree of prediction of the variable so that its objective is to maximize the variance of the dependent variables, where the first criterion to be used is the coefficient of determination of the endogenous constructs ($R^2$). This represents a predictive measure and shows the amount of variance of the construct in question that is explained by the exogenous variables of the model. $R^2$ values above 0.1 or 10% represent a satisfactory prediction and above 0.2 or 20% a revealing prediction (Falk & Miller, 1992). Loyalty presents a $R^2$=0.517 and intangible resources a $R^2$=0.424, values acquired in the ability to explain endogenous latent variables superior than 0.2.

In Figure 2, it is possible to observe the final model of the investigation, in order to consider the effects.
5. Discussion

The results show a positive effect of marketing relationship on loyalty is supported, in line with the studies of, among others, Agariya and Singh (2011), Kotler and Keller (2012), Oliver (2014), Gummerus et al. (2017), Kotler et al. (2017), Mariano, Rosa and Rocha (2017). This demonstrates that the analyzed companies understand that the RM, composed of satisfaction, commitment, trust and relationship with customers, has a positive impact on customer loyalty.

On the other hand, RM does not directly impact intangible resources, diverging from the studies of some scholars (e.g., Shani & Chalasani, 1992; Hennig-Thurau & Hansen, 2000; Freire, Lima & Leite, 2009; Kotler & Keller, 2012; Kotler et al., 2017; Scussel et al., 2018). However, this result is interesting because for top managers it is not the relationship marketing actions that influence the company’s reputational and relational resources, it is the customer loyalty that will serve as a mediator and will influence the significant increase of these intangible resources, as observed in the validation of the last hypothesis.

Finally, the results show that loyalty has a positive impact on intangible resources and that this one has a mediating effect on the relationship between relationship marketing and intangible resources. Top managers consider the principle that customer loyalty to the company is a source of value creation for the company’s intangible resources (Dick & Basu, 1994; Aaker, 1991; Grewal & Levy, 2011; Grönroos & Voima, 2013; Augusto & Almeida Júnior, 2015; Lovelock & Wirtz, 2016; Guede, 2017). Loyal customers talk about the brand, communicate, indicate to their social environment, experience and dress with...
pride, if necessary, even defend it, are key to increasing the brand’s reputation in the market (Kotler et al., 2017).

6. Conclusions

The research problem of this study seeks to answer what is the influence of the relationship marketing a lever for the development of intangible resources, considering their loyalty and the mediating effect to strengthen relational resources and reputational resources. It was answered through the elaboration and application of the proposed model that presented as a result of the adjusted $R^2$ to reflect that the variance of the variable loyalty by the model is 51.7% explained by the influence of relationship marketing; as well as the variance of the intangible resources variable is 42.4% explained by the influence and mediation of loyalty, so that relationship marketing intervenes through the mediation of loyalty in the relational and reputational resources of companies in the Portuguese footwear sector.

For the analysis of the relationship between RM and IR, considering the mediating effect of loyalty, the general objective, it appears that, according to the theory studied with the implementation of RM strategies, the implementation, understanding and continuous analysis of relationship strategies, considering the relationship, commitment, trust and satisfaction, with the parties involved, to build long-term loyal relationships. For this, it is necessary to know the purchasing behavior of customers, understand their needs, what is said in the social environment, if the customer is satisfied with the brand if their expectations and experiences are being met if the customer feels part of the company if it feels valued, direct and personalize the relationship with customers in a way that makes them loyal to the company.

When the company gains the loyalty of its customers, it also gains the influence of this customer before its social environment, it gains an active brand communication agent that will influence the decisions of that social environment, it gains a representative of the brand that uses it with pride and is willing to indicate it because it identifies with the values and purposes. That is why a loyal customer generates value for an organization, as it will influence the reputation and communication of the brand with its social environment and the market. A company that has a loyal customer base, has a competitive advantage of differentiating itself from the competition since there are no formulas to capture customer loyalty is a unique characteristic of each company.

This study has important implications for theory and practice, adding value to research in the field, emphasizing the importance of loyalty, which play a catalytic role in the relationship between relationship marketing and intangible resources. This theoretical collection may further favor entrepreneurs, as they clarify the contributions that the items addressed bring to the company. As observed in the Portuguese footwear industry, it is concluded that the results obtained by applying the proposed model, show that in the perception of entrepreneurs, relationship marketing influences customer loyalty and that customer loyalty positively influences the company’s intangible resources, so that relationship marketing intervenes through the mediation of loyalty in the relational and reputational resources of companies in the Portuguese footwear industry. As a result, shoe manufacturing companies can employ in their planning several strategies to increase their performance in developing relationships with customers, to win their loyalty and increase the company’s intangible resources.

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References

relationship-management-crm


THE LINKAGE BETWEEN SOFT SKILLS AND JOB SATISFACTION: THE MEDIATING EFFECT OF INTERNAL MARKETING
Fernando Torre 1; Orlando Rua 2

Abstract
Purpose: This study aims to present a research proposal that contributes to fill the gap identified in the literature and which concerns to the relationship between soft skills, internal marketing and job satisfaction.

Methodology – Firstly, a survey was conducted using the SCOPUS database in order to understand the size of the research carried out so far that related soft skills and internal marketing with job satisfaction. Due to the result, it is proposed to conduct a qualitative and exploratory study for the first research by conducting a focus group (n=10) with human resources (HR) specialists and a quantitative study for the second (n=300) addressed to managers and / or leaders of Portuguese organizations.

Findings: The results show that there is no research that relates internal marketing with soft skills. Therefore, the research proposals are directed to the study of the relationship between both constructs and the possible mediating effects on job satisfaction. Since there is no research that relates internal marketing with soft skills, the proposed research will contribute to align the motivation and training strategies of employees of Portuguese organizations, aiming at increasing job satisfaction through the development of soft skills and / or practices of internal marketing.

Originality: This research provides interesting insights into the relationship between soft skills, job satisfaction and internal marketing, where such research is lacking. The research model is pioneer in its field because there are no previous studies that connect the studied constructs

Research limitations: The research was limited to SCOPUS, since, as a rule, this database is one of the most complete of the reference indices.

Keywords: Soft skills; Job satisfaction; Internal marketing; Mediator Effect.

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1. Introdução

Vários documentos têm vindo a ser emitidos pela União Europeia (UE) e por entidades especialistas em recursos humanos (RH), salientando a importância da ligação das denominadas soft skills à empregabilidade, em particular para os jovens que ingressam pela primeira vez no mercado de trabalho (Cinque et al., 2017).

Face a esta realidade, vários países têm desenvolvido esforços no sentido da diminuição do gap existente entre o nível de desenvolvimento das soft skills à saída das Instituições de Ensino Superior (IES) e o nível desejado pelas organizações. A título de exemplo, as universidades finlandesas têm desenvolvido cursos em soft skills; as universidades alemãs instalaram centros para “key skills” ou expandiram departamentos existentes para apoiar e promover essas competências; e em Espanha várias investigações oriundas do contexto académico/universitário procuram perceber como introduzir as soft skills nos planos curriculares e algumas organizações facilitam o treino nestas competências (Cinque et al., 2017). Esse treino poderá igualmente ser feito através de Massive Open Online Courses (MOOCS) e Open Educational Resources (OERs) (Cinque, 2017).

Sendo os trabalhadores a “força vital” das organizações, o desenvolvimento de competências é crucial para a melhoria de performance no trabalho e, consequentemente, a melhoria da performance da organização (Kaur & Batra, 2018). Neste sentido, a função do marketing interno torna-se igualmente vital para a melhoria dos níveis de satisfação no trabalho (Mainardes, Rodrigues, & Teixeira, 2019) e, consequentemente, um impacto positivo na performance dos trabalhadores (Judge, Timothy, & Robbins, 2017).

Realizada uma pesquisa na base de dados SCOPUS, verifica-se que existem múltiplos artigos que abordam as “soft skills”1 (n=4.056), “internal marketing” (n=708) e “job satisfaction” (n=44.481). No entanto, o número de investigações que relacionam aqueles constructos é relativamente exigüa, não tendo sido encontrado nenhum documento que relacione o “marketing interno” com as “soft skills” e apenas 22 artigos relacionam “soft skills” com “satisfação no trabalho”.

Face a esta realidade, o objetivo geral deste estudo é apresentar um modelo conceitual que avalie o efeito mediador do marketing interno na relação causal entre as soft skills e a satisfação no trabalho. Para o efeito propôe-se a realização de duas investigações: a primeira através de um estudo qualitativo e exploratório que visará o entendimento sobre os fatores mais relevantes de cada um dos construtos e a segunda através de um estudo quantitativo que testará as várias hipóteses de relações causais entre os 3 construtos.

Dada a existência de investigações que apontam para uma relação positiva entre soft skills e satisfação no trabalho (Horenburg, 2013; Polnaya, Nirwanto, & Triatmanto, 2018; Sinche et al., 2017; Susilaningrum, Utami, & Nursalam, 2018), entre marketing interno e satisfação no trabalho (Park & Tran, 2018; Salah, Abou-Shouk, & Fawzy, 2019; Salehzadeh, Jakhshnejad, & Doosti, 2019; Sarir & Ashraf, 2018) e havendo componentes idênticos entre os vários constructos, por exemplo: comunicação (Chen, Wu, Chang, & Lin, 2015; Narteh, 2012), liderança (Fang, 2001), gestão do stress (Fang, 2001) ou colaboração (Fang, 2001), o modelo conceitual aqui apresentado visa responder à seguinte questão de investigação central:

QI1: O marketing interno tem um efeito potenciador na relação entre as soft skills e a satisfação no trabalho?

Para que a investigação possa responder a esta questão, será fulcral encontrar resposta às seguintes questões específicas:

QI2: Qual a relação existente entre as soft skills e o marketing interno? QI2a: O desenvolvimento das soft skills tem impacto no marketing interno? QI2b: O marketing

---

1 Considerou-se para efeito de pesquisa as denominações “transversal skills” e “transferable skills” como denominações equivalentes às “soft skills”.
**2. Enquadramento teórico**

2.1 **Soft skills**


O projeto eLene4work (Cinque et al., 2017) usa a denominação desenvolvida pelo projeto ModEs (Haselberger et al., 2011, p. 67), em que “Soft skills representam uma combinação dinâmica de habilidades cognitivas e metacognitivas, interpessoais, intelectuais e práticas. As Soft skills ajudam as pessoas a se adaptarem e a se comportarem positivamente, para que possam lidar efetivamente com os desafios de sua vida profissional e cotidiana.”.

Em suma, podemos encontrar várias designações para o mesmo tipo de competências, habilidades (Bharambe, More, Mulchandani, Shankarmani, & Shinde, 2017; Suarta, Suwintana, Sudhana, & Hariyanti, 2017) ou skills e designá-las como transversais, transfríveis ou simplesmente… soft. No entanto, Parlamis e Monnot (2019) propõem a substituição em definitivo do termo “soft skills” por “CORE Skills”. Na opinião dos autores, o termo “soft” não faz jus à importância que estas “skills” representam para o sucesso das pessoas e das organizações, dado o sentido pejorativo que o termo “soft” representa, inclusive ao nível...
da ciência. Por norma, a “soft science” é associada a campos de estudo menos rigorosos (estudo das pessoas, interações, comportamentos) que outros (e.g. física e química – “hard science”) mais legitimados em termos científicos. Assim, Parlamis e Monnot (2019) concluem que a redefinição do termo é crítica para que a percepção da importância destas competências evoluva positivamente e para que possam atingir um lugar de destaque nos meios académicos e profissionais.

2.2. Satisfação no trabalho
A satisfação no trabalho tem como resultado um melhor desempenho no trabalho, uma melhoria no comportamento de cidadania organizacional, um aumento da satisfação do cliente e um incremento na satisfação da vida pessoal do trabalhador, pelo que indivíduos com um elevado nível de satisfação apresentam um melhor desempenho e as organizações com maior número de trabalhadores satisfeitos tendem a ser mais eficazes (Judge, Timothy, & Robbins, 2017). Embora alguns investigadores considerem esta relação um mito, Judge, Bono, Thoresen, & Patton (2001) apresentaram 7 modelos que resumem diferentes correlações entre o desempenho no trabalho e a satisfação no trabalho e a revisão efetuada de 300 estudos sugere que essa correlação é bastante robusta. Investigações mais recentes demonstram que a satisfação no trabalho tem um impacto positivo na performance (Cortini et al., 2019) e que um melhor desempenho no trabalho tem um impacto positivo na satisfação no trabalho (Oh, Rutherford, & Park, 2014).

Grande parte da investigação nesta área tem-se debruçado em três tipos de atitude: satisfação no trabalho; envolvimento no trabalho; compromisso com a organização (Moynihan & Pandey, 2007). Quando nos referimos a atitudes do trabalhador, por norma, estamos a falar de satisfação (sentimento positivo) no trabalho resultante de uma avaliação das suas características. Portanto, pessoas com um elevado grau de satisfação no trabalho possuem sentimentos positivos acerca do seu trabalho, contrariamente às que vivenciam sentimentos negativos (Judge, Timothy, & Robbins, 2017).

Por outro lado, o envolvimento no trabalho representa o grau de identificação psicológica da pessoa com as suas tarefas, considerando que a sua percepção de desempenho é importante para a sua dignidade pessoal (Zhang, 2014). Trabalhadores com elevado envolvimento no trabalho estão altamente identificados e preocupados com o trabalho que executam. Outro conceito próximo é o de empowerment psicológico - os trabalhadores acreditam na importância do ambiente de trabalho, das suas competências, do significado do seu trabalho e da autonomia percecionada (Chen & Klimosk, 2003).

Um trabalhador com compromisso organizacional identifica-se com a organização e com os seus objetivos e deseja ser um membro da organização. Ter uma ligação emocional com a organização e acreditar nos seus valores é o “padrão dourado” para o compromisso do trabalhador (Solinger, van Olffen, & Roe, 2008). Trabalhadores comprometidos têm menos probabilidade de rescindir os seus contratos, mesmo que haja alguma insatisfação, pois têm um sentido de lealdade organizacional ou ligação. (Hausknecht, Hiller, & Vance, 2008).

São vários os fatores que influenciam a satisfação no trabalho: as condições de trabalho, a personalidade, as condições salariais e a responsabilidade social da empresa. Geralmente, os trabalhos mais interessantes são aqueles que permitem formação, que são variados, independentes e que têm funções de controle. Interdependência,

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8 Model I: Job Satisfaction Causes Job Performance; Model 2: Job Performance Causes Job Satisfaction; Model 3: Job Satisfaction and Job Performance Are Reciprocally Related; Model 4: The Relationship Between Job Satisfaction and Job Performance Is Spurious; Model 5: The Relationship Between Job Satisfaction and Job Performance Is Moderated by Other Variables; Model 6: There Is No Relationship Between Job Satisfaction and Job Performance; Model 7: Alternative Conceptualizations of Job Satisfaction and/or Job Performance.
feedback, apoio social e interação com os colegas fora do local de trabalho estão igual e fortemente relacionados com a satisfação o trabalho. (Humphrey, Nahrgang, & Morgeson, 2007).

A personalidade do trabalhador é igualmente importante. Pessoas com uma autoavaliação positiva – que acreditam no seu valor e na sua competência – estão mais satisfeitas com o seu trabalho. (Zhang, Wu, Miao, Yan, & Peng, 2014). Por sua vez, as condições financeiras são menos relevantes quando se atinge um determinado nível de conforto na vida pessoal (Judge, Timothy, & Robbins, 2017). Quando os valores pessoais do trabalhador estão alinhados com a responsabilidade social e a missão da organização, os trabalhadores estão tendencialmente mais satisfeitos com o seu trabalho (Thorpe, 2013).

2.3. Marketing interno

Aparentemente, o termo marketing interno foi utilizado pela primeira vez por (Berry, Hensel, & Burke, 1976, p. 6), “Outra área de oportunidade para aprimorar a capacidade organizacional para uma resposta efetiva ao consumismo reside num conceito que pode ser chamado de marketing interno”. A razão da escolha deste termo residiu no facto da capacidade de uma empresa em satisfazer as necessidades dos seus clientes depender, em parte, da capacidade em satisfazer as necessidades dos seus trabalhadores, ou seja, dos seus clientes internos (Berry et al., 1976).

Este conceito teórico passou por três fases, com vertentes próximas e interligadas: satisfação do trabalhador, orientação para o cliente e implementação de estratégia/gestão da mudança (Rafiq & Ahmed, 2000). Começou por ser um método para motivar e satisfazer os trabalhadores (Ali, 2016) e evoluiu para o tratamento dos trabalhadores como clientes e dos trabalhos como produtos para melhorar a qualidade do serviço (Azzam, 2016).

O marketing interno tem, assim, a função de tornar possível que produtos internos (trabalho) satisfazam as necessidades dos clientes internos (trabalhadores), enquanto satisfazem os objetivos da organização (Berry et al., 1976). A sua essência baseia-se na visão de que o trabalhador é o primeiro cliente da organização (Berry, 1981). A lógica passa por: trabalhador satisfeito é mais capaz de fornecer a qualidade de serviço desejada pelo cliente externo (Barnes, Fox, & Morris, 2004a). Nesta perspetiva, o trabalho é um tipo de produto interno que terá de ser atrativo, motivador, satisfatório e proporcionar o desenvolvimento do trabalhador (Caruana & Calleya, 1998) de forma a obter, como retorno dessa satisfação, a prestação de uma alta qualidade dos serviços aos clientes externos e, consequentemente, a lealdade e satisfação desses clientes (Kaurav, Prakash, Chowdhary, & Briggs, 2016).

O marketing interno pode igualmente ser considerado como um plano de ações de comunicação usado sistematicamente para influenciar o conhecimento, atitudes e comportamentos dos trabalhadores (Stauss & Hoffmann, 2000), tratando os trabalhadores e os clientes com igual importância através de programas proactivos desenvolvidos de modo a que os objetivos da organização sejam atingidos (Braitham, 2016).

De acordo com (Rafiq & Ahmed, 2000, pp. 6-7), a revisão da literatura indica que há um número alargado de definições e atividades reclamadas na abordagem ao marketing interno. Segundo os mesmos autores, da sua análise identificam-se cinco elementos conceituais:

(1) Motivação e satisfação dos trabalhadores;
(2) Orientação para e satisfação do cliente;
(3) Coordenação interfuncional e integração;
(4) Abordagem de marketing para os aspetos suprarreferidos;
(5) Implementação de estratégias funcionais e corporativas.

E, a partir destes elementos, propõem a seguinte definição de marketing interno: “O marketing interno é um esforço planeado usando uma abordagem semelhante ao marketing (4) para superar a resistência organizacional à mudança e alinhar, motivar e
interfuncionalmente coordenar e integrar (3) funcionários à implementação eficaz de estratégias corporativas e funcionais (5) a fim de proporcionar satisfação ao cliente (2) por meio de um processo de criação de funcionários motivados e orientados para o cliente (1).\(^9\)

Na sua obra seminal, (Berry et al., 1976) consideraram como dimensões do marketing interno a atratividade, a seleção, a socialização e o *empowerment* dos trabalhadores, a participação nas tomadas de decisão e o estabelecimento de uma aberta e rigorosa partilha de informação entre os trabalhadores e a gestão. Outros autores referiram outros aspetos:

- Formação e desenvolvimento de competências, ambiente de trabalho, apoio dos superiores, apoio dos colegas e reconhecimento têm um forte impacto no nível de satisfação dos trabalhadores (Rajyalakshmi & Kameswari, 2009);
- Comunicação, formação, avaliação e feedback e consciência do cliente (Hogg, Carter, & Dunne, 2008);
- Recompensas estratégicas, comunicação interna, formação e desenvolvimento, estrutura organizacional, liderança dos superiores, ambiente físico, recrutamento, seleção e sucessão, coordenação interfuncional, sistema de incentivos, empowerment e mudanças dos processos operacionais (Ahmed, Rafiq, & Saad, 2003).

Podemos, portanto, concluir que o marketing interno deve ser prioritário ao marketing externo, começando com o recrutamento das pessoas certas para os lugares certos, em que o trabalhador está satisfeito e deseja executar o seu trabalho para atingir a satisfação do cliente (Kotler, 2002). A terceira fase (função do marketing interno como veículo para a implementação de estratégia) é marcada pela abordagem de alguns autores (Rafiq & Ahmed, 2000). Um dos primeiros autores (Winter, 2008) realça o potencial do marketing interno como um processo através do qual os trabalhadores estão alinhados, educados e motivados em direção à prossecução dos objetivos organizacionais, percebendo e reconhecendo não apenas o seu valor, mas também o seu lugar nesse processo.

Nesta perspetiva, o marketing interno é uma filosofia para gerir os recursos humanos de forma holística, integrando múltiplos fatores (George, 1990), nomeadamente a integração do marketing com as funções do pessoal, na medida em que os trabalhadores se tornam recursos da própria função do marketing (Glassman & McAfee, 1992).

Assim, o marketing interno passou a ser visto como um mecanismo de redução do isolamento departamental (Martin, 1992), reduzindo a fricção interfuncional e vencendo a resistência à mudança (Darling & Taylor, 1989; Rafiq & Ahmed, 1993). Esta abordagem levou a que a aplicação do marketing interno fosse alargado a outro tipo de organizações que não apenas aos serviços, de que é exemplo a aplicação do conceito à indústria (Harrell & Fors, 1992) e que funcionasse como uma metodologia aplicável à implementação da gestão de mudança ajustável a vários contextos organizacionais (Pervaiz & Mohammed, 1995).

2.4. **Modelo e hipóteses de investigação**

Da pesquisa efetuada, resulta que muito poucos estudos têm vindo a ser realizados com o objetivo de relacionar estes constructos. Como referido anteriormente, apenas 22 documentos foram encontrados, sendo 4 referentes à área da gestão/negócios. Desses estudos, releve-se a investigação realizada por (Sinche et al., 2017), a qual concluiu que os programas doutorais nas universidades americanas proporcionam um significativo desenvolvimento de várias competências transversais, as quais estão relacionadas com a posterior satisfação no trabalho. Tal conclusão levou os seus autores a encorajarem o desenvolvimento deste tipo de competências durante o percurso académico. Estudos que correlacionam o marketing interno e a satisfação no trabalho mostram que

\(^{9}\) Números em parenteses indicam os critérios suprarreferidos por Rafiq e Ahmed (2000).
As empresas deverão, em primeiro lugar, promover atividades que tragam prazer no trabalho aos seus colaboradores e, dessa forma, poderem prestar um serviço eficaz aos clientes externos (Barnes, Fox, & Morris, 2004b; Gronroos, 2000; Longbottom, Osseo-Asare, Chourides, & Murphy, 2006). Isto é, como referido anteriormente, os objetivos do marketing interno passam pelo tratamento dos trabalhadores como clientes internos e pelo tratamento do trabalho como se de produto interno de tratasse (Chang & Chang, 2009; Chang, Chen, & Lan, 2013). Assim, trabalhadores de empresas que incorporam os conceitos de marketing interno na filosofia da organização podem ter elevados níveis de satisfação no trabalho e elevado compromisso organizacional (Gronroos, 2000; Trimble, 2006). Incutindo orgulho na sua associação com a empresa, o marketing interno potencia o compromisso organizacional dos seus trabalhadores que, por sua vez, incrementa a qualidade do serviço ao cliente (Bell, Mengüç, & Stefani, 2004; Bernstein, 2005; Gronroos, 2000).

Pretendendo-se assim testar as seguintes hipóteses de investigação:

- **H1a**: As soft skills influenciam positivamente as práticas de marketing interno;
- **H1b**: O marketing interno influencia positivamente o desenvolvimento das soft skills;
- **H2**: As soft skills influenciam positivamente a satisfação no trabalho;
- **H3**: O marketing interno influencia positivamente a satisfação no trabalho;
- **H4**: O marketing interno tem um efeito mediador na relação entre as soft skills e a satisfação no trabalho.

Na Figura 1 apresentamos o modelo operacional de investigação.

**Figura 1 - Hipóteses de Investigação**

![Diagrama de hipóteses](Fonte: Elaboração própria.)

As hipóteses de investigação propostas serão testadas através de um estudo quantitativo a realizar subsequentemente ao estudo qualitativo e exploratório que determinará os fatores determinantes de cada constructo.

### 3 Método

Esta pesquisa apresenta uma proposta de investigação constituída por dois estudos: O Estudo 1 procurará compreender em profundidade o entendimento existente (1) quanto às soft skills mais relevantes para a satisfação no trabalho, (2) quais os fatores do marketing interno mais relevantes para incrementar o nível de satisfação no trabalho? e (3) quais as dimensões mais importantes para se avaliar o nível de satisfação no trabalho? Para este efeito, será realizado um estudo exploratório e qualitativo, com a realização de focus group junto de responsáveis pelo recrutamento de organizações portuguesas (n=10). Será criado um questionário para selecção dos entrevistados e elaborado um guia para a moderação da sessão de grupo. Depois de transcritas e revistas as entrevistas, proceder-se-á à análise dos dados e sumariadas as conclusões que servirão de base à elaboração dos questionários necessários ao
Estudo 2. Este último estudo concretizará o teste das hipóteses anteriormente formuladas. Será assim realizado um estudo quantitativo junto de 300 gestores e/ou líderes de empresas portuguesas. Para o efeito será elaborado um questionário que incorporará os resultados do Estudo 1, utilizando procedimentos e técnicas estatísticas de modo a testar as hipóteses suprarreferidas.

Para avaliação das soft skills será proposto o “assessment” disponibilizado no site eLene4work10 (Cinque et al., 2017). Trata-se de um projeto financiado pela União Europeia, no qual foram identificadas várias categorias de soft skills consideradas como relevantes para o ingresso dos jovens no mercado de trabalho, bem como um conjunto alargado de gaps existentes entre as soft skills dos estudantes e as necessidades das empresas recrutadoras de jovens recém-graduados (Cinque et al., 2017). Para efeito da investigação proposta neste estudo, serão apenas utilizados os questionários referentes às soft skills que resultarão do Estudo 1. A avaliação dos fatores mais relevantes para o marketing interno e da satisfação do trabalho será feita através de questionários a criar com uma escala Likert de 5 pontos.

4 Considerações finais

O facto de termos limitado a pesquisa prévia ao modelo apresentado à SCOPUS, a maior base de dados de literatura revista por pares (Mongeon & Paul-Hus, 2016), constitui a principal limitação deste estudo. Da pesquisa realizada em junho de 2019, concluiu-se não haver investigações que relacionem as soft skills com o marketing interno. Dado que ambos os constructos são determinantes na satisfação no trabalho, propõe-se duas investigações que poderão contribuir para mudanças nas estratégias de motivação, compromisso e empenhamento dos trabalhadores nas nossas organizações. Para tal, haverá que perceber qual dos constructos é o influenciador e qual é o influenciado. Posteriormente, investigar-se-á qual o efeito mediador do constructo dependente na relação do constructo independente na satisfação no trabalho. As conclusões dessas investigações a realizar, recorde-se na realidade portuguesa, trarão uma maior clareza quanto aos fatores mais importantes de cada um dos 3 constructos em análise (focus group) e, posteriormente, quanto aos componentes mais importantes a desenvolver nas organizações, de modo a potenciar a satisfação no trabalho.

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CO-CREATION GAMING, A PLAUSIBLE TOOL FOR THE PORTUGUESE COMPANIES?
Ivo Rodrigues ¹; Nuno Soares ²; Armando Ferraria ³; Pedro Correia ⁴; João Lopes ⁵; Jorge Lopes ⁶

Abstract
Purpose: This study aims at deepening the studies formerly carried out regarding the creation of added value to the client, through the use of a co-creation gaming tool. The purpose is also to assess the feasibility of this type of tool within the scope of the Portuguese business sector and if the companies are ready to work in this context.

Design / methodology / approach: A qualitative methodology was used, in which business managers were interviewed through a semi structured script. Companies belonging to different sectors in Portugal were analysed in this study.

Findings / Practical implications: We have found out that, although co-creation and gaming are relatively recent methodologies, they are somewhat familiar to many companies, considering that some of them have already used this type of tool. The dichotomy in terms of knowledge that can be traced in the sectors under analysis was established, and it should be enhanced the high level of knowledge and preparation noticeable in the areas of Human Resources and Pharmaceutical Logistics, due to the fact that these areas have already developed actions related to the selected methodology, thus providing conclusions about what really works with the clients on a national level.

Originality/value: This study contributes for a better understanding on the preparation level of the Portuguese companies in order to adopt a co-creation gaming tool.

Research limitations: The limitation of this study is related to the fact that it was carried out in Portugal. Therefore, the results obtained cannot be widespread.

Keywords: Case study; Gaming; Portuguese Companies; Co-creation; Marketing.

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WHO CAN MORTGAGE TO BUY A FINISHED HOUSING? AN
EMPIRICAL ANALYSIS OF A FORMER SOVIET REPUBLIC
Giga Kikoria ¹

Abstract

Purpose: The purpose of this paper is to analyze the main driving forces of the individuals’ decision to take a mortgage loan to buy a finished housing.

Methodology: The author applies the traditional sampling method, face-to-face street survey proposed by Naresh K. Malhotra (2017).

Originality: In the author’s knowledge, there are not available similar data that focus on individuals’ decisions on the mortgage loan market in Georgia. The author believes that an individual’s performance matters the decision-makers and can allow them to make the market safer and protect the customers from the possible risks.

Findings: The evidence on a sample of 356 Georgian mortgage loan holders collected in Tbilisi indicates that the individual’s income and job status are the main determinants of holding a mortgage loan to buy a finished housing.

Practical implications: The study can be used by regulators, financial and public institutions to increase market security and reduce the risks of debt default.

Research limitations: Although the author is aware of the limitations of the analysis (specific country and a specific financial product) the author believes that the study has the merit of offering different ideas for further research. The study identifies the correlation between job status and the probability of holding a mortgage loan. However, because it is limited to Georgian mortgage loan consumers, its findings cannot be generalized.

Keywords: Housing; Housing demand; Real estate markets; Consumer research; Mortgages.

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ORGANIZATION'S PROACTIVE TRANSFORMATION COMPETENCE: IDENTIFICATION AND DEVELOPMENT

Gediminas Baublys

Abstract

Purpose: The primary purpose of this paper is to contribute to the complex and heterogeneous organizational transformation research field by deepening the understanding of organizational transformation competence and presenting methodological insights and implications for the development of empirical research methodology of the construct. With this in mind, it also aims to explore what complex organizational system characteristics and dynamic configuration elements enable the capacity to proactively initiate and successfully implement strategic change initiatives and develop future resilience.

Methodology: The organizational transformation competence concept analysis was conducted, and a vast amount of academic literature systemically analyzed in chronological style in order to decompose organizational elements scholars attribute to the construct and investigate the scientific issues they face in understanding corporate proactivity. Furthermore, exploration of complexity and system theory perspectives of non-linear dynamics of corporate networks helped to determine possible interrelations with organizational resilience, adaptability, and agility.

Originality: Much work has been carried out, yet there still is considerable ambiguity in the scientific literature concerning the organizational transformation phenomenon. Scholars focus on the organizational change, with little attention given to the development of organizational resilience for transformation and business proactiveness in response to environmental shocks and internal triggers. Little relevance and slow progress of current discoveries in the organizational change field raises many doubts that scholars and practitioners are stuck in the exploitation of well-known. The apparent struggle is the need to combine sophisticated complex systems theory and research methods with more traditional organizational change research methodology to break through to new levels of phenomenon research. Thus, this research expands scientific knowledge and serves for future innovative investigations in the organizational science field that previous works have failed to address.

Findings: Consistently investigated and synthesized empirical and theoretical studies lead to the identification of scientific gaps and grounded essential implications for further empirical research methodology of the phenomenon. Moreover, a discovered set of pivotal skills, capabilities, and competencies, enhancing organizational flexibility, adaptability, and enabling renewal capacity, resulted in a presented proactive organizational transformation conceptual framework.

Practical implications: This study has gone some way towards enhancing academic understanding of the dynamic configuration of business transformation competence and organizational proactivity and influencing future studies. Highlighted risks of failure, complexity, and unpredictability of the phenomenon not only expand scientific knowledge, they can potentially change the practitioner’s approach to the initiation of strategic changes. The findings also suggest several courses of action for external and internal transformation triggers identification practices establishment.

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**Research limitations:** Despite the reasonable number of empirical studies reviewed, concept analysis and literature review does not allow the generalization of findings. Organizational competence is a dynamic construct, and organizational configuration is the situation, and company-specific, some of the attributes are related to individuals, others to environmental context. Thus, exploring dynamic organizational configuration at multiple strongly integrated system levels requires profound preparation and a multimethod approach.

**Keywords:** Business transformation; Organizational competence; Resilience for transformation.
PORTUGUESE VS INTERNATIONAL MILLENNIALS: HOW DO THEIR CONFLICT MANAGEMENT STYLES DIFFER?

Pedro Falcão 1; Ana Ferreira 2; Renato Costa 3

Abstract
Purpose: The purpose of this paper is to analyze how conflict management styles are valued and used differently by Portuguese and International Millennials.

Methodology: A sample of 158 Portuguese people aged between 21 and 35 years old answered an online questionnaire comprehending demographic variables and validated questions using the DUTCH Test for Conflict Handling answered in a 5-point Likert scale.

Originality/value: The proposed model is original in the sense that it assesses the preference of conflict management styles of Portuguese millennials, using the DUTCH Test for Conflict Handling and complemented by Hofstede's Theory of Cultural Dimensions.

Findings: The results show that the Portuguese Millennials prefer conflict styles that show concern both for themselves and for other individuals. The order in which styles are preferred by the Portuguese Millennials is the following: Problem-Solving, Compromising, Yielding, Avoiding, and Forcing. These results were compared with the results of India and the U.S.A. If, on the one hand, the Styles of Conflict Management preferred by the Portuguese are like those of the Indians, on the other we cannot say that they have similar cultures. An Individualistic culture tends to use conflict management styles as Forcing or Yielding and in the case of a Collectivistic the preferred styles are Problem-Solving or Avoiding. This information is in accordance with the results presented for Portugal – a Collectivistic society in which the style that appears as the most scored is Problem-Solving – and for the U.S.A. – an Individualistic culture where Forcing comes first. However, in the case of India, no conclusions were derived as it is a society with both sides (Individualist and Collectivist).

Practical implications: In a growing multi-cultural working setting, knowing more about the preferred Portuguese millennials’ conflict styles can help executives to better manage millennials and to better understand potential team performance and dynamics in teams composed of only Portuguese millennials or with elements of different nationalities, considering their approaches to conflict situations. This study can also help to anticipate how conflicts may arise and how they may be differently addressed between people of different generations and/or millennials of three different cultures.

Research limitations: While the comparison between millennials from Portugal and the U.S.A. was made based on the same instruments, the Indian millennials study used was not based on the DUTCH Test for Conflict Handling, which may limit the comparison between the other countries with India.

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**Keywords**: Millennials; Conflict management; Styles of conflict management.
MODERNIZATION AND DYNAMISM IN THE ACTUAL BUSINESS PANORAMA ACROSS THE WORLD
João Lopes 1; José Oliveira 2; Márcio Oliveira 3; Luís Farinha 4; Paulo Silveira 5

Abstract
Purpose: The purpose of this research is to reveal new explanatory models related to modernization and dynamism in the actual intercontinental business panorama taking into account the specificity of each world region.

Design / methodology / approach: Quantitative data supplied by the Global Competitiveness Report (GCR) was used, a linear regression methodology was utilized for data analysis.

Findings / Practical implications: In Europe, our findings suggest a positive impact on business dynamism and modernization. As opposed, in North America these factors seem to be of a negative influence. This can be explained by specific policies such as tax incentives for machinery acquisition or intellectual property protection for new developed and registered technologies. To increase dynamism and modernization, African leaders need to look for further consultation and support for better implementation of available technologies. Finally, on the Latin America & Caribbean countries, our findings point out that that dynamism and modernization capability is negative, suggesting development and implementation of adequate and malleable policies.

Originality/value: Our research elucidates on the measures to be embraced by enterprises and policy makers for each continent in order to improve the performance of business dynamism and modernization capability

Keywords: Modernization; Business; Dynamism; Policy; GCR

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MULTICRITERIA CONSTRUCTIVIST APPROACH TO GUIDE THE MANAGEMENT PRACTICES OF SUBSIDIARIES IN A BRAZILIAN PORT HOLDING COMPANY
Daiana Pedersini ¹; Sandra Ensslin ²; Leonardo Ensslin ³;

Abstract
Purpose: This study aims to build a qualitative model to support a holding company in managing the process of standardizing the management practices of its subsidiaries port activities, so that the demands of the holding company and the particularities of the ports are considered.

Methodology: This is a case study in a holding company that holds the equity control in the ports of public interest in the state of Santa Catarina (Brazil), guided by the Multicriteria Decision Aiding-Constructivist methodology. The data were collected through 15 semi-structured interviews carried out at the holding company's headquarters with the Port Affairs Executive (manager), recorded and listened to by one of the authors to capture the perceptions of the meaning of the words. The organization of the information collected were checked by the second author and legitimized by the holding company manager; in addition, the third author, a specialist in the methodology, checked all the procedures so that the scientific validity of the model was ensured. The analysis of the data took place in repeated way to identify which aspects, in the manager's perception, are necessary and sufficient to guide the holding company and ensure that the delegated ports standardize their management practices, considering that, until 2019, each port defined its practices.

Findings: It was identified that seven areas group the manager's main concerns. This study illustrates the construction of the model for the Strategic Management Practices Area, considered the most urgent intervention. The performance profile of the ports managed by the holding company will be identified and evaluated by 26 indicators built to represent Strategic Management Practices. Based on the performance profile of the Port of São Francisco do Sul, one of the holding's subsidiary ports, it was found that it performs at a level of excellence in some indicators. However, there is a long way to go so that the performance meets the holding company's expectations. It is noteworthy that the holding company is interested in strengthening the relationship with the managed ports to help them improve their performance. To this end, it has been developing actions through investments to improve the infrastructure of ports and, consequently, contribute to encourage its performance and competitiveness at the international level.

Originality/value: Its originality is perceived by the lack of studies that use multicriteria constructivist methodologies to enable an individualized "look" in the port environment.

Practical implications: The construction of the qualitative model and the performance profile of the identified port, allows the holding company to verify where its prompt intervention is needed.

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**Research limitations:** the limitation of the study consists of the conception (design) of the model and its recently initiated implementation, that is, it is necessary to follow the model longitudinally for its 'calibration'.

**Keywords:** Multicriteria constructivist approach; Management practices; Port holding company; Qualitative model; Brazilian context, Multicriteria Decision Aiding-Constructivist.
1. **Introdução**

O acentuado aumento das transações econômicas mundiais tem intensificado a representatividade dos portos no processo de transporte de mercadorias. Por se tratar da forma menos custosa para transportar quantidades elevadas de produtos, o transporte marítimo é o meio mais requisitado para grandes distâncias (Cheng & Choy, 2013). Assim, os portos cumprem um papel elementar na cadeia comercial internacional, e sua eficiência é relevante para a competitividade de uma nação (Feng, Mangan, & Lalwani, 2012). No entanto, tem-se tornado cada vez mais importante resistir às constantes pressões para assegurar a competitividade em decorrência das imposições do mercado de bens e serviços (Ignasiak-Szulc, Jescius, & Jelena, 2018). Dessa forma, novas práticas estratégicas de gerenciamento devem ser incorporadas à gestão portuária para a eficiência dos portos e consequente competitividade e desempenho (Dias, Azevedo, Ferreira, & Palma, 2012).

Vale lembrar que o desempenho portuário é decorrente das ações realizadas pelos atores que compõem a cadeia logística do porto, que necessitam estar em sintonia (Vieira, Neto, Senna, Constante, & de Langen, 2016). Assim, é interessante identificar quem são os atores envolvidos, identificando também seus atributos e como podem impactar na Organização (Aerts, Dooms, & Haezendonck, 2015). Por outro lado, é necessário que ocorram mudanças contínuas na gestão, de modo que adaptações sejam feitas (investimentos) para atender às necessidades de seus usuários, cada vez mais exigentes (Park & De, 2004).

Pensando na grande representatividade dos portos na cadeia internacional e na contribuição do transporte aquaviário para o crescimento do País, em 2005 o governo do estado de Santa Catarina, no sul do Brasil, criou a SC Parcerias e Participações S.A. (SCPAR) e dentre as atribuições que lhe foram conferidas, está a de gestão dos portos por meio de seu controle acionário. A SCPAR, na qualidade de holding, tem como subsidiárias os portos delegados de interesse público de Imbituba e de São Francisco do Sul, além da gestão direta do Terminal Pesqueiro de Laguna. Todavia, ainda não há uma uniformização de Práticas de Gestão da atividade portuária por parte da Holding. Em vista disso, surge a preocupação de identificar e analisar as melhores Práticas de Gestão Portuária, e as recentes transformações, demandadas na atual gestão dos portos de Santa Catarina, exigem da SCPAR a construção de conhecimento sobre as empresas subsidiárias, visando à padronização e disseminação de melhores práticas. Nesse cenário visivelmente complexo, existe a necessidade de um instrumento de gestão que auxilie a Holding e possibilite o aperfeiçoamento do seu desempenho e dos portos por ela geridos. Com isso, este estudo tem por objetivo construir um modelo qualitativo para apoiar a Holding na gestão do processo de uniformização das Práticas de Gestão das atividades portuárias, de forma que sejam consideradas as particularidades de seus gestores e as necessidades da Organização. Para tanto, será utilizada a metodologia Multicritério de Apoio à Decisão-Construtivista (MCDA-C) (Ensslin, Giffhorn, Ensslin, Petri & Viana, 2010; Ensslin, Mussi, Dutra, Ensslin, & Demetrio, 2020; Longaray, Ensslin, Ensslin, Dutra, Brasil, & Munhoz, 2019; Matos, Valmorbida, & Ensslin, 2018).

Estudos feitos no contexto portuário vêm ganhando espaço na literatura e a Avaliação de Desempenho (AD) é um dos métodos utilizados para identificar e adotar melhores práticas como forma de melhorar o desempenho (Park & De, 2004), e diferentes métodos de AD são utilizados no contexto portuário (Rezaei, Palthe, & Tavasszy, 2019). Porém, com base nos estudos verificados, há um enfoque em autoridades portuárias (Aerts et al., 2015; Aparisi-Caudeli, Fillol, & Ripoll, 2009) e terminais de contêiners (Jaffar, Berry, & Ridley, 2005; Park & De, 2004; Schellinck & Brooks, 2015; Vieira et al., 2016; Wang, Ng, & Oliver, 2004), além de que a Data Envelopment Analysis (DEA), é uma ferramenta que se destaca (Somensi et al., 2018). Com isso, verifica-se uma carência na literatura de estudos que abordem o processo de gestão de portos por holdings e de métodos de apoio à decisão multicritério no setor portuário (Madeira...
Junior, Cardoso Junior, Belderrain, Correia, & Schwanz, 2012). Constata-se que o estudo contribuirá com a literatura no sentido de suprir a lacuna existente e proporcionar *insights* práticos a respeito de como a metodologia MCDA-C pode contribuir para a Avaliação de Desempenho de ambientes complexos e cercados por incertezas, nesse caso quanto ao papel da *Holding* no Processo de Gestão dos portos subsidiários.

2. **Revisão da Literatura**

O cerne dos Sistemas de Avaliação de Desempenho (SADs), com base em informações financeiras, foi dominante por um longo período, ignorando outras informações, resultando em organizações com foco em lucros a curto prazo (Xiong & Zhou, 2019), incapazes de atingir seus objetivos estratégicos (Hamid, 2018). É comum que as organizações portuárias se concentrem na redução de custos e melhores serviços, o que dificulta avaliar seu desempenho futuro e suas opções de crescimento (Ramachandran, Fegade, & Raichurkar, 2017). Dessa forma, o incremento dos SADs, com informações que não sejam meramente operacionais, é uma questão importante (Broocks & Pallis, 2008).

A Avaliação de Desempenho é um elemento importante para verificar se as estratégias utilizadas pelas organizações estão realmente funcionando (Ramachandran et al., 2017). Por meio da melhoria do desempenho é que os portos podem aprimorar sua posição competitiva no mercado (Jaffar, Berry, & Ridley, 2005). Inicialmente, a vantagem competitiva se limitava a questões locais (Wang et al., 2004), mas, com o aumento dos níveis de concorrência, resultante da globalização, privatização e desregulamentação (Feng, Mangan, & Lalwani, 2012), os portos têm buscado melhorar seus produtos e serviços a fim de satisfazer seus usuários. Contudo, essa satisfação normalmente requer mudanças nas Práticas de Gestão utilizadas (de Langen & Heji, 2014).

Marlow e Casaca (2003) propõem um conjunto de indicadores qualitativos que proporcionem maior visibilidade ao ambiente portuário e incentivam a melhoria contínua. No entanto, cabe ressaltar que cada um deles deve ser observado com cautela para verificar sua adequabilidade a outros ambientes, de acordo com suas particularidades. Isso acontece porque os portos possuem características e objetivos diferentes e complexos e não é recomendado que sejam avaliados sob único aspecto (Feng, Mangan, & Lalwani, 2012). Dessa forma, analisar as percepções de seus atores (Vaggelas, 2019) e as necessidades do ambiente (Madeira Junior et al., 2012) é um fator importante para a construção de um modelo de AD. Assim, esse modelo é capaz de proporcionar a aprendizagem contínua, que, segundo Constanse, de Langen, Vieira e Lunke (2018), é uma das maiores dificuldades encontradas no gerenciamento dos portos. Os autores complementam que, por vezes, o foco das Práticas de Gestão utilizadas está em controlar ao invés de planejar.

Com essa discussão, percebe-se que o campo da AD, no setor portuário, vem se intensificando. Mesmo que o campo de avaliação da estratégia esteja em ascensão nesse ambiente, os estudos existentes se concentram em terminais de contêineres (Jaffar, Berry, & Ridley, 2005; Park & De, 2004; Schellinck & Brooks, 2015; Vieira et al., 2016; Wang et al., 2004) e em autoridades portuárias (Aerts et al., 2015; Caudeli et al., 2009). Desse modo, evidencia-se a necessidade de estudos em holding no setor portuário, que investiguem seu papel na gestão estratégica dos portos e verifiquem-se uma carência de estudos na literatura que relacionem a holding como intermediária na prospecção de investimentos e responsável pelas metas e objetivos do grupo.

3. Dados e Método

3.1. Traços Metodológicos da pesquisa

Para esta pesquisa, um estudo de caso foi desenvolvido. Gray (2012) aponta que integrar e comparar diferentes perspectivas, pode resultar em um entendimento rico e minucioso sobre um contexto. Assim, o estudo foi feito em uma holding brasileira (SCPAR), localizada no sul do Brasil, no estado de Santa Catarina, buscando a construção de um modelo de Avaliação de Desempenho e informações para auxiliar a padronização e disseminação das Práticas de Gestão utilizadas pelos portos delegados da SCPAR e assim auxiliá-la na atividade de gestão. A Organização foi constituída em 2005 pelo governo do Estado, buscando mais investimentos no território estadual. Dentre as missões que lhe foram atribuídas, está a atividade de gestão dos portos delegados que atualmente compreende dois portos e um terminal pesqueiro. No entanto, até o início de 2019, essa atividade não vinha sendo realizada de forma efetiva, e as atuais reivindicações na gestão portuária fazem com que a Holding ainda explore suas organizações subsidiárias de modo que defina quais são as exigências mínimas para gestão e acompanhamento da atividade portuária.

Com dados primários, coletados por meio de entrevistas, buscaram-se informações para subsidiar a construção do modelo. Assim, tem-se uma pesquisa aplicada, uma vez que o modelo é personalizado e atende a perspectivas dos gestores da Holding. A etapa de estruturação do modelo envolve a observação dos detalhes da realidade para determinar a construção das escalas. Portanto, o estudo adota uma lógica induitiva que, de acordo com Gray (2012), corresponde a um processo no qual o pesquisador parte de detalhes individualizados de uma situação para obter uma visão conectada do todo. Como as escalas construídas correspondem a escalas ordinais, a abordagem metodológica utilizada corresponde à qualitativa (Sampieri, Collado, & Lucio, 2013). A metodologia utilizada para nortear a construção do modelo é a MCDA-C, que segue uma perspectiva Construtivista. Dessa forma, o objeto de estudo envolve um ambiente complexo, onde há incertezas quanto à atuação da Organização, e o gestor busca desenvolver seu entendimento sobre as consequências de suas ações e como seus valores e motivações são impactados por elas. Assim, sua participação é contínua no desenvolvimento do modelo. A metodologia é composta por três etapas, conforme Figura 1. No entanto, será feita apenas a etapa inicial correspondente à Estruturação onde ocorre a construção do modelo qualitativo. Nos trabalhos de Ensslin, Dutra e Ensslin (2000) e de Ensslin et al. (2010), é possível verificar, de forma detalhada, cada etapa do modelo.
O material utilizado para subsidiar o referencial teórico e a discussão dos resultados foi selecionado utilizando o Proknow-C (ver Staedele, Ensslin, & Forcellini, 2019; Valmorbida & Ensslin, 2016).

3.2. Coleta de Dados

O estudo de caso contou com entrevistas semiestruturadas para coletar informações acerca da percepção do gestor da Holding sobre práticas que ele considerava importantes que as subsidiárias realizassem. Entre julho e dezembro de 2019, foram feitas 15 entrevistas, as quais tiveram cerca de uma hora de duração. A partir da sexta entrevista, houve a participação de um especialista da metodologia para que revisasse a construção do modelo e de possíveis discrepâncias de interpretação e, com os alinhamentos, elas fossem corrigidas.

Na primeira entrevista, o facilitador apresentou ao gestor como o modelo poderia contribuir para melhorar o desempenho das subsidiárias, destacando a confidencialidade da pesquisa. Quaisquer dúvidas que surgissem seriam prontamente sanadas. As entrevistas inicialmente foram feitas pelo facilitador (autor do trabalho) com o gestor da Holding e tinham o intuito de entender o contexto analisado. Dessa forma, foi solicitado ao gestor discorrer sobre o contexto de uma forma aberta. Tendo em vista que o gestor pode rapidamente esgotar seus argumentos, utilizou-se um conjunto de questões abertas, sugeridas pela metodologia e adaptadas para o contexto estudado para orientar o gestor durante seu discurso (Quadro 1).
Quadro 1 – Questionário semiestruturado utilizado na primeira entrevista

<table>
<thead>
<tr>
<th>Questionário Semiestruturado</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – A preocupação está mais centrada em a SCPAR ter um instrumento para apoiar a gestão dos portos ou em a SCPAR ter um instrumento que identifique se ela está ‘preparada’ para gerir os Portos?</td>
</tr>
<tr>
<td>2 – A SCPAR tem claro qual desempenho esperado dos Portos? Cite-os.</td>
</tr>
<tr>
<td>3 – Quais desempenhos (critérios) a SCPAR considera como mínimos/essenciais a que os Portos atendam?</td>
</tr>
<tr>
<td>4 - Os Portos (SF e I) estão cientes do que a SCPAR espera deles (esses desempenhos mínimos)?</td>
</tr>
<tr>
<td>5 – Como ocorre esse processo de comunicação (do que se espera e se está sendo, ou não, atendido) ?</td>
</tr>
<tr>
<td>6 - Que ações a SCPAR está promovendo para gerir os Portos?</td>
</tr>
<tr>
<td>7 – Que ações a SCPAR deveria promover para orientar os Portos rumo ao alcance das metas desejadas por ela?</td>
</tr>
<tr>
<td>8 – Que aspectos os Portos estão com desempenho aquém das expectativas da SCPAR?</td>
</tr>
<tr>
<td>9 - Que ações a SCPAR está desenvolvendo para orientar os Portos a melhorar o desempenho nesses aspectos?</td>
</tr>
<tr>
<td>10 – Como a SCPAR pode contribuir para melhorar a eficiência dos Portos de interesse público?</td>
</tr>
<tr>
<td>11 – Como a SCPAR pode contribuir para melhorar a eficiência dos Portos de interesse público?</td>
</tr>
<tr>
<td>12 – E como pode detectar as necessidades dos Portos?</td>
</tr>
<tr>
<td>13 - Quais aspectos você considera que deve possuir, fazer ou desenvolver para ser capaz de gerir suas subsidiárias?</td>
</tr>
<tr>
<td>14 - Como a <strong>Holding</strong> pode contribuir para melhorar a eficiência dos Portos de interesse público?</td>
</tr>
<tr>
<td>15 - Quais práticas de gestão você considera importantes para atingir a competitividade e desempenho desejados?</td>
</tr>
</tbody>
</table>

**Fonte: Dados da pesquisa (2020).**

A estratégia utilizada nas entrevistas centrou-se em fazer com que o gestor expressasse suas principais preocupações com relação a como a **Holding** deveria gerir o processo de uniformização das Práticas de Gestão das atividades portuárias, de quais seriam as situações desejadas e quais deveriam ser evitadas. Para tanto, evitaram-se perguntas diretas que pudessem gerar respostas do tipo autorrelato e buscaram-se perguntas que transparecessem a percepção do gestor e as necessidades complexas envolvendo as subsidiárias e a **Holding**.

No decorrer da entrevista o gestor relatou suas dificuldades com relação à implementação de Práticas de Gestão, conforme pode ser visualizado nos relatos 1 e 2:

Relato 1: É difícil encontrar uma estrutura parecida com a SCPAR para a área portuária... até que ponto a **holding** entra na operação? São políticas? Mas que nível de políticas que ela deve estabelecer para todas as subsidiárias? Então, essa é uma estrutura que a gente está querendo montar... pra que a gente faça, aperfeiçoe esse modelo que existe hoje aqui...

Relato 2: Hoje existe uma dúvida, que tipo de decisão que a nossa subsidiária pode tomar sozinha? Até que ponto eles estão soltos para fazer suas negociações, seus investimentos, qual a real autonomia que eles têm? Até que ponto a **holding** tem que intervir dentro da subsidiária?...

Em outro momento o gestor menciona o fato de que a **holding** necessita definir o que é importante para o desenvolvimento da atividade portuária e relata a dificuldade encontrada nesse processo:
Relato 3: A SCPAR tem uma particularidade, porque os portos estão exatamente no mesmo segmento, então era pra ser mais simples, a gente poderia ter uma atuação melhor como holding...

É perceptível que a organização (*holding* e suas subsidiárias) analisada está inserida em um ambiente de incertezas quanto à sua atuação e não tem claro qual o impacto e as consequências de suas decisões. Nesse sentido, cabe ao facilitador auxiliar o gestor nesse processo de construção de conhecimento. Então, primeiro identificaram-se quais seriam os atores que de alguma forma possam causar interferência ou que possuam interesse nas decisões a serem tomadas. Esses intervenientes estão representados na Figura 2.

**Figura 2 – Subsistema de atores.**

Cabe ressaltar que o objetivo do estudo, em um primeiro momento, era construir um modelo de avaliação da *Holding* para os portos delegados de SC. Com as preocupações percebidas nas entrevistas, foram identificados Elementos Primários de Avaliação (EPAs) que representam as características que impactam nos valores da *Holding* e estão associados às propriedades do ambiente com base na percepção do gestor (Ensslin et al., 2010). Foram identificados 37 EPAs, mas esses elementos precisam ser trabalhados de modo que ocorra a construção do conhecimento no gestor (Ensslin et al., 2010). Dessa forma, são desenvolvidos para cada EPA um conceito que caracteriza uma ação e, para complementar seu entendimento (Rodrigues et al., 2018), será apresentado também seu polo psicológico oposto, o qual reflete a preocupação latente que o decisor quer evitar. Cumpre mencionar que tais conceitos foram desenvolvidos a partir do gestor, sendo solicitado que ele expressasse qual a contribuição de cada elemento para o modelo. No Quadro 2, apresenta-se uma amostra dos EPAs com seus respectivos conceitos.
Quadro 2 – Amostra dos EPAs e seus conceitos desenvolvidos.

<table>
<thead>
<tr>
<th>N°</th>
<th>EPA</th>
<th>Conceitos</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Concepções</td>
<td>Polo Presente</td>
</tr>
<tr>
<td>1</td>
<td>Reuniões de gestão e planejamento</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Reuniões de gestão financeira</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Reuniões de assuntos jurídicos e regulatórios</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Reuniões de monitoramento de resultados</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Reuniões de assuntos técnicos</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Capacitação</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Metodologias de gestão</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>Políticas administrativas</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>Políticas de concessão de diárias</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>Políticas de deslocamento de veículos</td>
<td>10</td>
</tr>
</tbody>
</table>

Fonte: Dados da pesquisa (2020)

Na sequência, deu-se continuidade à construção do modelo, porém, como foi mencionado anteriormente, a partir da sexta entrevista houve a participação de um especialista na metodologia utilizada e constataram-se algumas inconsistências. Assim, o modelo foi revisto desde seu objetivo que passou a ser o desenvolvimento um modelo para apoiar a Holding no processo de uniformização das Práticas de Gestão, tendo em vista que os portos delegados apresentam Práticas de Gestão com diferentes desempenhos. Com isso, há uma preocupação quanto à competitividade dos portos, e a uniformização de boas práticas é uma oportunidade de aperfeiçoamento da vantagem competitiva. Além disso, foram identificados novos EPAs, perfazendo um total de 60 EPAs e seus respectivos conceitos.

3.3. Análise dos Dados

Para o tratamento dos dados, Sampieri et al. (2013) apontam que os pesquisadores devem preocupar-se em manter o rigor da pesquisa na análise dos dados. Dessa maneira, é importante preservar a confiabilidade, credibilidade, confirmação e aplicabilidade da pesquisa e seus resultados. Assim sendo, quanto à confiabilidade dos dados, houve a preocupação em descrever a percepção do gestor na identificação do
problema a ser resolvido e suas reais preocupações, incluindo a participação do especialista na metodologia para conferência das etapas do modelo e ratificação dos resultados. Com relação à credibilidade, buscou-se preservar as preferências do gestor sem que ocorressem distorções na interpretação dos dados. Um exemplo disso são as modificações feitas no modelo a partir da intervenção do especialista na metodologia. A confirmação se reflete na validação de cada etapa do modelo pelo gestor e a checagem por parte do especialista, a fim de garantir que as preferências do gestor fossem mantidas, e as preferências e tendências do pesquisador fossem reduzidas. Por fim, no que se refere à aplicabilidade dos resultados, procurou-se transcrever, de forma detalhada e específica, todos os componentes que foram utilizados no estudo, para que seja possível a aplicabilidade da essência do trabalho em outros contextos, ao menos parcialmente.

Os dados foram analisados de forma detalhada e reiterativa a fim de extrair todas as preocupações do gestor, identificando quais os aspectos que, em sua percepção, são necessários e suficientes para o desempenho e competitividade dos portos delegados. O processo de interpretação dos dados ocorreu de forma recursiva entre facilitador, gestor e especialista conforme representado na Figura 3.

![Figura 3 – Processo de interpretação dos dados.](image)

Dessa forma, por meio dos dados analisados, foi possível verificar as principais preocupações do gestor, e a partir delas dar continuidade na construção do modelo.

4. Resultados

4.1. Fase de Estruturação

Os conceitos apresentados na seção anterior foram elencados de forma aleatória, sem importar-se com seu objetivo. Porém, verificou-se que alguns deles possuíam similaridades entre si e, portanto, foram agrupados por áreas de preocupação, permitindo que se visualizasse como as preocupações do gestor se concentram. Na Figura 4, tem-se os agrupamentos dessas preocupações e qual é o conceito-chave de cada uma delas, ou seja, a principal preocupação do gestor com cada uma dessas grandes áreas. A Figura 5 mostra a relação dos conceitos agrupados em cada uma dessas áreas. Destaca-se que este estudo se concentra na área de preocupação de Práticas de Gestão Estratégicas, tendo em vista que, durante as entrevistas, foi percebido um interesse latente por parte do gestor nessa área.
A etapa seguinte da metodologia consiste na construção dos mapas cognitivos, onde os conceitos são agrupados, formando clusters e subclusters independentes entre si e associados com a sua preocupação (Ensslin, Dutra & Ensslin, 2000; Ensslin, Montibeller, & Noronha, 2001). Essa etapa é importante, pois é ela que torna o modelo passível de operacionalização e, caso seja necessário, novos conceitos são construídos. A disposição desses conceitos é feita de acordo com a percepção do gestor. Logo, para cada um dos conceitos foi questionado qual a sua importância e como ele pode ser obtido (Ensslin et al., 2010). Assim, o mapa vai tomando forma em direção aos seus fins, o que torna possível sua mensuração. O mapa cognitivo, referente à área de preocupação de Práticas de Gestão Estratégica, está representado na Figura 6.
Eden et al. (1983) mencionam que as relações estabelecidas pelos conceitos dentro de cada cluster e subcluster definem a área de preocupação e podem ajudar a entendê-la. Assim, as relações existentes no mapa cognitivo podem ser simplificadas por meio de uma Estrutura Hierárquica de Valor onde os clusters formam relações explicativas, e cada cluster e subcluster compõem uma ramificação que dá vida à Estrutura Hierárquica de Valor (EHV). Após estabelecida a EHV, foi realizada a construção das escalas ordinais (indicadores), identificando os níveis de referência (que estabelecem o limite entre desempenho comprometedor, competitivo e de excelência). Por se tratar de um grande número de indicadores nessa área de preocupação, optou-se por apresentar uma amostra dos indicadores (Quadro 2) com as respectivas escalas. A lista completa, contendo todos os indicadores, está disponível no apêndice do artigo.
### Quadro 2 – Amostra dos EPAs e seus conceitos desenvolvidos

<table>
<thead>
<tr>
<th>área de preocupação</th>
<th>Cluster</th>
<th>Subcluster</th>
<th>Subcluster</th>
<th>Indicador</th>
<th>Descrição</th>
<th>Escala</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Planejamento Estratégico</td>
<td></td>
<td></td>
<td>Nº de etapas de Planejamento Estratégico utilizadas pelos portos (Análise estratégica; revisão da identidade organizacional; Análise do ambiente interno; Análise do ambiente externo; definição da estratégia e desdobramento estratégico).</td>
<td>Contem as 6 etapas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Contem 5 etapas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Contem 4 etapas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Contem 3 etapas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Contem 2 ou menos etapas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Periodicidade do Planejamento</td>
<td></td>
<td></td>
<td>Periodicidade de realização da revisão do Planejamento Estratégico.</td>
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</tr>
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<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<td>Bimannual</td>
</tr>
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<td>Abrangência do Planejamento Estratégico</td>
<td></td>
<td></td>
<td>% de Indicadores Estratégicos em relação à quantidade de indicadores do Porto</td>
<td>10% dos indicadores</td>
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<td>20% dos indicadores</td>
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<td>30% dos indicadores</td>
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<td></td>
<td>40% dos indicadores</td>
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<td>Forma de Realização</td>
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<td>Forma como o Planejamento Estratégico é realizado</td>
<td>Envolve um representante de cada área, equipe de planejamento e dirigentes</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Envolve somente a equipe de planejamento e um representante de cada área</td>
</tr>
<tr>
<td></td>
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<td>Envolve somente a equipe de planejamento</td>
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<tr>
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<td></td>
<td>3 instrumentos estão atualizados</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>2 instrumentos ou menos estão atualizados</td>
</tr>
</tbody>
</table>

Fonte: Dados da pesquisa (2020).

Da mesma forma que as demais etapas, a construção dos indicadores ocorre de maneira interativa entre gestor e facilitador. Nesse caso, houve também a participação do especialista nesse processo. Na entrevista de número 15, houve uma participação mais intensa do especialista, no intuito de que os níveis das escalas construídas compreendessem todas as possibilidades existentes para o contexto em análise.
4.2. Perfil de Desempenho e Status Quo
Com o modelo qualitativo finalizado, realizou-se a Avaliação de Desempenho do **status quo** (Ensslin et al., 2010), o qual é utilizado para monitoramento do desempenho da organização. Como o objetivo da construção do modelo é o apoio à **Holding** no processo de uniformização das Práticas de Gestão dos portos delegados, o perfil de desempenho a ser traçado é o dos portos delegados, tendo em vista que se busca verificar o nível de utilização das Práticas de Gestão elencadas. Neste estudo, será apresentado o perfil do Porto de São Francisco do Sul, que se caracteriza como um dos maiores portos públicos brasileiros. Em 2019, foi consolidado como o maior movimentador de cargas de Santa Catarina, sendo que a maior parte da movimentação compreende granéis sólidos e líquidos. Na Figura 7, está representado o perfil de desempenho do Porto.

**Figura 7 – Identificação das áreas de preocupação do modelo de AD da holding.**

![Diagrama de modelo de AD da holding](image)

Fonte: Dados da pesquisa (2020).

Com o perfil de desempenho traçado, é possível verificar como o Porto se encontra em termos de desempenho e identificar qual indicador necessita de uma preferência na intervenção. Conforme pode ser observado, o Porto possui desempenho de excelência para os indicadores relacionados à padronização de Práticas de Gestão (I02, I04 e I06), Planejamento Estratégico (I14) e Crescimento Contínuo (I16), o que demonstra uma preocupação latente com todas as subáreas da área de preocupação. No entanto, esses indicadores são apenas cinco, retratando que ainda há um longo trabalho a ser feito para que o Porto atinja um nível de excelência em todos os indicadores analisados. Um primeiro passo seria trabalhar nos indicadores em que o Porto está em nível comprometedor (I13, I26) ou que está em processo emergente para o nível competitivo (I08, I15, I21, I23 e I25) e afetam negativamente seu desempenho e, consequentemente, da **Holding**.

Com relação a isso, a **Holding** vem desenvolvendo algumas ações junto com o Porto com o objetivo de melhorar seu desempenho e, como consequência, sua competitividade. Tais ações buscam o melhoramento da infraestrutura do Porto para que melhore a produtividade e eficiência das operações portuárias. Dessa forma, há investimentos a serem realizados para melhorias nos acessos rodoviários, ferroviários e aquaviários, os quais fazem parte das linhas estratégicas definidas entre a **Holding** e a subsidiária. Como consequência, há um impacto nos indicadores I21 (comprometedor) e I22 (emergente para excelência) que estão relacionados à ampliação do volume de cargas.

Cabe ressaltar também que há uma preocupação da **Holding** quanto à gestão portuária. Com isso, uma das linhas estratégicas estabelecidas com o Porto diz respeito à implantação de melhores Práticas de Gestão, por meio de metas de desempenho empresarial claras e alinhadas com a visão estratégica da Organização. Assim, ações foram estabelecidas para que a gestão do Porto seja melhorada. No entanto, outras
ações ainda precisam ser desenvolvidas para que ele melhore seu desempenho nos indicadores I08, que trata da revisão do Planejamento Estratégico, e I26 que se refere ao incentivo para as atividades mais rentáveis, que se apresentam como comprometedores.

5. Discussão

Uma relação eficaz entre os atores portuários normalmente exige mudanças nas Práticas de Gestão utilizadas (de Langen & Heji, 2014). Para tanto, Broocks e Pallis (2008) mencionam que tais atores devem estabelecer quais são as práticas essenciais para o monitoramento do desempenho dos portos, e a utilização da Avaliação de Desempenho é um dos métodos amplamente utilizados para a identificação e implementação de melhores práticas com o intuito de melhorar o desempenho e a produtividade (Park & De, 2004). Assim, desde seu interesse em atuar de forma efetiva na gestão dos portos delegados, a Holding vem desenvolvendo diversas ações no intuito de estreitar a relação entre ela e as subsidiárias e implementar medidas de desempenho. No entanto, conforme Somensi et al. (2017), esse processo de implementação pode ser dificultado em decorrência dos diferentes stakeholders que envolvem a estrutura portuária, e a intensidade das relações pode gerar barreiras e conflitos.

Se, por um lado, os stakeholders contribuem para que os portos atinjam seus objetivos estratégicos, por outro podem limitar a definição desses objetivos (Aerts et al., 2015) impactando nas ações e desempenho da organização (Aparisi-Caudeli et al., 2009). Por esse motivo, é importante a identificação de quais os atores realmente exercem alguma influência nas decisões à serem tomadas. Essa é uma das vantagens da aplicação de métodos com abordagem Construtivista, pois, com a identificação dos atores envolvidos no processo, consideram-se os valores e as preferências do gestor (Madeira Junior et al., 2012) e este leva em consideração os demais atores envolvidos. Assim, foi possível identificar que as necessidades da organização estavam voltadas a aspectos estratégicos, e não limitados apenas à eficiência operacional. Veggelas (2019) menciona que muitas organizações estão monitorando seu desempenho baseadas em indicadores puramente operacionais. Segundo Broocks e Pallis (2008), a adoção de indicadores que não se restringem a esse aspecto é importante para que os portos possam competir com seus concorrentes, de modo que ajustem seu planejamento estratégico, explorando os pontos fortes da organização (Xiong & Zhou, 2019). Ramachandran et al. (2017) argumentam que a implementação da estratégia em uma organização, permite o crescimento organizacional. Nesse sentido, identificar os fatores de que a organização necessita para melhorar seu desempenho é fundamental (Feng, Mangan, & Lalwani, 2012). Isso foi possível pelo olhar individualizado da organização e aprendizagem contínua na construção do modelo.

O desempenho em nível de excelência do Porto, nos indicadores I02, I04 e I06, evidencia que existe um alinhamento entre a diretoria e o conselho dos Portos. O I12 (emergente para o nível de excelência) mostra que o Planejamento Estratégico não envolve somente a equipe de planejamento, e o fato de incluir um representante de cada área demonstra que há uma preocupação de envolver todas as áreas no planejamento. As ações desenvolvidas em busca do melhoramento da infraestrutura evidenciam uma preocupação com a competitividade do Porto, tendo em vista que isso acarreta um aumento no volume de cargas e crescimentos econômico e financeiro (I24). De acordo com Hamid (2018), a infraestrutura portuária exerce um papel fundamental. Um exemplo disso foi evidenciado por Vieira et al. (2016) ao constatarem que o porto de Rotterdam possui um desempenho superior ao porto de Santos devido à falta de infraestrutura no porto de Santos, o que resulta em tempos mais altos de espera das importações. Isso volta à discussão de uma visão muito focada na eficiência operacional e que não vislumbra outras formas de desempenho (Schellinck & Brooks 2015) e ações a serem realizadas a longo prazo. Nesses casos, existe um foco em medidas de curto prazo, não
resolvendo problemas como capacidade limitada dos berços de atracação. O estudo de Jaffar et al. (2005) evidenciou que esse é o fator que mais afetou o desempenho dos portos analisados, e Wang et al., (2004) demonstraram que os portos analisados operam abaixo do padrão dos portos mundiais em decorrência da infraestrutura inadequada. Este estudo demonstrou que existe uma preocupação da Holding com a infraestrutura do Porto, tanto no curto quanto no longo prazo, o que permite a eficiência dos serviços prestados e como consequência a satisfação dos clientes e maior produtividade e lucratividade (Park & De, 2004).

O crescente aumento no nível de competitividade dos portos resulta na exigência por mais agilidade das operações (Marlow & Casaca 2003), e a excelência no desempenho dos negócios torna a organização mais competitiva (Cheng, 2013), tendo em vista que, para não perder sua posição no mercado altamente competitivo, é necessário o fortalecimento das vantagens competitivas em todas as atividades desenvolvidas (Szulc et al., 2018). Dessa forma, percebe-se que, por meio da execução de Práticas de Gestão que englobam toda a Organização, a Holding tem o potencial de aumentar a competitividade do Porto analisado e, assim, destacar-se no mercado marítimo global.

6. Conclusão

O setor portuário representa um elemento fundamental na economia de uma país, pois fornece a infraestrutura vital para o desenvolvimento dos demais setores da economia internacional. Assim, avaliar e aprimorar seu desempenho é essencial para manter-se competitivo no mercado mundial (Madeira Junior et al., 2012). Em decorrência disso, o governo do estado de Santa Catarina, preocupado com o desenvolvimento regional, atribui à Holding SCPAR a função de modernização e gestão portuária, de forma a atuar no planejamento e expansão dos portos subsidiários. No entanto, ao ver-se diante de tal obrigação, a Holding percebeu que estava diante de um ambiente cercado por incertezas quanto a sua efetiva atuação com relação aos portos. Diante disso, o presente estudo teve por objetivo construir um modelo qualitativo para apoiar a Holding na gestão do processo de uniformização das Práticas de Gestão com base na percepção do Executivo de Assuntos Portuários (gestor) da Holding.

Com os estudos selecionados por meio do ProKnow-C, verificou-se que os estudos existentes se concentram em portos de contêineres e autoridades portuárias e há carência na literatura quanto a estudos que abordem o papel desempenhado por uma holding no setor portuário. A metodologia MCDA-C foi escolhida para a construção do modelo, tendo em vista seu viés Construtivista, o qual reconhece que os ambientes são únicos e há necessidade de construção de conhecimento nos envolvidos. Assim, a construção do modelo permitiu a expansão do conhecimento do gestor quanto às necessidades do ambiente e no facilitador quanto às particularidades e complexidades que envolvem o setor portuário.

A execução da etapa de Estruturação do modelo permitiu verificar quais os atores que interferem de alguma forma nas decisões da Holding e quais eram as principais preocupações do gestor quanto à gestão portuária. Com isso, traçou-se o perfil de desempenho de um porto gerido pela Holding para verificar seu perfil de desempenho quanto às melhores práticas consideradas, demonstrando onde o Porto apresenta desempenho em nível de excelência, competitivo e comprometedor. Como o estudo focou na preocupação de Práticas de Gestão Estratégica verificou-se que, embora o Porto se encontre em nível de excelência em alguns indicadores, ainda há um longo caminho a ser percorrido para que ele se encontre em níveis de excelência em todos os indicadores que essa área de preocupação compreende.

Percebe-se ainda uma preocupação da Holding com a melhoria do desempenho, por meio de investimentos de curto e longo prazos na infraestrutura do Porto, permitindo que aumente a movimentação de cargas e, com isso, possa competir em nível internacional. Ademais, o alinhamento das estratégias da Holding junto ao Porto demonstra o interesse com a gestão portuária, de modo que as metas de desempenho
organizacional estejam alinhadas com a visão estratégica da *Holding*. A discussão dos resultados demonstrou a importância do desenvolvimento de um modelo *ad hoc*, com a identificação de seus atores, necessidades e principais preocupações, para que os Portos geridos pela *Holding* possam agilizar os serviços prestados, intensificando a geração de investimentos e melhorando a competitividade.

Entretanto, por se tratar de um estudo conduzido por uma perspectiva Construtivista, há de se ter cautela quanto à generalização ou replicação desse modelo em outros ambientes. Como a própria metodologia sugere, cada organização é dotada de necessidades, e seus atores possuem interesses próprios que devem ser considerados na construção do modelo. Assim, uma possível replicação deve ser avaliada minuciosamente e adaptada de acordo com as necessidades do contexto.

Nesse sentido, a contribuição prática deste trabalho consiste na construção do modelo qualitativo que, a partir do perfil de desempenho traçado, a *Holding* pôde verificar como o Porto se encontra em termos de desempenho e identificar quais são os indicadores que necessitam de uma pronta intervenção. Já no que se refere às contribuições teóricas, foi identificada a carência de estudos que retratam o processo de gestão de portos por *holding* e contribuiu para a literatura no sentido de evidenciar a complexidade envolvida nesse processo de gestão.

O estudo possui como limitação a concepção (design) do modelo e sua implementação iniciada recentemente, ou seja, é necessário seguir o modelo longitudinalmente para sua ‘calibragem’. Para futuras pesquisas, sugere-se o aprimoramento de estudos relacionados à gestão de portos por *holdings*, o acompanhamento a longo prazo do comportamento dos indicadores utilizados nesse tipo de organização e um olhar mais individualizado na construção dos modelos de Avaliação de Desempenho de modo que as necessidades da organização e as preferências dos atores sejam levadas em consideração.
Apêndice

1. **Protocolo de Entrevistas**

<table>
<thead>
<tr>
<th>Nº</th>
<th>Gravações</th>
<th>Participantes</th>
<th>Data da entrevista</th>
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<td>05/07/2019</td>
<td>00:49:43</td>
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<td>11</td>
<td>Quantidade de reuniões anuais realizadas entre o conselho e a diretoria executiva no último</td>
<td>≥ 5 reuniões</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 Reuniões</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Reuniões</td>
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<td></td>
<td></td>
<td>2 Reuniões</td>
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<tr>
<td></td>
<td></td>
<td>1 Reuniões</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não houve reuniões.</td>
</tr>
<tr>
<td>12</td>
<td>% de propostas da diretoria executiva aprovadas pelo Conselho Administrativo no último ano.</td>
<td>≥ 90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≤ 60%</td>
</tr>
<tr>
<td>13</td>
<td>% das deliberações de temas estratégicos apresentadas pela diretoria do porto e aprovadas pelo conselho no último ano.</td>
<td>80% ou mais</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≤ 40%</td>
</tr>
<tr>
<td>14</td>
<td>O Contrato de gestão contempla: objetivos, indicadores estratégicos, abrangência em todas as diretoria, metas para cada indicador, previsão de acompanhamento trimestral.</td>
<td>Atende aos cinco itens relacionados</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atende a 4 itens relacionados</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atende a 3 itens relacionados</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atende a 2 itens relacionados</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atende a 1 item relacionados</td>
</tr>
<tr>
<td>15</td>
<td>Definição da periodicidade do contrato de gestão</td>
<td>Contrato de 4 anos com revisão semestral</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contrato de 3 anos com revisão semestral</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contrato de 2 anos com revisão semestral</td>
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<tr>
<td></td>
<td></td>
<td>Contrato de 4 anos com revisão anual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contrato de 3 anos com revisão anual ou 2 anos com revisão semestral</td>
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<td></td>
<td></td>
<td>Contrato de 2 anos com revisão anual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contrato de 1 ano com revisão semestral</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contrato de 1 ano sem revisão</td>
</tr>
<tr>
<td>16</td>
<td>Definição de metas a serem alcançadas no contrato de gestão e resultados.</td>
<td>Tem para 4 ou mais setores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem para 3 setores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem para dois setores</td>
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<tr>
<td></td>
<td></td>
<td>Tem para 1 setor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem metodologia para contratos.</td>
</tr>
<tr>
<td>17</td>
<td>Nº de etapas de planejamento estratégico utilizadas pelos portos (Análise estratégica; revisão da identidade organizacional; Análise do Ambiente interno; Análise do ambiente externo; definição da estratégia e desdobramento estratégico).</td>
<td>Contempla as 6 etapas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contempla 5 etapas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contempla 4 etapas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contempla 3 etapas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contempla 2 ou menos etapas.</td>
</tr>
<tr>
<td>Periodicidade do Planejamento I8</td>
<td>Periodicidade de realização da revisão do Planejamento estratégico.</td>
<td>Semestral</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Indicadores Tácticos I9</td>
<td>% de Indicadores táticos em relação a quantidade de indicadores do Porto</td>
<td>40% dos indicadores</td>
</tr>
<tr>
<td>Indicadores Operacionais I10</td>
<td>% de Indicadores operacionais em relação a quantidade de indicadores do Porto</td>
<td>60% dos indicadores</td>
</tr>
<tr>
<td>Indicadores Estratégicos I11</td>
<td>% de Indicadores estratégicos em relação a quantidade de indicadores do Porto</td>
<td>10% dos indicadores</td>
</tr>
<tr>
<td>Forma de Realização I12</td>
<td>Forma como o Planejamento estratégico é realizado</td>
<td>Envolve um representante de cada área, equipe de planejamento e dirigentes.</td>
</tr>
<tr>
<td>Tipos de Instrumentos I13</td>
<td>Quantidade de instrumentos de planejamento estratégico utilizados no planejamento estratégico (PNLP; plano mestre; PDZ; plano de negócios; estratégia de LP e PPA).</td>
<td>Contempla os 6 instrumentos</td>
</tr>
<tr>
<td>Prazo de atualização I14</td>
<td>Atualização dos instrumentos conforme a Lei Federal nº 12.815/13.</td>
<td>Os 6 instrumentos estão atualizados.</td>
</tr>
<tr>
<td>Vigência dos Instrumentos I15</td>
<td>% de instrumentos que observaram os prazos previstos pela Lei Federal nº 12.815/13.</td>
<td>100% dos instrumentos</td>
</tr>
<tr>
<td>Crescimento Contínuo</td>
<td>Ampliação da infraestrutura</td>
<td>Plano de investimento reconhecido pela holding</td>
</tr>
<tr>
<td>Id</td>
<td>Descrição</td>
<td>Resultado</td>
</tr>
<tr>
<td>----</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>I17</td>
<td>% das receitas detinadas para expansão</td>
<td>≥ 10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A receita não é destinada para expansão.</td>
</tr>
<tr>
<td>I18</td>
<td>Indicadores de acessos aquaviários, ferroviários e rodoviário</td>
<td>Tem indicadores Aquaviários, ferroviários e rodoviários</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores Aquaviários e Ferroviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores Rodoviários e aquaviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores Ferroviários e Rodoviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores Aquaviários</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores Ferroviários</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores Rodoviários</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem indicadores</td>
</tr>
<tr>
<td>I19</td>
<td>Plano de ações para adquirir recursos em acessos aquaviários, ferroviários e rodoviário</td>
<td>Tem plano de ação para recursos Aqu., fer. e rod.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação para recursos Aq e Ferroviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação para recursos Rod e aqu.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação para recursos Fer e Rodoviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem tem plano de ação para recursos Aquaviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem tem plano de ação para recursos Ferroviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem tem plano de ação para recursos Rodoviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem plano de ação para recursos.</td>
</tr>
<tr>
<td>I20</td>
<td>Plano de ações para identificar a origem de recursos em acessos aquaviários, ferroviários e rodoviário</td>
<td>Tem plano de ação para recursos Aqu., fer. e rod.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação para recursos Aquaviários e Ferroviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação para recursos Rodoviários e aquaviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação para recursos Ferroviários e Rodoviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem tem plano de ação para recursos Aquaviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem tem plano de ação para recursos Ferroviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem tem plano de ação para recursos Rodoviários.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem plano de ação para recursos.</td>
</tr>
<tr>
<td>I21</td>
<td>Possuir indicadores voltados à movimentação de cargas por meio da cabotagem e longo curso.</td>
<td>Tem indicadores para tonelagem e exterior e cabotagem.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores para a tonelagem e exterior.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores para a tonelagem e cabotagem.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem indicadores para o exterior e cabotagem.</td>
</tr>
<tr>
<td>Alocação de Recursos</td>
<td>I22</td>
<td>Plano de ação para ampliação da movimentação e volume de cargas</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação para ampliação da movimentação e volume de cargas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação ampliação apenas do volume de cargas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tem plano de ação apenas da mov. de cargas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem plano de ação para ampliação.</td>
</tr>
<tr>
<td>Indicadores de lucratividade</td>
<td>I23</td>
<td>Indicadores para medir a lucratividade</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim com mais de 10 indicadores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim com 8 indicadores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim com 6 indicadores</td>
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<tr>
<td></td>
<td></td>
<td>Sim com 4 indicadores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim com 2 indicadores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem plano de ação para ampliação.</td>
</tr>
<tr>
<td>Ampliação da lucratividade</td>
<td>I24</td>
<td>Ter sistema para gerar ações de crescimento econômico e financeiro.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Em 4 ou mais áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 3 áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 2 áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 1 área</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem sistema para geração de ações.</td>
</tr>
<tr>
<td>Investimentos Lucrativos</td>
<td>I25</td>
<td>Ter sistema para conhecer as movimentações mais lucrativas.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Em 4 ou mais áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 3 áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 2 áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 1 área</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem sistema para conhecer as mov. Mais lucrativas.</td>
</tr>
<tr>
<td>Incentivos</td>
<td>I26</td>
<td>Ter processo para incentivar as atividades mais rentáveis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Em 4 ou mais áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 3 áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 2 áreas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sim em 1 área</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Não tem processo.</td>
</tr>
</tbody>
</table>

Referências


EVALUATION OF CARGO HANDLING IN PORTS: A LITERATURE REVIEW
Kassia Rodrigues 1; Sandra Ensslin 2; Ademar Dutra 3;

Abstract
Purpose: This study aims to understand how the international literature has discussed and addressed the Evaluation of Cargo Handling in Ports, which measurement procedures have been practiced, in addition to seeking to highlight possible research opportunities.

Methodology: To achieve this goal, the investigation and reflection of the theme were made (i) by Bibliometric Analysis; (ii) systematically in a Map of Literature; and (iii) by a critical (Systemic) Analysis. For that, Knowledge Development Process-Constructivist (ProKnow-C) was used as an intervention instrument. This is a Constructivist process of selecting relevant scientific articles that represent the desired theme and enable the researcher to make a systematic and critical review of the literature.

Originality/value: The originality of this study consists in the analysis of the Performance Evaluation models / tools used in port terminals based on a Constructivist theoretical affiliation of Performance Evaluation from a management support perspective. Thus, investigating the directions taken in the 14 studies selected in the Scopus and Web of Science databases allows to contribute to highlight research gaps and the trajectory of the evaluation of cargo handling in the port sector.

Findings: The Bibliometric Analysis brought the understanding that there is a trend in carrying out studies that evaluate the performance of port terminals in Asia, where the largest ports in the world are located. In addition, 65% of the studies are applications in container terminals, considered as an advance in transportation technology. Currently, there is a propensity to cargo containerization, due to the high productivity rates of this type of movement. The construction of a Literature Map led to the realization that this subject, despite referring to the operation evaluation, includes studies that involve issues related to management levels. Therefore, the Literature Map was elaborated by classifying of which levels of management and planning are linked to the decisions and measures addressed in the studies: Strategic, Tactical or Operational ones. Finally, there is the Systemic Analysis, which made it possible to examine the evaluation made by the studies through its alignment with the six lenses - Approach, Singularity, Process of objectives identification, Measurement, Integration and Management - that make up the Constructivist concept of Performance Evaluation adopted by the authors of this research. Based on the analysis, it was possible to identify the existence of deficiencies in the evaluation models used in the studies as they were not developed or made possible the use of information generated for management purposes, highlighting research opportunities. It is concluded, then, that the port and scientific communities have been dedicated to the development of evaluation models and methods, without considering management support. Therefore, as the main contribution of this work, a gap is identified in the literature regarding the creation of Evaluation Systems for specific contexts (ad hoc) that generate useful information for the management of cargo handling process at port terminals, contemplating the perceptions, value judgments and preferences of the manager responsible for such activity.

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Keywords: Cargo handling; Ports; Evaluation; Management support; Systematic and critical review of the literature.
1. Fundamentos e Aspectos Introdutórios

O processo de aproximação e integração das nações – a globalização – trouxe transformações no modo como o comércio exterior opera, no aumento da concorrência entre portos e na função transporte, por meio de novas exigências das indústrias, mudanças de perspectiva para um olhar multimodal, avanço nas tecnologias de transporte e aumento do fluxo de cargas (Akhavan, 2017; Casaca, 2005; Jurjevik & Hess, 2016). O transporte marítimo é essencial para o comércio exterior, pois 90% das cargas são transportadas por vias marítimas, ou seja, esse tipo de transporte é considerado como alicerce do comércio exterior para o desenvolvimento econômico (Lun, Browne, Lai, Wong, & Cheng, 2011).

O volume do comércio por vias marítimas tem aumentado ao longo dos anos. Em vista disso, há uma crescente demanda desse tipo de serviço, e, consequentemente, melhorias no seu desempenho são necessárias. Independente de qual seja a função do terminal portuário, transbordo de carga ou armazenamento, a tendência é evitar filas e desperdícios no processo (Casaca, 2005; Le-Griffin, Mai, & Griffin, 2011).

Nesse cenário, os portos são considerados como um elo da cadeia de suprimentos e nó multimodal, capazes de fornecer serviços logísticos de valor agregado aos usuários, com sua estrutura física e manuseio de cargas (Akhavan, 2017; Lun et al., 2011). Para os portos, com o crescimento do comércio mundial, principalmente com a movimentação de contêineres, compete um papel mais estratégico na logística global, em que a dinâmica do mercado se caracteriza pelo volume de produção e incerteza, competitividade, inovação e avanço tecnológico (Wang, Mileski, & Zeng, 2019).

A fim de se manterem competitivos, os portos devem estar atentos a alguns critérios que influenciam a competição entre os terminais e a seleção pelo mercado, como custos de movimentação da carga, desempenho de dano/perda, localização do terminal, capacidade de resposta do terminal, instalações de armazenamento e capacidades física e técnica (Balci, Cetin, & Esmer, 2018). Além disso, destaca-se a importância do planejamento operacional, que compreende o plano de operações, o leiaute dos recursos humanos e os meios necessários para a execução de tais tarefas (Jurjevik & Hess, 2016). A comparação de sua eficiência com os demais portos do setor também tem importância, pois visa garantir que sua atratividade seja mantida e antecipe possíveis exigências do setor (Sinha & Bagodi, 2019).

O manuseio da carga em terminais portuários dá-se por meio de um processo integrado e dinâmico, possibilita a identificação de indicativos com a importância de uma visão sistêmica na implementação de melhorias e, principalmente, a necessidade de avaliar e monitorar a operação, a fim de obter medidas eficazes das políticas de mitigação de falhas e de aperfeiçoamentos do sistema (Le-Griffin et al., 2011).

De acordo com Yang & Chang (2013), existe uma forte relação entre eficiência do manuseio, desempenho operacional e custo, que tem sido foco de gestão e investidas dos gerentes portuários. Para Munisamy (2010), uma das maneiras de avaliar a eficiência de terminais portuários de madeira é com base na relação do sistema de manuseio de carga com o seu impacto na capacidade de produção do terminal. A eficiência de uma rede de transporte marítimo está diretamente ligada à eficiência de seus terminais que, por sua vez, depende de dispor de um conjunto adequado de equipamentos (Silva, Guedes Soares, & Signoret, 2015).

Insumos, como as instalações de movimentação de carga e tecnologia da informação, possuem contribuição variável para o desempenho dos terminais portuários e são considerados de extrema importância (Nguyen, Nghiern, & Chang, 2018). As regiões onde os portos estão localizados podem significar que estes estão sujeitos ao acesso a diferentes tecnologias, o que justifica variações no desempenho (Nguyen et al., 2018). Além das tecnologias, a localização geográfica dos portos e de cidades portuárias, sendo ela estratégica ou não, apresenta-se como determinante para o potencial desenvolvimento de um centro logístico (Akhavan, 2017).
Nesse cenário, onde há relação entre as práticas atuais de movimentação de cargas e o desempenho das organizações, tem-se a Avaliação de Desempenho. De acordo com Akhavan (2017), as mudanças contemporâneas nos sistemas econômicos globais implicam a necessidade de estudos relacionados ao comércio marítimo e à logística. A complexidade dos portos leva à necessidade de utilização de ferramentas para modelar o sistema, visto que avaliar o desempenho pode significar apenas a mensuração de custos de má qualidade (Ridwan & Noche, 2018).

Em vista das diversas e complexas variáveis a serem consideradas em um sistema para a gestão portuária, tem-se, como oportunidade, o estudo desse tema sob o viés construtivista. A originalidade deste estudo, então, consiste na análise de modelos de avaliação de desempenho em terminais portuários com base em uma afiliação teórica construtivista de Avaliação de Desempenho, cujos trabalhos são examinados sob uma perspectiva de apoio à gestão. Com isso, surge a seguinte questão de pesquisa: Como é a trajetória e quais são os direcionamentos da literatura internacional sobre Avaliação da Movimentação de Cargas? Portanto, este trabalho tem o objetivo de mapear como a literatura internacional tem discutido e abordado a Avaliação da Movimentação de Cargas em Portos e quais condutas de mensuração têm sido praticadas. Ainda, esse estudo busca apresentar oportunidades de pesquisa.

Para atingir tal objetivo, a apresentação do tema será feita (i) por meio da Análise Bibliométrica; (ii) de maneira sistematizada por meio do Mapa da Literatura; e (iii) pela Análise Sistêmica. Para tanto, utiliza-se o instrumento de intervenção Knowledge Development Process-Constructivist (ProKnow-C), um processo estruturado de seleção e análise da literatura, que permite fazer uma revisão sistemática e crítica da literatura. (Dutra, Ripoll-Feliu, Fillol, Ensslin, & Ensslin, 2015; Ensslin, Ensslin, Matos, Dutra & Ripoll-Feliu, 2015; Rodrigues & Ensslin, 2019; Thiel, Ensslin, & Ensslin, 2017; Valmorbida & Ensslin, 2016).

2. Procedimentos Metodológicos

Esta seção tem o objetivo de sustentar metodologicamente o presente trabalho científico por meio da apresentação dos procedimentos utilizados para alcançar os resultados finais que atendam ao objetivo inicial. Para tanto, a seção divide-se em três partes: (i) enquadramento metodológico da pesquisa; (ii) instrumento de intervenção; e (iii) processo de seleção do Portfólio Bibliográfico (PB).

2.1. Enquadramento Metodológico

Entende-se como enquadramento metodológico a análise, descrição ou explicação de abordagens e procedimentos utilizados para viabilizar a realização da pesquisa, apresentação das especificações do conjunto de métodos que fundamentam os temas ou as finalidades que justificam determinado estudo particular para o método científico (Lacerda, Ensslin, & Ensslin, 2012; Ensslin, Ensslin, & Pinto, 2013).

Este estudo tem natureza exploratório-descritiva, visto que, com base em um processo estruturado de revisão de literatura do tema Avaliação da Movimentação de Cargas em Portos, o conhecimento gerado nos pesquisadores foi sistematizado e apresentado por meio da Análise Bibliométrica, do Mapa da Literatura e da Análise Sistêmica. Além disso, analisa um fragmento da literatura pouco estudado sob a perspectiva da Avaliação de Desempenho (Richardson, 1999; Gray, 2013). O Portfólio Bibliográfico (PB) é um fragmento representativo da literatura, selecionado para a pesquisa e restrito à literatura do tema a ser estudado. Portanto, destaca-se que, para atender aos seus objetivos, esta pesquisa utiliza dados secundários para análise (Gray, 2013).

Esta é uma pesquisa de abordagem qualitativa, procurando analisar criticamente às características das publicações que compõem o PB. Esse processo permite a geração de conhecimento dos pesquisadores da área com relação às variáveis exploradas: tipo de terminal e continente (Creswell, 2014).
A fim de atender ao objetivo proposto neste estudo, foi utilizado o Knowledge Development Process-Constructivist (ProKnow-C) como instrumento de intervenção. Este foi desenvolvido pelo Laboratório de Metodologias Multicritério de Apoio à Decisão-Construtivista (LabMCDA), da Universidade Federal de Santa Catarina (UFSC) (Ensslin, Ensslin & Pinto, 2013; Lacerda, Ensslin, & Ensslin, 2014; Staedele, Ensslin, & Forcellini, 2019). O ProKnow-C é um processo construtivista que possibilita ao pesquisador uma revisão estruturada e sistemática da literatura, além da seleção de artigos científicos relevantes que representem o tema desejado (Thiel, Ensslin, & Ensslin, 2017; Matos, Ensslin, & Ensslin, 2019, Valmorbida & Ensslin, 2016).

2.2. Instrumento de Intervenção
Para o processo de seleção dos artigos referentes à Avaliação da Movimentação no setor público, foi utilizado o ProKnow-C como instrumento de intervenção, a fim de garantir a cientificidade no processo de pesquisa. Além disso, o instrumento permite que pesquisadores desenvolvam conhecimentos e uma base conceitual sobre o assunto (Chaves, Ensslin, Ensslin, Valmorbida & Rosa, 2013; Pedersini & Ensslin, 2020; Thiel, Ensslin, & Ensslin, 2017). O ProKnow-C é composto por quatro fases de operacionalização: i) seleção de um Portfólio Bibliográfico (PB), composto por um fragmento representativo da literatura relativa ao tema; ii) Análise Bibliométrica do PB; iii) Mapa da Literatura; iv) Análise Sistêmica dos artigos do PB; e v) definição da pergunta de pesquisa, que representa a identificação de oportunidades e lacunas de pesquisas encontradas com base nas análises feitas (Pedersini & Ensslin, 2020; Rodrigues & Ensslin, 2019; Thiel, Ensslin, & Ensslin, 2017; Valmorbida, 2018; Valmorbida & Ensslin, 2016;). A Figura 1 apresenta as quatro fases do ProKnow-C.

Figura 2 - Framework do Knowledge Development Process-Constructivist (ProKnow-C)

Fonte: Dados da Pesquisa (2020)

A Fase 1 de operacionalização do ProKnow-C, Seleção do Portfólio Bibliográfico, consiste em uma sequência de procedimentos previamente definidos, que visam identificar publicações científicas que estejam alinhadas com o tema e atendam às restrições delimitadas pelo pesquisador. Dessa maneira, com a filtragem e análise de aderências dos artigos aos objetivos propostos na pesquisa, tem-se um conjunto de artigos que compõem um fragmento representativo da literatura, o qual irá constituir o PB de análise do estudo (Matos, Imlau, Ensslin, Ensslin & Vicente, 2015; Valmorbida & Ensslin, 2016).
A Fase 2, Análise Bibliométrica, tem o objetivo de identificar as características das publicações do tema que está sendo estudado, a fim de gerar conhecimento nos pesquisadores por meio das variáveis definidas (Lacerda et al., 2012; Ensslin et al., 2013; Thiel, Ensslin & Ensslin, 2017). A Fase 3, Mapa da Literatura, consiste em apresentar o tema à comunidade científica, evidenciando seus aspectos mais relevantes de modo sintético e visual, por meio de suas principais dimensões e desdobramentos (Maragno & Borba, 2017; Rodrigues & Ensslin, 2019). Após a Análise Bibliométrica e o Mapa da Literatura, têm-se a Fase 4, Análise Sistêmica, que é o processo científico utilizado para, com uma afiliação teórica adotada pelos pesquisadores, analisar um fragmento representativo da literatura de um dado tema de pesquisa, buscando evidenciar os destaques e as oportunidades (carências) de conhecimentos verificados na amostra (Chaves et al., 2013; Ensslin et al., 2015). Neste trabalho, a visão de mundo ou afiliação teórica adotada, norteadora do desenvolvimento dessa fase, é a Avaliação de Desempenho por meio do paradigma Construtivista, apresentada em estudos como os de Chaves et al. (2013), de Ensslin et al. (2015) e de Matos et al. (2015), entendendo-se Avaliação de Desempenho como o processo de construção de conhecimento em um gestor, (1) a respeito do contexto específico (2) que se propõe avaliar, com base na percepção do próprio gestor (3) por meio de atividades que identificam, organizam, mensuram, (4) ordinal e cardinalmente, integram (5) e permitem visualizar o impacto das ações e seu gerenciamento (6). Com a afiliação teórica, são identificadas seis lentes que guiam a análise sistêmica, fornecendo os conceitos, isto é, o que buscam verificar e que são explorados em todos os artigos do PB. A seis lentes e seus conceitos, orientadores das análises, podem ser observadas na Figura 2.

Figura 2 – Lentes da afiliação teórica de Avaliação de Desempenho

<table>
<thead>
<tr>
<th>#</th>
<th>Lente</th>
<th>Conceito</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abordagem</td>
<td>Harmoniza modelo construído (Abordagem e dados) com sua aplicação?</td>
</tr>
<tr>
<td>2</td>
<td>Singularidade</td>
<td>Reconhece que o problema é único (Atores, Contexto)?</td>
</tr>
<tr>
<td>3</td>
<td>Processo de identificação de objetivos</td>
<td>Utiliza processo para identificar os objetivos segundo a percepção do decisor?</td>
</tr>
<tr>
<td>4</td>
<td>Mensuração</td>
<td>As escalas (Descritivas, Nominais, Ordinais e Cardinais) utilizadas atendem à Teoria da Mensuração e suas propriedades (Mensurabilidade; Operationalidade; Legitimidade; Homogeneidade; Inteligibilidade)?</td>
</tr>
<tr>
<td>5</td>
<td>Integração</td>
<td>Quando da determinação das constantes de integração, como são apresentadas as questões ao decisor?</td>
</tr>
<tr>
<td>6</td>
<td>Gestão</td>
<td>O conhecimento gerado permite conhecer o perfil atual, sua monitoração e aperfeiçoamento?</td>
</tr>
</tbody>
</table>

Fonte: Ensslin et al. (2015)

Por meio dos conceitos de cada uma das lentes, é possível verificar quais lacunas de conhecimento que não são preenchidas por esses estudos. Assim, contribui-se para a compreensão do nível de maturidade da literatura sobre o tema pesquisado, de acordo com a visão de mundo adotada pelos pesquisadores.

2.3. Processo de Seleção do Portfólio Bibliográfico
O instrumento de intervenção ProKnow-C foi utilizado para fins de seleção do Portfólio Bibliográfico (PB). Para tanto, os pesquisadores definiram previamente os dados de entrada, assim como as delimitações do estudo (Matos, Ensslin, & Ensslin, 2019). Nesse contexto, foram definidas como eixos de pesquisa a Avaliação de Desempenho e a Movimentação de Cargas e Portos; e, para compor o comando de busca de cada
um desses eixos, foram definidas e combinadas palavras-chave que retratam o tema na literatura científica.

As bases de dados Scopus e Web of Science foram escolhidas para fazer a busca, devido à sua abrangência nas áreas de conhecimento pesquisadas e por disponibilizarem comandos booleanos nos campos de título, resumo e palavras-chave. Destaca-se que, apesar de apresentarem fácil acesso e interface amigável ao usuário, essas bases possuem diferenças em sua utilização. Para as palavras compostas do comando de busca, foram utilizadas aspas “” na Web of Science, enquanto que na Scopus se utilizam as chaves { }.

A Figura 3 apresenta o processo de seleção do PB sobre a Avaliação da Movimentação de Cargas em Portos. Obteve-se então, como resultado, um fragmento representativo da literatura composto por 14 artigos, dos quais 12 são empíricos, e 2 são teóricos,identificados por meio da numeração sequencial de 1 a 14 entre [ ] na seção de Referências deste trabalho. Essa numeração será utilizada na seção 3 de resultados e análises.

**Figura 3 - Processo de Seleção do Portfólio Bibliográfico sobre Avaliação da Movimentação de Cargas em Portos**

Fonte: Dados da Pesquisa (2020)

No entanto, foi necessário desconsiderar dois artigos teóricos/conceituais para realização da Análise Sistêmica, visto que esses trabalhos não atendem às características básicas necessárias para a análise das lentes e não fazem nenhum tipo de avaliação ou mensuração. Portanto, o PB utilizado para a análise é composto por 12 artigos que estão sinalizados com a letra A após sua numeração e, os outros dois trabalhos que contribuíram para a fundamentação teórica deste estudo.

**3. Resultados e Análises**

3.1. Análise Bibliométrica

Para dar início ao processo de análise de dados do PB, os artigos foram categorizados em planilhas eletrônicas, a fim de verificar quais características se destacavam ao longo dos artigos e também as possibilidades de análise crítica. O PB composto por 14 artigos
não apresentou recorrência de autores e também não apresentou representatividade quanto aos países onde os estudos foram realizados. Com essa análise, ficou evidente que a literatura sobre o tema não possui autores e nem rede de autores que se destaquem, e sim o contrário, há uma dispersão de autorias sobre o assunto. No entanto, observou-se que, ao categorizar os estudos por continente, 46% deles tiveram suas aplicações e coletas de dados na Ásia. Essa particularidade deve-se ao fato de que os maiores portos do mundo se encontram nesse continente, sejam de granéis líquidos ou sólidos, contêineres ou carga geral. Com isso, há a necessidade de garantir que esses portos sejam eficientes, competitivos entre si e com os demais portos do mundo e mantenham-se em constante evolução, o que, por sua vez, fomenta a realização de pesquisas e estudos nessa área. A Figura 4 apresenta a bibliometria referente ao continente onde esses estudos foram feitos, destacando-se que o estudo feito na Turquia [11] foi contabilizado duas vezes, visto que é uma nação transcontinental (Europa e Ásia).

Apenas um estudo foi de aplicação no continente americano, mais especificamente, nos Estados Unidos da América. Portanto, é possível constatar que há necessidade de pesquisas que contemplem os portos da América Latina referentes ao tema, especialmente quanto à gestão da movimentação de cargas.

Ademais, foi analisado o tipo de terminal marítimo onde os estudos foram aplicados. A Figura 5 mostra que 65% dos estudos foram modelos e aplicações feitos em terminais de contêineres; 14%, em terminais de granéis; apenas 7%, em terminais de carga geral; e 14% foram estudos de aplicação geral ou que não especificaram o tipo de terminal.
Essa divisão entre os tipos de terminal acontece pela tendência de contêinerização das cargas, especialmente de carga geral, visto que a movimentação de contêineres apresenta taxas rápidas de manuseio de carga ao ser comparada aos demais tipos de carga (Casaca, 2005). Tratando-se de movimentação de cargas, deve ser destacada a ligação entre eficiência do manuseio, desempenho operacional e custo, isto é, influência que cada parte do sistema tem sobre a outra (Yang & Chang, 2013).

Além disso, o comércio exterior tem apresentado expansão, mesmo em meio à crise, especialmente na movimentação de contêineres (LeGriffin et al., 2011), o que também resulta no aumento da concorrência entre os portos marítimos (Jurjevic & Hess, 2016). Os contêineres são resultado do avanço nas tecnologias de transporte, e as cidades onde os portos estão localizados são um centro de redes de conexões marítimas, por meio das quais há um fluxo denso de pessoas, bens e ideias (Akhavan, 2017).

Tratando-se de ferramenta e/ou método de análise, modelos de simulação foram utilizados em cinco dos artigos, além disso, apenas o DEA foi usado mais que uma vez em dois trabalhos. Os modelos de simulação são uma representação do processo ou sistema, o que possibilita a incorporação de mudanças e a verificação de seus efeitos, podendo auxiliar na economia de custos e em outros recursos que não agreguem o valor esperado ao ambiente (Casaca, 2005). Entretanto, é comum que os modelos sejam retirados da literatura, e quando não, desenvolvidos apenas pelo olhar do analista. A ausência de um gestor da organização que participe da modelagem do sistema e incorpore seus juízos de valor e preferências pode incorrer em problemas de gestão que serão evidenciados na Seção 3.3.

3.2. Mapa da Literatura

O tema Avaliação da Movimentação de Cargas em Portos remete à uma avaliação da operação, que está diretamente ligado ao nível operacional. No entanto, ainda que esse fato seja considerado, a análise do PB trouxe a constatação de que, assim como o objeto de avaliação dos artigos variavam, também variava a qual nível de gestão o trabalho poderia estar relacionado.

Portanto, para a construção do Mapa da Literatura (Figura 6), os artigos foram analisados a que nível de gestão e planejamento estão ligadas as decisões e medidas abordadas nos estudos. Esses níveis, considerados para a análise crítica do PB, já são bastante difundidos na literatura e também na área de negócios: Estratégico, Tático e Operacional.
O nível Estratégico contempla a visão de futuro da organização, planejamento de longo prazo, decisões que envolvem a alta direção e contempla fatores internos e externos. O Tático é considerado um nível departamental, geralmente acompanha um único processo do início ao fim, tendo a função de criar metas e condições para colocar em prática os objetivos estratégicos, e as metas são, geralmente, de médio prazo. Por fim, o nível Estratégico abrange ações de curto prazo, ligadas à rotina da organização e à execução de tarefas e operações.

Um dos estudos foi alocado na intersecção do mapa, isto é, abrange todos os níveis de gestão e planejamento, já que este tem como foco a Melhoria da Qualidade nos Portos [10]. Para tanto, o trabalho tem o objetivo de projetar métricas de desempenho portuário a fim de, por meio da avaliação e monitoramento dessas métricas, conseguir definir um plano de ação para melhorar a qualidade dos serviços prestados pelos portos. A Qualidade, em um contexto organizacional, ainda que tenha um setor dedicado apenas para tal área, deve ser um conceito e um conjunto de práticas institucionalizadas e contida em todos os processos e colaboradores.

Avaliação da Operação [2,12] sugere uma intersecção entre os níveis Tático e Operacional. Isso ocorre porque os trabalhos utilizam a avaliação de procedimentos, atividades e situações operacionais com o objetivo de planejamento da utilização e produtividade dos equipamentos.

### 3.3. Análise Sistêmica

Conforme citado anteriormente, para a Análise Sistêmica, foram utilizados 12 dos 14 artigos selecionados no Portfólio Bibliográfico. As Figuras 7, 8, 9 e 10 sintetizam os diagnósticos do PB com relação às lentes dessa Análise.
O início da Análise Sistêmica decorre do diagnóstico da Lente 1 – Abordagem – na qual é utilizada a divisão das abordagens Normativista, Descritivista, Prescritivista e Construtivista, como referências há trabalhos de Roy (1993) e de Dias & Tsoukiás (2004). Além dessa classificação, os artigos são examinados quanto à harmonia entre a abordagem que norteou a construção dos instrumentos e os métodos avaliados presentes no PB e o uso da pesquisa proposta. Em linhas gerais, analisa-se se esses métodos são desenvolvidos para aplicações generalizadas, ou se são desenvolvidos de modo específico no intuito de atender a contextos específicos. No PB, foi observado que todas as pesquisas desenvolvem uma abordagem realista, isto é, normativista e descritivista (Roy, 1993), onde 25% se apresentam com abordagem normativista; e 75%, descritivista. O teor dos estudos e os objetos de avaliação deles sugerem a utilização desse tipo de abordagem, já que as medidas são, em sua maioria, físicas, e nunca subjetivas, como tempo médio de permanência do reboque, utilização dos equipamentos, tempo de carregamento, economia de energia, redução de emissão de carbono, payback de investimentos, entre tantas outras consideradas nos estudos. Com relação à harmonia, identificou-se que 100% dos trabalhos possuem uma abordagem compatível com o seu uso e aplicação, uma vez que eles têm como característica a construção de modelos com base na literatura, alguns deles ajustados com conhecimento dos próprios analistas sobre o contexto e podem ser generalizados para outros cenários. Os estudos de caso, nesses trabalhos, são uma aplicação numérica/validação do modelo proposto. Quanto a apresentar-se o objetivo de resolver determinado problema ou melhorar algum parâmetro dos portos, ainda assim os modelos são genéricos e passíveis de generalização. Com relação à Lente 2 – Singularidade –, o objetivo é investigar se os pesquisadores dos estudos reconhecem a especificidade do problema, tanto ao considerar os gestores como decisores na construção do modelo, quanto com relação às características inerentes desse contexto físico. No PB analisado, 100% dos trabalhos não apresentam singularidade. Nenhum dos modelos de avaliação foi construído por meio da participação de um decisor, e apenas um deles identifica a existência desse ator nesse contexto decisório. Entretanto, ainda que faça essa identificação, no estudo de Silva et al. (2015) o trabalho de um gerente não se dá na construção do modelo, e sim na validação dos resultados após sua aplicação. Essa validação ocorre pela análise dos dados históricos do terminal e pela consulta ao gerente, demonstrando que, ainda que este seja considerado na análise, sua importância ainda é pequena. A Lente 3 – Processo de Identificação de Objetivos – tem o propósito de apurar se os objetivos, variáveis e critérios dos modelos contidos no PB, reconhecem a necessidade de expansão de conhecimento no decisor. De acordo com a afiliação teórica adotada (Ensslin et al., 2010), os modelos de avaliação de desempenho são construídos por...
meio da interação de um facilitador e de um decisor, a fim de expandir o conhecimento dessa pessoa sobre o contexto organizacional, dando o entendimento sobre como tal contexto impacta seus interesses, valores e preferências ao tomar decisões. Para que essa análise seja feita, é preciso que os estudos, antes de reconhecerem essa necessidade de expansão de conhecimento, evidenciem a presença de um decisor.

**Figura 8 – Análise da Lente Processo de Identificação de Objetivos**

Para demonstrar as falhas nesse sentido, Lun et al. (2011) afirmam que, quando um gestor é orientado à rentabilidade e eficiência, existe uma tendência maior ao assumir riscos de negócios. Ainda assim, em nenhum momento as percepções do gestor do terminal portuário foram consideradas e, para verificar a correlação entre o desempenho e a tomada de riscos nos negócios, foram utilizadas medidas físicas, como taxa de transferência do terminal, rotatividade do terminal, ganho (lucratividade), custo operacional e eficiência.

Nesse cenário, 98% dos trabalhos não evidenciam a presença de um decisor, assim a análise dessa lente não se aplica a eles (Figura 8). Em Silva et al. (2015), é caracterizada a presença de um gerente, no entanto sua expansão de conhecimento não é considerada, nem na etapa de identificação dos critérios a serem avaliados. Portanto, de acordo com o aporte teórico que norteou esta pesquisa, os objetivos do modelo/ferramenta, utilizados em Silva et al. (2015), não são legítimos, visto que a legitimidade se refere à incorporação da perspectiva dos indivíduos que compõem a realidade avaliada.

A análise da Lente 4 – Mensuração – busca verificar se o modelo utilizado no artigo do PB inclui a atividade de mensuração dos objetivos e se isso é feito de maneira correta, considerando quais operações matemáticas e estatísticas foram feitas. Em dois dos 12 artigos, não foi possível fazer a análise da lente, porque não apresentam mensuração dos objetivos. Dessa forma, para eles, a verificação da escala e das operações não se aplicam (Akhavan, 2017; Wang & Zeng, 2019), representando 17% dos estudos. Nos outros 83%, foi possível identificar o tipo de escala utilizado, em sua grande maioria escala de razão. Como escala de mensuração, as escalas de razão são quantitativas, e os tipos de medidas utilizadas nos trabalhos, geralmente, são medidas físicas, justificando tal abrangência no PB. A Figura 9 mostra que as operações feitas no processo de mensuração são compatíveis com o tipo de escala utilizada, que permite diversos testes estatísticos e utilização de softwares variados.
A Lente 5 – Integração – tem sua análise baseada na integração das escalas com a percepção do decisor apresentando uma visão holística do desempenho, e não apenas um resultado final (Ensslin et al., 2015). Nesse contexto, nos dois trabalhos que não realizaram Mensuração também não se aplicava a análise da ferramenta. Os 16% que a ferramenta não possibilitou um processo de integração se referem a um artigo no qual foi feita uma comparação entre o desempenho dos equipamentos, apenas uma análise das métricas e índices (Yang & Chang, 2013) e também a um segundo estudo, que utilizou Fuzzy AHP como método de análise dos dados, evidenciando apenas o ranking dos terminais (Balci et al., 2018).

Por fim, a última análise é feita sob a perspectiva da Lente 6 – Gestão – a qual tem o intuito de verificar se as informações geradas pelo modelo de avaliação são úteis para a gestão, isto é, auxiliam no monitoramento e aperfeiçoamento do desempenho. Para tanto, o PB selecionado apresenta decisor em apenas um artigo (Silva et al., 2015) e, por isso, é o único que pode ser analisado sob a Lente 6. No entanto, nem tal estudo, apesar de a modelagem apresentar bons níveis de adaptabilidade e ter sido incorporado um decisor para validar os resultados, a aplicação em um porto específico sugere a incorporar as preferências do gestor desde o início da concepção do modelo, e não apenas na validação de sua utilização. No caso, o gerenciamento, com base nos indicadores construídos, sugere apenas a aquisição de novos equipamentos e nenhum plano de ação baseado em suas métricas.

A Análise Sistêmica, sob a perspectiva Construtivista, feita de acordo com as lentes da afiliação teórica da Avaliação de Desempenho Construtivista, apresenta desalinhamento no cerne desse conceito: o apoio à gestão. Quando os modelos de
avaliação não consideram, em sua formulação, as especificidades do problema a ser resolvido e do contexto físico ao qual se encontram e, mais que isso, não levam em consideração os juízos de valor e preferências do gestor, consequentemente existe uma falha na gestão. Ainda que sejam previstas ações de melhoria, estas tendem a não serem aplicáveis ou apresentarem aplicações ineficazes, por não representarem o gestor como decisor na tomada de decisão.

6. Considerações Finais e Oportunidades de Pesquisa

Este estudo teve como objetivo compreender como a literatura internacional tem discutido e abordado a Avaliação da Movimentação de Cargas em Portos e quais condutas de mensuração têm sido praticadas, somando a isso a busca por evidenciar oportunidades de pesquisa. A operacionalização do instrumento de intervenção ProKnow-C permitiu a seleção de um fragmento da literatura de 14 artigos que aparecem no Portfólio Bibliográfico. Esses trabalhos foram base para a Análise Bibliométrica e construção do Mapa da Literatura. Para a realização da Análise Sistêmica, por meio do estudo de seis lentes, dois desses trabalhos não apresentaram o caráter necessário para serem discutidos sob essa perspectiva, portanto a Análise Sistêmica do PB foi feita em 12 artigos.

A Análise Sistêmica permitiu o estudo de seis lentes relacionadas à afiliação teórica adotada. Também evidenciou a existência de carências nos artigos que compõem o PB, os quais podem ser apontados como direcionamentos futuros e oportunidades de pesquisa, cujo resumo foi evidenciado na Figura 11. Sob a perspectiva da lente Abordagem, constata-se que, para essa área de conhecimento, a utilização de abordagens não realistas e de modelos personalizados pode ser um diferencial. Observou-se a ausência de atores e contextos específicos no PB. Portanto, o reconhecimento de problemas específicos e o desenvolvimento de um sistema de avaliação singular apresentam-se como uma evolução sob a visão da lente Singularidade.

A Lente 3, Processo de Identificação de Objetivos, teve sua análise prejudicada pela ausência do reconhecimento de um decisor, o que incurr na replicação de objetivos presentes na literatura ou definidos pelos próprios analistas (autores) das pesquisas. Para tanto, a identificação de um decisor e, consequentemente, dos objetivos que representem seus interesses e particularidades como gestor da operação de um terminal portuário, torna-se primordial para o desempenho da organização. Quanto à lente Mensuração, a utilização de escalas que atendam às propriedades da Teoria da Mensuração (Merlin, de Souza, Ensslin, do Valle Pereira, & Ensslin, 2012) e que possuam níveis de referência, apresenta-se como uma oportunidade de ganhos na interpretação dos indicadores utilizados.

Conforme o caráter do PB, as escalas e ferramentas utilizadas, em sua maioria, conseguem apresentar uma integração dos indicadores. No entanto, de acordo com o diagnóstico da lente Integração, em nenhum dos trabalhos a percepção dos gestores (decisores) é considerada, o que pode trazer resultado mais fidedigno para a avaliação. Por fim, há a lente Gestão. Por meio deste estudo foi possível constatar que, mesmo com a apresentação dos resultados dos modelos e suas métricas, tais informações não permitem identificar as deficiências da organização, seus pontos fortes e, menos ainda, identificar um plano de ação para ações de melhoria.
**Figura 11 – Oportunidades de Pesquisa**

<table>
<thead>
<tr>
<th>Lente</th>
<th>Oportunidades de Pesquisa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abordagem</td>
<td>Utilização de abordagens não realistas e de modelos personalizados pode ser um diferencial</td>
</tr>
<tr>
<td>Singularidade</td>
<td>Reconhecimento de problemas específicos e o desenvolvimento de um sistema de avaliação singular</td>
</tr>
<tr>
<td>Processo de Identificação de Objetivos</td>
<td>Identificação de um decisor e dos objetivos que representem seus interesses e particularidades</td>
</tr>
<tr>
<td>Mensuração</td>
<td>A utilização de escalas que atendam às propriedades da Teoria da Mensuração e que possuam níveis de referência</td>
</tr>
<tr>
<td>Integração</td>
<td>Considerar a percepção dos gestores (decisores)</td>
</tr>
<tr>
<td>Gestão</td>
<td>Identificar as deficiências da organização, seus pontos fortes e, um plano de ações de melhoria</td>
</tr>
</tbody>
</table>

**Fonte: Dados da Pesquisa (2020)**

Por meio da revisão da literatura, Análise Bibliométrica, elaboração do Mapa da Literatura e Análise Sistêmica, sob a afiliação teórica Construtivista da Avaliação de Desempenho, constata-se que a comunidade científica tem dedicado seus esforços e direcionado suas pesquisas para o desenvolvimento de modelos e métodos de avaliação, sem considerar como esses modelos serão gerenciados e, principalmente, qual a visão do gestor responsável por tal atividade.

Conclui-se então que este trabalho contribui para a literatura científica sobre o tema Avaliação da Movimentação de Cargas em Portos pois identifica lacunas e fornece oportunidades de pesquisa. Além de contribuir com a discussão das condutas de mensuração na atividade portuária, o que pode ser proveitoso para a prática de movimentação de cargas.

Por fim, como limitação da pesquisa, aponta-se que a seleção e análise do PB foi feita por meio da interpretação das autoras desta pesquisa, de maneira qualitativa. Desse modo, o entendimento qualitativo foi apresentado pelos resultados do desenvolvimento do trabalho. Ainda, destaca-se que a utilização de apenas duas bases de dados pode ser considerada uma limitação da pesquisa. Além disso, deve ser apontada também a dificuldade em analisar tal tema sob a ótica de apoio à gestão, pouco evidenciada nessa área de conhecimento.

**References**


THE STRATEGIC ROLE OF ICT IN TOURISM: THE CASE OF IDS
Bruno Miguel Vieira 1; Catarina Nadais 2

Abstract:
Purpose: Over the years, the way people communicate with each other has undergone constant changes. The exponential evolution registered in Information and Communication Technology has been revolutionizing communication making the world a smaller place, thus opening up new possibilities not only for individuals, but also for organizations. This evolution has greatly affected all areas of business and tourism is not an exception. In fact, tourism industry has experienced several mutations over the years with the Computer Reservations Systems in the 1970’s, the Global Distribution Systems in the late 1980’s and the Internet Distribution Systems in the late 1990’s. The purpose of this study is to register the evolution of Information and Communication Technology in tourism and emphasize the role of Internet Distribution Systems in the industry.

Methodology: This study intends to present narrative revision of the state of the art showing a general contextualization of the Systems used in the tourism industry, from its implementation to the present day. We also intend to apply future thinking and design thinking elements to analyze current tourism management practices in what comes to Information and Communication Technology tools, in general, and tourism management systems in particular. A systematic literature revision will also be performed related to the tourism management systems currently used.

Originality: In what comes to our knowledge, no study has been carried out in the case of Internet Distribution Systems. With the undeniable influence that Information and Communication Technologies, and specifically the internet assume in individuals and tourism organizations routines, it is very important to comprehend the role of Internet Distribution Systems in the industry.

Results: The unquestionable evolution registered in the tourism management systems show us that Internet Distribution Systems play a significant role in the tourism industry. It was also possible to identify the evolution trends of these systems and their relationship with other Information and Communication Technology tools such as Internet of Things or Virtual Reality, the profile of the tourist of the future and as so identify future tourism trends. The systematic analysis of the tourism management systems currently used allowed us to identify the strategic potential of its use in the activity of tourism organizations.

Keywords: Internet distribution systems; Information and communication technology; Tourism; Future trends.

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SOCIAL NETWORKS AS A POLITICAL COMMUNICATION TOOL: AN EMPIRICAL STUDY ON THE PORTUGUESE LEGISLATIVE ELECTION IN 2019
Asenate Silva 1; Sandra Filipe 2; José Albergaria 3

Abstract
Purpose: The aim of this paper is to analyse the potential influence of social networks in the political communication of Portuguese Legislative Election. In this sense, two research objectives were proposed: (i) to analyze youth involvement in politics on social networks; (ii) to analyze the digital communication strategy used by the nine major political parties that presented candidates for the legislative office in Portugal, in the campaign period of 2019’s legislative elections.

Methodology: To achieve the proposed objectives, a mixed methodology was used. Firstly, a personal questionnaire was applied to a non-probabilistic convenience sample, composed of 120 young portuguese people, and the data collected were subsequently analyzed statistically by SPSS v.25. Secondly, an online content analysis was conducted to analyze the social networks used by the nine main political parties, as a qualitative and quantitative research tool.

Originality: Prete (2007) highlighted that political marketing allows the use of new communication possibilities to be at the service of political systems, and that digital technologies give candidates and parties an innovative tool to communicate to their current and future voters. In the 2008 United States elections, social networks were indicators of electoral success, demonstrating the potential of the new tool as a means of political communication (Hull & Morgan, 2010). More recently, Donald Trump case was studied by Wells et al. (2019), for its dominance in social media. It is a fact that the internet has not changed the nature of political action, but has provided instruments that make it easier for people to participate immediately, objectively, permanently and singularly in the political process (Motta, Barbosa & Filipe, 2013). Social networks began to exercise an unimagined power, with politics being very susceptible to the pressure of these technologies, in an irreversible modernization process, and not necessarily bad (Crain & Nadler, 2019).

Findings: On the portuguese consumer side, the results showed that 42.9% of respondents claim to follow non-Portuguese politicians on Twitter. 73.3% of respondents said they did not follow the 2019 legislative campaigns on social networks and 26.7% said they did. Of the 26.7% who follow the legislatures on social networks, 78.6% report on Facebook, 14.3% on Twitter and 7.1% on Instagram.

Concerning the digital communication strategy used by the nine major political parties for legislative elections in Portugal, PS stood out as the party that had the best performance on social media and also the party that had the most interaction with fans, and in fact, it was the party that got the best result in the elections. PSD, CDU and CDS-PP, constantly presented by the traditional media, were not very active on social networks. In contrast, the Iniciativa Liberal and CHEGA, elected for the first time in 2019, had no prominence in the traditional media and stood out better on social media.

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Practical implications: The result of these elections proves the idea that the social media may have been determining factors for the victory of the new parties, since these parties were little presented by the traditional media.

Research limitations: It was not possible to verify whether any analyzed party used fake news or bots as a strategy to obtain greater competitive advantage.

References:

Keywords: Social networks; Digital marketing; Political marketing; Social media; Fake news.
CORPORATE SOCIAL RESPONSIBILITY: A LITERATURE REVIEW AND A STUDY OF A CODE OF ETHICS OF A PORTUGUESE COMPANY (DELTA CAFÉS)
Diana Carneiro ¹; Nídia Frias ²; Miguel Gonçalves ³

Abstract

Purpose: The main objective of the paper is to provide knowledge about the relevance of ethics, business ethics, codes of conduct, corporate social responsibility and sustainable development, in order to elucidate all readers about the importance of developing ethical behavior and implementing a code of ethical conduct by companies. In addition to these aspects, a case study is presented through the analysis of the Delta Cafés code of ethics. Delta Cafés is a successful Portuguese company known for integrating social responsibility into the genesis of its business, for being the first to go through a certification process and to be certified by the SA8000 standard.

Methodology: The research method of this paper is the bibliographic method which consists of collecting data through an analysis of secondary sources, that is, texts and documents. Nevertheless, the paper also benefits from a primary source, i.e., the code of ethics of Delta Cafés.

Originality: There are few studies that relate the attitude of a national company towards Corporate Social Responsibility (CSR) with the aim of building a comparative analysis with the theoretical results obtained in the study itself through a review of the literature. In these terms, this research aims to fill this gap, since it is the first case study that links CSR theory with CRS practice, that is, the code of ethics of Delta Cafés.

Findings: Our paper concluded that CSR plays a central role in a company's strategy and that the adoption of a code of ethical conduct is an essential component for its success and good public image.

Practical Implications: The article is aimed to young business science students in order to help them in their future professional life and elucidate them about the importance and impact of an ethical behavior by managers and companies.

Keywords: Corporate Social Responsibility; Ethics; Business Ethics; Code of Ethics; Delta Coffees.

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BE FRUITFUL AND INCREASE IN NUMBER: THE SEVEN PORTUGUESE SCHOOLS OF COMMERCE (1759-1821)
Cecília Duarte ¹; Miguel Gonçalves ²; Cristina Gonçalves Góis ³

Abstract
Purpose: The purpose of this article is to debate how, when and why the seven Schools of Commerce were created, both in Portugal and in Brazil during the reigns of D. José I, D. Maria I and D. João VI, checking the relationships between them.

Methodology: For the accomplishment of this work the privileged sources of investigation were the secondary ones, namely, articles published both in national and international journals. Through these articles, the present literature review was carried out, thus adopting a qualitative research method.

Originality: Naturally, the teaching of Accounting is closely related to the birth of the accountant profession, or using the current term at that time, bookkeeper (Gonçalves, 2010: 56), a class that had started to gain importance since the second half of the century XVIII (Gonçalves & Marques, 2010: 328). Hence the importance of such an organism as it is the embryo of both the teaching of Accounting and the profession associated with it.

Findings: With the beginning of the first course of the Lisbon School of Commerce, on September 1, 1759 (Cardoso, 1984: 87; Santana, 1986: 19), the first step towards the official and public teaching of accounting in Portugal (Lira, 2011: 101). It should be noted that from that day on, accounting did not stop teaching in Portugal (Duarte, Lopes & Gonçalves, 2017: 305). In this work it will be possible to verify that the Schools of Commerce are associated with their patron, the Lisbon School of Commerce, besides that, in all of them, the teaching of double-entry bookkeeping was privileged.

References

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keywords: Schools of commerce; Teaching; Double-entry bookkeeping; Accounting.
ACCESSIBILITY IN MUSEUMS TO VISUALLY IMPAIRED PERSONS
Susana Mesquita ¹

Abstract
Purpose: Museums are important cultural places, visited each year by millions of people (Ambrose & Paine, 2018). However, nowadays, museums face many challenges in order to be competitive. Their value does not only depend on their assets related to the heritage that they exhibit, but also on several other factors such as their accessibility and interpretation – provision of information through means such as new technologies (Metatla et al., 2018). Hence, as stated by Falk and Dierking (2016), it is important that museum managers ensure that museum visitors are able to be autonomous in the museum and to explore and find a meaning during their visit. This is especially important in the case of visually impaired visitors, whose experience in museums is highly dependent on the accessibility of the museums (websites, exhibitions rooms, entrance, restrooms, corridors…) and on the strategy for communicating information about the museums and their objects. In this context, interpretation corresponds to all the forms of communication adopted in museums – brochures, interpretation panels, guided tours, technologies – to convey information to visitors (Moscardo & Ballantyne, 2008; Tilden, 2007). Interpretation is designed to transmit information that visitors would not be able to obtain by themselves and to make people more aware of the importance of the museums’ assets (Cooper, 1987; Tilden, 2007). This presentation aims to identify a broad set of constraints experienced by PwVI during their visits to museums and present some strategies to increase their accessibility in their museums’ visits. Conclusions and implication for policy makers and museum managers are presented in order to promote the creation of more inclusive museums that offer pleasant experiences. The presentation begins by exploring the concepts of accessible tourism and disabilities. Then, it proceeds with a discussion on different constraints experienced by PwVI and strategies that museum managers may adopt to help minimize these barriers. Some case studies will be analysed in order to show how different strategies are being implemented in museums. Finally, the presentation ends with a reflection on the potential of different strategies for PwVI and with the provision of some guidelines on the adoption of this kind of strategies.

Methodology: The present study was undertaken in a set of relevant museums located London, Paris and Madrid. Observation was carried out in order to analyse the accessibilities presented in these museums. The observation was done based on a grid integrating 35 potential strategies to increase the museum’s accessibility for visually impaired visitors – 13 strategies designed to increase the accessibility of the museum sites and 22 appropriate for increasing the accessibility of the exhibition objects and interpretation. This grid was created based on the literature review. The researcher visited all the museums to identify the strategies of the grid applied by the museum and to analyse how the techniques were adopted in each museum.

Findings: There is an international consensus that museums should be “all inclusive” as inclusion in museums is a matter of social justice. This perspective gained importance in the 1990s when museums became linked through social policy agendas (Kinsley, 2016). Besides the policies and legislation improvement, this group of citizens still experiences many constraints for participating in leisure activities. The quality of a person’s life is largely affected by visual impairments (Tadíc et al., 2015) and in the last

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decades technology and different strategies have been referred as important ways to minimize constraints attempt by PwVI during their visits to museums (Falk & Dierking, 2016).

**Originality/value:** There are few studies on the accessibility of museums to visitors with visual impairments and, most of them are confined to one museum and to one or a small set of strategies for improving the accessibility of these attractions. Disability is considered a minority issue by many people (Ochoggia, 2003; Poria et al., 2009; Shakespeare, 2018; WHO, 2015, 2016), however, PwD already represent 15 per cent of the world population, which means that there are more than 1 billion of PwD in the world (Shakespeare, 2018; The World Bank, 2016; WHO, 2018). Between 110 million and 190 million adults suffer from significant difficulties in functioning. About 93 million children, among which one in twenty of those under 15 years of age, experience a moderate or severe disability (WHO, 2015). There are several types of disabilities. Visual disability is one disability affecting a very large amount of people worldwide. According to the World Health Organization (2016) 285 million people are visually impaired while 39 million are blind.

**Keywords:** Accessible tourism; Disability; Visual impaired visitors; Museums; Accessibility; Constraints.

**References**


FILM TOURISM AS A CONTRIBUTION TO THE CITY MARKETING: AN EXPLORATORY STUDY
Bruno Barbosa Sousa 1; Teresa Dieguez 2; José Maria Gomes 3

Abstract
Objective: To understand the role that film tourism plays in marketing applied to territories and how important it is for segmenting markets in specific tourism contexts. The movie tourism business incorporates the development of destination marketing campaigns to promote films, while more and more common initiatives are emerging between DMOs and filmmakers to promote films and tourist destinations.

Methodology: The present study will include document analysis and exploratory (semi-structured) interviews with some tourism leaders and stakeholders in Portugal. In a second phase, it will be intended to administer questionnaires surveys to film tourism consumers.

Originality: The management of territories provides several advantages for the sustainable development of a tourist destination, stimulating exports and attracting more tourism and investment. Just like businesses, cities and countries can (and should) develop their own brands, becoming increasingly differentiating and competitive destinations.

Results: In particular, film tourism has increasingly established itself as one of the most common leisure activities, and one of the fastest growing in the tourism sector, as it is a segment where tourists have the highest expenditure and, for this has received greater attention from business leaders, policy makers and academics around the world.

Practical implications: From an interdisciplinary perspective, this study presents inputs in the area of marketing (city marketing) and tourism (film tourism). In the end, some lines of future research will be presented.

Limitations: This is a preliminary research with an exploitative and developing nature. Future steps will yield new results and empirically test several hypothesis.

Key words: DMO; City marketing; Film tourism; Satisfaction; Segmentation.

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LINKING DARK TOURISM WITH TOURIST EXPERIENCES: A CONCEPTUAL MODEL OF RELATIONSHIP BETWEEN DIFFERENT SHADES OF DARK AND TOURIST EXPERIENCES' DIMENSIONS

Margarida Cunha 1; Carla Silva 2

Abstract

Purpose: An extensive literature review focusing on the concept of dark tourism and experience provide a framework in which different stages of dark tourism can be experienced. This study uses Stone’s “dark tourism spectrum” which range dark tourism sites from lightest to darkest relating it with 4 E’s tourist experiences based on Pine and Gilmore’s model.

Methodology: This paper suggests a conceptual model, based on the literature review regarding dark tourism and experience, which provided the grounds for delimitating dimensions and suggesting their operationalization.

Originality: Dark tourism involves travelling to sites associated with death, suffering and macabre (Stone, 2006). And people are attracted to dark tourism because it provides a kind of unique and memorable experience associate with death. Despite the increasing research on dark tourism and tourism experience there is no work that link the two of them based on 4 E’s model of Pine and Gilmore (1998).

Findings: The conceptual model proposed considers the relationship between previously identified 4 E’s tourist experience dimensions and the five shades of dark: Education related with the Darkest shade, Escape linked with the Darker and Dark shades, Esthetics associated to the Light shade and Entertainment connected to the Lighter and Lightest shades.

Practical Implications: The results could have potential practical implications for dark tourism destination’ planning, marketing and management, and also experience product development, promoting their own differentiating and unique features that attract tourists and involve emotionally tourists with these settings enhancing destination loyalty.

Key Words: Tourism; Dark tourism; Tourist experience; 4 E’s model.

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SOCIOECONOMIC FACTORS AND RELIGIOUS TOURISM: THE CASE OF NATIONAL SHRINE OF OUR LADY OF APARECIDA (BRAZIL)

Matheus Belucio ¹; Gustavo Enrico Rodrigues ²; José Alberto Fuinhas ³

Abstract
Objective: For decades, more people have been visiting the National Shrine of Our Lady Aparecida, so the objective of this study is to identify the relationship between economic factors and religious tourist visits in the Brazilian Shrine.

Data and Methodology: Based on statistical data provided by the Shrine (the statistical information is arranged in a monthly time series starting in March 2012 to December 2017). An Ordinary Least Squares (OLS) was established as the main method for investigating the phenomenon. Pre-tests and statistics such as: VIF, correlation matrix and unit roots were performed. In addition, after estimation, the tests and robustness statistics were verified (heteroscedasticity, autocorrelation, stability, residue verification and model specification).

Originality: This article contributes to the discussion on determinants of religious tourism and brings the application of robust econometric methods to the nature of the data. In addition to exploring the topic of the optics of the tourism economy and the economy of religion.

Results: The results confirm the relationship between the average income of Brazilians and the phenomenon of tourist-religious visits. It shows that climate variables are also related to the number of visitors. Result also found in the case of the Shrine of Fatima (Portugal) (e.g. Belucio & Fuinhas, 2019). It indicates that holidays positively imply more tourists in the Shrine, reinforcing the importance of national tourism for local economic development. Finally, the graphic analysis of the series shows strong seasonality in the phenomenon of Marian religious tourism in Brazil, a problem also detected in the case of Fatima (Fuinhas, Marques & Belucio, 2017).

Practical implications: Benefits the new action plans for better management of the Shrine. Policy makers will also rely on the theoretical basis to establish legislation and incentives for religious tourism in the State of São Paulo, which is the sector responsible for much of the local economy. In addition, the study is a positive reinforcement for the Aparecida Shrine (as well as other Shrines around the world), which made itself available to make statistics on the number of religious tourists (or pilgrims) and share it with the academy, as it brings a new perspective of the institution's visitors.

Limitations: The availability of statistical data is characterized as the greatest barrier to new econometric approaches to the phenomenon of Marian Catholic religious tourism.

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References

Keywords: Economic factors; Religious tourist visits; National Shrine of Our Lady Aparecida; Family income.

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THE CHALLENGE OF RURAL TOURISM ENTERPRISES TO DEAL WITH COVID-19: A CASE STUDY IN VISEU DÃO LAFÕES REGION

Maria Lúcia Pato 1

Abstract
Purpose: The tourism sector is presently one of the hardest-hit by the outbreak of COVID-19, with impacts on both travel supply and demand. This represents an added downside risk to the micro and small enterprises located throughout the national territory, particularly for those located in rural and interior regions of the country. Indeed, here human, material and financial resources are scarce (Pato and Kastenholz, 2017) and the challenge to deal with this crisis must be extraordinary. Thus, the purpose of this study is to explore some behaviors and strategies followed by rural tourism enterprises/entrepreneurs located in one of the most interior region in Portugal.

Methods: In order to allow a deeper analysis, a case study methodology is used. In addition to semi-structured interviews with entrepreneurs of rural tourism enterprises of the region, it was observed and analyzed the web page of the units and other electronic documents to observe the kind of information that they have concerning Covid-19.

Originality: The coronavirus pandemic has had a significant impact on tourism industry due to travel restrictions. However, despite the limitations of rural regions, this can lead to new opportunities for rural tourism enterprises, since they are enterprises where the massification of people does not exist. Moreover, the expectation will be the increase in domestic tourism instead of the growth of the international travel, which maybe puts rural tourism enterprises at the forefront.

Findings: Although still exploratory, this study shows that at least some rural tourism enterprises are active and creative. They search currently new forms and strategies to deal with the pandemic situation, improving the requirements to obtain the “Clean & Safe Establishment” Seal.

References:

Keywords: Rural tourism; COVID 19; Sustainability; Strategy.

Acknowledgments
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THE EFFECT OF CELEBRITY ENDORSEMENT ON ADVERTISING CREDIBILITY, BRAND CREDIBILITY AND CORPORATE CREDIBILITY. A CASE STUDY: SITI BADRIAH ON PROGRAM BERKAH ENERGI PERTAMINA

Lucky Fajar Rakasulung 1

Abstract

Purpose: The use of celebrity endorsers is one of the most popular strategies used by firm with high value amount of money. Hence the research is required related with celebrity endorser performance regarding the advertising credibility, brand credibility, and corporate credibility. The research has two objectives: (1) Examine the effects of celebrity trustworthiness on advertising credibility, brand credibility, and corporate credibility; (2) Examine the effects of celebrity attractiveness on advertising credibility, brand credibility, and corporate credibility; (3) Examine the effects of celebrity expertise on advertising credibility, brand credibility, and corporate credibility; (4) Examine the effects of advertising credibility on brand credibility, and corporate credibility; (5) Examine the effects of brand credibility on corporate credibility.

Design/methodology/approach: The research followed procedure to gain an in-depth knowledge of the topic by understanding the research question, generating hypothesis, creating a scale of variable and refining the measure for other scales. This research divided into three phases, in the first phase, the researcher review the existing literature on each of variable and conducted exploratory interviews with consumers, academics, and marketer to generate an initial pool items. A main protocol of this research based on previous literature was designed. The second step was to examine the validity and reliability test by conducting a Pre-test with 70 consumers and in the third phase, the main data was collected, using a self-structured seven point Likert scale (From 0, “Strongly disagree”, to 7, “Strongly agree”). The analysis carried out with Covariance-based structural equation modelling (CBSEM) with the scale measurement and hypothesis evaluation used AMOS as software. Having set out the research method and investigation to test the hypothesis, finally the discussion and conclusions are presented.

Findings: Having surveyed of 220 respondents who follow the program “Berkah Energi Pertamina”, the results show that the Celebrity trustworthiness, Celebrity Expertise and celebrity attractiveness has a positive effect on advertising credibility, brand credibility and corporate credibility. On the other hand the brand credibility has less effect to corporate credibility.

Originality/value: Previous research examined the effect of celebrity trust on advertising credibility, brand credibility and corporate credibility at United Kingdom with various artist. In this research, we involved the variable of celebrity attractiveness and celebrity expertise as additional variable with focused on “Berkah Energi Pertamina” Program from August 2018 to September 2019 and Siti Badriah (the famous singer in Indonesia) as Celebrity Endorser. This research provides valuable point to select the current appropriate attribute of celebrity endorser in advertising program in Indonesia.

Practical implications: The result of this research indicates that brand credibility has the less effect to corporate credibility from the mean value. Hence we suggest to Pertamina to increase the attractiveness of product and continuously to improve Corporate Social Responsibility program.

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**Research limitations:** Future research is suggested to add the other variable of celebrity endorsement such as Celebrity similarity, celebrity liking, Celebrity familiarity etc. The large variety of celebrity endorsement can opens up the possibility different results. Advance research is also expected to use different tools beside AMOS SEM.

**Keywords:** Celebrity Endorsement; Advertising credibility; Brand credibility; Corporate credibility.
ANALYSIS OF FINANCIAL IMPACT OF RETAIL STORE CLOSURE ON RETAIL STOCK PRICE IN SOUTHEAST ASIA
Yosia el Gibort 1; Edward Tanujaya 2

Abstract

Purpose: Amid the news of the closure of retail stores in Southeast Asia, the financial condition of either the retail issuers and investors must be affected. The specific objective of this study is to evaluate the financial impact of closing retail stores on stock prices and the financial performances of the retail issuer.

Methodology: Empirical approach using Fama-French three factor model is applied to calculate the stock abnormal return due to the announcement. Common profitability and relative market value ratios are used to calculate the financial performance.

Findings: An interesting finding is that there is a negative abnormal return caused by the store closure announcement, significant in 5% alpha until the first day after the announcement date. The negative abnormal return appears until the fifth day after announcement with the declining significance. However, the financial performances after store closure are varied.

Originality/value: This research is believed to be the first regarding the impact of the announcement of the closure of retail stores on the Southeast Asian stock market.

Practical implications: Through this research, it can be concluded that the closure of retail outlets in Southeast Asia must be appropriately calculated in order to keep the share prices and the performances looked good in investors’ view.

Research limitations: The research is done in four Southeast Asian countries due to language limitation. Further research can multiply the samples from all countries in Southeast Asia to Asia.

Keywords: Retail; Store closure; Stock; Performance; Southeast Asia.

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1. Introduction

The retail sector is one of the business sectors that has contributed significantly to the economic growth of countries in Southeast Asia. Based on data obtained from Frost & Sullivan (2016), retail sector sales figures in four Southeast Asian superpowers (Indonesia, Malaysia, Singapore, and Thailand) reached 650 billion USD in 2015 and were expected to continue to grow 15.5% per year until reaching 1 trillion USD in 2018. However, in fact, in recent years, the Southeast Asian retail sectors has tended to experience a significant decline in total sales figures (Kompas, 2018). Change in people’s lifestyles, the emergence of online shopping trends, fierce competition among retail issuers, and change in purchasing power are the main causes of the current depressed retail sales figures in Southeast Asia (FEB UI, 2019).

The consequence of this situation is the decision of several retail issuers to close all physical outlets or reduce the number of large outlets considered less productive and not developing (Srinivasan, Sridhar, Narayanan & Sihi, 2013). The incident at the end of 2017 reminded us of the trending news about the closure of 22 (all) Debenhams outlets, 2 Lotus outlets in the Thamrin area, Matahari outlets, and Ramayana outlets in Indonesia. The closing store trend continues until 2019, such as the closing of 26 PT. Hero Supermarket Tbk. outlets and around 80 retail outlets of PT. Matahari Putra Prima Tbk. in the last years. In Malaysia, until the end of October 2017, 5 Giant supermarket outlets had been closed there. Likewise, Singapore, known as a paradise for shopping, also experienced the closure of retail outlets in many shopping places. In fact, the decision to close the outlet has a financial impact on the retail issuer itself, which later will also affect the financial condition of investors of the retail issuer.

Research on the financial impact of the decision to close retail issuers’ outlets continues to grow, including research of the impact of retail outlet closure on retail issuer’s stock prices. According to the Efficient Market Hypothesis theory, stock prices reflect all information available in the market related to the issuer. As the result, information plays an important role in triggering the investors’ reaction on the stock price of an issuer in the capital market. Research conducted by Chowdhury & Sarkar (2017) in the United States proves that the store closure from retail issuer with positive sales growth in the previous quarter provided a positive increase in the issuer’s stock prices compared to control. On the other hand, store closure from retail issuer with negative sales growth rates did not give any significant effect on the issuer’s stock prices compared to control. However, this research has not been tested yet on the condition of retail issuers and stock investors in Southeast Asia. Research on the financial impact of closing retail outlets on the financial performance of retail issuers is also developing. One of them is research on the financial impact of closing retail outlets on the profitability of issuers. The closure of a retail outlet can cause the issuer’s profitability to be lower. On the other hand, some cases in the United States show that closing the right retail outlets (closing outlets that are indeed are unprofitable) can actually cause the issuer’s profitability to the higher level (Fay & Feng, 2020).

Therefore, testing the financial impact of the closure of retail issuer’s outlets on stock prices and the financial performance of retail issuers in Southeast Asia is interesting to work on. The Southeast Asian region is chosen because this region has become one of the fastest growing regions in the world nowadays (HV, Thompson & Tonby, 2020). Through this research, it is expected that a new and open insight will be obtained regarding the reaction of investors in Southeast Asia to the stock prices of issuers that close its retail outlets and the compatibility of these reactions with the financial performance of retail issuers arising from the closure of these outlets. Thus, the result can be used for academic and public purposes to know how to address the phenomenon of the closure of retail outlets happening these days.

The formulation of the issues in this study are (1) what effect does the physical closure have on retail stock prices in Southeast Asia? and (2) how is the financial performance
of retail issuers in Southeast Asia before and after the closure of retail issuer’s physical outlets?

The research purposes are (1) analysing the effect of closing physical outlets on retail stock prices in Southeast Asia, and (2) evaluating the financial performance of retail issuers in Southeast Asia before and after the closure of retail issuer’s physical outlets.

2. Literature Review

2.1. Retail

According to Berman, Evans & Chatterjee (2017), retail is an activity of business of selling goods and services directly to end consumers (either person or a small number of households). The entrepreneurs who carry out the retail sales are called retailers, whose companies are usually called as retail companies. In general, the retail sector can be classified into product and service retail. The product retail is further divided into physical store-based retailing and non-store-based retailing. In this paper, retail issuers that will be further investigated are retail issuers that sell products and have physical outlets in running their businesses.

2.2. Stock and Factors Affecting Stock Price

In carrying out retail company operation, a retail company can issue shares in order to fund its long-term business activities (Ross, Westerfield & Jordan, 2019). For the company, issuing shares is one of the long-term funding sources for the company’s business activities by offering some part of the company’s ownership. For the investor, stock is an investment opportunity that can provide attractive returns in the form of dividends and capital gains – the positive value of selling price minus buying price of shares. That’s the reason why stock becomes one of the popular financial instruments nowadays. However, the stock price continuously changes in the stock market. The stock price movement in market can be affected by three main factors: economic, market-related, and specific-firm factors (Madura, 2015).

Economic condition of each country can give an impact to the stock price in general. The economic factors can be divided into 3 main sub-factors: economic growth, interest rates set by the central bank, and exchange rates of each country (Madura, 2015). Market factors in certain period can also create a fluctuation in stock price. Positive or negative market sentiment to the news of new government focused sectors, news about a company, and the emerging expectation in investors circle sometimes plays a big role. There’s also a study exploring the January effect made by the investors’ behaviour in stock market. The January effect also gives a significant change in certain stock (Gerry, 2017).

For some companies, the specific-firm factors tend to give more significant impact to the stock price than other factors mentioned above. As the result, investors must keep their eyes on the corporate action and changes in a company’s performance. In retail sector, investors mostly watch for the changes in issuer’s performance, the sales forecast, threat of new competitors, and the changes in price of the retail products sold by the company (Madura, 2015). That’s why company’s announcement that gives hint of company’s growth, present income to the company, and other decisions affecting company’s expected cash flow; will become the main focus of the investors – especially for the retail company.

2.3. Retail Store Closure Announcement and Its Impact to The Stock Price

The announcement of store closure from retail issuers in this study is one of the drivers of share prices caused by specific-firm factor of the issuer itself. According to the signalling theory (Ross, 1977), the announcement from the issuer will give a signal to investors regarding the possibility of company growth, company profits, or financial performance that will be obtained by the company in the future. This is also in accordance with efficient market hypothesis stating that the stock price reflects all information
available related to the issuer (Fama, 1970). When an announcement given by a company is perceived as negative news, the price of a stock will decrease. But, if an announcement is perceived as positive news, the price of a stock will increase. Hence, the signals given by a company can cause abnormal return on its shares. Chowdhury and Sarkar’s research (2017) shows that the announcement of the closure of retail outlets in the United States produces a positive abnormal return on the stock price of retail issuer significant until the third day after the announcement. Based on signalling theory, it can be said that closing physical outlets from retail issuers in the United States is considered as positive news. Based on the theory of efficient market hypotheses, it can be concluded that the abnormal returns of retail issuer's shares reflect the good changes in the net present value of issuers’ future earnings arising from the decision to close retail outlets’ physical outlets (Chowdhury & Sarkar, 2017).

2.4. Abnormal Return Calculation
An abnormal return is defined as the difference of value given by the realized return of a stock compared to the return of a stock expected by investors (Bodie, Kane & Marcus, 2018). The abnormal return of a stock can be calculated using many models, one of them is Fama-French factor model combined with event study analysis. However, the event study analysis must be done in short-term analysis in order to prevent the confounding effect of other events besides the retail store closure announcements.

2.5. Retail Store Announcement and Its Impact to The Financial Performance
Besides giving a financial impact on stock prices, closing a retail issuer's outlet can also change the performance of retail issuers in the future (Fay & Feng, 2020). One of the company's performance affected the most is the company's financial performance. It can occur because the issuer's decision to close its physical outlets can affect the issuer's overall costs and revenues through a number of ways referring to the supply and demand mechanism (Chowdhury and Sarkar 2017). For example, once a physical outlet is closed, the previous customer of the physical outlet may have three alternatives that can be chosen later, namely (1) consumers can choose substitute goods and not buy certain items (which are often bought at the issuer's outlets) later, (2) consumers can switch to physical outlets from the same issuer located near the closed store, or (3) consumers can switch to physical outlets from other issuers that are at the closest location to the initial issuer's closed physical outlets (Haans & Gijsbrechts, 2010). The variation in the consumer behaviour will certainly determine the company's financial performance in the future, after the closure of physical outlets. In other words, the level of the issuer's profitability and the relative market value of an issuer will very likely change due to a phenomenon of closing retail outlets made by the issuers.

3. Data and Method
The objectives of this paper is to evaluate the impact of retail store closure on the stock prices and financial performance of retail issuers. An event study using Fama-French three factor model was chosen to measure the abnormal return caused by the event. The financial performance of each retail issuers before and after the store closure was evaluated using profitability ratios and relative market value indicators.

The data used in this study are obtained from Thomson Reuters Datastream, in form of secondary data of each retail issuers with the store closure event listed on 4 Southeast Asian Stock Exchanges (Indonesia, Malaysia, Philippines, and Singapore). The secondary data collected are as follows: 1) Retail issuer’s financial statements for five-year period, 2) Retail issuers’ daily stock prices for five-year period (2015-2019). The stock prices used in this study are the last price of each stock during the regular trading day (closing price). The retail issuers picked as the samples of the study are chosen by the purposive sampling method, based on the inclusion and exclusion criteria. The active retail issuers that closed its store during the year 2015-2019 are included as the samples.
The exclusion criteria are the retail issuers that announced layoff or financial statement or bankruptcy together with the store closure announcement. After the list of active retail issuers in each country’s stock exchange are obtained, the process started with the identification of the date of store closure announcement event for each retail issuer. If the date of the event occurred during the weekend or holiday, the event day would be counted on the next first trading day after the event day. The event dates were obtained from business news articles in three different e-sources for every country using keyword: “store/outlet” and “closed/closure/shut down”. Then, the estimation window and event window were set up. The estimation window used in this study was 120 days before the event window occurred (according to Lam, Zhan, Zhang, Wang & Lyons, 2019). The event window was five days prior to the event day until five days after the store closure announcement. In this research, the event day for each retail issuer was called as day 0. The days before the event was called day -1, -2, -3, -4, -5. The days after the event was called day +1, +2, +3, +4, +5. Most of the event studies were carried out using long event window, ranging from one month until years (Odendaal, 2014). However, long event window may have the probability of confounding effect to the stock prices, making a bias in the observation. This is the reason why the study was held using 5-days event window.

After related data, estimation and event window had been obtained; the next process is calculating the abnormal return using the Fama-French three factor model. All data (in form of currency) had to be converted to US Dollar currency, to be equally compared. First, the total return of each stock during the estimation window should be calculated using the equation:

\[
R_{it} = \alpha_{it} + \beta_{it}^m (R_{mt} - Rf_t) + \beta_{it}^{smb} SMB_t + \beta_{it}^{HML} HML_t + \epsilon_{ijt}
\]

\(R_{it}\) = total return of each stock i over day t  
\(R_{mt}\) = market return over day t (showed by the main index return of each country)  
\(SMB_t\) = average return on stock with small market capitalization minus average return on stock with big market capitalization over the day t  
\(HML_t\) = average return on stock with high book-to-market ratio minus average return on stock with low book-to-market ratio over day t  
\(\epsilon_{ijt}\) = zero-mean residual

Second, the Fama-French three factors coefficients of the model obtained were used to calculate the expected return of each stock during the event window.

\[
E(R_{it}) = \hat{\alpha}_{it} + \hat{\beta}_{it}^m (R_{mt} - Rf_t) + \hat{\beta}_{it}^{smb} SMB_t + \hat{\beta}_{it}^{HML} HML_t
\]

Third, the abnormal return calculation of each stock on the event window was done. The abnormal return of each stock is defined as the realized return of stock minus the expected return of stock on each day. Expected return refers to the return expected by the investors if there’s no any announcement.

\[AR_{it} = R_{it} - E(R_{it})\]

The average abnormal return for all samples in the day t was calculated using equation below:
The cumulative abnormal return (CAR) during the event period for each stock was defined as:

\[ \text{CARit} = \sum_{t_1}^{t_2} \text{ARit} \]

The average cumulative abnormal return for all samples during the event period was defined as:

\[ \text{ACAR}(t1, t2) = \frac{1}{N} \sum_{i=1}^{N} \text{CAR}(t1, t2) \]

Next, the standardized arithmetic return (SARs) and standardized cumulative arithmetic return was evaluated using equations below:

\[ \text{SARit} = \frac{\text{ARit}}{\sqrt{\text{VAR} (\epsilon_{ARit})}} \]

\[ \text{SCARit} = \frac{\text{CARit}}{\sqrt{N \times \text{VAR} (\epsilon_{ARit})}} \]

\( \epsilon_{ARit} \) stands for the residual from the risk model estimation for stock i, where N stands for the length of estimation window (120 days).

Last, the cross-sectional independence of abnormal return in this study was examined using the Patell’s Z test. This test assumed that there were no other event-induced changes in the variance of the event-window abnormal return.

\[ t_{\text{Patell}} = \frac{\sum_{i=1}^{M} \text{SCARit}}{\sqrt{\sum_{i=1}^{M} \frac{k_i - 2}{k_i - 4}}} \]

\( M \) = number of stocks in the portfolio

\( K_i \) = the number of non-missing return observations in stock i’s estimation period

\( \text{SCARit} \) = the standardized cumulative abnormal return of stock i

Then, the financial performance of each sample was evaluated by comparing the profitability ratios (the ability of an issuer to earn profit) before and after the store closure announcement. The profitability ratios utilized in the study were three common widely used ratios in the finance study (Ross, Westerfield & Jordan, 2019):

1) Net margin = \( \frac{\text{Net income}}{\text{Total sales}} \times 100\% \)

2) Return on asset (ROA) = \( \frac{\text{Net income}}{\text{Total asset}} \times 100\% \)

3) Return on equity (ROE) = \( \frac{\text{Net income to Common shareholders}}{\text{Total equity}} \times 100\% \)
In addition, the researcher was also interested in evaluating the difference in market value of each issuer before and after the store closure. The market value of each issuer was calculated using 2 main parameters:

1) Earning per share (EPS) = \( \frac{Net \ income \ to \ Common \ shareholders}{Outstanding \ share} \times 100\% \)

2) Price earnings ratio (PER) = \( \frac{Price \ per \ share}{Earnings \ per \ share} \)

4. Results

Research with the aim to analyse the financial impact of the closure of retail physical outlets on share prices in Southeast Asia conducted by various retail issuers during 2015-2019 has been conducted. Out of 106 retail companies listed in the four countries’ stock exchanges (Indonesia, Malaysia, Singapore, Philippine), there are 80 active companies listed since 2015. The finding shows only 19 companies that meet the criteria set before. Each company may have one or more than one store closure announcement during the five-year period. In other words, one company can have more than one event as the sample. The total events investigated further are 30 events of store closure announcements. The list of retail issuers with store closure event in 2015-2019 can be seen in Table 1.

Table 1 – List of Retail Issuers with Store Closure Announcement Event(s) in 2015-2019

<table>
<thead>
<tr>
<th>Issuer Code</th>
<th>Retail Issuer</th>
<th>Retail Store Name</th>
<th>Event(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACES.JK</td>
<td>Ace Hardware Indonesia Tbk PT</td>
<td>Ace Hardware</td>
<td>2</td>
</tr>
<tr>
<td>HERO.JK</td>
<td>Hero Supermarket Tbk PT</td>
<td>Hero, Giant, Food Mart, Star Mart</td>
<td>3</td>
</tr>
<tr>
<td>LPPF.JK</td>
<td>Matahari Department Store Tbk PT</td>
<td>Matahari Dept Store</td>
<td>2</td>
</tr>
<tr>
<td>MAPI.JK</td>
<td>Mitra Adiperkasa Tbk PT</td>
<td>Lotus, Dorothy Perkins</td>
<td>2</td>
</tr>
<tr>
<td>MDRN.JK</td>
<td>Modern Internasional Tbk PT</td>
<td>Seven Eleven</td>
<td>1</td>
</tr>
<tr>
<td>MPPA.JK</td>
<td>Matahari Putra Prima Tbk PT</td>
<td>Hypermart</td>
<td>1</td>
</tr>
<tr>
<td>RALS.JK</td>
<td>Ramayana Lestari Sentosa Tbk PT</td>
<td>Ramayana</td>
<td>2</td>
</tr>
<tr>
<td>AEOM.KL</td>
<td>AEON CO (M) Bhd</td>
<td>AEON BiG, Index Living Mall</td>
<td>2</td>
</tr>
<tr>
<td>BONI.KL</td>
<td>Bonia Corporation Bhd</td>
<td>Bonia</td>
<td>1</td>
</tr>
<tr>
<td>PDNI.KL</td>
<td>Padini Holdings Berhad</td>
<td>Vincci, Seed Brand</td>
<td>1</td>
</tr>
<tr>
<td>PRKN.KL</td>
<td>Parkson Holdings Bhd</td>
<td>Parkson</td>
<td>1</td>
</tr>
<tr>
<td>TMEI.KL</td>
<td>Tomei Consolidated Bhd</td>
<td>My Diamond</td>
<td>1</td>
</tr>
<tr>
<td>CHAL.SI</td>
<td>Challenger Technologies Ltd</td>
<td>Challenger</td>
<td>2</td>
</tr>
<tr>
<td>FJBN.SI</td>
<td>F J Benjamin Holdings Ltd</td>
<td>Banana Republic, GAP Store</td>
<td>2</td>
</tr>
<tr>
<td>MTHL.SI</td>
<td>Metro Holdings Ltd</td>
<td>Metro Dept. Store</td>
<td>2</td>
</tr>
<tr>
<td>SECD.SI</td>
<td>Second Chance Properties Ltd</td>
<td>SCP Store</td>
<td>2</td>
</tr>
<tr>
<td>SHEN.SI</td>
<td>Sheng Siong Group Ltd</td>
<td>Sheng Siong Store</td>
<td>1</td>
</tr>
<tr>
<td>MRSGI.PS</td>
<td>Metro Retail Stores Group Inc</td>
<td>Metro Dept. Store</td>
<td>1</td>
</tr>
<tr>
<td>RRHI.PS</td>
<td>Robinsons Retail Holdings Inc</td>
<td>Robinsons Dept. Store</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Events</strong></td>
<td></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Data collected and processed by the author

The Fama-French three factor model portfolio is arranged by the basis of market capitalization value and book-to-market ratio of all issuers in this study. The portfolio can be seen in the Table 2.
Table 2 – Portfolio Formed Based on Market Capitalization and Book-to-Market Ratio

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>L</th>
<th>M</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>M</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data collected and processed by the author

Table 3 shows the Fama-French three factors coefficient obtained during the estimation period for each event. These factors are will be proceeded to the calculation of expected returns during the event period.

Table 3 – Fama-French Three Factors Coefficient

<table>
<thead>
<tr>
<th>Issuer Code</th>
<th>Alpha</th>
<th>β rm-rf</th>
<th>β SMB</th>
<th>β HML</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACES 1</td>
<td>0.0007</td>
<td>1.2778</td>
<td>**</td>
<td>-0.0816</td>
</tr>
<tr>
<td>ACES 2</td>
<td>0.0012</td>
<td>0.8173</td>
<td>**</td>
<td>-0.3833</td>
</tr>
<tr>
<td>HERO 3</td>
<td>-0.0017</td>
<td>0.4720</td>
<td>*</td>
<td>-0.5579</td>
</tr>
<tr>
<td>HERO 2</td>
<td>0.0013</td>
<td>0.5090</td>
<td>**</td>
<td>-0.5974</td>
</tr>
<tr>
<td>HERO 1</td>
<td>-0.0013</td>
<td>0.4912</td>
<td>**</td>
<td>0.2593</td>
</tr>
<tr>
<td>LPPF 2</td>
<td>-0.0032</td>
<td>1.0263</td>
<td>**</td>
<td>-0.1668</td>
</tr>
<tr>
<td>LPPF 1</td>
<td>-0.0023</td>
<td>1.5130</td>
<td>**</td>
<td>-0.1740</td>
</tr>
<tr>
<td>MAPI 2</td>
<td>-0.0004</td>
<td>0.7850</td>
<td>**</td>
<td>-0.1819</td>
</tr>
<tr>
<td>MAPI 1</td>
<td>0.0004</td>
<td>0.9253</td>
<td>**</td>
<td>-0.2286</td>
</tr>
<tr>
<td>MDRN</td>
<td>0.0013</td>
<td>1.3692</td>
<td>*</td>
<td>2.6257</td>
</tr>
<tr>
<td>MPPA 1</td>
<td>-0.0027</td>
<td>1.2688</td>
<td>**</td>
<td>2.3402</td>
</tr>
<tr>
<td>RALS 1</td>
<td>-0.0027</td>
<td>0.4677</td>
<td></td>
<td>0.1343</td>
</tr>
<tr>
<td>RALS 2</td>
<td>0.0030</td>
<td>0.5708</td>
<td>**</td>
<td>-0.2342</td>
</tr>
<tr>
<td>AEOM 2</td>
<td>0.0016</td>
<td>0.7739</td>
<td>**</td>
<td>-1.0777</td>
</tr>
<tr>
<td>AEOM 1</td>
<td>-0.0016</td>
<td>0.2315</td>
<td></td>
<td>0.0687</td>
</tr>
<tr>
<td>BONI</td>
<td>0.0003</td>
<td>1.0425</td>
<td>**</td>
<td>0.2667</td>
</tr>
<tr>
<td>PDNI</td>
<td>0.0024</td>
<td>0.1830</td>
<td></td>
<td>-0.1705</td>
</tr>
<tr>
<td>PRKN 1</td>
<td>-0.0059</td>
<td>1.3619</td>
<td>**</td>
<td>-0.0675</td>
</tr>
<tr>
<td>TMEI</td>
<td>0.0025</td>
<td>-0.5153</td>
<td></td>
<td>0.0030</td>
</tr>
<tr>
<td>MRSIGI</td>
<td>-0.0017</td>
<td>0.1348</td>
<td></td>
<td>0.0236</td>
</tr>
<tr>
<td>RRHI</td>
<td>0.0000</td>
<td>0.6183</td>
<td>**</td>
<td>-0.2689</td>
</tr>
<tr>
<td>CHAL 2</td>
<td>0.0008</td>
<td>0.2701</td>
<td>*</td>
<td>0.9725</td>
</tr>
<tr>
<td>CHAL 1</td>
<td>0.0006</td>
<td>-0.0247</td>
<td></td>
<td>1.1628</td>
</tr>
<tr>
<td>FJBN 2</td>
<td>0.0054</td>
<td>1.8964</td>
<td>*</td>
<td>2.2140</td>
</tr>
<tr>
<td>FJBN 1</td>
<td>-0.0014</td>
<td>0.6510</td>
<td></td>
<td>1.0434</td>
</tr>
<tr>
<td>MTHL 2</td>
<td>0.0017</td>
<td>0.3624</td>
<td>**</td>
<td>-0.1049</td>
</tr>
<tr>
<td>MTHL 1</td>
<td>0.0008</td>
<td>0.2409</td>
<td>**</td>
<td>-0.0681</td>
</tr>
<tr>
<td>SECD 2</td>
<td>0.0016</td>
<td>0.2839</td>
<td></td>
<td>0.2746</td>
</tr>
<tr>
<td>SECD 1</td>
<td>0.0005</td>
<td>0.1743</td>
<td></td>
<td>0.1915</td>
</tr>
<tr>
<td>SHEN</td>
<td>0.0004</td>
<td>0.2467</td>
<td></td>
<td>-0.0182</td>
</tr>
</tbody>
</table>

Notes: The significant Fama-French three factor coefficient at 10% alpha value is marked by *; The significant Fama-French three factor coefficient at 5% alpha value is marked by **; The significant Fama-French three factor coefficient at 1% alpha value is marked by ***

Source: Data collected and processed by the author

After the expected return value for each issuer’s stock during the event window is known, the value of the abnormal return can be calculated by subtracting the realized return on shares with the expected return on a stock during the event window. Table 4 shows the average abnormal return obtained from this study for each day in the event period.
Table 4 – Average Abnormal Return for All Events

<table>
<thead>
<tr>
<th>Event Window</th>
<th>Average Abnormal Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>0.24%</td>
</tr>
<tr>
<td>-4</td>
<td>-0.86%</td>
</tr>
<tr>
<td>-3</td>
<td>0.02%</td>
</tr>
<tr>
<td>-2</td>
<td>1.71%</td>
</tr>
<tr>
<td>-1</td>
<td>-0.30%</td>
</tr>
<tr>
<td>0</td>
<td>-0.67%</td>
</tr>
<tr>
<td>1</td>
<td>-0.65%</td>
</tr>
<tr>
<td>2</td>
<td>0.27%</td>
</tr>
<tr>
<td>3</td>
<td>-0.12%</td>
</tr>
<tr>
<td>4</td>
<td>-0.47%</td>
</tr>
<tr>
<td>5</td>
<td>0.83%</td>
</tr>
</tbody>
</table>

Source: Data collected and processed by the author

Next, we did a test to see the reaction given by the market related to the announcement of the closing of the outlets of all listed events in this study. The market reaction can be seen from the cumulative abnormal return given by the event (Chowdhury & Sarkar, 2017). The calculation of cumulative abnormal returns and average cumulative abnormal returns for each event have been done. Table 5 provides the value of average cumulative abnormal return (ACAR) for each day of the event period, accompanied by the t-Patell values to see the significance of each data during the event window.

From Table 5, the average cumulative abnormal returns (ACAR) before the announcement of the closure of retail outlets are fluctuating (stock returns are positive on some days and negative on some days). But, overall there is no significant ACAR value found at five days before the announcement (-5,0) until one day before the announcement date. The absence of significance is indicated by the t-Patell test value obtained. None of the ACAR values have a t-Patell value > 1.96. It proves that there is no significant change in returns within the five days before the announcement of the closure of retail outlets. In other words, there is no information leakage before the date of the announcement of the closure of retail outlets.

On the other hand, the average cumulative abnormal returns obtained after the announcement of the retail store closure tends to be negative for the timeframe (0.1), (0.2), (0.3), (0.4), and (0.5). Thus, the announcements of the closure of retail outlets from retail companies in 4 Southeast Asian countries (Indonesia, Malaysia, Singapore, and the Philippines) in general give a negative sentiment to the share prices of retail issuers which did it. This negative sentiment is known to be significant until the first day after the announcement of the store closure -- time period (0.1) with an ACAR value of -1.31% and a t-Patell value of -2.06. After the first day after announcement, the stock returns of retail issuers that announced the closure of retail outlets are still likely to be negative, but not significant (1.96 < t-Patell value <1). Thus, according to the signalling theory, it can be said that the market percept the announcement of the closure of retail issuers’ outlets as a bad news. It is indicated by the declining returns of retail issuers in 4 Southeast Asian countries the time after the announcement of the closure of retail outlets.
Table 5 – Average Cumulative Abnormal Return (ACAR)

<table>
<thead>
<tr>
<th>Event Window</th>
<th>ACAR</th>
<th>t-patell</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-5.0)</td>
<td>0.14%</td>
<td>-0.05</td>
</tr>
<tr>
<td>(0.5)</td>
<td>-0.80%</td>
<td>-1.07</td>
</tr>
<tr>
<td>(-5.5)</td>
<td>0.00%</td>
<td>-0.52</td>
</tr>
<tr>
<td>(-4.0)</td>
<td>-0.11%</td>
<td>0.18</td>
</tr>
<tr>
<td>(0.4)</td>
<td>-1.63%</td>
<td>-1.90</td>
</tr>
<tr>
<td>(-4.4)</td>
<td>-1.07%</td>
<td>-0.94</td>
</tr>
<tr>
<td>(-3.0)</td>
<td>0.75%</td>
<td>1.11</td>
</tr>
<tr>
<td>(0.3)</td>
<td>-1.16%</td>
<td>-1.43</td>
</tr>
<tr>
<td>(-3.3)</td>
<td>0.26%</td>
<td>0.14</td>
</tr>
<tr>
<td>(-2.0)</td>
<td>0.74%</td>
<td>1.32</td>
</tr>
<tr>
<td>(0.2)</td>
<td>-1.04%</td>
<td>-1.15</td>
</tr>
<tr>
<td>(-2.2)</td>
<td>0.37%</td>
<td>0.58</td>
</tr>
<tr>
<td>(-1.0)</td>
<td>-0.97%</td>
<td>-0.91</td>
</tr>
<tr>
<td>(0.1)</td>
<td>-1.31%</td>
<td>-2.06**</td>
</tr>
<tr>
<td>(-1.1)</td>
<td>-1.61%</td>
<td>-1.84</td>
</tr>
</tbody>
</table>

Source: Data collected and processed by the author

The significant average abnormal return at 5% alpha is expressed by **.
Although the market sees the announcement of the closure of retail outlets as a negative news; in fact, the retail issuers’ decisions to close its physical outlets is not always a bad decision theoretically. Sometimes, a retail company shuts down its stores either to improve efficiency or to eliminate the unprofitable outlets. The decision may be chosen to replace the unprofitable / not appropriate outlet with new outlets in other locations that will give more profit to the company. So in other words, the ultimate goal of the store closure is to improve the company’s financial condition and get more profit to make the re-investment possible for company’s future growth. When a retail company grows, the intrinsic value of the company will increase and bring a positive impact on stock price and investors who invest in it.

Comparison of the financial performance of retail companies before and after the closure of retail outlets then becomes interesting to do; with the aim of seeing whether there are differences between the financial performance results before and after the closure of retail outlets of all events of store closure. The financial performance comparison is also intended to find out whether there is a clear pattern between the movements of retail issuer’s stock prices due to the announcement of the store closure with the impact caused by the closure of retail outlets on the company’s financial performance. The company’s financial performance indicators in this study are the company’s profitability and the relative market value of the company. The results of comparison of the financial performance of the samples can be seen in Table 6.

We found that the impact of retail store closure to the financial performance in 4 Southeast Asian countries during 2015-2019 period varies. There’s no same pattern obtained from all store closure events. Some events of retail outlet closure succeed in providing a more positive financial performance in terms of the company’s ability to generate profits. On the other hand, the rest of the events provides more negative financial performance. This result confirms the theory that there are certain retail outlets closing events which - if it’s done and calculated correctly - can increase the profitability of the company. On the contrary, financial performance that actually deteriorated in terms of profitability is thought to be caused by inappropriate selection of outlet closures or retail outlets closing but the divider of assets is still large. It is indicated by the existence of some financial performances after closing retail outlets showing an increase in net margins but decrease in the value return on assets - company’s ROA. However, on the other side, the analysis of relative market value ratio shows a number of retail store closures being succeeded in increasing the relative market value of the issuer in the eyes of investors. However, there is also a ratio of relative market values which actually has been decreasing in the eyes of investors.
Although in terms of financial performance, there are differences in profitability and relative market value at each event of the closure of retail outlet in Southeast Asia, it is not successfully reflected through the movement of stock prices showed by Table 5. It may occur because the market in Southeast Asia has not been able to see the phenomenon of the closure of retail outlets in terms of their impact on the financial performance of the retail issuer. Thus, it is very important for a company to be able to think carefully before closing a retail outlet and ensure that the issuer's financial performance will actually improve with the closing of the retail outlet; so that the market can provide appropriate sentiment also for an announcement of the closure of retail outlets based on their impact on the financial performance of a retail company.
### Table 6 – Financial Performance Comparison

<table>
<thead>
<tr>
<th>Issuer Code</th>
<th>Net Margin</th>
<th>ROA</th>
<th>ROE</th>
<th>EPS</th>
<th>PER</th>
<th>Net Margin</th>
<th>ROA</th>
<th>ROE</th>
<th>EPS</th>
<th>PER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEFORE THE STORE CLOSURE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACES 1</td>
<td>11.80%</td>
<td>5%</td>
<td>4.90%</td>
<td>29.84%</td>
<td>19.39</td>
<td>11.80%</td>
<td>5.50%</td>
<td>5.50%</td>
<td>34.55%</td>
<td>22.57</td>
</tr>
<tr>
<td>ACES 2</td>
<td>15.40%</td>
<td>7.20%</td>
<td>7.40%</td>
<td>35.53%</td>
<td>25.85</td>
<td>13.10%</td>
<td>6.50%</td>
<td>6.60%</td>
<td>33.73%</td>
<td>26.38</td>
</tr>
<tr>
<td>HERO 1</td>
<td>-1.70%</td>
<td>-0.60%</td>
<td>-1%</td>
<td>7.74%</td>
<td>0.34</td>
<td>-1.10%</td>
<td>-0.50%</td>
<td>-0.70%</td>
<td>7.73%</td>
<td>0.32</td>
</tr>
<tr>
<td>HERO 2</td>
<td>-0.10%</td>
<td>-0.20%</td>
<td>-0.10%</td>
<td>12.30%</td>
<td>7.04</td>
<td>0.30%</td>
<td>0.20%</td>
<td>0.30%</td>
<td>9.30%</td>
<td>7.39</td>
</tr>
<tr>
<td>HERO 3</td>
<td>0.30%</td>
<td>0.20%</td>
<td>0.30%</td>
<td>9.93%</td>
<td>7.39</td>
<td>-0.50%</td>
<td>0.00%</td>
<td>-0.40%</td>
<td>7.54%</td>
<td>8.31</td>
</tr>
<tr>
<td>LPPF 1</td>
<td>28.20%</td>
<td>25.40%</td>
<td>56.40%</td>
<td>217.45%</td>
<td>18.79%</td>
<td>9.20%</td>
<td>4%</td>
<td>9%</td>
<td>157.59%</td>
<td>14.13</td>
</tr>
<tr>
<td>LPPF 2</td>
<td>9.20%</td>
<td>4%</td>
<td>9%</td>
<td>157.59%</td>
<td>14.13</td>
<td>16.20%</td>
<td>10.40%</td>
<td>18.80%</td>
<td>129.66%</td>
<td>15.30%</td>
</tr>
<tr>
<td>MAPI 1</td>
<td>0.00%</td>
<td>-0.10%</td>
<td>0%</td>
<td>12.27%</td>
<td>7.58</td>
<td>-5.50%</td>
<td>-4.30%</td>
<td>-4.90%</td>
<td>6.34%</td>
<td>4.15%</td>
</tr>
<tr>
<td>MAPI 2</td>
<td>1.70%</td>
<td>0.80%</td>
<td>1%</td>
<td>6.78%</td>
<td>11.04</td>
<td>-42.80%</td>
<td>-19.10%</td>
<td>-29%</td>
<td>12.34%</td>
<td>5.86</td>
</tr>
<tr>
<td>MDRN</td>
<td>-329.10%</td>
<td>-25.70%</td>
<td>-106.40%</td>
<td>-94.85%</td>
<td>0.39</td>
<td>-666.10%</td>
<td>-26%</td>
<td>-1376.30%</td>
<td>-203.03%</td>
<td>0.54</td>
</tr>
<tr>
<td>MPPA</td>
<td>-3%</td>
<td>-1.90%</td>
<td>-5.80%</td>
<td>-60.50%</td>
<td>0.11</td>
<td>-23.40%</td>
<td>-11.90%</td>
<td>-40.30%</td>
<td>-14.76%</td>
<td>0.03</td>
</tr>
<tr>
<td>RALS 1</td>
<td>15.30%</td>
<td>8.80%</td>
<td>10.70%</td>
<td>20.83%</td>
<td>15.76</td>
<td>-0.10%</td>
<td>-0.50%</td>
<td>0.00%</td>
<td>16.82%</td>
<td>14.57%</td>
</tr>
<tr>
<td>RALS 2</td>
<td>7.40%</td>
<td>1.40%</td>
<td>2%</td>
<td>22.27%</td>
<td>18.42</td>
<td>21%</td>
<td>10.80%</td>
<td>12.80%</td>
<td>21.43%</td>
<td>13.75</td>
</tr>
<tr>
<td>AEOM 1</td>
<td>4%</td>
<td>1.70%</td>
<td>2%</td>
<td>25.54%</td>
<td>39.7</td>
<td>2.40%</td>
<td>1%</td>
<td>1.40%</td>
<td>26.25%</td>
<td>37.49</td>
</tr>
<tr>
<td>AEOM 2</td>
<td>0.90%</td>
<td>0.70%</td>
<td>0.50%</td>
<td>28.54%</td>
<td>35.82</td>
<td>1.30%</td>
<td>0.50%</td>
<td>0.70%</td>
<td>29.44%</td>
<td>26.3</td>
</tr>
<tr>
<td>BONI</td>
<td>7.10%</td>
<td>1.90%</td>
<td>2%</td>
<td>20.93%</td>
<td>15.11</td>
<td>8.80%</td>
<td>2.10%</td>
<td>1.80%</td>
<td>21.06%</td>
<td>13.79</td>
</tr>
<tr>
<td>PDNI</td>
<td>8.60%</td>
<td>6.50%</td>
<td>7.20%</td>
<td>52.29%</td>
<td>10.67</td>
<td>9.90%</td>
<td>5.00%</td>
<td>5.60%</td>
<td>50.70%</td>
<td>12.58</td>
</tr>
<tr>
<td>PRKN1</td>
<td>-5.10%</td>
<td>0%</td>
<td>-1.80%</td>
<td>12.17%</td>
<td>2.20%</td>
<td>0.70%</td>
<td>0.40%</td>
<td>0.30%</td>
<td>12.60%</td>
<td>1.47%</td>
</tr>
<tr>
<td>TMEI</td>
<td>2.10%</td>
<td>1%</td>
<td>1.40%</td>
<td>10.74%</td>
<td>14.64</td>
<td>0.90%</td>
<td>0.40%</td>
<td>0.50%</td>
<td>13.09%</td>
<td>11.05</td>
</tr>
<tr>
<td>MRSG1</td>
<td>2.80%</td>
<td>11.20%</td>
<td>12.90%</td>
<td>24.67%</td>
<td>13.69</td>
<td>2.50%</td>
<td>10.10%</td>
<td>11.60%</td>
<td>24.67%</td>
<td>11.97</td>
</tr>
<tr>
<td>RHRI</td>
<td>2.80%</td>
<td>1.20%</td>
<td>1.40%</td>
<td>19.14%</td>
<td>25.7</td>
<td>3.20%</td>
<td>1.30%</td>
<td>1.60%</td>
<td>20.89%</td>
<td>29.22</td>
</tr>
<tr>
<td>CHAL 1</td>
<td>18.80%</td>
<td>3.60%</td>
<td>5.10%</td>
<td>35.36%</td>
<td>11.11</td>
<td>23.40%</td>
<td>7.90%</td>
<td>10.60%</td>
<td>35.46%</td>
<td>7.75</td>
</tr>
<tr>
<td>CHAL 2</td>
<td>19.90%</td>
<td>3.90%</td>
<td>4.80%</td>
<td>33.96%</td>
<td>8.67</td>
<td>20.20%</td>
<td>4.20%</td>
<td>4.80%</td>
<td>34.47%</td>
<td>8.24</td>
</tr>
<tr>
<td>FJBN 1</td>
<td>1.40%</td>
<td>0.40%</td>
<td>1.20%</td>
<td>-6.07%</td>
<td>0.31</td>
<td>-3.90%</td>
<td>-2.40%</td>
<td>-7%</td>
<td>-5.62%</td>
<td>0.23</td>
</tr>
<tr>
<td>FJBN 2</td>
<td>1.90%</td>
<td>1.20%</td>
<td>2.30%</td>
<td>-26.97%</td>
<td>0.2</td>
<td>0.90%</td>
<td>0.80%</td>
<td>0.90%</td>
<td>-17.4%</td>
<td>0.2</td>
</tr>
<tr>
<td>MTHL 1</td>
<td>18.30%</td>
<td>0.40%</td>
<td>-0.70%</td>
<td>-0.98%</td>
<td>4.78</td>
<td>88%</td>
<td>2.60%</td>
<td>2.70%</td>
<td>-1.57%</td>
<td>4.07</td>
</tr>
<tr>
<td>MTHL 3</td>
<td>19.60%</td>
<td>0.60%</td>
<td>0.70%</td>
<td>-0.05%</td>
<td>9.53</td>
<td>14.60%</td>
<td>0.60%</td>
<td>0.70%</td>
<td>0.51%</td>
<td>9.16</td>
</tr>
<tr>
<td>SECD 1</td>
<td>28.80%</td>
<td>0.70%</td>
<td>0.70%</td>
<td>4.82%</td>
<td>17.4</td>
<td>21.40%</td>
<td>0.70%</td>
<td>0.80%</td>
<td>3.84%</td>
<td>26.2</td>
</tr>
<tr>
<td>SECD 2</td>
<td>23.50%</td>
<td>0.90%</td>
<td>0.90%</td>
<td>4.13%</td>
<td>30.04</td>
<td>4.90%</td>
<td>0.20%</td>
<td>0.10%</td>
<td>2.43%</td>
<td>33.39</td>
</tr>
<tr>
<td>SHEN</td>
<td>7.70%</td>
<td>5.30%</td>
<td>6.40%</td>
<td>37.61%</td>
<td>25.76</td>
<td>7.80%</td>
<td>5.10%</td>
<td>6.30%</td>
<td>36.47%</td>
<td>22.68</td>
</tr>
</tbody>
</table>

**Notes:** Bold shows that the financial performance after store closure are declining compared to before the store closure; Gray colour shows that the financial performance after store closure are rising compared to before the store closure.

**Source:** Data collected and processed by the author.
5. Discussion

The announcements of retail store closure given by retail companies in 4 Southeast Asian countries (Indonesia, Malaysia, Singapore, and the Philippines) in general give a negative sentiment to the share prices of retail issuers during the five-day event period. As the result, market reaction found in Southeast Asia is different with the market reaction in United States toward the same event. According to the signalling theory (Ross, 1977), it can be said that the investors’ point of view in Southeast Asia is still different to the point of view of investors in United States. In Southeast Asia, investors still regard the store closure event from the negative side of the store closure event as loss in market coverage, expected revenue, and company growth. But, the proper closing of retail outlets, in fact, can bring the possibility to make the retail issuer more efficient.

From this study, the comparison of financial performance before and after some store closure events in Southeast Asia shows the increase in its financial performance. When a company is more efficient, the company can get higher return on the asset, return on equity, and profitability. The higher return can be used to expand the retail company which can also increase the intrinsic value of the company and the return shared with the investors. So, actually the store closure phenomenon can have the positive side for the investors. Although, there are some store closures giving the decrease in the companies’ financial performance.

Unfortunately, the market reaction in Southeast Asia is overall negative for the store closure announcements from the retail issuers. So, the company through this research, can get the insight to do a calculation appropriately before closing a retail store in order to make sure that the financial performance will be better after the store closure. Then, the retail issuer can highlight the positive sides of the store closure when the company announces the store closure in order to keep the share prices and its performances looked good in investors’ point of view.

6. Conclusions

In conclusion, store closure announcement in 4 Southeast Asian countries gives such a real impact to the issuer’s stock price showed by the decrease in stock price -1,31% significant statistically until the first day of the event date. The decreasing trend continues until the fifth day after store closure announcement although it’s not significant statistically anymore. The evaluation of financial performance after store closure in Southeast Asian countries shows various change for different retail issuer in term of profitability and relative market value. Some closures worsen the financial performance. But, some store closures are found to improve the financial performance of retail issuers. Unfortunately, the improvement in financial performance is not showed well in the issuer’s stock price. This result may happen due to that the Southeast Asian market don’t recognize the positive side of store closure phenomenon to the financial performance.

References


THE ROLE OF PUBLIC SERVICE MOTIVATION IN MEDIATING THE EFFECT OF TRANSFORMATIONAL LEADERSHIP ON COMMITMENT TO CHANGE IN CENTRAL GOVERNMENT IN INDONESIA
Favilia Franziska 1; Putri Mega Desiana 2

Abstract
Purpose: This research attempts to examine the causal relationship among variables in change management of governments in Indonesia, in which changes are implemented in order to carry out the Bureaucratic Reform as part of good governance. Researchers try to understand the effects of transformational leadership and public service motivation on the commitment to change in government agencies and the mediating effect of public service motivation.

Methodology: This causal-predictive research obtained primary data from an online survey of 150 respondents working as civil servants in DKI Jakarta. The data was then processed by using Partial Least Square of Structural Equation Modeling (PLS-SEM).

Findings: The result shows that transformational leadership has a positive indirect effect on the commitment to change through public service motivation. However, the direct effect of transformational leadership on the commitment to change was found to be insignificant. These show that public service motivation has an essential role in increasing the commitment of government employees to change. It is expected that the increase in commitment to change will advance changes in government - to reinforce bureaucratic reform

Originality/value: Based on previous research, it was found that transformational leadership has direct and indirect effects on the commitment to change. In some of the research, public service motivation has a direct effect on the commitment to change. However, there is only a few researchers who studied public service motivation as a mediator of the relationship from transformational leadership to commitment to change.

Keywords: Transformational leadership; Public service motivation; Commitment to Change; Government

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1. Introduction

Organizations create changes as a form of organizational business development in order to compete with other organizations. As an organization, government agencies also carry out changes. One of the change projects that is currently taking place in the government of Indonesia is the Bureaucratic Reform. The Reform can be interpreted as an effort by the government to create changes and renew the system of government administration in terms of institutional aspects, management (business processes), and human resources of the apparatus (KemenpanRB, 2009).

Based on the evaluation of Ministry of Administrative and Bureaucratic Reform of the Republic of Indonesia (Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia/KemenpanRB) published in the implementation report of Bureaucratic Reform (2020), the value of the Bureaucracy Reform index in 2019 for Ministries/Institutions is 72.43, but the target to be achieved is 75. This shows that the current index value is still far from the assigned achievement target. This Bureaucratic Reform index did not achieve the target due to several reasons: (1) bureaucratic reform is still a project; (2) it does not refer to the root of the problem; (3) it is not integrated; and (4) the monitoring function is not optimal (KemenpanRB, 2020). This means that changes to the government are not implemented properly as the focus of the agency is only on collecting documents and planning activities, and each working group is not integrated with each other in solving problems. These situations lead to the bureaucratic reform index not achieving the target. The KemenpanRB (2020) then formulated the success factors for the implementation of the Bureaucratic Reform, namely the commitment of leaders, share vision, and proper implementation of management of changes.

Among these success factors, commitment of leaders becomes the main focus of KemenpanRB. However, commitment of leaders is not enough. Commitment from individuals in the organization is also necessary. Changes in the framework of bureaucratic reform can be successfully carried out when all apparatus are committed in carrying out the changes. Commitment in individuals is an important factor in creating changes in the organization (Armenakis, Harris, & Field, 1999). Conner (1992) in Herscovitch and Meyer (2002) analogizes commitment to change to a glue that provides a vital bond among individuals in an organization with the goal of change when change fails due to the lack of individual commitment in it. In Herscovitch and Meyer's (2002) research, commitment to change is seen as a force (mindset) that binds a person to an action that needs to be accomplished as a successful implementation of the initiation of change.

Many studies have found that factors that influence commitment to change in individuals in organizations are in the form of managerial practices, such as organizational support for transformational leadership, shared value, and communication (Devos, Vanderheyden, & Van Den Broeck, 2002; Ghaizal, Ahmad, Uli, Suandi, & Hassan, 2008; Hechanova & Cementina-Olpoc, 2013). Other important managerial roles are leadership in influencing individual commitment to change in organizations and important aspects in implementing changes in organizations (Kotter, 1996; Herold, Fedor, Caldwell & Liu, 2008; Hechanova & Cementina-Olpoc, 2013; Van der Voet, Kulpers & Groeneveld, 2015).

Meanwhile, transformational leadership is an active leadership behavior that aims to transform or equalize individual personal interests to a higher level into group interests by providing motivation and inspiring subordinates to identify leaders and organizations (Bass, 1985; Abrell-Vogel & Rowold, 2014). Previous research has found that transformational leadership can improve subordinate mission valence that leads to the changes in the perception of dangers regarding the importance of change (Wright, Moynihan & Pandey, 2012) and has a direct or indirect relationship to subordinate affective commitment to change (Hechanova & Cementina-Olpoc, 2013; Van der Voet, Kulpers & Groeneveld, 2015).
From various studies on transformational leadership in influencing commitment to change, it is seen that there needs to be a mediating factor to increase the effects of transformational leadership on commitment to change indirectly. This research will focus on the mediating role of public service motivation in mediating the effects of transformational leadership on commitment to change. It is expected to answer the gaps in the implementation of bureaucratic reform that have not yet reached the assigned target.

2. Literature review

2.1. Transformational Leadership and Commitment to Change
Herscovitch and Meyer (2002) take the concept of commitment to change based on the concept of organizational commitment. In general, organizational commitment refers to the overall feeling and level of individual attachment to an organization (Bartlett, 2001). Conner and Patterson (1982) state that the main actor who commonly contribute to the failure of a change project is the lack of commitment from individuals in the organization. Herscovitch and Meyer (2002) explain that commitment to change as a power (mindset) binds someone to an action for the successful implementation of change initiation in the organization. Individuals can feel in honor bound to support the change because they (want to), (need to), and/or (must) make those changes. This commitment to change reflects the internalization state of the change program in three stages (from awareness, acceptance, and change initiative), the skills needed by individuals to be implemented and encouraged to implement, the existence of appropriate rewards, and the existence of shared vision exemplified by the change (Conner, 1992; Jaros, 2010).

Herscovitch and Meyer (2002) explain that commitment to change has three dimensions similar to the dimensions of organizational commitment of Mayer and Allen. The following are the three dimensions: 1) Affective commitment to change is the desire to support change based on a belief in inherent benefits; 2) Continuance commitment to change is an acknowledgment that there are costs associated with failing to support change; and 3) Normative commitment to change is a sense of obligation to support change.

Palmer, Dunford, and Buchanan (2017) reveal that an important factor in success is the leader or change manager who has the authority to design changes. According to Bernard Bass and Bruce Avolio in Kreitner and Kinicki (2010), in leadership behavior, there is a continuum variation from the laissez-faire leadership model to transactional leadership, and finally to transformational leadership. In contrast to transactional leaders who motivate someone to work optimally by giving gifts, transformational leaders motivate someone to be able to achieve and exceed their performance levels by changing their attitudes, beliefs, and values (Burns, 1978).

Transformational leadership is an active leadership behavior that aims to transform or equalize individual personal interests to a higher level into group interests by motivating and inspiring subordinates to identify leaders and organizations (Bass, 1985; Abrell-Vogel & Rowold, 2014) and this type is effective in making changes (Kreitner and Kinicki, 2010). Podsakoff, MacKenzie, and Bommer (1996) state that the core of transformational leadership is leaders who articulate the organization's vision, encourage acceptance of group goals, and provide individual support in the organization with the idea that these individuals will be inspired - to create changes that have been determined by the organization.

A number of previous studies have found that transformational leadership is a type of leadership that is more effective, productive and innovative, as well as satisfies subordinates because subordinates and leaders work together for the good of the organization driven by a shared vision and shared values as well as mutual trust and respect (Avolio & Bass, 1991; Lo, Ramayah, & De Run, 2010). Bass and Avolio (1993) in Lo, Ramayah, and De Run (2010) state that transformational leaders who encourage their subordinates to think critically and creatively will affect their subordinates' commitment to the organization.
House (1998) found three dimensions of transformational leadership, namely inspirational motivation, idealized influence, and intellectual stimulation. Based on this finding, Wright, Moynihan, and Pandey (2012) conducted a factor analysis by taking five items from each dimension of House (1998) and turning them into a single factor. The results of the factor analysis showed that the five items already represented the three dimensions of transformational leadership. There was one factor that explained 76 percent of the variance of these items. These results are also consistent with the findings of Avolio, Bass, and Jung (1999) in which they also found a single factor from the transformational dimension (Wright, Moynihan, & Pandey (2012).

Transformational leadership can bolster subordinates’ confidence about change so that their commitment to change materializes. The role of leadership in influencing individual commitment to change in organizations is an important aspect in the implementation of change in organizations (Kotter, 1996; Herold, Fedor, Caldwell & Liu, 2008; Hechanova & Cementina-Olpoc, 2013; Van der Voet, Kulpers & Groeneveld, 2015). Therefore, for this study, the researchers conducted a testing on the following hypothesis:

H1: Transformational leadership has a positive and significant effect on commitment to change directly.

2.2. Transformational Leadership and Public Service Motivation

Public service motivation (PSM) is a construct of general altruistic motivation to serve the interests of a community, country or society (Rainey & Steinbauer, 1999; Wright, Christensen, & Issel, 2013). PSM is defined as an individual's tendency to respond to the unique basic motives in public institutions and organizations (Perry & Wise, 1990), as well as the direction of service attitude of an individual, without the existence of an economic attitude to be useful to society, the desire to help others, and the spirit of achievement, which is intrinsic or service-oriented (Crewson, 1997). It can be concluded that PSM is an individual's internal motivation for delivering public services, which is found to be greater in individuals in public organizations than in private organizations (Perry & Wise, 1990; Crewson, 1997; Jacobson, 2011; Liu & Zhang, 2019).

Wright, Moynihan, and Pandey (2012) measured public service motivation in five items, as adapted from Perry (1996); these five items represent three dimensions, namely commitment to public interest, compassion, and self-sacrifice. The dimension of attraction to policy making is not included because it has a weak correlation with five other items. The measurement of those five items had been validated by Wright, Moynihan, and Pandey in their research.

Transformational leadership has characteristics that can influence subordinates to perform in accordance with the shared vision carried by the organization. Transformational leadership was found to be able to increase the level of individual PSM in the organization (Wright, Moynihan, & Pandey, 2012) so that it can lead subordinates who have higher PSM levels to support changes in their organizations (Wright, Christensen & Issel, 2013). Therefore, the researchers of this study put forward the following hypothesis:

H2: Transformational leadership positively and significantly influences PSM.

2.3. Public Service Motivation and Commitment to Change

Public service motivation is also correlated with commitment to change in public organizations. Individuals who have high levels of community participation will have a commitment to change in high public organizations (Liu & Zhang, 2019). Individuals who have a high level of PSM will easily support changes in their organizations because it makes individuals more supportive of the interests, values, and benefits that changes are made to advance the organization. Individuals who have a high PSM level are more likely to support organizational changes because they are a little worried that the change will affect them personally so that individuals will adjust themselves to changes in their organizations. (Wright, Christensen & Issel, 2013). Therefore, the researchers put forward the hypothesis below:
H3: Public service motivation positively and significantly influences commitment to change.

2.4 Mediating the roles of Public Service Motivation between Transformational Leadership and Commitment to Change

Many studies have found that due to the higher levels of PSM, individuals will tend to be interested in becoming members of public organizations and have a positive relationship with the performance of individuals in public organizations (Perry & Wise, 1990), have a significant influence on commitment to change (Liu & Zhang, 2019), and tend to support changes in organizations (Wright, Christensen & Isett, 2013). Many findings also note the effects of transformational leadership on commitment to change, both directly and indirectly. As such, PSM can be facilitated by transformational leadership and, in turn, can affect commitment to change. As there is no research that measures the mediating effect of PSM, the following hypothesis was tested:

H4: Public service motivation positively mediates the effects of transformational leadership on commitment to change.

3. Data and Method

3.1 Research Design

Research design is a framework for carrying out a study with procedures to obtain the desired information or solve research problems (Malhotra, Nunan, & Brisk, 2017). Based on the purpose of the study, this research employs descriptive and causal-predictive types of research. Cooper and Schindler (2014) mention that descriptive research can be used to see the who, what, where, when, and how of the variables in a study, while causal-predictive research can predict whether the effect of one variable on another variable is constant. In this study, the researchers seek to see the interrelationships between variables being examined, which are commitment to change, transformational leadership, and public service motivation.

3.2 Participant and Procedure

The data were collected using an online survey. This survey method collects information from a sample of the target population by administering structured questionnaires and distributing them online (Malhotra, Nunan, & Birks, 2017). According to Malhotra, Nunan, and Birks (2017), the advantages of online surveys are the speed in data collection, lower costs relative to other surveys, and the quality of the responses given by participants.

The method for collecting data was non-probability sampling, in which not all members of the population are given the same opportunity to become research participants. In this type of sampling, purposive sampling was employed as the selected sample were selected according to the research criteria (Cooper & Schindler, 2014). The sample criteria were meant to target civil servants based in DKI Jakarta whose rank is below echelon 2. The criteria were set that way to achieve an ease in approaching potential respondents because they were within the reach of the researchers. Moreover, the items in the questionnaire were addressed to direct superiors working at the level of echelon 2, so that the selected individuals would be those below echelon 2.

3.3 Instrument

The questionnaire items for each variable use a 6-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). This 6-point Likert scale was used so that there would not be any middle value (neutral) in respondents’ answers in the questionnaire. The measurements for transformational leadership (TL) and public service motivation (PSM) were adopted from Wright, Moynihan, and Pandey (2012), while the items gauging commitment to change (C2C), especially for the dimensions of affective commitment to change, were adopted from Herscovitch and Meyer (2002).
Transformational leadership and public service motivation consist of 5 items per measurement, while commitment to change comprises 6 items.

3.4 Techniques of Analysis
In conducting data analysis, researchers used Structural Equation Modelling (SEM). SEM is a multivariate technique combining various aspects of factor analysis and multiple regression which enables the researchers to simultaneously examine a series of related dependency relationships between variables (Hair, Black, Babin, & Anderson, 2014). The SEM analysis techniques were used to find the amount of dependency associated with research variables, namely transformational leadership (TL), commitment to change (C2C), and public service motivation (PSM), and the mediating effects of public service motivation. This research also uses the PLS-SEM method as it aims to predict the research model discussed earlier. The advantage of using this method is that PLS-SEM can answer problems that occur in CB-SEM because PLS-SEM does not have a minimum respondent limit, there can be a missing value, and data distribution does not need to be normal. In comparison, CB-SEM requires at least 200 participants to carry out data analysis (Hair, Hult, Ringle, & Sartstedt, 2017).

In analyzing PLS-SEM data, the researchers used WarpPLS 7.0 software. From these measurements, the reliability was assessed by means of composite reliability (CR) and Cronbach’s alpha (CA), while the validity was assessed using an outer model called convergent validity. Convergent validity is determined by looking at the loading factor and AVE. Lastly, the results of data processing were interpreted using structural model path coefficients.

4. Results
The online survey was filled out by as many as 174 respondents. However, after a careful look at the respondents, it was found that only 150 people satisfied the criteria for the sample population, which are the status of civil servants in ministries/non-ministerial institutions with offices in DKI Jakarta and the rank of below echelon 2. The responses from the 150 respondents were then analyzed using WarpPLS 7.0 software.

The analysis process using PLS-SEM was divided into 2 stages. The first step was to test the measurement model by calculating the validity and reliability of the research construct. In the reliability testing, the measurement of PLS-SEM used CR, with an acceptable value of >0.6; the CA value can be accepted if it is >0.7 for the whole indicator. As for the convergent validity, this will be met if the outer loading value is >0.7 while AVE is >0.5. Outer loading values which range between 0.4 - 0.7 can still be maintained if the AVE is >0.5 (Hair, Hult, Ringle, & Sartstedt, 2017; Malhotra, Nunan, & Birks, 2017). In the second stage, the structural model was tested by estimating the significance of the path coefficient and analyzing the goodness of fit using $R^2$.

Table 1 shows the results of reliability and validity testing of the instrument of this research. The reliability test results point to CR value of more than 0.6 and CA of more than 0.7. This shows that the three constructs were tested for reliability. In testing the validity, researchers looked at the outer loading value of each indicator and AVE of each construct variable. There are three indicators which have outer loading values of below 0.7, namely C2C3, C2C6, and PSM2. The researchers chose to delete only C2C3 items because their values are below 0.4. Meanwhile, the researchers retained the C2C6 and PSM2 indicators because the AVE value of this variable is above 0.5. Thus, the 15 indicators in this study can be said to be valid and reliable.
Table 1 – Validity and Reliability Testing

<table>
<thead>
<tr>
<th>Construct</th>
<th>CA¹</th>
<th>CR¹</th>
<th>AVE¹</th>
<th>Loading factor¹</th>
<th>Deleted item</th>
<th>CA²</th>
<th>CR²</th>
<th>AVE²</th>
<th>Loading factor²</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
<td>0.896</td>
<td>0.923</td>
<td>0.706</td>
<td></td>
<td></td>
<td>0.896</td>
<td>0.923</td>
<td>0.706</td>
<td></td>
</tr>
<tr>
<td>TL1</td>
<td>0.832</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.832</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL2</td>
<td>0.832</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.832</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL3</td>
<td>0.860</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.860</td>
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<td></td>
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</tr>
<tr>
<td>TL4</td>
<td>0.852</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.852</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL5</td>
<td>0.826</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.826</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2C</td>
<td>0.719</td>
<td>0.813</td>
<td>0.467</td>
<td></td>
<td></td>
<td>0.795</td>
<td>0.861</td>
<td>0.560</td>
<td></td>
</tr>
<tr>
<td>C2C1</td>
<td>0.771</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.772</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2C2</td>
<td>0.863</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.863</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2C3</td>
<td>0.031*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C2C3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2C4</td>
<td>0.764</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.765</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2C5</td>
<td>0.791</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.790</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2C6</td>
<td>0.504*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.502*</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>PSM</td>
<td>0.822</td>
<td>0.877</td>
<td>0.593</td>
<td></td>
<td></td>
<td>0.822</td>
<td>0.877</td>
<td>0.593</td>
<td></td>
</tr>
<tr>
<td>PSM1</td>
<td>0.739</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.739</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSM2</td>
<td>0.602*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.602*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSM3</td>
<td>0.834</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.834</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSM4</td>
<td>0.898</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.898</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSM5</td>
<td>0.743</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.743</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Notes: *values <0.7; ¹Initial value; ²Final value.

Source: Processed by WarpPLS

Table 2 shows the results of testing on the research hypotheses with 2 models. The first model is measured with mediation, and the second model is carried out without mediation. Following suggestion of Baron & Kenny (1986), this research examines the mediating role of a variable in the following ways. The variable is considered as a mediating variable if the independent variable (TL) is significant to the mediating variable (PSM) and the mediating variable (PSM) is also significant to the dependent variable (C2C). Full mediating role occurs if the independent variable (TL) has no influence on the dependent variable (C2C). In contrast, it would be a partial mediating role if there is a significant influence of the independent variable (TL) on the dependent variable (C2C).

Table 2 shows the comparison between models with mediation and without mediation (PSM). The R-square values (0.076 for PSM and 0.314 for C2C) indicate a good model fitness. In model 1, it can be seen that transformational leadership does not affect commitment to change (β = -0.123, p> 0.001, and R² = 0.033) so that hypothesis 1 cannot be accepted. The negative results imply that when subordinates perceive their superiors as having high transformational leadership values, the subordinate's commitment to change will decrease, and vice versa. Furthermore, the results indicate that the application of transformational leadership in echelon 2 officers does not affect subordinate commitment to change. Currently, there is no other study that shows such negative influence. This research is applicable to specific context which is the civil servants of the central government in Indonesia.

The results of testing the effect of TL on PSM shows positive and significant values (β = 0.275, p <0.001, and R² = 0.076) so that H2 could be accepted. This is in line with the research of Wright, Moynihan, & Pandey (2012) which points out that transformational leadership can increase the level of subordinate PSM. Transformational leaders show the characteristics of influencing subordinates by bringing a shared vision of the organization. In this case, the subordinates perceive that echelon 2 officers have carried out transformational leadership, so that it increases their internal motivation in the form of PSM. However, the echelon 2 officers’ actions are not able to increase commitment to change. Similar to H2, in H3 testing, it is found that PSM affects C2C positively and significantly (β = 0.275, p <0.001, and R² = 0.076) so that H3 can be accepted. Based on the researches of Liu & Zhang (2019) and Wright, Christensen & Isett (2013),
individuals who have high levels of PSM tend to support changes in the organization and can increase the value of their commitment to change. In model 2, it can be seen that there is a positive and significant influence between TL and C2C without mediation of PSM ($\beta = 0.544$, $p <0.001$, and $R^2 = 0.314$). Baron & Kenny (1986) said that there is a significant influence of TL on C2C when we excluded the PSM, but once the mediating variable (PSM) was added, it became insignificant. Thus, it can be confirmed that the PSM acts as a full mediating variable between transformational leadership (TL) and commitment to change (C2C). In conclusion, it supports H4 of this study.

### Table 2 - Results of Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>$\beta$</th>
<th>$P$ value</th>
<th>$R^2$</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: TL $\rightarrow$ C2C</td>
<td>-0.123</td>
<td>0.06</td>
<td>-0.033</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2: TL $\rightarrow$ PSM</td>
<td>0.275</td>
<td>&lt;0.001</td>
<td>0.076</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3: PSM $\rightarrow$ C2C</td>
<td>0.544</td>
<td>&lt;0.001</td>
<td>0.314</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model 2: Without Mediating Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4: Mediating role of PSM</td>
</tr>
</tbody>
</table>

Source: Processed by WarpPLS

The results of hypothesis testing above seem contradictory. This shows that without PSM it is difficult for leaders to influence their subordinates in committing to change. Also, PSM plays an important role in internal motivation for civil servants, who have committed to public interest with compassion and self-sacrifice. Those civil servants can support the changes for bureaucratic reform carried out by their institutions. This argument is supported by Wright, Christensen & Isett (2013) research in which said that individuals who has high PSM will support the changes made by their organizations. Individuals that have commitment to public interest with compassion and self-sacrifice tend to support the changes in their institutions.

5. Discussion

This study aims to look at the effect of transformational leadership on commitment to change and the mediating effect of public service motivation. The results show that the motivation of public service has an influence on transformational leadership and commitment to change. However, this study fails to find a direct relationship between transformational leadership and commitment to change. However, this study finds an indirect effect through PSM. Based on the previous research, Transformational Leadership has a contribution to PSM, in which TL can increase individual PSM levels in organizations (Wright, Moynihan, & Pandey, 2012) so that it can make the subordinates who have higher PSM levels supporting the changes in their organizations (Wright, Christensen and Isset, 2013). The importance of PSM is also supported by Rainey & Steinhauer (1999) who says that PSM has an important role in public organizations in order to perform more effectively. At individual level, Public Service Motivation (PSM) has more impact on the employees in public organizations than in private organizations (Perry & Wise, 1990; Crewson, 1997; Jacobson, 2011; Liu & Zhang, 2019). This research shows the focus of leadership on internal motivation involving PSM so that the change initiated by the organization can be performed effectively to achieve the objectives.

There is no research that addresses transformational leadership and PSM on commitment to change. Other studies observe the link between transformational leadership and commitment to change through change readiness (Santhidran, Chandran, & Borromeo, 2013) and change management (Hechanova & Cementina-Olpoc, 2013). The findings of the study show that leaders need to consider other factors
because leadership alone cannot directly increase their commitment in supporting organizational change. There are several mediating roles to increase subordinate commitment to change so that changes can be well implemented. Further, in implementing bureaucratic reform, leaders can understand the factors to enhance PSM and commitment to change their subordinates so that bureaucratic reform's targets can be achieved.

Based on research data processing, the factor loading results for the highest TL variable are TL3, which is *my boss (Echelon 2) motivates us to solve old problems in new ways*; The highest commitment to change variable is C2C2 which is *this change is the right strategy for the organization*. In addition, the highest outer loading for the PSM variable is PSM4, which is *I am ready to sacrifice for the benefit of the community*. Based on the factor loadings, it can be seen that subordinates perceive leaders who motivate them to solve problems without having to impose the changes is the right strategy. So, the results of processing the effect of transformational leadership on commitment to change become negative. However, when subordinates have an internal motivation (PSM) in the form of self-sacrifice for the benefit of the community, they will perceive the motivation of the leader in solving problems as the right strategy.

The researchers suggest that the central government should provide support for leaders to increase the level of community participation for their subordinates, so that it will encourage the sense of commitment and self-sacrifice for the interest of society. Leaders should provide opportunities for subordinates to be actively involved by participating in social activities with high motivation of self-sacrifice.

Nevertheless, this study also has limitations. In the online survey method, the limitation is the difficulty in finding respondents who match with the characteristics of the research sample. Moreover, this research is conducted in the middle of Covid-19 pandemic. As a result, many civil servants work from home so that it is difficult to reach many civil servants in several ministries. In addition, this study is lack of the longitudinal perceptive and relies only on employee's responses as the unit of analysis regarding changes at that moment. Therefore, more researches are required to strengthen the theoretical contribution, the replication and application of the research model in different contexts will be useful in validating theoretical contribution of this study. Further, the qualitative approach is needed to make practical reasoning for data analysis. Despite the limitations, this study provides new insights and can be used as a reference for future research related to the topic so that the implementation of changes in government organizations through bureaucratic reform can be carried out effectively.

6. Conclusions

This study contributes in understanding the interrelationship between transformational leadership, public service motivation, and commitment to change using PLS-SEM. Although many previous studies have found a direct effect of transformational leadership on commitment to change, this study shows different results. In fact, the findings indicate a form of negative influence. This shows that research in changing government organizations needs in-depth research, especially in the central government. Furthermore, the generalization made in this study is limited to the organization under study. Also, further research is needed to identify and explore more deeply on the changes in government especially in the topic of bureaucratic reform. The future studies can focus on the improvement of effectiveness in the implementing of bureaucratic reform. In this study, we believe that this research can be a milestone for future research, especially to understand the relations between transformational leadership, commitment to change and PSM.
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INCOME INEQUALITY IN GEORGIA: AN EMPIRICAL ANALYSIS
Tsotne Iashvili

Abstract
Purpose: Income inequality is a significant issue in Georgia. Thus, it requires various studies from a different point of view. The purpose of this article is to analyze and overview the income inequality in Georgia. Specifically, it aims to discuss and emphasize income spatial distribution from the urban-rural perspective and its challenges. The article concerns the issues connected with income disparity and aims to estimate the Government’s fiscal redistribution impact. For the latter purpose, the Gini Market and Gini disposable index are examined as well.

Methodology: For the goals set above, the author used the data of the Integrated Household Survey provided by the National Statistics Office of Georgia (Geostat). Namely, the author examined income per capita breakdown analysis. To estimate income inequality and fiscal redistribution impact, the Gini index was used as well. The one provided by Geostat and Gini index (Market and Disposable) of the Standardized World Income Inequality Database (SWIID8_2) (Solt, 2019). SWIID uses the income method as well.

Originality: The income inequality issues are not studied enough in Georgia. Only a few papers cover the poverty and within its frame, the income inequality is also discussed. The latter could be considered as a significant issue in Georgia. Furthermore, the article is one of the first outcomes of the author’s ongoing research project studying the impact of inequality on economic growth in Georgia. Best to author’s knowledge there are no latest studies of income inequality that would create a good basis for further studies.

Findings: Integrated Household Survey analysis shows that income inequality is higher than it is presented by Geostat’s Gini index (by total income). The difference between the urban and rural areas is high and urban area income exceeds 1.8 times to rural area income. Despite the fact, that pensions, stipends, family allowances and benefits decrease the mentioned difference. Still, during the past decade, income absolute redistribution is 0.10 and the government needs to obtain more effective fiscal tools to decrease income inequality. Another significant issue is that borrowing plays one of the key roles in rural area income. In fact, in rural areas borrowing and dissaving per capita is 30% of total income per capita excluding pensions, stipends, and allowances. The latest restrictions on money lending policies for banks and microfinance organizations will complicate money borrowing for citizens and will increase the inequality between urban and rural areas and in the total country as well. Taking into consideration that non-cash income in total income plays an equalizing role and it can’t be considered as real income.

Keywords: Income inequality; Gini index; inequality in Georgia.

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1. Introduction

Income inequality is a significant problem. It is connected with issues and indicators such as – poverty, extreme poverty, and economic growth. Growing inequality can lead to social instability, reducing the economic growth in the long-term and rising poverty among the population. Besides, big differences between the households' and individuals' income force the government to create a social friendly budget and raises the share of social expenditures in total expenditure. Income inequality issues are not studied enough in Georgia. The latter needs to be addressed and analyzed from different perspectives.

Furthermore, the government of Georgia set the goal to reduce the Gini index to a certain point in its development strategy. (Social-Economic Development Strategy of Georgia). As for the present situation, the latest data (2017) provided by the World Bank shows that Georgia has one of the worst performance in the region. For instance, the Gini index (World Bank Estimate) in Georgia and Armenia are 37.9 and 33.6 respectively. According to the same data in the Eastern Partnership countries (Eap), Georgia is the worst performer in terms of income inequality as well.¹

Furthermore, the income issues concern Georgian citizens as well. For instance, according to the IRI survey conducted in September–October of 2019, 68% (all mentions) of surveyed people think that the most important problem the country is facing is unemployment. 53% stated the same problem as the first mention. In the second place, there are high prices and the cost of living 45% and 18% all mentions and first mentions respectively. In the third place comes poverty (21% and 6%). (IRI, 2019) The same social-economic issues held the first 3 places during the previous survey (IRI, 2019). Moreover, the average monthly nominal earning of employees in 2018 accounted for 1068 Georgian Lari. (National Statistics Office of Georgia, 2018). While almost 50% of the cash income percentage distribution comes on wages and 73%¹² of the declared salaries (1.13 million of persons) (Business Media Georgia, 2019) in 2018 are less than 1068 GEL (372 current US dollars).

The above-mentioned numbers draw the question marks regarding the income inequality situation in Georgia. Its urban-rural distribution and Government's fiscal tools efficiency in terms of income redistribution. Thus, the article aims to shed light on income inequality issues in Georgia. Mostly, it is concentrated on income distribution comparison in urban and rural areas. The analysis involves the means of income in urban and rural areas. In the article, the breakdown of different income types both in urban and rural areas is analyzed. Accordingly, the article assesses the Government’s fiscal tools effectiveness in terms of income redistribution using Gini Market and Gini Disposable indexes.

2. Literature Review

In terms of the literature, there are various studies which suggest different perspectives and impacts of income inequality on economic growth, human well-being and sustainable development. Income inequality is a significant issue. It is connected with problems and indicators such as – poverty, extreme poverty, and economic growth. Growing inequality can lead to social instability, reducing the economic growth in the long-term and rising poverty among the population. Besides, the big difference between the households’ and individuals’ income force the government to create a social friendly budget and raises the share of social expenditures in total expenditure. Furthermore, while the expenses of inequality are rising, in some cases the government may face a trade-off between economic growth and well-being (Furceri & Loungani, 2015). But some scientists claim that income inequality might have a positive impact on economic growth. For instance: (Kuznets, 1955), (Kaldor, 1957). Thus, Income inequality issues are broadly covered by various studies from different perspectives. For instance: (Atkinson,

¹ There is no data of Azerbaijan Since 2005.  
² Authors own calculations, based on Revenue Service data.
1970), (Acemoglu & Robinson., 2012), (Addison & Cornia, 2001), (Milanovic, 2002), (Solt, 2016). But speaking about Georgia, there can’t find much. Only a few papers cover the issues of income inequality in Georgia. (Merab Kakulia, 2017), (Yemtsov, 2001), (World Bank Group, 2016). The mentioned studies mostly focus on poverty and within its frame, income inequality is also discussed. Accordingly, income inequality issues are not studied enough in Georgia. The latter could be considered as a novelty and significant problem.

3. Data and Method

For the article’s purposes, the author used several quantitative and comparative methods. In terms of quantitative methods, there is the analysis of 3 different data. In the first place, to assess and review income inequality from the urban-rural perspective the Integrated Household Survey by the National Statistical Office of Georgia needs to be analyzed. Specifically, it is discussed different types of income both in urban and rural areas. The breakdown of income per capita has revealed some issues regarding income distribution. In terms of loans and non-cash income impact especially in rural areas. For a better assessment of the Government’s income redistribution fiscal tools efficiency, the comparative analysis was used—The Gini indexes provided by National Statistics Office of Georgia and Standardized World Income Inequality Database (SWIID8_2). The later namely concerns Market Gini and Disposable Gini indexes.

In the first place, Integrated Household Survey data is discussed. According to data average monthly income per capita is increasing both in urban and rural areas. Accordingly, in the country in general. Also, in terms of income inequality, the difference between urban and rural areas is not very big. But in-depth analysis shows that excluding pensions, stipends, family allowances, benefits, and non–cash income from the total income\(^1\) raises the difference between urban and rural areas almost as much as 1,8 times. (See Figure 1):

![Figure 1: Total Income per capita, urban-rural areas](image)

Source: Authors calculations based on Integrated Household Survey data

The excluded two types of income play a significant role in equalizing the income inequality. Average monthly pensions, stipends, family allowances and benefits per capita is higher in rural areas than in urban. (See Figure 2):

\(^1\) Total Income includes total cash income and transfers + non-cash income
In terms of non–cash income. It represents the consumption of agricultural products of own production, estimated at current prices. The latter plays a key role in equalizing the inequality calculation by total income (Merab Kakulia, 2017, p. 15). But it can’t be considered as real income. Especially for urban areas. To emphasize the latter, employment by economic status must be analyzed. In 2018 employed people accounted for 1694.2 thousand. Of which 833.4 thousand are self–employed. (National Statistics Office of Georgia, 2019). If the latter will be examined from the urban-rural perspective. The picture in 2018 will be as follows. (See table 1):

<table>
<thead>
<tr>
<th>Table 1: Self–employment in urban-rural areas, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-employed (thousand)</td>
</tr>
<tr>
<td>833.4</td>
</tr>
</tbody>
</table>

Source: National Statistics Office of Georgia (Geostat)

Almost 78% of all self-employed comes on rural areas. Furthermore, 30% (659 000) of all employed (1 694 200 659) are employed in Agriculture, Forestry and Fishing. The latter created only 6.9% of the total Gross output of Georgia in 2018 (National Statistics Office of Georgia, 2019). Furthermore, in 2018 average monthly non-cash income per capita in rural areas accounted for as many as 39.6 GEL while the wages were 66.9 GEL (National Statistics Office of Georgia, 2019, p. 53). Of course, it is not a surprise that non–cash income is minor in urban areas. Thus, it can be stated that non–cash income equalizes, income inequality, in other words— it decreases the Gini index. Thus, Geostat’s Gini index by total income which in official calculations includes pensions, stipends, family allowances and benefits and non-cash income is relatively lower and doesn’t help to describe the real situation. (See table 2):
### Table 2: Gini index by income

<table>
<thead>
<tr>
<th>Year</th>
<th>By total Income</th>
<th>By total cash inflows</th>
<th>By total inflows</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>0.43</td>
<td>0.49</td>
<td>0.44</td>
</tr>
<tr>
<td>2007</td>
<td>0.44</td>
<td>0.49</td>
<td>0.45</td>
</tr>
<tr>
<td>2008</td>
<td>0.43</td>
<td>0.50</td>
<td>0.46</td>
</tr>
<tr>
<td>2009</td>
<td>0.43</td>
<td>0.50</td>
<td>0.45</td>
</tr>
<tr>
<td>2010</td>
<td>0.44</td>
<td>0.49</td>
<td>0.45</td>
</tr>
<tr>
<td>2011</td>
<td>0.43</td>
<td>0.49</td>
<td>0.46</td>
</tr>
<tr>
<td>2012</td>
<td>0.42</td>
<td>0.47</td>
<td>0.44</td>
</tr>
<tr>
<td>2013</td>
<td>0.40</td>
<td>0.43</td>
<td>0.41</td>
</tr>
<tr>
<td>2014</td>
<td>0.40</td>
<td>0.43</td>
<td>0.41</td>
</tr>
<tr>
<td>2015</td>
<td>0.40</td>
<td>0.43</td>
<td>0.41</td>
</tr>
<tr>
<td>2016</td>
<td>0.40</td>
<td>0.43</td>
<td>0.41</td>
</tr>
<tr>
<td>2017</td>
<td>0.41</td>
<td>0.45</td>
<td>0.43</td>
</tr>
<tr>
<td>2018</td>
<td>0.39</td>
<td>0.42</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Source: National Statistics Office of Georgia (Geostat)

The study (Merab Kakulia, 2017, pp. 26-27) showed that the increase of total cash inflows (total cash income and transfers + other cash inflows (money borrowing, property disposal)) exceeds total cash and transfers. Moreover, in the past few years, the total cash inflows exceed the total income (total cash income and transfers + non-cash income). Accordingly, this leads to the trend where people tend to sell the property or borrow money to improve their living conditions and income. Especially in rural areas, whereas, for instance in 2018 average monthly borrowing and dissaving per capita accounted for the 1/3 of total income (excluding non-cash income and pensions, stipends, family allowances, benefits). Furthermore, in the same year loans and dissaving accounted as high as 50% of average monthly wages per capita in rural areas. One of the possible results out of this is that it reflects a huge amount of overdue loans. For instance, according to the data of www.Vali.ge 615,164 individuals have overdue loans (Mostly consumer loans under 2000 GEL). The total number of loans is 1,387,296. It should be mentioned that in 2018 The National Bank of Georgia restricted money lending policies for banks and microfinance organizations. These actions have already impacted the ratio of borrowing in average monthly income per capita, mostly in rural areas. Thus, income inequality from the urban-rural point of view will increase.

To overview the income inequality in Georgia, from a different perspective. SWIID data can be useful. SWIID data calculates two different types of inequality. The first one is Gini Market. This is Gini index before transfers and taxes. The latter shows the real inequality in countries before the income will be redistributed by the government using taxes, transfers and other fiscal tools. The second type of index is Gini disposable. This index shows income inequality after the transfers and taxes. There is also an index that shows income absolute redistribution:

**Absolute Redistribution: Gini Market - Gini Disposable.** (1)

Absolute redistribution shows how direct taxes and transfers try to minimize income inequality. According to SWIID data Gini Market in Georgia is as follows: (See Figure 3):

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1 One-time charity action of debt settlement program. Pardoning the overdue consumer loans.
As it can be seen from the Figure market inequality is high in Georgia. Its trend is stable and the decline is minimum over the last 12 years. If we compare the market and disposable Gini index the picture will be as it is shown in Figure 4:

As the Figure shows Gini Disposable is less than the market inequality. Consequently, the Government uses its fiscal tools to help to redistribute the income. Usually, income redistribution tools are more effective in developed countries. The direct taxes and transfers help to reduce the Gini coefficient more than 0.17 from (0.48 to 0.31). While in developing and emerging markets it is much less—0.04 (from 0.49 to 0.45). (United Nations Development Programme, 2019). The picture in terms of absolute redistribution in Georgia is not drastically different.
The table shows that while pensions, stipends, family allowances, and benefits play an important role in minimizing the income inequality in urban-rural areas. The cumulative effect of absolute redistribution of income in the total country is almost the same during the last decade. It’s worth mentioning that absolute redistribution is higher than in developing countries or in emerging markets. But the government needs to add more effective fiscal tools to redistribute the income more effectively.

### 4. Conclusions

Income inequality is a significant problem in Georgia. As mentioned above, the unemployment, cost of living and high prices are the issues that concern Georgian citizens the most. While almost 50% of the cash income percentage distribution comes on wages and 73% of the declared salaries (1.13 million of persons) in 2018 are less than average monthly nominal earning of employees (1068 GEL; 372 current US dollars). The real income inequality is higher than it is presented by the official numbers. According to the empirical research presented above, real income inequality is even higher between the urban and rural areas, than it is shown with the Gini index provided by the National Statistics Office of Georgia’s. The Analysis shows that urban area income exceeds rural area income almost twice. While the Government’s transfers family allowances and stipends try to minimize mentioned difference, and income absolute redistribution index is higher than the same index in the developing and emerging markets. Still, income absolute redistribution index accounts for 0.10 for almost a decade and has a stable trend. Thus, the latter still, draws attention to find more effective fiscal tools for income redistribution. Another aspect of the research results is that, while non-cash income plays a significant role in equalizing income differences between the urban and rural areas, it can’t be considered as real income. As the employment analysis shows, Almost 78% of all self-employed comes on rural areas. Furthermore, 30% (659 000) of all employed (1 694 200 659) are employed in Agriculture, Forestry and Fishing. The latter created only 6.9% of the total Gross output of Georgia in 2018. While in the same year average monthly non-cash income per capita in rural areas accounted for as many as 39.6 GEL while the wages were 66.9 GEL. Accordingly, it leads to the conclusion that non-cash income mostly has a theoretical equalizing aspect in rural area income. The latter can be seen from the Market Gini index. As the data shows Market Gini (pre-transfer, ex-ante taxes) is around 0.5. While, the Government tries to address the income inequality by steadily increasing the family allowances, stipends and pension in the rural areas. In-depth analysis and breakdown of the rural income means reveal some significant issues. Since the non-cash income can’t be considered as real income, people in rural areas tend to improve their living conditions by selling the property of borrowing money. For instance, in 2018 average monthly borrowing and dissaving per capita accounted for 1/3 of total income (excluding non-cash income and pensions,
stipends, family allowances, benefits). Furthermore, in the same year loans and dissaving accounted as high as 50% of average monthly wages per capita in rural areas. Accordingly, all this transforms into a huge amount of overdue loans. Specifically, into more than 600,000 people who have overdue consumer loans. While restrictions made by the National Bank of Georgia on money lending policies for banks and microfinance organizations will complicate money borrowing for citizens, especially in rural areas. The latter leads to another conclusion that this action will increase inequality between the urban and rural areas and in the total country as well.

Overall, while some means of the income is complicated to obtain for rural area residents, the Government needs to address its fiscal tools for better income redistribution. Taking into account the weak real impact of non-cash income in the rural area. As well as the trend of borrowing and a huge amount of overdue consumer loans.

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References

THE HAPPINESS WITH DESTINATION AND ITS INFLUENCE ON LENGTH OF STAY
Elvira Vieira ¹; Ana Pinto Borges ²; Paula Rodrigues ³

Abstract

Purpose: This paper studies the determinants of the length of stay (LOS) of tourists in the city of Porto. We consider socio-demographic, economic, destination attractions, and emotional aspects.

Methodology: We use a sample of 1253 tourists and three regression models were estimated (OLS regression model, a Weibull survival model and a zero-truncated negative binomial) to study the LOS. The explanatory factors contemplate the sociodemographic characteristics of the tourists - gender, age, marital status, schooling, work conditions and nationality -, the activities in the city - Porto wine cellars and historical heritage, monuments, museums -, the daily expenditure in the city - travel, accommodation, meals and others -, and the factors that evaluate the degree of happiness with a destination, which were an adaption of the scale of Lyubomsky and Lepper (1999).

Originality: The LOS has been widely studied. However, emotional factors have not always been integrated into the analysis. We contribute to fill this gap in the literature considering the degree of happiness with the tourist destination.

Findings: We verify that the emotional factor related with happiness presents a positive and significant effect on LOS. The sociodemographic characteristics have a different influence on LOS. Furthermore, the expenditure presents an important role in the destination's length of stay.

Practical implications: LOS is as important factor in the measurement of a destination’s success. The analysis of the LOS’ determinants allows different stakeholders in the sector to define strategies and create a sustainable destination. In order to define strategies that guarantee the attractiveness of destinations, the results indicate that emotional factors must also be considered. Concretely, in the promotion of the destination must be reflected not only the features of the city of Porto but also the benefits of visiting the destination in terms of experience/emotional factors.

Research limitations: The present research do not consider the temporal evolution and if the tourist has the habit of visiting the city of Porto. These variables can influence the results and can be inserted into future research.

Reference

Keywords: Length of stay; Happiness; Expenditures; LOS-modelling; Destination; Trip duration.

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SATISFACTION AND LOYALTY TOWARDS A HEI IN PORTUGAL
Pedro Queiroga ¹; Inês Veiga Pereira ²

Abstract
Purpose: Competition amongst Higher education institution (HIE) is increasing. Therefore, one of the aspects HEI should take into account is the satisfaction of their students, as they can keep choosing programs from that HEI, such as masters, postgraduate programs or even Phd. If HEI can keep their students satisfied, they may recommend and keep being students from that HEI. This research aims to understand if the loyalty to a Higher education institution (HIE) is affected by the global satisfaction about that HEI. In order to assess the global satisfaction, 5 aspects of satisfaction were taken into account: teaching, equipments, services, personal development and relationship with the exterior.

Metodologia: The research focused on a portuguese HEI institution. A quantititive research was develop and from a population of 4453 students, 1064 usable answer were obtained. The questionnaire was available at the HEI on-line secretary platform, for 15 days. Participants have answered a questionnaire which included sociodemographic variables and the adapted variables of global satisfaction, satisfaction towards teaching, building and equipments, services, personal development and relationship with the exterior as well as loyalty towards the HEI. Data was analyzed using SPSS and descriptive, univariate and multivariate statistics were used.

Originality: Service satisfaction has been analyzed very often, but research about satisfaction towards the educational service is very scarce in the international context and even more in Portugal.

Findings: Satisfaction with teaching and personal development are the ones that obtained better average results, though, they are the ones which show lower levels of correlation with global satisfaction towards the HEI. Despite that, all the Hypothesis were confirmed, meaning that satisfaction towards building and equipments, services and relationship have a positive impact on global satisfaction. Finally, global satisfaction has also show a positive impact on loyalty towards the HEI.

Practical implications: For a HEI understanding which are the aspects that students value more and influence they loyalty are importante as they should influence the HEI decisions towards investments. In this case, for example, one of the aspects that obtained lower scores was building and equipments, although they show one of the highest levels of correlation with satisfaction. In this situation, the HEI management should focus on improving the building and equipment conditions, so that global satisfaction also increases.

Research Limitations: This research focused on one portuguese HEI. It would be interesting, in the future, to analyze if other institutions obtain similar results. Also, this research could also be compared with foreign HEI. Finally, it could be interesting to repeat this research after somre changes were implemented.

Keywords: Loyalty; Service satisfaction; HEI.

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ANALYZING THE IMPACT OF INTERNET ADVERTISING CONTENT DESIGN ON ONLINE PURCHASE INTENTIONS. CASE STUDY: TIKET.COM BANNER ADVERTISEMENT
Arief Rachim Saputra 1; Rifelly Dewi Astuti 2

Abstract
Purpose: The objective of this paper is to analyze the visual cues used by Tiket.com’s banner advertisement on the internet such as picture, colour, brightness, quality and size proportion against the website they advertised, on purchase intention within the framework of an integrated model. To support the goal of this research, eight hypotheses were developed.

Methodology: The questionnaires were distributed through social media and obtained 456 respondents. Collected data were analyzed empirically under structural equation model (SEM)- Lisrel.

Findings: The result of this research shows that there is a direct influence between Tiket.com banner advertisement on purchase intention, even though the value generated is much smaller when compared to indirect relationships through advertising attitude, attitude towards the brand, and internet advertising effect.

Originality/value: The novelty of this paper resides in the analysis of Tiket.com banner advertisement, which displayed on Indonesian websites by identifying the influence of its visual design on purchase intention.

Practical implications: The results of this study can help Tiket.com and other companies who wants to advertise through the internet to understand the impact of attitudes of internet users in Indonesia in seeing advertisements to purchase intention, and could improve their digital advertisement accordingly.

Research limitations: The respondents of this study were Indonesian citizens. The use of respondents with different backgrounds, such as citizenship or culture, might help Tiket.com expanding their business and develop their digital advertising with broader consideration.

Keywords: Web advertising; Advertising attitudes; Advertising effect; Attitude towards brand; Purchase intention; Tiket.com.

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1. Introduction

Each advertisement needs to create engaging content, correspond with it, the internet-based advertisement such as banners also seen the content of its advertisement is essential in order to attract the attention of internet users. The previous study had been agreed and proved that visual design of an advertisement needs to put everything into their consideration (Cho, 1999), such as adjusting the animation of their advertisement for their targeted market, size, position and other factors. The growth of digital advertising in Indonesia in 2019 managed to contribute by 7% to the total value of advertising spending on all media, around Rp. 156 trillion, with 52% of digital advertising dominated by digital advertising such as banners, pop-ups & under ads, and 48% are videos advertisements such as ads shown on YouTube.

Consumer attitudes when seeing advertisements on the internet are different, some are annoyed and some don'ts. In a research conducted by Marketers in the United States regarding annoying advertisements or not, revealed that 90% of respondents stated that, advertisements that are on the internet are disturbing with various types of advertising models (Southern, 2019). One of the most annoying advertisements in the research with a percentage of 66.7% is an ad in the form of a video with sound that comes out automatically on a website. In comparison, for ads in the form of banners or static ads are in the final position of 34.2%. This indicates that internet users prefer advertisements that do not interfere with browsing activities, and digital banners are one of them. Tiket.com is one of Indonesia’s e-commerce sites that offers ease of travel and vacation, which includes aeroplane ticket, hotel, car rental and travel insurance. Reporting from www.similarweb.com, which analyzes website traffic, Tiket.com is ranked second under Traveloka as its main competitor, Pegipegi.com and Nusatrip.com in third and fourth place in the same industry. In 2017, Blibli inc acquired Tiket.com in full and have the ambition to make it to the fifth unicorn in Indonesia. Investments made by Blibli inc in Tiket.com’s marketing activities reap a bright spot, wherein the following year Tiket.com experienced a threefold increase in revenue compared to the previous year, and 2.5 times in the year of 2019 (Lingga, 2019). This phenomenon is what makes researchers interested in further researching banner ads.

The use of banner ads on the internet is made and designed to have the appearance of a traditional banner. However, these banners have the advantage of providing user response, where consumers can process these advertisements directly just by clicking or click through the advertisement (Hayes, 2019). The content of the banner ad must be well planned so that internet users have a positive attitude towards the ad (Internet Advertising Attitude) and do not feel disturbed by its presence so that it can affect consumers to process the advertisement. Consumers who feel the ad is irrelevant or even considered too annoying to the advertisement have an impact on the brand value (Brand Attitude), the attitude is the output given by internet users or consumers in interpreting the adverts (Kaspar et al., 2019). Consumers can interpret an advertisement as an advertisement that helps or as an annoyance. The emergence of differences in assumptions between internet users is what plays a vital role in consumer attitudes in an online advertisement. Some of the effects of advertisement on the internet are brand recall on the minds of consumers and click-throughs (Shaouf et al., 2016). Brand recall is the ability of consumers to remember the name of a brand or even the whole ads.

According to Leong et al., (1996), an advertisement will create a memory for consumers when using image and text elements. Another effect received by consumers is click through, according to Merriam in Webster Dictionary (2020), click-through or click is an activity to process an ad or a promotional link on a website to open the ad page. Click through is an activity carried out voluntarily to obtain further information, depending on the level of involvement that consumers have at that time (Cho, 1999). In cases where consumers have a low level of involvement, consumers will be more inclined to pay attention to the visual elements of the ad such as size, colour and animation. According
to Rossiter & Percy (1980), if a banner is made with a size four times larger, the level of attention caused to consumers will increase by two times. Therefore the visual element plays an important role to increase consumer attention to advertising and encourage consumers to do click-through. Attitude generated by internet users when viewing advertisements can have a significant impact on purchase intention (Kudeshia & Kumar, 2017). The number of previous studies has only identified the impact of visual ads on the attitudinal effect, and others were analyzing the impact of visual ads behaviourally. Moving on from that research and previous study, researchers are interested in examining consumer purchase intentions driven by the visual of Tiket.com banner ads on digital media or the internet attitudinally and behaviourally.

2. Literature review

2.1. Internet Advertising Content design (ADC)

The content of an advertisement is the key to success in advertising on the Internet (Cho, 1999). According to (Singh & Dalal, 1999), getting consumers' attention can be done through useful messages in advertisements on the internet or web sites, because internet advertisements enriched with entertainment elements can achieve a more positive evaluation by the recipient and lead to more intentions to visit the website (Raney et al., 2003). The level of significance of content in advertisements can be drawn from the many advertisements that compete for the attention of consumers (Pieters et al., 2008). Therefore, the use of various ways to attract attention in advertising on the internet, such as size, colour, and animation can play an essential role in making a strong first impression on visitors. The research conducted by Rosenkrans (2010), shows that the size and design of ad banners are essential for marketers to ensure the effectiveness of these advertisements.

2.2. Attitude

The use of the term attitude can have different meanings depending on the context used. According to Belch & Belch (2011), attitude can represent feelings experienced by a person towards a particular object. In marketing activities, attitude can be interpreted as an evaluation given by consumers of people, objects, and advertisements (Solomon M. R., 2012). Marketers can use advertising as a tool to create a positive attitude on a product, brand, company or service. According to Solomon (2012), the attitude has three significant parts, namely affect, cognition, and behaviour. The effect is a feeling or consumer perception of an object, and the behaviour is a preference or tendency of consumers to behave related to the attitude of an object. At the same time, cognition is a mental process or level of consumer confidence in an object.

2.2.1. Attitude toward advertising (ATI)

In the formation of cognitive models to make purchase intentions, consumers pass the attitude towards advertisement stage, where it is the stage for consumers to evaluate ads in both first and idle categories (MacKenzie et al., 1986). According to Belch & Belch (2011), an advertisement requires a value of creativity in visual terms to enhance the consumer’s positive response to the ad. The creativity in question is the quality of the image used, colour selection, to the use of sound if the ad is not static.

2.2.2. Attitudes towards Brand (ATB)

Kotler, Bowen, & Makens in Marketing for Hospitality and Tourism (1999) define attitude towards the brand as an evaluation of the favourable or disliked response of individuals, emotional feelings, and behavioural tendencies that a person maintains towards a brand. This attitude can be influenced by the intensity of ad exposure received by consumers (Kotler & Keller, 2012). The level of consumer familiarity with a brand will allow the formation of an attitude towards the brand, which allows for an impact on purchase intention (Keller, 2008). According to (Assael, 2001), attitude towards a brand is a mental
statement that evaluates positive or negative, good or bad, likes or dislikes towards the product. A right brand attitude will significantly benefit the company in repurchases that might be done by consumers and ultimately create loyalty to consumers (Ishida & Taylor, 2012). Attitudes towards certain brands often affect whether consumers will buy or not. A positive attitude towards a particular brand will allow consumers to make purchases of the brand; if not, a negative attitude will have a negative impact on consumers to make a purchase. In a study conducted by (Sigit, 2018), revealed that Brand Attitude gives a positive and significant influence on Purchase Intention.

2.4. Internet Advertising Effect (IE)
Advertising Effect can be formed by internet advertising attitude indirectly, after seeing an ad on the internet (MacKenzie et al., 1986), and occurs after consumers process an advertisement many times (Ducoff, 1996). According to Wu et al., (2008), the Internet Advertising Effect can be improved by producing consumer attitudes towards these advertisements. As with research conducted by Cho et al. (2001) and Rosenkrans (2010) who use click-through and memory used in the research of Edell & Keller (1989) and Ha & McCann (2008) as components of advertising effects. Digital banner ads have the advantage over traditional ads; that is, internet users can respond directly to these ads by clicking. According to Nihel (2013), consumers will be provoked to click-through banners that are in a position above or eye level, large banner sizes, animated banners and banners that use bright colours. Rosenkrans (2010) revealed that ads that have a high level of creativity and do not interfere with internet users would affect the advertising effect.

2.5. Online Purchase Intention (OPI)
Prior research revealed that online purchase intention was defined as the desire or desire of internet users to make online purchases can be caused by the level of user exposure to advertising (Becerra & Korgaonkar, 2010). In that study, researchers assumed online purchase intentions could be directly influenced by advertising content, and this was supported by research that revealed that online purchase intentions would be higher if the visuals provided on advertisements were horizontal and not vertical (van Rompay et al., 2012). This opinion is in line with research conducted by MacInnis & Price (1987) which demonstrates the use of visuals such as images in advertisements, capable of making message recipients illustrate the uses and benefits of the brand. In the context of digital advertising, one of the banner ads has a function as a message in an image that can receive consumer responses directly (Li & Bukovac, 1999). Therefore, consumer exposure to an ad that has an attractive visual order is considered able to increase the desire of consumers to make purchases without going through cognitive evaluation. This is in line with research conducted by Hollis, (2005) that, one-time exposure to an advertisement impact on purchase intentions. Concerning the factors mentioned above, the following hypotheses have been proposed:

H1: Internet Advertising Content Design has a positive influence on Internet Advertising Attitude
H2: Internet Advertising Attitude has a positive influence on Attitude towards Brand.
H3: Internet Advertising Attitude gives a positive influence on the Internet Advertising Effect.
H4: Attitude towards the brand has a positive influence on Online Purchase Intention.
H5: Internet Advertising Effect has a positive influence on Online Purchase Intention.
H6: Internet Advertising Content Design has a positive effect on Attitude Towards Brand.
H7: Internet Advertising Content Design has a positive influence on Online Purchase Intention.
H8: Internet Advertising Attitude has a positive influence on Online Purchase Intention.
3. Data and Method

In data collection, researchers used questionnaires that were distributed in the form of google-form and used the Likert Scale 1-5 method as a measurement tool. Measurement of attitudes, opinions, and perceptions of individuals and organizations can use a Likert Scale (Sugiyono, 2014). The data collection is under the variables in the research that have been determined explicitly as a social phenomenon that will be studied scientifically. Likert scale is made to find out how much the subjects agree or disagree in five points on each statement contained in the questionnaire (Sekaran, 2011). Preliminary testing or pre-test is done to minimize the deficiencies or problems that the questionnaire has in this study. In the pre-test stage, the questionnaire was distributed to 30 respondents randomly through the Facebook platform, both men and women, whether or not they had used the Tiket.com application. The collected data is processed using SPSS software ver.25 to get the reliability test and the validity test of all indicators used in this study.

3.1 Pretest Result

To make sure that our variable and indicators are valid for further process, we conducted a pretest which consist of 30 respondents. The respondents for this pretest were chosen randomly and above 17 years old and given an example of Tiket.com’s banner.

The results of the pretest are valid and reliable as for variable ADC has cronbach’s $\alpha = 0.939$ with KMO = 0.824, variable ATI has cronbach’s $\alpha = 0.93$ with KMO = 0.846, variable ATB has cronbach’s $\alpha = 0.845$ with KMO = 0.800, variable IE has cronbach’s $\alpha = 0.873$ with KMO = 0.710, and variable OPI has cronbach’s $\alpha = 0.932$ with KMO = 0.748.

It can be concluded from the pre-test analysis conducted by the researcher, that all questions have met the requirements to measure the variables used in this study. This can be seen from the Kaiser-Mayer-Olkin value for all questions getting a value greater than 0.7, where the minimum KMO value requirement is 0.5 and has a value smaller than 0.5 on the Sphericities-test and the value of the component matrix for all questions get a value greater than 0.5 as per its requirements.

3.2 Questioner Design

The questionnaire consisted of four parts, namely, screening questions, behavioural questions, core questions, and demographics questions. In the screening section, the researcher gave a banner ad model owned by Tiket.com and expected the respondents to answer the brand name of the advertisement so they could proceed to the next stage. In the next stage, the researcher asked questions such as whether or never seen the banner ad, whether or never purchased the brand and the reasons for using the brand. In the third part, researchers show Tiket.com banner ads and also the appearance of their forms on a website again, then proceed to the core questions of this study,
regarding internet advertising design content, attitude towards advertising, attitude towards the brand, Internet advertising effect, and online purchase intention to Tiket.com advertising. The final part of the research questionnaire contains the demographics of respondents such as age, gender, occupation to monthly income.

3.3 Main Test
The survey was conducted for three months, starting in early January to mid-March 2020. The questionnaire distributed to several platforms such as Facebook, Twitter, WhatsApp group, to Instagram with the Google form mechanism. The number of respondents collected during the distribution period was 464, with 456 completing the questionnaire, and eight respondents did not finish the survey. Thus, the number of respondents used for analysis was 456.

3.4 Sampling

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>226</td>
<td>49.56</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>230</td>
<td>50.44</td>
</tr>
<tr>
<td>Age</td>
<td>Less than 20</td>
<td>39</td>
<td>8.55%</td>
</tr>
<tr>
<td></td>
<td>20-25</td>
<td>205</td>
<td>44.95</td>
</tr>
<tr>
<td></td>
<td>25-30</td>
<td>132</td>
<td>28.94</td>
</tr>
<tr>
<td></td>
<td>more than 30</td>
<td>80</td>
<td>17.56</td>
</tr>
<tr>
<td>Occupation</td>
<td>Student &amp; University Student</td>
<td>149</td>
<td>32.7%</td>
</tr>
<tr>
<td></td>
<td>Private Company employee</td>
<td>145</td>
<td>31.8%</td>
</tr>
<tr>
<td></td>
<td>Government employee</td>
<td>33</td>
<td>7.1%</td>
</tr>
<tr>
<td></td>
<td>Entrepreneur</td>
<td>94</td>
<td>20.6%</td>
</tr>
<tr>
<td></td>
<td>State-Owned Company employee</td>
<td>12</td>
<td>3.1%</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>23</td>
<td>5.9%</td>
</tr>
<tr>
<td>Income</td>
<td>Less than Rp. 4.000.000</td>
<td>151</td>
<td>33.1%</td>
</tr>
<tr>
<td></td>
<td>Rp. 4.000.000 - Rp. 6.000.000</td>
<td>78</td>
<td>17.1%</td>
</tr>
<tr>
<td></td>
<td>Rp. 6.000.000 - Rp. 8.000.000</td>
<td>101</td>
<td>22.1%</td>
</tr>
<tr>
<td></td>
<td>&gt; - Rp. 8.000.000</td>
<td>126</td>
<td>27.7%</td>
</tr>
</tbody>
</table>

Source: Data collected and processed by Author

Based on the demographic data of this study, it can be seen that the majority of all respondents are those who are in the age range of 20 to 25 years with the proportion of female respondents totalling 231 and 225 male respondents. It can also be seen, the majority of respondents in this study have jobs as students and follows by employees of private companies, with incomes of less than four million rupiahs.

3.4 Analytical Method
This study uses structural equation modelling SEM - Lisrel in data processing. In the Structural Equation Model (SEM), there are two types of variables, namely Latent Variables and Observed or Measured or Manifest Variables (Wijanto, 2015). Latent variables are abstract concepts that cannot be observed indirectly or imperfectly, through its influence on observable variables. In contrast, observable variables or measured variables are variables that can be observed or can be measured empirically and are often referred to as indicators. After the data collected, researchers conducted a descriptive analysis of questions from 456 respondents, analyzing good models that are reliability and validity with Confirmatory Factor Analysis (CFA), Construct Reliability (CR)
and Variance extract (VE) and using software lisrel to test the relationship between variables.

4. Results

4.1 Confirmatory Factor Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>λ</th>
<th>λ²</th>
<th>e</th>
<th>CR</th>
<th>VE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Design Content</td>
<td>ADC1</td>
<td>0.77</td>
<td>0.59</td>
<td>0.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADC2</td>
<td>0.74</td>
<td>0.55</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADC3</td>
<td>0.76</td>
<td>0.58</td>
<td>0.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADC4</td>
<td>0.71</td>
<td>0.50</td>
<td>0.50</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>ADC5</td>
<td>0.77</td>
<td>0.59</td>
<td>0.41</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ADC6</td>
<td>0.81</td>
<td>0.66</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADC7</td>
<td>0.75</td>
<td>0.56</td>
<td>0.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADC8</td>
<td>0.81</td>
<td>0.66</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADC9</td>
<td>0.84</td>
<td>0.71</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude towards Internet Advertising</td>
<td>ATI1</td>
<td>0.81</td>
<td>0.66</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATI2</td>
<td>0.81</td>
<td>0.66</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATI3</td>
<td>0.87</td>
<td>0.76</td>
<td>0.24</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>ATI4</td>
<td>0.72</td>
<td>0.52</td>
<td>0.48</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>ATI5</td>
<td>0.83</td>
<td>0.69</td>
<td>0.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATI6</td>
<td>0.90</td>
<td>0.81</td>
<td>0.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude towards Brand</td>
<td>ATB1</td>
<td>0.82</td>
<td>0.67</td>
<td>0.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATB2</td>
<td>0.85</td>
<td>0.72</td>
<td>0.28</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>ATB3</td>
<td>0.79</td>
<td>0.62</td>
<td>0.38</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>ATB4</td>
<td>0.85</td>
<td>0.72</td>
<td>0.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Advertising Effect</td>
<td>IE1</td>
<td>0.91</td>
<td>0.83</td>
<td>0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IE2</td>
<td>0.90</td>
<td>0.81</td>
<td>0.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IE3</td>
<td>0.65</td>
<td>0.42</td>
<td>0.58</td>
<td>0.87</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>IE4</td>
<td>0.68</td>
<td>0.46</td>
<td>0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Purchase Intention</td>
<td>OPI1</td>
<td>0.87</td>
<td>0.76</td>
<td>0.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OPI2</td>
<td>0.87</td>
<td>0.76</td>
<td>0.24</td>
<td>0.90</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>OP3</td>
<td>0.86</td>
<td>0.74</td>
<td>0.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data collected and processed by Author

Based on the table above, all indicators have a loading factor value greater than 0.5 so that all indicators are concluded to be valid. The CR value is bigger than 0.7, and the VE value is> 0.5, so it can be concluded that the variable is reliable.

4.1 Hypothesis testing

According to Malhotra and Birks (2007), the determination of whether a variable is significant to the model can be seen from the magnitude of the value of t, t <-1.96 or t> 1.96. The picture below is the result obtained by researchers in processing data using LISREL. From the results of data processing, it can be seen that all hypotheses proposed by researchers can meet the minimum requirements of t value above 1.96. These results are explained in more detail in the table below;
Table 3 – Lisrel - T value Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Paths</th>
<th>T Value</th>
<th>Estimate Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Internet Advertising Content Design → Internet advertising attitude</td>
<td>10.00</td>
<td>0.50</td>
<td>Supported</td>
</tr>
<tr>
<td>2</td>
<td>Internet Advertising Attitude → Attitude Towards Brand</td>
<td>12.96</td>
<td>0.65</td>
<td>Supported</td>
</tr>
<tr>
<td>3</td>
<td>Internet Advertising Attitude → Internet Advertising Effect</td>
<td>15.12</td>
<td>0.72</td>
<td>Supported</td>
</tr>
<tr>
<td>4</td>
<td>Attitude Towards Brand → Online Purchase Intention</td>
<td>7.80</td>
<td>0.44</td>
<td>Supported</td>
</tr>
<tr>
<td>5</td>
<td>Internet Advertising Effect → Online Purchase Intention</td>
<td>6.85</td>
<td>0.31</td>
<td>Supported</td>
</tr>
<tr>
<td>6</td>
<td>Internet Advertising Attitude → Online Purchase Intention</td>
<td>5.89</td>
<td>0.25</td>
<td>Supported</td>
</tr>
<tr>
<td>7</td>
<td>Internet Advertising Content Design → Online Purchase Intention</td>
<td>3.76</td>
<td>0.13</td>
<td>Supported</td>
</tr>
<tr>
<td>8</td>
<td>Internet Advertising Content Design → Attitude Towards Brand</td>
<td>3.15</td>
<td>0.19</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Data collected and processed by Author

(1) The connection between internet advertising content design (ADC) and internet advertising attitude (ATI) shows a significant and positive result indicated from the obtained t value 10.00 (t > 1.96). Therefore, H1 is supported.
(2) The relationship between internet advertising attitude (ATI) and attitude towards the brand (ATB) shows a significant and positive result indicated from the obtained t value 12.96 (t > 1.96). Therefore, H2 is supported.
(3) The relationship between internet advertising attitude (ATI) and internet advertising effect (IE) shows a significant and positive result, indicated from the obtained t value 15.12 (t > 1.96). Therefore, H3 is supported.
(4) The relationship between attitude towards the brand (ATB) and online purchase intention (OPI) shows a significant and positive result, indicated from the obtained t value 7.80 (t > 1.96). Therefore, H4 is supported.
(5) The relationship between internet advertising effect (IE) and online purchase intention (OPI) shows a significant and positive result, indicated from the obtained t value 6.85 (t > 1.96). Therefore, H4 is supported.
(6) The relationship between internet advertising attitude (ATI) and online purchase intention (OPI) shows a significant and positive result, indicated from the obtained t value 5.89 (t > 1.96). Therefore, H6 is supported.
(7) The relationship between internet advertising content design (ADC) and online purchase intention (OPI) shows a significant and positive result, indicated from the obtained t value 3.76 (t > 1.96). Therefore, H7 is supported.
(8) The relationship between internet advertising content design (ADC) and attitude towards the brand (ATB) shows a significant and positive result, indicated from the obtained t value 3.15 (t > 1.96). Therefore, H8 is supported.

5. Discussion

The output result from internet advertising content design shows a positive and
significant influence on internet advertising attitude (ADC $\rightarrow$ ATI). In an advertisement, the use of visuals such as colour, lighting level, size and also animation adds contribution to the individual. A study conducted by (Jang et al., 2014) tells of the use of green in advertisements to increase the potential to produce more positive attitudes compared to other colours. Based on these results, it can be concluded that the layout, size, colour selection and also the use of light on Tiket.com ads have been done well and do not interfere with the primary function of the website itself. The use of banner design conducted by Tiket.com gets the result that internet users show their availability to see these advertisements in the future. Even though the background colour uses in the advertisement is blue, the internet user still has a positive attitude towards it. The results of tests conducted on this hypothesis are in line with previous studies that tested similar hypotheses namely Shaouf et al., (2016) and Cyr et al., (2009), where advertisements designed based on aesthetics were able to build consumer attitudes towards advertising alone.

Furthermore, internet advertising attitude can moderate the ADC relations with the attitude towards the brand (ATI $\rightarrow$ ATB), which can be seen on the table above. In a study conducted (Le & Vo, 2017), revealed that banner ads are the right medium for marketers to send messages to consumers in large numbers to improve brand awareness because banners are one of the advertisements whose existence is not too disturbing when compared with other methods such as pop-up ads. The effect of advertising effectiveness on attitude has long been expressed by MacKenzie et al., (1986), where these two variables used as hypotheses in this study are interrelated. Based on this, it can be concluded that the modelling of advertising attitude and attitude towards brand variables conducted by Homer, (1990) and MacKenzie et al., (1986), also applies to advertisements conducted or distributed via digital media. The results of this study indeed reveal that, when the attitude of internet users shows a positive thing towards advertising, the positive value will impact on the attitude of consumers towards the brand itself.

The relationship between internet advertising attitude to internet advertising effect is the third hypothesis in this study (ATI $\rightarrow$ IE). The results of testing this hypothesis indicate that there is an influence given to the internet advertising effect that is click-through by internet advertising attitude with t values of 15.12 and 0.72 on the path coefficient value. These results have similarities with experiments conducted by Cho, (2003), that the level of involvement has a role in influencing consumers to click on a banner ad, in terms of the low level of involvement, where internet users are not in seeking information shows a significant effect on the minds of consumers to click a visually based advertising. In the respondents of this study, it could be mentioned that the respondents believed the ad and would click. Crespo-Almendros & Del Barrio-Garcia (2014) revealed that the highest level of memory for online banner ad content is achieved by consumers who click on the banner. These results can show a strong correlation between clicking and cognitive response, such as the ability to remember advertising content.

The relationship that affects attitude towards the brand and online purchase intention is the fourth hypothesis in this study (ATB $\rightarrow$ OPI). In testing the hypothesis, it was found that there is a significant relationship between the two variables. Attitudes towards brands are initiated by cognitive processes that work based on stimuli and then influence consumers' buying interest in the products offered. A positive attitude towards a particular brand will allow consumers to make purchases on the brand, and if not, a negative attitude will have an impact on consumers not to make a purchase (Sigit, 2018).

In other words, in the case of Tiket.com banner ads, marketers have made consumers understand the contents of messages through images, animations and the use of appropriate sentences. Significant results were found in testing the hypothesis on the internet advertising effect variable on online purchase intention (IE $\rightarrow$ OPI) as the fifth hypothesis in this study with a t value of 6.85 and a path coefficient of 0.31. This certainly explains that respondents in this study were interested in processing Tiket.com advertisements into a purchase
intention by clicking on these advertisements. The sixth hypothesis in this study is the effect of internet advertising content design on attitude towards the brand (ADC → ATB). Based on the results of testing the hypothesis, illustrates that there is a significant relationship between the two variables. In other words that, the visual aspect of an advertisement, the image, colour, size and lighting is the fundamental value of an advertisement in order to get positive results on the brand in the minds of internet users who see the ad. Research conducted by Mitchell (1986) regarding the effects caused by visual and verbal components of an advertisement on attitude towards brand and attitude towards advertisement by using dual component models gets the results, that visual and verbal elements can contribute to the formation of attitude towards advertisement and attitude towards the brand. In other words, the use of visual elements such as colour, shape, and size in advertising can increase positive responses in consumers (Cyr et al., 2009), consumers who form a better attitude towards web advertising as a whole are more likely to prefer the advertised brand (Shaouf et al., 2016).

The seventh hypothesis in this study is the effect of Internet advertising content design on online purchase intention (ADC → OPI). From the results of testing these variables, it was found that the Internet advertising content design variable was able to have a positive influence on the online purchase intention variable, although not significantly with a t value of 3.76. In a study conducted by J. U. Kim et al. (2010) in South Korea who researched online shopping sites revealed that the attribute or component owned by an internet-based advertisement, in this case, is a banner ad, has a vital function to attract interest or motivate people to make online purchases. In addition, Park & Srinivasan (1994), believes that consumer purchase intentions at a low level of involvement are very dependent on cues or cues owned by advertisements such as colours, images and animation. The results of this study found differences with previous studies conducted by Shaouf et al. (2016).

In testing this last hypothesis, it can be explained that internet advertising attitude on Tiket.com banner is significantly related to online purchase intention (ATI → OPI). In this study, found that attitude towards internet advertising can affect online purchase intention directly with a t value of 3.15. In other words, when consumers see banner Tiket.com ads on the internet and have a positive attitude towards these ads, the formation of purchase intentions from consumers will be even higher. This value is much smaller when compared to the value of indirect effects. Previous research conducted by MA Sallam & Algammash, (2016) in Saudi Arabia on the effect of attitudes towards advertising on purchase intentions on the Al-Bassam brand found similar results to this study that attitudes towards advertising were able to influence purchase intentions both directly if the ad does not interfere, or through mediating attitude towards the brand with a visual use of both the image and colour can make consumers feel connected with the product or brand.

6. Conclusions

This study found that the visual appearance of an advertisement on digital media such as banner has an impact not only through attitudinal effect but also behaviorally. The use of visual elements in the Tiket.com banner ad such as colour, lighting, banner size and image can affect consumer attitudes towards an ad. Where the results of this study indicate that consumers have an interest in seeing the Tiket.com ads in the future. One reason that can be drawn is that internet users do not feel that their surfing activities on the internet are disturbed by the visuals used by the Tiket.com advertisement. The availability of internet users in seeing the Tiket.com banner ads also has an effect on brand attitude and advertising effects, where there is a positive impression of the Tiket.com brand in the minds of consumers, the desire of consumers to click on it and remember the ad even though only seeing it once. The intention of consumers to make purchases appears positively towards advertising.
In this study, attitude towards brand and advertising effect can provide positive value to online purchase intention. Nevertheless, the significance value obtained in attitude towards brand variable is greater than 0.8 internet advertising effect. The positive impression generated through the Tiket.com banner ad is able to encourage consumers’ intention to make a purchase, even though the purchase does not directly occur but the brand will be used as a reference for consumers later in the process of information seeking. Can also be seen in the results of the relationship of the whole model that, internet advertising content can have an immediate effect on online purchase intention. However, the significance value obtained on this variable is much smaller when compared through the internet advertising effect variable, attitude towards the brand, and advertising attitude. This can happen due to the many advertisements available on digital media so that it could cause the user unconscious in the ads being seen.

7. Future research

In this study, researchers are more inclined to use the visual aspects of an ad that has no element of price or promotion. It should be noted that Indonesian society is more price-sensitive, so it allows for a change in attitude if researchers use it as part of visual elements. Furthermore, other variables, such as gender and involvement, can be added. Both of these variables are variables that are used to personalize ads so that these ads can be targeted right on target. In this study, researchers did not use these two variables as moderation, because the researchers wanted to know whether the Tiket.com ads which available on several websites were able to attract the interest of internet users in general. Besides adding these two variables, further research can also add the role of celebrity endorser to purchase intentions. This is based on the e-commerce conditions that many use celebrities to build trust in their brands. The relationship that can be added to further research is the home page of the advertisement after going through the attitude variable, whether the main page of the ad can increase consumer interest in making a purchase. Many of the products or services that are reviewed on social media by key opinion leaders play a new role in the digital marketing industry that can change someone's perception of a product and service so that it can affecting the aspects of word of mouth. This could be taken into consideration in further research. Whatsmore, the time frame for conducting the data of this research occurred at the peak of the Covid-19 pandemic in Indonesia. There were travel restrictions both land and air, thus allowing differences in the responses of internet users in interpreting Tiket.com digital advertisements which incidentally are travel and transportation companies. The model and results of this study are expected to be used as a reference in future studies if the world is experiencing the same pandemic or global conditions.

References


Appendix

Figure 2 – Sample Tiket.com Banner Ads

![Sample Tiket.com Banner Ads]

Source: Author's elaboration

Figure 3 – Sample Tiket.com Banner at the website

![Sample Tiket.com Banner at the website]

Source: Author's elaboration
THE INFLUENCE OF VISUAL MERCHANDISING ON BRAND ATTITUDE AND PURCHASE INTENTION: THE CASE OF OUTDOOR GEAR INDUSTRY

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Abstract

\textbf{Purpose:} The outdoor gear industry has a vast market potential due to the high public interest in outdoor activities and traveling. This study aims to examine the influence of visual merchandising cognition, which consists of three dimensions, namely in-fashion, attractiveness, and function, on brand attitude and purchase intention through two mediating variables, namely brand salience (aesthetics and utilitarian attributes) and attitude toward visual merchandising.

\textbf{Methodology:} This quantitative research was conducted with a conclusive and descriptive research design. Data were collected from 181 respondents through a survey by distributing a self-administered questionnaire at an outdoor gear flagship store in Indonesia. The store was chosen because it has a conceptual and thematic visual merchandising. The data then processed and analyzed using Structural Equation Modelling.

\textbf{Findings:} The results show that visual merchandising positively affect brand attitude and purchase intention through brand salience and attitude toward visual merchandising. The dimension of Visual Merchandising that has the most influence on Brand Salience in terms of aesthetic attributes is In-Fashion, which is related to fashion trends, followed by attractiveness. Meanwhile, the Function dimension has no significant effect on Attitude Toward Visual Merchandising.

\textbf{Originality/value:} This paper provides a conceptual and thematic visual merchandising strategy that can also be a differentiation strategy in the outdoor gear industry.

\textbf{Practical implications:} The In-Fashion and Attractiveness aspects need to be considered in planning visual merchandising design because outdoor gear consumers nowadays are not just looking for functionality but also for the fashion aspect. Visual merchandising practitioners in the outdoor gear industry need to pay attention and focus on these two things in bringing about a positive affective attitude towards visual merchandising in stores. Effective visual merchandising is needed to build positive brand attitudes and purchase intentions.

\textbf{Keywords:} Visual merchandising; Brand salience; Attitude toward visual merchandising; Brand attitude; Purchase intention.

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1. Introduction

The outdoor gear industry or the outdoor activity equipment industry is developing gradually and globally from time to time. The market potential in the outdoor equipment industry is enormous, both in the international and local markets. The market growth occurs along with the increasing community interest of travel and outdoor activities, both extreme and non-extreme.

According to Outdoor Gear Market, a website about the outdoor equipment business, now more people are doing outdoor activities such as hiking or going to natural tourist destinations. Thus, consumer demand for outdoor equipment is also increasing. Outdoor gear is not only demanded by mountain climbers or people who often do the exploring activity but also demanded by the broader community because of its product design innovations that become trends in fashion/apparel merchandise.

Over the past two decades, several brands have emerged in the Indonesian outdoor gear industry, which has helped to enliven the market in the industry. Some of these brands are Eiger, Consina, and Avtech. Eiger has a thematic store concept applied to its exterior and interior. Based on a prior study of Eiger Adventure Store building’s exterior and interior, the design theme applied to the building is “adventure and nature” with the concept of “recycle reuse” design. The theme of “adventure and nature” is applied to the building’s facade by arranging columns with random and asymmetrical use of wood material that is natural-like, aiming to create the impression of visitors as if they were in the forest. The impression of “adventure and nature” is also felt in the interior and seen from natural materials that are applied to walls, floors, ceilings, even fixtures, and furniture that are in it.

According to Mehta and Chugan (2013) and Park et al. (2014), the visual role of merchandising is to communicate brands and products to the same target customers in all markets and can also be a differentiator with competitors. McGoldrick (1990) also proposes that the conceptual approach to visual merchandising that considers store design and product structuring is a strategy to produce an experience of products and be able to capture the attention of consumers in the store. In the realm of design, such as visual merchandising, for example, themes can be interpreted as a recurring pattern in the overall design. Meanwhile, the concept is a combination of various elements into a form. The concept is visual or can be seen, while the theme is not seen but can be felt. Based on studies from Trotter (2016), the flagship store, which is the largest store for a retail brand, has more volume merchandises with different decorations than other stores or outlets owned by the brand. The concept and theme of visual merchandising carried by Eiger on its flagship store are different from those applied in stores or other outlets.

The theme “adventure and nature” is applied to the flagship store so that the atmosphere of “the real outdoor experience” is more pronounced. This fact shows that the flagship store also plays an essential role in building brand image and consumer insights. Thus, this study is conducted at the flagship store only.

The problem formulation consists of two aspects, namely the management decision problem and the marketing research problem. The management decision problem is whether the outdoor gear industry should use conceptual and thematic visual merchandising as a marketing strategy. The marketing research problem is whether visual merchandising can affect the brand attitude and purchase intention of its consumers, specifically in the outdoor gear industry.

Thus, based on the problem formulation, the research objectives are (1) to examine the influence of conceptual and thematic visual merchandising on consumer brand attitude and purchase intention, especially in the outdoor gear industry (through brand salience and attitude toward visual merchandising according to literature studies and conceptual models used in research) and (2) to investigate the possibility of conceptual and thematic visual merchandising as a marketing strategy in the outdoor gear industry.
2. Literature review

2.1. Visual Merchandising
According to Abratt and Goodey (1990) in Hussain and Ali (2015), products in retail stores must be arranged as attractive as possible to attract consumers, because it can be a stimulus to attract consumers to buy products even though it was not planned. According to Donovan & Rossiter (1982) and Morrin and Chebat (2005) in Law et al. (2012), many retailers spend much effort in forming a unique identity through different visual merchandising strategies so that the mood of consumers becomes positive to increase purchase intention. Likewise, Davies Barry and Ward (2005) state that visual merchandising can form a constructive image of the store and can help to increase consumer purchase intentions for products sold in stores. Based on studies of Park et al. (2014), three dimensions of visual merchandising cognition are tested in this study, namely in-fashion, attractiveness, and function. According to Law et al. (2012), the addition of fashion elements related to aesthetics and high involvement in fashion will provide an unforgettable and enjoyable shopping experience for consumers (in-fashion). Moreover, in-store variables such as layout and architecture can influence affective perceptions of consumers (attractiveness), and a function is a dimension of visual merchandising related to the space provided in the store (Law et al., 2012; Park et al., 2014).

2.2. Brand Salience
Romaniuk and Sharp (2004) suggest that salience refers to the possibility of customers thinking about the brand at certain times. A broader interpretation of this is also expressed by Alba and Chattopadhyay (1986) in the study as the prominence of a brand measured by top of mind awareness of product cue. According to Ullah et al. (2011), building the quantity and quality of memory associations of a brand in the consumer’s memory is essential to (1) recognize the brand, (2) become a buying choice for the consumer, and (3) provide a better brand image than competitors.

2.3. Visual Merchandising Cognition and Brand Salience
According to Zhou et al. (2012) and Lin (2004) in Park et al. (2014), there is a relationship between visual stimulus with cognition, which refers to a thinking process connected with brand identification. Regarding visual stimulus, consumers tend to be able to associate one component with other components when developing the identity of a retail brand, which in turn will produce consumer impressions of the products displayed along with the brand concerned. According to Park et al. (2014), visual merchandising cognition reflects the conceptual view of visual merchandising and influences brand salience through aesthetic and utilitarian attributes. Thus, in this study, the second parameter of the brand salience variable is aesthetic and utilitarian attributes.

Hypothesis 1: One dimension of Visual Merchandising Cognition, namely In-Fashion, positively influences Aesthetics Attributes.
Hypothesis 3: One dimension of Visual Merchandising Cognition, namely Attractiveness, positively influences Aesthetics Attributes.
Hypothesis 5: One dimension of Visual Merchandising Cognition, namely Function, positively influences Utilitarian Attributes.

2.4. Visual Merchandising Cognition and Attitude Toward Visual Merchandising
Attitude toward visual merchandising is the level of affective response obtained from visual merchandising. According to Sullivan et al. (2012) in Park et al. (2014), the retail environment must involve a stimulus that matches the desires of consumers, both cognitive and affective. According to Donovan and Rossiter (1982) in Fiore et al. (2000), the level of affective involvement in consumption can be represented by two dimensions, namely emotional pleasure and emotional arousal.
Hypothesis 2: One dimension of Visual Merchandising Cognition, namely In-Fashion, positively influences Attitude Toward Visual Merchandising

Hypothesis 4: One dimension of Visual Merchandising Cognition, namely Attractiveness, positively influences Attitude Toward Visual Merchandising

Hypothesis 6: One dimension of Visual Merchandising Cognition, namely Function, positively influences Attitude Toward Visual Merchandising

2.5. Brand Attitude

Affective aspects refer to the emotional expression or consumers’ feeling towards the stimuli in a store that can be a stimulus is visual merchandising (Law et al., 2012). According to Feldman and Lynch (1988) and Bettman et al. (1998) in Yildirim et al. (2007), certain types of information, for example, in the window display, can be a trigger for someone to enter the store. Customers may enter the store because of the influence of the window display due to various factors. They may enter the store to get more information about specific products displayed in the window display, even though they have no prior purchase intentions.

Furthermore, as suggested by Spears and Singh (2004) based on (Madden et al., 1988) and Zanna and Rempel (1988), brand attitude is unidimensional and acts as an evaluation that differs from beliefs, feelings, and behaviors and various other components which are expressions of attitude. The brand attitude is different from the feelings generated by the related brand. According to Park et al. (2010), the strength of brand attitude as positivity or negativity of attitude can be measured by the certainty of a brand indicated by the relationship between a brand and someone.

2.6. Brand Salience and Brand Attitude

Two dimensions of the brand salience variable used in this research are aesthetic attributes and utilitarian attributes. According to Stokburger-Sauer et al. (2012), Miranda (2009), and Law et al. (2012) in Park et al. (2014), visual cognition of merchandising can influence brand salience through aesthetic attributes such as design, color, appearance. Another medium is also through utilitarian attributes such as easy management, comfort, and coordination with other products. According to Yildirim et al. (2007), the attributes of the store image have an essential role in influencing consumer buying attitudes and behavior.

Hypothesis 7: Aesthetics Attributes positively influence Brand Attitude
Hypothesis 8: Utilitarian Attributes positively influence Brand Attitude

2.7. Attitude Toward Visual Merchandising and Brand Attitude

Visual information can also influence attitude affective. According to Park et al. (2014), consumers’ attitudes toward the store environment might be more influential in influencing their affective responses than their attitudes towards products in the store. Visual information is contained in visual attributes that appear as part of visual merchandising, such as store windows or in terms of exterior. According to Yildirim et al. (2007), the attributes of the store image have an essential role in influencing consumer buying attitudes and behavior.

Hypothesis 9: Attitude Toward Visual Merchandising positively influences Brand Attitude

2.8. Brand Attitude and Purchase Intention

Previous studies have shown evidence of relationship between brand attitude and purchase intention (Spears and Singh, 2004; Park et al., 2014). Brand attitude correlation can be measured in various ways, namely by assessing consumers’ perceptions of a brand, tracking trends from brand attitude and purchase intention over time, and brand positioning. According to Park et al. (2014), consumers are more likely to buy a product when they have a positive rating when evaluating a brand.

According to Spears and Singh (2004), purchase intentions are a tendency to take personal actions that are related to a brand. Furthermore, perceived value and quality
can have an impact on one’s purchase intentions. The higher the perceived value and quality, the higher the tendency to purchase (Chi et al., 2011).

*Hypothesis 10: Brand Attitude positively influences Purchase Intention*

Based on the previous explanation, we want to examine the influence of conceptual and thematic visual merchandising on the brand attitude and purchase intention of consumers. The literature studies result in ten hypotheses to test the influence of visual merchandising cognition consisting of three dimensions, namely in-fashion, attractiveness, and the function of brand salience in terms of aesthetics attributes and utilitarian attributes (Figure 1). Moreover, we test the influence of visual merchandising cognition to attitude toward visual merchandising, the influence of brand salience in terms of aesthetics attributes and utilitarian attributes to brand attitude, and the influence of attitude toward visual merchandising on brand attitude.

The conceptual model is adapted from the study of Park et al. (2014) based on the theory developed by Keller (2007), Baker (1998), and Bitner (1992) about how the store environment can influence consumer decision making. According to Groeppel-Klein (2005) in Park et al. (2014), consumers’ perceptions can influence brand attitude and purchase intention. Another approach reviewed in the same article is Donderi (2006); the approach shows visual merchandising cognition affecting consumer attitudes toward visual merchandising and attitude would affect brand attitude and purchase intention of consumers.

3. **Data and Method**

The study is a single cross-sectional design involving a one-time drawn sample of respondents from the target population. The individuals who were respondents are men or women who came to or visit the Eiger Adventure Store; they can be first-timers or who have repeatedly visited the store. The survey elicits information related to opinions regarding visual merchandising applied at Eiger Adventure Store based on in-fashion, attractiveness and function aspects, and the assessment of on-display Eiger products through aesthetic and utilitarian attributes to measure brand salience, attitudes towards the Eiger brand, and desire to buy Eiger products. This study uses the nonprobability sampling technique, which is convenience sampling. We chose a sample of 181 respondents who were in the Eiger Adventure Store located on Bandung, West Java.

3.1. **Measured Variables**

The independent variable in the study is Visual Merchandising Cognition, and there are three dependent variables, namely Brand Salience, Brand Attitude, and Purchase Intention. Table 1 shows all the indicators of each variable and dimension.
<table>
<thead>
<tr>
<th>Variable/Dimension</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Fashion</td>
<td>1. In my opinion, the new product presentation in the Eiger store is interesting.</td>
</tr>
<tr>
<td></td>
<td>2. The Eiger shop conveys fashion imagery due to effective visual merchandising.</td>
</tr>
<tr>
<td></td>
<td>3. The current mode is reflected in the arrangement of the products in the store.</td>
</tr>
<tr>
<td>Attractiveness</td>
<td>4. The interior design at the Eiger Adventure Store is arranged attractively.</td>
</tr>
<tr>
<td></td>
<td>5. I was motivated to enter the store because of the outside appearance of the store (exterior) attractive.</td>
</tr>
<tr>
<td></td>
<td>6. The color combination in the display area is well coordinated.</td>
</tr>
<tr>
<td></td>
<td>7. The use of appropriate lighting makes products look attractive.</td>
</tr>
<tr>
<td>Function</td>
<td>8. Arranging space in the shop makes it easy for me to look at products.</td>
</tr>
<tr>
<td></td>
<td>9. Sufficient space is given in the display area so that customers can move easily.</td>
</tr>
<tr>
<td></td>
<td>10. Sufficient space in the store allows me to view products freely.</td>
</tr>
<tr>
<td>Aesthetics Attributes</td>
<td>11. Product design - Eiger products are excellent.</td>
</tr>
<tr>
<td></td>
<td>12. The colors in the Eiger product variants are good.</td>
</tr>
<tr>
<td></td>
<td>13. The appearance of Eiger products is appealing.</td>
</tr>
<tr>
<td>Utilitarian Attributes</td>
<td>15. Eiger products are comfortable to wear.</td>
</tr>
<tr>
<td></td>
<td>16. Each product is well-coordinated with the other products.</td>
</tr>
<tr>
<td></td>
<td>17. Eiger products are easy to use.</td>
</tr>
<tr>
<td></td>
<td>18. Eiger products are easy to store.</td>
</tr>
<tr>
<td>Merchandising (VM)</td>
<td>20. Visual merchandising at Eiger Adventure Store impresses me.</td>
</tr>
<tr>
<td></td>
<td>21. Visual merchandising at Eiger Adventure Store has a unique concept.</td>
</tr>
<tr>
<td></td>
<td>22. Visual merchandising at the Eiger Adventure Store makes me happy.</td>
</tr>
<tr>
<td>Brand Attitude</td>
<td>23. I like the Eiger brand.</td>
</tr>
<tr>
<td></td>
<td>24. I support the Eiger brand.</td>
</tr>
<tr>
<td></td>
<td>25. I like the Eiger brand.</td>
</tr>
<tr>
<td></td>
<td>26. I am satisfied with the Eiger brand.</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>27. I like to linger in the shop.</td>
</tr>
<tr>
<td></td>
<td>28. I want to buy Eiger products in the future.</td>
</tr>
<tr>
<td></td>
<td>29. I feel interested in buying Eiger products one day.</td>
</tr>
<tr>
<td></td>
<td>30. I would recommend this shop to others.</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration

The data used in this study were obtained by surveying a questionnaire and processed quantitatively using SPSS and Structural Equation Models (SEM) using the AMOS program.

4. Results and Discussion

In this study, the primary test was conducted on 181 respondents. Reliability and validity tests were performed on the primary test. Based on the reliability and validity test results, all the variables in this study are reliable and valid. The results are based on Cronbach’s Alpha (above 0.6), Kaiser-Meyer-Olkin (KMO) value, and Component Matrix (greater
than 0.5) as well as the Sig. Bartlett’s Test of Sphericity (smaller than 0.05). Based on the obtained demographic data, a descriptive analysis was conducted on respondents to examine respondents’ profiles and characteristics in the study.

Hypothesis 1 is accepted; one dimension of Visual Merchandising Cognition, namely In-Fashion, influences one of the dimensions of Brand Salience, which is Aesthetics Attributes, with an influence of 42.9%. Based on the standard factor load of the three indicators for the In-Fashion dimension, the most dominant is the fashion image delivered through effective visual merchandising. The fashion aspect is one of the essential things to be applied in the visual merchandising concept to enhance brand salience through aesthetic attributes or design, appearance, and color of outdoor gear products.

Hypothesis 3 is accepted, one of the dimensions of the Visual Merchandising Cognition variable, attractiveness, influences one of the dimensions of Brand Salience, that is Aesthetics Attributes, with an effect of 31.7%. Based on the load of standard factors of the Attractiveness indicators, the most dominant is the combination of colors in the laying of the product, which results in proper coordination. This result is also supported by Park et al. (2014) that color has psychological meaning and is a cognitive visual stimulus.

Hypothesis 5 is accepted, one dimension of Visual Merchandising Cognition, Function has an influence on one of the dimensions of Brand Salience, namely Utilitarian Attributes, with an influence of 67.9%. Based on the factor load, the most dominant indicator of function is sufficient space in the shop so that people can freely look at the product. Therefore, it is crucial to provide sufficient space within the store to enhance Brand Salience in terms of utilitarian attributes, especially for outdoor gear products.

Based on the three hypotheses analysis (H1, H3, and H5), the dimension of Visual Merchandising Cognition is the most dominant factor in influencing Brand Salience in terms of aesthetic attributes is In-Fashion, which is related to fashion trends and how to apply them in visual merchandising. These results are supported by the statements of Stokburger-Sauer et al. (2012) in Park et al. (2014), that is, Visual Merchandising Cognition influences Brand Salience through aesthetic attributes, namely design, appearance, and color.

Hypothesis 2 is accepted, one dimension of Visual Merchandising Cognition, In-Fashion has an influence on Attitude Toward VM with a value equal to 38.6%. The dominant indicator of In-Fashion is the fashion image conveyed through effective visual merchandising. This result is supported by the statements of Sullivan et al. (2012) in Park et al. (2014) regarding the store environment must be able to provide a stimulus that is following consumer needs with the involvement of cognitive modes.

Hypothesis 4 is accepted, one of the dimensions of Visual Merchandising Cognition, Attractiveness influences Attitude Toward VM, with a value equal to 30.9%. This result is supported by the statements of Yoo et al. (1998) in Park et al. (2014); the characteristics of a store can affect one’s affective response, in this context, the affective response to visual merchandising.

Hypothesis 6 is rejected, one of the dimensions of Visual Merchandising Cognition, i.e., the function does not influence Attitude Toward VM. So, in influencing affective attitudes towards visual merchandising, the dimension of function related to space and space is not a determining factor. This result shows that other dimensions of Visual Merchandising Cognition such as In-Fashion and Attractiveness can influence Attitude Toward VM, which can potentially make store visitors become emotionally involved, so that ultimately affects the affective attitude towards visual merchandising in the store. Brand love that is owned by consumers, especially those who have visited the store many times, can also influence this matter so that one dimension of Visual Merchandising Cognition, that is, function does not affect Attitude Toward VM.

Based on the three hypotheses analysis, it can be stated that from the three dimensions of Visual Merchandising Cognition that influences Attitude Toward VM is In-Fashion and Attractiveness. Therefore, visual merchandising practitioners in the outdoor gear industry need to pay attention and focus on these two things in bringing about a positive affective
attitude towards visual merchandising in the store. This result is supported by the statement of Donderi (2006) in Park et al. (2014) that Visual Merchandising Cognition affects Attitude Toward VM from consumers who enter the store.

Hypothesis 7 is accepted, one dimension of Brand Salience, Aesthetics Attributes influence Brand Attitude, which is equal to 32.4%. The most dominant indicator of Aesthetics Attributes based on the value of the load factor is the display of outdoor gear products. Visual identity in the context of research is a cue of aesthetic attributes namely the appearance and design of outdoor gear products can make brands become more salient or most often appear according to Romaniuk and Sharp (2004), and as a function of the attributes of brands that are related to the Brand Attitude is in line with the statement of Keller (2007) in Park et al. (2014).

Hypothesis 8 is accepted, one dimension of Brand Salience, Utilitarian Attributes influences Brand Attitude, which is equal to 44.6%. An indicator of the dominant Utilitarian Attributes dimension based on standard factor loadings is the ease of use of outdoor gear products. The ease of use, which in the context of this study is one of the superior capabilities of the brand, is positively assessed according to Romaniuk and Sharp (2004).

Based on the two hypotheses analysis, Aesthetics Attributes and Utilitarian Attributes have an effect of 77% on Brand Attitude. This result is supported by the statement of Stokburger-Sauer et al. (2012) in Park et al. (2014), that is, the more salient a brand, the more positive Brand Attitudes are generated. The attribute of Brand Salience that is most dominant in influencing Brand Attitude is Utilitarian Attributes.

Hypothesis 9 is accepted; namely, Attitude Toward VM influences Brand Attitude, which is equal to 19.9%. The most dominant indicator of the Attitude Toward VM variable based on the standard factor load value is the unique visual merchandising concept. Although the influence is not so dominant in influencing one’s affective attitude towards the brand, however, Attitude Toward VM as a mediating variable between Visual Merchandising Cognition and Brand Attitudes continues to play a role in generating positive brand attitude in the outdoor gear industry. This result is also supported by statements from Mitchell and Olson (1981) in Park et al. (2014). If the affective attitude is strong and positive it can affect one’s assessment of the brand based on the statement of (Mehta & Chugan, 2013) in Park et al. (2014).

Hypothesis 10 is accepted, Brand Attitude influences Purchase intention, which is equal to 75.3%. The most dominant indicator of the Brand Attitude variable based on the value of the standard factor load is liking for the brand. The affective attitude which is marked by the liking of the related brand influences one’s intention to buy outdoor gear products. This phenomenon was also stated by Groeppel-Klein (2005) in Park et al. (2014), i.e., consumers tend to buy products when they have a positive evaluation of the brand.

### Table 2 Hypothesis Test Results in Research

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>P-value</th>
<th>CR value</th>
<th>SLF value</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>0.001</td>
<td>3.219</td>
<td>0.429</td>
<td>Hypothesis Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>0.011</td>
<td>2.542</td>
<td>0.386</td>
<td>Hypothesis Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>0.012</td>
<td>2.504</td>
<td>0.317</td>
<td>Hypothesis Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>0.022</td>
<td>2.286</td>
<td>0.309</td>
<td>Hypothesis Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>****</td>
<td>6.446</td>
<td>0.679</td>
<td>Hypothesis Accepted</td>
</tr>
<tr>
<td>H6</td>
<td>0.242</td>
<td>1.170</td>
<td>0.200</td>
<td>Hypothesis Rejected</td>
</tr>
<tr>
<td>H7</td>
<td>****</td>
<td>3.795</td>
<td>0.324</td>
<td>Hypothesis Accepted</td>
</tr>
<tr>
<td>H8</td>
<td>****</td>
<td>4.859</td>
<td>0.446</td>
<td>Hypothesis Accepted</td>
</tr>
<tr>
<td>H9</td>
<td>0.024</td>
<td>2.254</td>
<td>0.199</td>
<td>Hypothesis Accepted</td>
</tr>
<tr>
<td>H10</td>
<td>****</td>
<td>6.826</td>
<td>0.753</td>
<td>Hypothesis Accepted</td>
</tr>
</tbody>
</table>

**Source:** Author’s elaboration

Based on the previous analysis, three paths in Figure 2 below show the significant influence of the dimensions of Visual Merchandising Cognition through Brand Salience and Attitude Toward VM on Brand Attitude and Purchase Intention.
The first path, from the Function dimension through Utilitarian Attributes, is the most dominant in influencing Brand Attitude and Purchase Intention. The second path is from the In-Fashion dimension through Aesthetics Attributes, which is one of the dimensions of Brand Salience in influencing Brand Attitude and Purchase Intention. The third path is from the In-Fashion dimension through the Attitude Toward VM variable in influencing Brand Attitude and Purchase Intention.

5. Conclusions and Suggestions

From the two dimensions of Visual Merchandising Cognition, namely In-Fashion and Attractiveness, which have a more substantial influence on Brand Salience in terms of aesthetic attributes, are In-Fashion. From these results, it can be concluded that the way of presenting products in the store, as well as trends and fashion images that are reflected in the concept of visual merchandising that is carried out, is what gives a dominant influence to improve Brand Salience in terms of aesthetic attributes. Of the two dimensions on the Brand Salience variable, namely aesthetic and utilitarian attributes, which have the most dominant influence on Brand Attitude are utilitarian attributes. Thus, utilitarian attributes related to the function and ease of use of the product can improve Brand Attitude or consumer evaluation of the brand.

Attitude Toward VM influences Brand Attitude even though its influence is not so dominant than other factors. Thus, it is still vital to foster affective attitudes of consumers towards visual merchandising in stores, namely through thematic and unique concepts that are carried in visual merchandising, especially in the outdoor gear industry. Brand Attitude has a significant influence on Purchase Intention. Affective attitude towards a brand, which is a form of someone’s evaluation of a related brand, can trigger the emergence of consumers’ intention to buy. So, it is essential to build a positive Brand Attitude, and one way is by effective and thematic visual merchandising in the outdoor gear industry.

Visual merchandising conceptual and thematic can have a positive influence on consumers, especially in the outdoor gear industry. A positive affective attitude towards visual merchandising in a store has been proven to influence a person’s evaluation of a brand, which will also affect purchase intentions. Conceptual and thematic visual merchandising needs to be considered as a marketing strategy that is also a form of differentiation.

Fashion aspects and trends should be taken into consideration in creating visual merchandising concepts, for example, by entering color trends that emerge from time to time or can refer to trends in the outdoor gear industry globally. Consumers in the outdoor gear industry are no longer just looking for aspects of functionality, but also aspects of fashion. We recommend that the color palette that becomes a fashion trend in each year should also be included in the concept of visual merchandising design, for example, by applying the color palette to the colors of fixtures such as shelves, paint, or wallpaper.
including shades of color that are on POP (point of purchase) and window banners and window display designs.

Enough space can also make shop visitors more flexible in trying outdoor gear products. Sufficient space is also essential, mainly because there are several categories of outdoor gear products that are quite large. To improve Brand Salience in terms of utilitarian attributes through visual merchandising is to provide enough space so that visitors can more freely move and try outdoor gear products in the store. The distance between fixtures and other supporting properties should also be given enough, as well as the size of the aisle. The impression of being crowded in the arrangement of interior spaces or interior layouts should be avoided, especially for areas where many visitors’ maneuvers occur.

Unique concepts that are carried in visual merchandising such as the concept of “storytelling” in which there is a story in the product arrangement is not just a display. For example, by structuring products that symbolize an outdoor activity, the real outdoor experience in the store will undoubtedly affect the affective attitude of the visitors in the store. This phenomenon is also supported by the results of this study that the most dominant indicator in the Attitude Toward VM variable is a unique visual merchandising concept. With this unique shopping experience, visitors can also feel more emotionally involved.

This study still has some limitations. First, it was limited only to one specific brand of outdoor gear in Indonesia, and the respondents were only visitors of its biggest flagstore. Second, the dependent variable stops at purchase intention, while probably it would be more interesting if for further research, the purchase decision is also tested. Further recommendations that can be given are to provide more insights on relationship between consumer behavior, shopping behavior and effective visual merchandising. Further study of brand knowledge, in terms of brand awareness, needs to be done for further research, especially for outdoor gear brands that already have high brand awareness.

References


PRODUCT BROWSING ON SOCIAL MEDIA: EXAMINING THE MOTIVATION AND INFLUENCE ON WORD-OF-MOUTH AND PURCHASE INTENTION
Mohamad Fauzi Rachman¹; Yeshika Alversia²; Arviansyah³

Abstract
Purpose: This study examines the critical factors that motivate millennials consumers to browse restaurant products on Instagram, as well as how the intention to browse the product will affect purchase intention in the future. This relation will lead to the exchange or share the product information (word-of-mouth intention) with others.

Methodology: A comprehensive literature study and hypothesis development are conducted. Primary data are obtained with a convenience sampling and snowball sampling approaches through online self-administered questionnaires distributed to 223 respondents aged 20-39 years (Generation Y/millennials) who have an Instagram account and have browsed the restaurant products through the platform. This approach is followed by data analysis using Structural Equation Modeling (SEM).

Findings: Consumers intention to browse the product of a restaurant on Instagram positively and significantly influenced by utilitarian motivation and its four dimensions, namely convenience, information availability, product selection, and customized advertisement. This relation is also influenced by hedonic motivation and its four dimensions, namely trend discovery, socializing, adventure, authority, and status. For the utilitarian motivation, product selection has the highest influence on the intention, whereas, for the hedonic motivation, adventure has the most substantial influence. Furthermore, browsing intention is linked in a significantly positive manner with purchase intention and word-of-mouth intention.

Originality/value: This research provides more understanding of the utilitarian and hedonic motivations of millennials consumers in product browsing on social media, by explicitly elaborating on the dimensions of motivation.

Practical implications: By understanding consumer motivation, restaurant managers can develop specific messages communicated through social media (Instagram) to millennials as a target audience to increase their WOM further and purchase intention.

Keywords: Utilitarian motivation; Hedonic motivation; Purchase intention; Social media; word-of-mouth; Product browsing.

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1. Introduction

Social media is now part of the daily routine of most people. Social media has sparked a revolution in the flow of information by providing a platform for status updates and sharing all types of information (Andzulis et al., 2012). According to Scarborough and Cornwall (2018), 44% of entrepreneurs use social media to communicate with consumers; this figure will still increase because more and more people are looking for information through social media.

The number of global internet users is growing continuously, where in January 2019, the number of active users is 4.39 billion people, while the number of active users from social media is 3.48 billion people (Global Digital Report 2019). One of the social media that currently has very high user growth is Instagram. In early 2020, the number of Instagram users in the world has exceeded 1 billion people ("Instagram by the Numbers (2020)," 2020). In Indonesia, the number of Instagram social media users as of October 2019 was around 59.84 million, and it continues to increase to date according to Statista website (Indonesia: share of Instagram users by age 2019).

Generation Y is a group of people born from 1980 to 1999 (Brosdahl & Carpenter, 2011). There is a close relationship between social media and Generation Y because Generation Y group members grew up in an era with rapid advances in science and technology, which are dominated by the internet, mobile technologies, and social media, and globalization (Park & Gursoy, 2012). When looking at Maslow’s hierarchy of needs, Solomon (2018) argues the increase in the number of social media users is based on the human need for belongingness, which they use social media to socialize. Based on Maslow’s hierarchy of needs, the most basic human needs are physiological needs, such as eating food and drinks. Most consumers currently consume their food outside the home, and this is due to the increasing number of choices of restaurants, both full service and fast-food restaurants (Nejati & Parakhodi Moghaddam, 2013).

Consumer behavior related to food purchases has changed significantly in developing countries, due to the increase of income per capita, global interactions, information and communication technology, as well as education (Nejati & Parakhodi Moghaddam, 2013). Look at the size of social media users Instagram in Indonesia, many of the companies’ marketers are starting to use Instagram as a tool to attract the attention of consumers, one of them is the marketer engaged in the restaurant/restaurant industry. Instagram itself is a social media that emphasizes more on the appearance of photos and videos that pay attention to the aesthetic aspect. In addition to the number of users that have been increasing continuously up to now, the reason for using Instagram as a social media in this study is because many of today’s consumers in Indonesia, especially those belonging to the Generation Y group, have a habit of photographing food products and drinks that they ordered at a restaurant and then uploaded the photos to their Instagram social media.

However, several studies have revealed that on many occasions, many companies use social media without formulating a clear plan so that they fail to realize any benefits, even in some cases causing damage to their image. This fact is caused by the lack of strategies that emphasize certain aspects of social media platforms that are considered necessary by users (Mikalef et al., 2013). The failure of the company’s strategy in promoting products/services to consumers on social media platforms can also be attributed to the lack of robust empirical findings, which are the results of research to help guide company managers in making decisions (Mikalef et al., 2013).

Thus, this study becomes vital because it proffers the opportunity to learn and investigate how social media (Instagram) influences the buying and communicating behavior of Generation Y.
2. Theoretical Review and Hypothesis Development

According to the American Marketing Association, marketing is an activity, regulating institutions, and the process of creating, communicating, delivering, and exchanging offers that have value for customers, clients, partners, and the community at large. Understanding of marketing management according to Mullins and Walker (2013) is the process of analyzing, planning, implementing, coordinating, and controlling a program, which involves the conception, pricing, promotion, and distribution of products, services, and ideas designed to create and maintain profitable exchanges with target markets to achieve organization goals. The marketing mix is a combination of controlled marketing variables that are used by managers to implement marketing strategies in pursuit of company goals within given targets (Mullins & Walker, 2013).

2.1. Promotion
Promotion has been identified as the coordination of all efforts of sellers who have the initiative to establish information and persuasion channels to sell goods and services or promote ideas. An organization’s communication to the market becomes a carefully planned and controlled part of a promotional program. There are essential tools used to complete the communication goals of an organization called a promotional mix, which consists of Advertising, Direct marketing, Interactive/Internet marketing, Sales promotion, Publicity / public relations, and Personal selling (Belch & Belch, 2018).

2.2. Social Media Marketing
Social Media Marketing is the promotion of a brand or product using social media channels (Mangold & Faulds, 2009). Positive discussions among consumers can produce positive word-of-mouth effects on the company. The existence of social media has changed the situation that occurs in traditional communication models. In a new era of communication, information is no longer entirely controlled by the company; customers can freely talk about brands and products online (Mangold & Faulds, 2009).

2.3. Consumer Shopping Motivation
Motivation is a process that causes someone to behave in a certain way (Solomon & Rabolt, 2009). The shopping process is a series of behaviors and motivations that lead to the purchase of an item (Taubers, 1972). Consumers can be motivated to find the product they want. However, there are also other contributions such as the socialization process, satisfaction obtained from the purchase of a new item, or just spending time, which is, to some extent, in causing people’s desire to buy. The main result of research conducted by Tauber (1972) is that consumers not only shop for an item purchased for its function for later use but also the satisfaction obtained during the process. The motivation for utilitarian and hedonic shopping are fundamentally different. Consumers who have utilitarian motivation are defined as rational and goal-oriented people (Batra & Ahtola, 1991; Hirschman & Holbrook, 1982), where the benefits of shopping depend on efficiency during the acquisition process. While hedonic motivation refers to the search for emotions such as happiness, pleasure, and fantasy experienced during the shopping process, therefore, consumers with strong hedonic motivation will seek the pleasure of the process compared to the utility of the product purchased.

2.4. Purchase Intention: Theory of Planned Behavior
According to Howard (1989), purchase intention is a situation that illustrates the desire of consumers to buy a certain number of brand units in a certain period. The process begins when the consumer recognizes a need, desire, or problem. Therefore, consumers carry out the process of finding more information that can be obtained from various sources. Furthermore, consumers use this information to choose between alternative products. From the results of the evaluation of these alternatives, new consumers can decide their desire or interest to buy a product before the consumer finally actually makes
a purchase. Theory of Planned Behavior was designed to determine and know the behavior of consumers more specifically. In the Theory of Planned Behavior, some factors influence intense, namely attitudes, subjective norms, and perceived behavior control. Perceived behavior control is an individual's perception of whether it is easy for an individual to perform a behavior and is assumed to be a reflection of previous experiences and obstacles that need to be anticipated (Ajzen, 1991).

**Figure 3 – Conceptual Model**

Figure 1 shows the research model of this study. This model is a modification of the research model by Mikalef et al. (2013). In this study, we want to find out the critical factors that motivate consumers to search for a product of a restaurant on social media Instagram and how it affects their purchase intention by later visiting the restaurant and conveying the information obtained (word-of-mouth intention) with friends or acquaintances.

### 2.5. Hypothesis

**H1:** Utilitarian motivation of consumer positively influence social media product browsing.
- **H1a:** Convenience has a positive influence on social media product browsing.
- **H1b:** The availability of information has a positive influence on social media product browsing.
- **H1c:** The choice of product selection has a positive influence on social media product browsing.
- **H1d:** Customized advertisements displayed on social media have a positive influence on social media product browsing.

**H2:** Hedonic motivation of consumer positively influence social media product browsing.
- **H2a:** Trend Discovery has a positive influence on social media product browsing.
- **H2b:** Socializing has a positive influence on social media product browsing.
H2c: Adventure has a positive influence on social media product browsing.  
H2d: Authority has a positive influence on social media product browsing.  
H3: Product browsing conducted by consumers on social media positively influence their intention to buy the product.  
H4: Product browsing conducted by consumers on social media positively influence their intention to share information (word-of-mouth) about the product.  

3. Research Method and Data  
This study aims to prove the relationship between the variables studied (Malhotra, 2019). This study uses a survey method with structured questionnaires to obtain information from respondents and distributes them to population samples. This research is carried out in a cross-sectional manner, which is gathering information from respondents only once in a period (Malhotra, 2019). The results of primary data obtained from the questionnaire are processed using structural equation modeling or Structural Equation Modeling (SEM).  
The population in this study are Generation Y consumers in Indonesia who have Instagram social media accounts and have searched for restaurant products through Instagram. Before distributing the questionnaire, we conducted several pre-tests. The first stage is a wording test for ten respondents to determine whether they can understand the questions contained in the questionnaire. Based on wording test results, the questions are then adjusted by changing some of the sentences. The next stage is to do a pre-test to 30 respondents to test the validity and reliability of each question in the questionnaire. After being concluded valid and reliable, then the main test stage is carried out to obtain primary data. The questionnaire is then distributed online through various social media and instant messengers. A non-probability sampling technique was used in distributing questionnaires using convenience and snowball sampling methods. We refer to Malhotra (2019) to obtain a large sample, which states that the research sample using the SEM method is the number of each indicator variable multiplied by five. In this study, there were a total of 38 indicators, so the minimum number of respondents to be collected was 190 respondents. Appendix  

Table 6 in the Appendix shows operational definitions of all variables in this study. During the period for distributing questionnaires, 223 valid respondents were collected, which means that the number of respondents has met the requirements. The results of this study were analyzed using SPSS 17 and SEM methods using AMOS 22.  

4. Results and Discussion  
4.1. Pre-Test Reliability and Validity Tests  
Reliability test conducted to determine the consistency of the measuring instrument. Based on the results of the SPSS output, each research variable already has a Cronbach's Alpha value above 0.6, which means that the measurement tools used are reliable. A validity test is a step of testing carried out on the contents of an instrument. Based on the SPSS output, all variables have a KMO value > 0.5, the significance value of Bartlett's Test of Sphericity < 0.05, Anti Image Correlation > 0.5. So, the results of this validity test indicate that all indicators can be analyzed with analysis factors and can then be further processed by collecting primary data for the main test.  

4.2. Confirmatory Factor Analysis  
The CFA (Confirmatory Factor Analysis) model can model the relationship between latent variables and observed variables. The relationship is reflective, i.e., the observed variable reflects the related variable. The CFA model is used to measure its suitability for the data. The process of evaluating the CFA (Confirmatory Factor Analysis) model will be applied to eleven research variables. Based on
Table 3 below, it can be seen the conclusions regarding the reliability analysis conducted based on an assessment of Construct Reliability (CR) and Variance Extracted (VE).

Table 3 – Conclusion Construct Reliability (CR) and Variance Extracted (VE) per Latent

<table>
<thead>
<tr>
<th>Latent</th>
<th>CR</th>
<th>VE</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>0.92</td>
<td>0.79</td>
<td>Good</td>
</tr>
<tr>
<td>Information Availability</td>
<td>0.91</td>
<td>0.76</td>
<td>Good</td>
</tr>
<tr>
<td>Product Selection</td>
<td>0.90</td>
<td>0.74</td>
<td>Good</td>
</tr>
<tr>
<td>Customized Advertisement</td>
<td>0.93</td>
<td>0.81</td>
<td>Good</td>
</tr>
<tr>
<td>Discovery Trend</td>
<td>0.86</td>
<td>0.68</td>
<td>Good</td>
</tr>
<tr>
<td>Socializing</td>
<td>0.88</td>
<td>0.71</td>
<td>Good</td>
</tr>
<tr>
<td>Adventure</td>
<td>0.92</td>
<td>0.78</td>
<td>Good</td>
</tr>
<tr>
<td>Authority &amp; Status</td>
<td>0.92</td>
<td>0.80</td>
<td>Good</td>
</tr>
<tr>
<td>Social Media Product Browsing</td>
<td>0.91</td>
<td>0.77</td>
<td>Good</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0.93</td>
<td>0.77</td>
<td>Good</td>
</tr>
<tr>
<td>Word of Mouth Intention</td>
<td>0.86</td>
<td>0.68</td>
<td>Good</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration

4.3. Structural Model

Structural models are built to see the relationship of each latent contained in the research model. AMOS 22 software is used in making the whole model. In its implementation, a modification has been made one time by making a covariate relationship between errors. After conducting the test Goodness of Fit Statistics, then it can be withdrawn the conclusion that the model has a good fit and meets the Goodness of Fit criteria. Details of the suitability test values and conclusions from the overall analysis of model fit are shown in Table 4 below.

Table 4 – Results for Overall Model Fit

<table>
<thead>
<tr>
<th>GOF</th>
<th>Criteria</th>
<th>Model Output</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>GFI</td>
<td>GFI 0.90</td>
<td>0.807</td>
<td>Marginal Fit</td>
</tr>
<tr>
<td>RMR</td>
<td>RMR 0.05</td>
<td>0.073</td>
<td>Marginal Fit</td>
</tr>
<tr>
<td>SRMR</td>
<td>SRMR 0.05</td>
<td>0.074</td>
<td>Marginal Fit</td>
</tr>
<tr>
<td>RMSEA</td>
<td>RMSEA 0.05 &lt;RMSEA 0.08</td>
<td>0.064</td>
<td>Good fit</td>
</tr>
<tr>
<td>NFI</td>
<td>NFI 0.90</td>
<td>0.864</td>
<td>Marginal Fit</td>
</tr>
<tr>
<td>RFI</td>
<td>RFI 0.9</td>
<td>0.851</td>
<td>Marginal Fit</td>
</tr>
<tr>
<td>IFI</td>
<td>IFI 0.90</td>
<td>0.930</td>
<td>Good fit</td>
</tr>
<tr>
<td>TLI</td>
<td>TFI 0.90</td>
<td>0.923</td>
<td>Good fit</td>
</tr>
<tr>
<td>CFI</td>
<td>CFI 0.90</td>
<td>0.930</td>
<td>Good fit</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration

Next, an evaluation of parameters that show a causal relationship or the effect of one latent variable on another latent variable. The evaluation results are summarized in Table 5 below, accompanied by the hypotheses as follows:
### Table 5 – Evaluation Structural Models and Relation to Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>CR</th>
<th>P-value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Utilitarian motivation a positive and significant effect on social media product browsing</td>
<td>2.972</td>
<td>0.003</td>
<td>Supported</td>
</tr>
<tr>
<td>1a</td>
<td>Convenience positive effect and significant to social media product browsing</td>
<td>5.573</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>1b</td>
<td>Information availability a positive and significant effect on social media product browsing</td>
<td>8.716</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>1c</td>
<td>Product selection a positive and significant effect on social media product browsing</td>
<td>8.479</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>1d</td>
<td>Customized advertisement a positive and significant effect on social media product browsing</td>
<td>5.573</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>2</td>
<td>Hedonic motivation a positive and significant effect on social media product browsing</td>
<td>5.623</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>2a</td>
<td>Discovery Trend a positive and significant effect on social media product browsing</td>
<td>8.503</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>2b</td>
<td>Socializing positive effect and significant to social media product browsing</td>
<td>8.425</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>2c</td>
<td>Adventure positive effect and significant to social media product browsing</td>
<td>9.118</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>2d</td>
<td>Authority &amp; status a positive and significant effect on social media product browsing</td>
<td>8.503</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>3</td>
<td>Social media product browsing positive effect and significant to purchase intention</td>
<td>11.700</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>4</td>
<td>Social media product browsing positive effect and significant on word of mouth intention</td>
<td>8.047</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>

**Source: Author's elaboration**

### 4.4. Relationship between Utilitarian Motivation variable and Social Media Product Browsing

Based on the results, the product search for a restaurant through Instagram is influenced positively and significantly by the utilitarian motivation of the user. This result means that the higher the efficiency provided by Instagram during the product search process of a restaurant, the higher the user's intention to search for products through the platform. In this study, utilitarian motivation from Instagram social media users to search for a restaurant's products are examined based on the four dimensions that make up the motivation, including convenience, information availability, product selection, and customized advertisement. Thus, product selection and information availability are two dimensions with the most significant estimate in this study that explains the variations in the utilitarian motivation of Instagram users in searching for a product for a restaurant.

### 4.4.1. Relationship between Convenience and Social Media Product Browsing

Based on the results, the comfort felt by Instagram users had a positive and significant impact on product search for a restaurant through the platform. Means the higher the comfort provided by Instagram to its users, the higher their intention to search for a restaurant product through the platform. Where through the store online that there are
various types of social media, users can be involved in the exploration process much more comfortable than through conventional shops. Burke (1997) found that by shopping (or in this study the case is searching for products) via the internet makes consumers more comfortable because they can see the appearance of the product according to the time they have. In this study, after consumers later search for products online on the social media platform Instagram, where they can see products from various restaurants whenever and wherever they want and according to the schedule of activities they have, but the actual buying activity is when they visit the restaurant.

4.4.2. Relationship between Information Availability and Social Media Product Browsing
Based on the results, the product search for a restaurant by Instagram users is positively and significantly affected by the availability of product information. It means that the more product information a restaurant provides through Instagram, the higher the user’s intention to search for products through the platform. In this study, the findings can be attributed to the fact that when users search for a restaurant's product on Instagram, which further highlights the photo and video display side, but they get much relevant information such as location details and restaurant contacts. The most important are the comments of other consumers who had previously visited the restaurant.

4.4.3. Relationship between Product Selection and Social Media Product Browsing
Based on the results, the product search for a restaurant by Instagram users is influenced positively and significantly by choice of the product. This result means that the more product choices available through Instagram, the higher the user’s intention to search for products through the platform. In this study, product selection is a dimension with the highest estimation that explains the variation in the utilitarian motivation of Instagram users in searching for a product of a restaurant. This result shows that consumers, especially those who belong to the Generation Y group, use Instagram because they can find a large selection of restaurant products displayed either through the restaurant account itself or displayed by accounts from many food bloggers that these consumers have followed.

4.4.4. Relationship between Customized Advertisement and Social Media Product Browsing
Based on the results, a restaurant product search conducted by an Instagram user is positively and significantly affected by a customized advertisement given to that user. It means that the higher the number of customized advocates provided by Instagram regarding a restaurant product that suits the interests and preferences of its users, the higher their intention to search through the platform. In this research, Instagram presents customized advertisements to its users with a proper approach and is done in a way that is not annoying, where Instagram itself provides a choice of recommendations "photos" and "people" when users want to search and are done by profiling or cookies. The result is in line with Han and Han (2001); the internet is a unique medium for providing consumers with advertisements that are tailored through profiling done on social media platforms, and customized advertisements can appear to users based on their interests and preferences.

4.5. Relationship between Hedonic Motivation and Social Media Product Browsing
Based on the results, product search for a restaurant through Instagram is influenced positively and significantly by hedonic motivation from users. This result means that the higher the intrinsically pleasing elements provided by Instagram during the search process for a restaurant's product, the higher the user's intention to search for products through the platform.
The effect score of hedonic motivation on social media product browsing is higher when compared with the value of utilitarian motivation in this study. This result occurs because Instagram places more emphasis on the photo and video displays and pays attention to aesthetics, especially in the case of a restaurant product that makes its users feel the excitement when searching through Instagram, and then they feel more modern. The hedonic motivation of social media users Instagram to search for a product of a restaurant is examined based on four dimensions that form motivation, including trend discovery, socializing (social interaction), adventure (exciting experiences and happy feelings), and authority & status (a sense of authority and status). Adventure and trend discovery are two dimensions with the highest estimate in this study, explaining variations in the hedonic motivation of Instagram users in searching for a restaurant's product.

4.5.1. Relationship between Trend Discovery and Social Media Product Browsing
Based on the results, the product search for a restaurant by Instagram users is positively and significantly influenced by the discovery of trends obtained by these users. This result means that the more trends in product discoveries about a restaurant that Instagram users will get, the higher their intention to search through the platform. According to Alba et al. (1997), based on the results of quantitative research, one of the most reliable motivations of buyers on the internet is to search and discover new trends and fashions. Instagram social media itself provides an excellent platform for searching for a restaurant's new products. When related to the Consumer Behavior theory by Solomon (2018), users who search for a product of a restaurant to get a trend discovery to want to make themselves a market maven. A market maven is not necessarily an initial buyer, but they always know or are at the top about something that is "happening" in a market place or market, they have overall knowledge about how and where a consumer can get a product. The influence of the discovery trend of consumer intentions to search for a product of a restaurant through Instagram can also be associated with updates that can be done continuously from a product through social media. This activity can be done with little or no effort when compared to direct searchers to conventional shops or the restaurant, meaning that Instagram provides users with the latest trends in a restaurant's products. Besides, comments made by other users also influence trend discovery. So indeed, this aspect of Instagram social media will facilitate users who are interested in finding out the latest trends regarding a restaurant's products.

4.5.2. Relationship between Socializing and Social Media Product Browsing
Based on the results, the product search for a restaurant by Instagram users is positively and significantly affected by social interactions conducted by that user. It means that the higher the opportunity is given by Instagram to its users to socialize or interact socially about a restaurant's products, the higher their intention to search for products through the platform. These findings can be attributed to the fact that when users search for a restaurant's products on Instagram, the emphasized social interaction is that they want to know the comments of other users who have previously visited the restaurant. Additionally, they want to try the products promoted by a restaurant, related to their experience starting from the taste, atmosphere of the restaurant, location, and price. This result is in line with Wolfinbarger and Gilly (2001); that is, by engaging in online conversations during the exploration process, it can give users a sense of pleasure.

4.5.3. Relationship between Adventure and Social Media Product Browsing
Based on the results, the user's sense of adventure positively and significantly influences a product search made by an Instagram user. This result means the more exciting experience when searching for a restaurant product that will be felt by Instagram users, the higher their intention to search for products through the platform.
Findings in this study are in line with Mikalef et al. (2013), which exciting experiences and happy feelings felt by users on social media sites have a positive and significant impact on their hedonic motivation in searching products through that platform. According to Webster et al. (1993), searching for products on social media platforms can affect the user's sense of adventure. Aspect adventure this found to be a factor in explaining why users use social media to search for a product, where the experience of navigating through product choices on social media with various functions increases the user's hedonic motivation (Mikalef et al., 2013). Instagram itself is a social media that emphasizes the aspect of the appearance of photos and videos that pay attention to aesthetics. In the case of this study, the display of photos or videos of a restaurant's product will make its users feel the excitement when searching through Instagram, which then raises their desire also to buy and feel the restaurant's products.

4.5.4. Relationship between Authority & Status and Social Media Product Browsing

Based on the results, the Instagram search for a product by an Instagram user is positively and significantly affected by the user's sense of authority and status. This result means that the higher the sense of authority and status that Instagram users will get when searching for a restaurant's products, the higher their intention to search for products through the platform.

In this study, a sense of authority and the status that Instagram users have has a positive and significant influence on their intention to search for a restaurant's products on the platform. The authority and status of the Instagram users are obtained with the control they have over the technology used. Where the authority they have is a result of their ability to decide what restaurant products to search for, then they take all the information about the product easily, and then their opportunity to provide feedback to the media. Instagram itself is one platform that provides convenience and several functions offered to its users to have a sense of authority and status further.

4.6. Relationship between Social Media Product Browsing and Purchase Intention

Based on the results, a restaurant product search conducted by Instagram users has a positive and significant effect on their intention to buy the product. This result means that the higher the level of user involvement in the product search process for a restaurant on Instagram, the higher their intention to buy the products they have seen on the platform.

Thus, social media, in particular Instagram, is an excellent restaurant product marketing tool, in which each restaurant can promote brand recognition and also present a variety of product choices with detailed information related to the product to increase their sales further. This result is in line with Shim et al. (2001) that there is a strong relationship between browsing to make a purchase when applied to search online.

4.7. Relationship between Social Media Product Browsing and Word of Mouth Intention

Based on the results, a restaurant product search conducted by Instagram users has a positive and significant influence on their intention to share information about the product. It means that the higher the level of user involvement in the process of searching for a restaurant on Instagram, the higher their intention to share information about the product. Instagram users involved in the product search process of a restaurant tend to share information about the product with their friends/acquaintances. This matter is done online by giving comments to each display of photos or videos uploaded via Instagram or other discussion forums on the internet, and by face to face. By doing word-of-mouth activities, consumers feel more familiar with the product and know the trends of the latest products created by a restaurant. The ease of sharing information via internet technology, especially by using social media Instagram, strongly supports this phenomenon.
5. Conclusions and Managerial Implications

5.1. Conclusions
This study aims to identify important factors that motivate Generation Y consumers to search for a restaurant product via Instagram and test whether searching will affect future purchase intention and subsequently lead to the exchange/sharing of product information (word-of-mouth intention). Based on the results of the analysis and discussion that have been carried out, we conclude that each of the four dimensions of utilitarian motivation (convenience, information availability, product selection, customized advertisement) and hedonic motivation (trend discovery, socializing, adventure, authority & status) proves to be an essential factor that motivates Generation Y consumers to search for a restaurant on Instagram.

5.2. Managerial Implications
Based on the results of this study, researchers can provide advice to companies or restaurant management as follows:

1. The restaurant management (especially the marketing department) who do not have an Instagram account yet, to immediately create one and then use Instagram as one of their primary marketing tools. Because indeed, product searches are carried out via the internet, in this study, via social media Instagram. It is making consumers more comfortable because they can see the appearance of products according to the time they have (Burke, 1997).

2. For restaurant management who already have an Instagram account, they must provide clear information related to their restaurant (such as the type of menu and price offered, location and contact number of the restaurant, facilities provided by the restaurant). Information about restaurant locations and contacts can be written in the biodata section of the profile provided. In contrast, information on menu types, prices offered, restaurant facilities can be provided via photos and videos uploaded where restaurant management can provide written information through the column available caption. Management restaurants must upload all photos from the various menus they offer, so consumers can see and imagine the physical form of the menu that has been listed in the menu information list.

3. The restaurant management must always be "keep in touch" with current trends, and this is applied to all aspects of the restaurant. Restaurant management can create new trends so that it becomes a pioneer in the trend and then disseminates it through social media Instagram. This example can be done by making an innovation menu offered, such as a unique appearance and a good taste with the use of unusual ingredients.

4. Restaurants must enhance their sense of adventure during the product tracking process; this can be done by uploading not only photos but also videos from various menus offered. For example, the video-making process of the menu that makes users interested and gives a sense of fun to them. Video facilities provided by Instagram to its users take no more than 15 seconds, so here the restaurant management can first edit the video created by only displaying critical or essential parts of the process of making the food and beverage menu they offer for 15 seconds.

5. The restaurant management must continue to monitor and pay attention to word-of-mouth that customers do through Instagram. Restaurants must focus on creating positive word-of-mouth that will be done by their customers to friends or acquaintances. This activity can be done by providing service excellence to customers who come to their restaurant, starting from the services provided by restaurant service counters, quality of the menus offered, convenient servicescape, and others. Also, the restaurant management must emphasize the importance of feedback made by customers to them, because a negative comment can lead to a negative word of mouth.

6. The restaurant management can collaborate with the food bloggers by creating a "food testing" session where they can try food from the restaurant and do reviews
through their Instagram social media accounts so that at the same time giving promotions to their followers to come to the restaurant.

References


### Table 6 – Variable Description, Indicator, and Source

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Indicator/Measurement</th>
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| **Convenience**         | Comfort level offered social media sites to do product browsing (Burke, 1997; Chiang & Dholakia, 2003; To et al., 2007) | • I feel comfortable using social media because I can search for products whenever desired.  
                               • I feel comfortable using social media because I can search product wherever desired  
                               • I feel comfortable using social media, because I can search for products by the schedule of activities owned | Mikalef et al. (2013)                |
| **Information Availability** | The amount of information available about the product/service at the platform social media (To et al., 2007; Wolfinbarger & Gilly, 2001) | • Social media provides me quick access to product information  
                               • I can gather useful information about products through social media  
                               • Comments by other users on social media help me provide feedback about the advertised product. | Mikalef et al. (2013)                |
| **Product Selection**   | Selection products found on corporate social media accounts (To et al., 2007; Wolfinbarger & Gilly, 2001) | • Social media helps me find more products that I did not know about before.  
                               • I can find various choices products contained in one website through social media  
                               • Through social media, I can search for many product choices | Mikalef et al. (2013)                |
| **Customized Advertisements** | Customized ads served to social media users based on their preferences (Burke, 1997; Han & Han, 2001; To et al., 2007) | • A promotion product delivered to me through social media has been adjusted to my liking  
                               • A promotion product delivered to me through social media have been tailored to my needs  
                               • Recommendation the products provided by social media make me feel like an important customer. | Mikalef et al. (2013)                |
| **Discovery Trend**     | Effectiveness social media sites in providing the latest information on new trends (Arnold & Reynolds, 2003; To et al., 2007) | • By doing shopping activities, I can find out the latest trends  
                               • I often search to find out the latest products in the market  
                               • After searching for the newest product, I feel more modern. | Mooradian and Olver (1996)            |
| **Socializing**         | Ability to engage in conversations with peers during product searches on social | • I do shopping activities for socializing  
                               • I enjoy socializing with when doing shopping activities | Mikalef et al. (2013)                |
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| Social Media Media Sites  | (Dawson et al., 1990; To et al., 2007; Wolfinbarger & Gilly, 2001)            | • Social media is an excellent media to exchange information with friends about a product.  
• Through social media, I can share the experience with others regarding newly purchased products.  
• I can braid friendship with buyers of other products through social media. |                                |
| Adventure                 | The extent of the media site social provides an interesting browsing experience for its users and the good feelings they get when using it (Westbrook & Black, 1985) | • Doing a search product through social media excite me  
• Doing a search product through social media is an interesting experience  
• I feel like I am in my world when I search for products through social media. | Mikalef et al. (2013) |
| Authority & Status        | Sense of authority of social media users gained through the platform the moment does a search product (Parsons, 2002) | • When searching products through social media, I feel like a person who controls the media  
• I feel I have a good understanding of products that I browse through social media  
• I have control to search for products through social media. | Mikalef et al. (2013) |
| Utilitarian Motivation    | The extent to which users consider social media be a useful and effective tool for finding products (Childers et al., 2001) | • Measured from the four dimensions that make up Utilitarian Motivation, they are: Convenience, Information Availability, Product Selection, and Customized Advertisement |                                |
| Hedonic Motivation        | The extent to which users see searches products on social media become pleasurable and emotionally stimulating experiences (Childers et al., 2001) | • Measured from the four dimensions that make up Hedonic Motivation, they include: Trend Discovery, Socializing, Adventure, and Authority & Status |                                |
| Social Media Product Browsing | Which level social media users are involved in the process of using the site to search for products (Bloch et al., 1986; Shim et al., 2001) | • Social media provides an excellent tool to browse products online.  
• I use social media to do a product search when I am online  
• For the future, I will continue to search for products through social media  
• For the future, I plan to use social media to do product searches. | Mikalef et al. (2013) |
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| **Purchase Intention**   | Consumer intentions to buy products they have seen on social media sites (Brown et al., 2003; van der, 2004) | • I certainly will buy one or more products that I have been searching for through social media soon  
• I am planning will buy one or more products that I have been searching for through social media soon  
• I hope to buy one or more products that I have been searching for through social media soon  
• After searching the product advertised through social media, I bought the product at the nearest store | Cheng and Fu (2011)  
Mikalef et al. (2013) |
| **Word-of-Mouth Intention** | Intention from social media users to share information with colleagues about products or services that they find relevant or compelling through the platform (Brown et al., 2007; Hennig-Thurau et al., 2004; Richins, 1983) | • I will share information with friends through social media about the product I like  
• I like to invite my friends to follow or join a product brand account on social media  
• When I see products that I like on social media, I will use the "Like" or "+1" button to show my appreciation.  
• I will say positive things through social media about the product I like | Mikalef et al. (2013) |

Source: Author's elaboration
IS ENVIRONMENTAL REGULATION BEING EFFECTIVE ON POLLUTION REDUCTION? ANALYSIS OF THE DETERMINANTS OF CO\textsubscript{2} EMISSIONS IN EU COUNTRIES

Sónia Neves \textsuperscript{1}; António Cardoso Marques \textsuperscript{2}; Margarida Patrício \textsuperscript{3}

Abstract

**Purpose:** Economic growth has been one of the main drivers to increase pollution. Climate change caused by the increasing emissions represents a challenging issue for policymakers. On the one hand, emissions need to be significantly reduced. On the other hand, the reduction of emissions should not be reflected in a reduction of economic growth. Maintaining this equilibrium is one of the main objectives of political agendas worldwide. Environmental regulation seems to be required for environmental protection. In fact, in a deregulated market, the economic agents are not incentivized to change their behaviour to one environmentally friendly, once generally this is associated with high investment costs. The main objective of this paper is to analyse which are the main determinants of CO\textsubscript{2} emissions in European Union countries. In detail, this research aims to provide special attention to the effects of market-based regulation, regulatory incentive policies to renewables deployment, and inward Foreign Direct Investment (FDI) on Carbon Dioxide (CO\textsubscript{2}) emissions.

**Methodology:** To accomplish this paper’s objective, it uses yearly data from 1995 to 2017 for 17 EU countries. In order to control for some possible endogeneity and to allow the study the short- and the long-run effects individually, an Autoregressive Distributed Lag (ARDL) model was used. The Driscoll-Kraay estimator with fixed effects proved to be appropriated to deal with the data features.

**Originality:** Considering that and the scarcity of the studies focused on environmental regulation in EU context, this research contributes to the literature by providing further empirical evidence on the effects of regulation on CO\textsubscript{2} and by applying a dynamic model that is able to determine the effects separately in both the short- and long-run. The analysis of the EU countries seems to be the special relevance not only because the EU is a leader on the promotion of policies and technologies that allow reducing the emissions, but also as a consequence of the stringent regulation of the polluting activities that have been verified.

**Findings:** The preliminary results show that environmental regulation contributes to decreasing CO\textsubscript{2} emissions, suggesting its effectiveness in the long-run, contrary to the lack of significant evidence in the short-run. Additionally, the regulatory incentive policies for renewables implementation affects negatively the CO\textsubscript{2} in the short- and long-run. The effectiveness of these policies is further demonstrated, once the FDI reduces CO\textsubscript{2} emissions, suggesting that the EU is managing to attract clean investment. Such expected economic growth boosts CO\textsubscript{2} emissions in the short- and long-run. Overall, this paper proved that the reduction of CO\textsubscript{2} remains dependent on environmental regulation. The taxation of polluting activities could be an efficient way to achieve it. However, economic growth still contributes to enlarge the emissions. Thus, policies are needed to promote the existence of less polluting activities and to simultaneously stimulate economic growth.

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Keywords: CO2 emissions; Environmental regulation; Renewable energy sources; Foreign direct investment; Pollution halo hypothesis.

Acknowledgments
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PROJECT FOR THE INNOVATION IN THE GASTRONOMIC MARKET OF BOGOTA THROUGH THE DESIGN OF A GAMIFICATION EXPERIENCE FOR MOBILE DEVICES

Sergio Andrés Nieto Uribe 1; Arcadio Alexander Aldana Rincón 2; Carlos Andrés Rubiano Castillo 3; Mauricio Valencia 4; Hernán Darío Lozano 5; Carlos Guzmán 6

Abstract

Purpose: To present a project designed to innovate the gastronomic market of the capital city of Colombia, Bogota, by the implementation of digital technologies. This innovation is settled in the design of a mobile application which includes the management of digital tools such as bid data, augmented reality, virtual reality, and global positioning systems.

Methodology. The project utilizes a mixed methodology, using quantitative data and qualitative information. A group of marketing tools have been selected involving the design of marketing objectives, the design of a marketing strategy, the planning of actions, the macro and micro analysis of the gastronomic context, and the typing and classification of restaurants and consumers. It also applied tools to analyze the value of digital scenarios such as social media and its content related to cultural expressions, such as culinary tourism, including hashtags, or other digital indexing techniques.

Originality: The project aims to build a new user experience through gamification techniques that would let users find restaurants linked to the culture surrounding its territory. It is designed to perform a narrative supported by digital icons, interactive signs, and cybertexts. These are meant to involve consumers and restaurants in order to make them active participants of the mobile application. The experience includes cultural and historical elements through GPS information which will be used for activities like observation races, treasure maps, among other dynamics. This adds value to the experience of visiting new restaurants, since it creates new experiences from the specific territory where the restaurant is located, and adds more possibilities of cultural consumption, like visiting theaters, music halls, museums, galleries, monuments, and architectural heritage.

Findings: Tourists play a main role in the gastronomic market, also look for cultural expressions, such as music, theater, cinema, literature, visual arts, among other forms of art. Colombia has increased its tourism by 10% since 2017 (CITUR, 2019), and Bogotá has received each year one more million of tourists, starting with 2.660.000 in 2011, and reaching 7.000.000 foreign visitors in 2018. Bogotá receives 91% of American tourists that visit Colombia, representing 27% of all tourists in Bogotá. This represents 17% of all tourists that visited Colombia in 2017 (IDT, 2014). Foreign visitors are more likely to expend USD$1500 per person, including the use of cellphone services (IDT, 2014). In 2017, 318,000 American tourists visited Bogotá and expend USD$477,000,000.00.

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Practical implications: In Colombia there is no other app nor technological project aiming the development of gastronomic tourism and the cultural market at the same time, through a gamification experience that uses various developments, including, real time Global Positioning System (GPS), Virtual Reality (VR), Augmented Reality (AR), Artificial Intelligence (AI) and Machine Learning (ML).


Keywords: Digital marketing; Digital culture; Gamification; Virtual reality; Augmented reality; Big data.
1. Introduction

This project has been based on investigations made in the context of digital humanities, and the studies of cultural manifestations present in digital media and social networks, from a visual and phenomenological perspective, and their impact on new markets and ways of consumption. In order to introduce the project presented through this paper, it is important to describe previous phases already developed, which are later on contextualized in the methodology section.

The study begins with an exploration and analysis of the mediation of culture in social networks, with an emphasis on digital users and their posts on social media. A comparative study was made during 2018 (Guzman & Nieto; Guzman, Nieto, et. al) about the virtual representations of urban culture behaviors and possible methodologies to create interactive mediations of those initial forms by the development of new experiences, both, virtual and real. That study formulated that through the analysis of digital contents published in social network, it is possible to observe how urban cultures behave, considering different cultural diaspora interact on the same territory.

This investigation pointed out that the manifestations found on Instagram are processes of reconstruction of the territory of origin, and that they are not limited to the private-family environment or that of the migrant and tourist community. Commercial activities such as establishing typical food restaurants in a region may initially be designed to attract other migrants, but they also tend to attract the attention of locals, and thus filter and spread in the local culture (Guzman & Nieto Uribe, 2018). It is also presented that the new technologies of geolocation led to build new spaces and territories of identity spaces based on the architecture of the city, forming a layer of information that becomes visible in the information on the network. (Guzman & Nieto Uribe, 2018). This analysis permitted to visualize the digital flux of cultural processes in the interior of a specific geographical area, the town of Chapinero, in Bogota, D.C.

These results arose the interest to identify the relationship between the cultural manifestations of gastronomy with the urban physical and digital environment. Observations were made of the collected content, and it was possible to demonstrate the appropriation of urban spaces by different cultural agents based on the content they generate in virtual environments (Guzman, Nieto, et. al, 2018). This recognition then allowed to expand the vision of the project and create an interactive experience through a digital application. The idea was to develop a ludic algorithm that would allow users to have new experiences related to urban spaces and gastronomy.

The Máquina de Salores [Salores Machine] is a device whose name comes from playing with the Spanish words, flavors and colors. It is a synesthetic experiment that, through a customized interface and hardware, has a series of interactive activities which, with its narrative, challenge users to expand their perception of geographic, cultural and territorial reality, ending their experience with a delicious plate of local food.

Synesthesia is generally understood as diverse and not regular or common associations generated by the brain of certain people between the various perceptions obtained by the different senses of the human being. However, leaving aside the clinical aspect of this phenomenon, this device motivates the user to establish their own relationships between what is visual and what is flavor. The application will offer random routes between different types of cuisine and diverse cultural offerings, integrating architecture, parks, museums, galleries, monuments, and theaters.

2. Literature review

This section reviews six different areas of study which are essential for the development of technological applications that aim to innovate by creating new tendencies of consumption. These sections include a sociological and cultural study of digital media regarding gastronomic contents; it also describes user experience and user interface
design, along with digital narratives and techniques for developing augmented reality and virtual reality.

2.1. **Semiospheres of digital culture**

Today's information technologies allow access to a large amount of information generated directly by people, data that comes already organized geographically and chronologically. This information, which is used by large companies to develop marketing and commercialization strategies for all kinds of products and services, is also used to carry out cultural research tasks giving rise to new fields and methodologies such as Digital Humanities and Social Computing. 

Today’s GPS technology present in smartphones, allows content published on the internet, especially in social media, to include information that corresponds to physical places. The cultural dynamics around urban spaces permeate and extend to digital spaces, so it is possible to observe how cultural agents from different social groups achieve, by incorporating themselves into a digital-urban environment, an active presence through cultural events that have a digital component. This is possible through the use of programming tools for developers of digital platforms -APIs- which permit to obtain valid information in real-time.

Methodologies applied by Shortell and Krase (2010), and cases such as the Cultural Analytics developed by Lev Manovich (2016), perform “the analysis of huge data sets and flows using computational and visualization techniques” (2016). For Manovich this implies the ability to detect and analyze general patterns from the observation of individual artifacts and their details. In order to identify cultural patterns in the network from objects such as images and videos of food that users of social networks have shared.

According to Lotman (1984), gastronomy is one of the cultural expressions in which the flow from the periphery to the center and from the center to the periphery, tends to manifest itself more explicitly and also generates spaces that manifest the identity of the culture to which they belong. Parasecoli (2014) describes that hegemonic cultures structure mechanics of invisibility that affect the identification of small groups of people. “When migrants find themselves in sensory and culturally unfamiliar environments, eating is an inevitable component of daily life that prompts them to interact physically, emotionally, and cognitively with the surrounding otherness” (Parasecoli, 2014).

Human beings tend to extrapolate their interests and tastes in their environment; colors, shapes and sounds are routinely attached enriching the meaning of space, which over time becomes an identifier not only of the person himself but of the group that inhabits or shares a place. Now with new technologies, space expands, translating into bits, absorbing all those individual and collective, cultural elements, linking the virtual with the physical.

Other studies, such as those by Kazys Varnelis and Anne Friedberd (2012), Manuel Castells (1996), William Mitchell (1995), Michael Benedikt (1993), allowed linking the way culture is manifesting through social networks, the ways in which the territories are being interpreted, and above all, the ways in which people today are generating information that connects with their cultural preferences, with the geographical space, and with the other data that are already in Internet.

2.2. **Digital Narratives**

The digital medium is characterized by the combinatorial power that modeling algorithms provide not only on the syntagmatic (linguistic units: characters, words) and paradigmatic (substitution of units in a structure: hot/cold - he/she) levels of a medium language; but also of elements from different mediums. The translation of words, images, sounds, and other modal elements into a single binary coding structure is the source for the emergence of new multimedia texts that not only puts together different media elements on a single object, a graphic novel, for example; but establish direct relations between
these elements that can be modified by the reader/user generating new meanings and communicative possibilities, as in the case of video games. The vast set of communicative possibilities that digital media opens has required a redefinition of the concept of narrative. The verbal nature of storytelling and the presence of a narrator have been considered in classical positions as necessary conditions for narratives (Chatman, 1978; Genette, 1988) and these conditions are closely related to the concept of story as a “change of state”. The verbal nature of storytelling that leaned on the power of words has long been defied by visual media that for example in the case of animation is able to tell a whole story without needing a verbal component. The presence of a narrator has also been called into question, especially when we consider interactive media where the reader is the one that creates or recreates the history based on the choices he makes. In this case, the “change of state” is not something that occurs in a separate sphere beyond the volition of the audience but is directly determined by it, introducing the notion of agency as a new component of the narrative.

Janet Murray defines agency as “the satisfying power to take meaningful action and see the results of our decisions and choice” (1997, p. 126). Before the invention of computers, agency was provided to the spectators when the storyteller stopped to ask them what they tough would happen to the protagonist and then with some improvisational skill take the story through new paths, before usually reaching the original ending. On written media, some experiments were done to introduce agency such as the case of the Choose your own adventure book series, where the readers could make decisions about the story by jumping to a certain page, although the idea of meaningful action was not necessarily present as no relevant info was given to make an informed decision. One of the best examples of agency in narratives before digital media are the role-playing games, where one of the players assumed the role of a narrator whose function was to render the world where the other players representing different characters of the story that following certain rules could make choices whose results sometimes were dependent on a random element provided by dice.

It is important to mention that the introduction of agency disrupts the traditional approach to the concept of narrative. “Role-playing games portray some sequence of events within the game world, which gives the game a narrative element. However given the configurative nature of the players’ involvement, these elements cannot be termed narrative according to traditional narrative theory” (Hitchens & Drachen, 2009, p. 16).

The narrative model introduced by role-playing games has been adopted in digital media as one of the main forms to provide a sense of agency to the users but in the case of digital narratives, the role of the narrator was assumed by computer algorithms that generate the stories “on the fly out of data that come in part from the system and in part from the user” (Ryan, 2014, p.295) There’s still a big difference “Whereas in tabletop role-playing games the plot is created dynamically during play time, in computer games players usually progress along predetermined plot lines, even when the plot is branching.” (Caira & Pajares, 2014, p.435).

The advances in digital technologies have improved the capacity to create more immersive and open narrative experiences, The first examples of digital narratives where based on the notion of Hypertext with stories that assumed a branched structure using mostly text and limited graphics, animation, and sound but as processing capabilities developed not only the audiovisual component improved but the Interactivity became more complex with algorithms that can react to the user’s input adapting the story to the player’s decisions maintaining some level of diegetic coherence.

Social media platforms have introduced a new component to digital narratives, closely related to massive multiuser online games MMO’s where players of different parts of the world joined to participate in ongoing stories. Social networks have emerged as a new space where people can create and share their own tales. “Sharing has become a dominant keyword in online contexts, particularly associated with the ability to distribute and redistribute content within large networks of connections” (Page, 2018, p. XI). This has given to different kinds of narratives a new power to reshape social views of reality.
As Page points out, “sharing and stories can bring people together. At the same time, because they are so powerful, sharing and stories can become a site of struggle between the people who engage with them” (2018, p.1) And in this struggle, the same way that some fictional narratives have permeated part of our historical narratives, actual histories created by people based on their real experiences can be transformed into fictional tales once they become part of the digital space.

Under this perspective, digital narratives have become a vast territory of unexplored possibilities for the people to create new stories, to share these stories with other people, and to let them interact with the proposed narratives including the option to transform them so to generate new readings and new stories to be told.

2.3. **Journey Customer Map**

Clients experiment different sensations during a 360° experience. Without a doubt, one of the main characteristics that govern the current world are the ways of thinking about how to satisfy the inherent needs of a capitalist globalization, an economy based on excessive consumption and excessive use of natural resources. Commerce, in the midst of its eagerness to meet the expectations of its customers, has been forced to devise ways of interpret the different feelings and sensations that arise throughout the processes and all situations that cover the time of purchase or acquisition of goods and services - supply and demand. In case of not having total satisfaction, markets need to be able to take measures in this regard and prepare plans to improve the positive experience of their clients.

This is what Alcaide & Díaz assure in their text “Customer Experience; The keys to customer experience in the digital cognitive age”,

(...) los seres humanos somos emoción y sentimientos, estamos llenos de sueños, deseos y anhelos (...) tratar de explicar el comportamiento del ser humano solo desde una perspectiva clásica y eminentemente lógica, matemática o racional, como proponen las teorías del comportamiento humano de Marshall o las teorías del comportamiento de compra del consumidor, no son suficientes y puede ser absoluta y peligrosamente limitado [human beings are emotion and feelings, we are full of dreams, desires and longings (...) trying to explain human behavior only from a classical and eminently logical, mathematical or rational perspective, as proposed by Marshall's theories of human behavior or theories of consumer purchasing behavior are not sufficient and may be absolutely and dangerously limited] (2019, p. 35).

For this reason, it is important to take into account the reaction of our clients during the course of the entire experience. As an example, according to Alcaide (2019), since the 1950s companies like Walt Disney World have worked enormously to permanently maintain high standards throughout each of the moments of the experiences they provide in their amusement parks.

In this sense, and in order to understand the relevance of customer sentiment, it is necessary to take into account the aspects listed below.

2.3.1 **Scope**

This is one of the first steps in the process of a Journey Map, before carrying out the elaboration of any application or web page, where predominates the need to review the scope that is desired in the client's journey. For this reason, in this first phase, it is necessary to take into account the architecture, for which we will use the Honeycomb graph, explained by Peter Morville, where he describes the phases that the user experience must go through:
2.3.2 Persona
It must be borne in mind that all people are sentient beings, therefore, being social beings, we need to interact with others and live experiences (... ) buying an experience brings us happiness before living it and, in turn, time improves those experiences (Alcaide & Diaz, 2019, p. 42). People, whether a client or a stakeholder, will provide the necessary information to find opportunities at some touch points where difficulties or opportunities for improvement are found, focused on generating empathy between the service provider and the service provider. “El componente que diferencia un producto del otro es la emocionalidad que provee, dejando de ser un mero producto, para convertirse en una experiencia [The component that differentiates one product from another is the emotionality it provides, ceasing to be a mere product, to become an experience.]” (Alcaide & Diaz, 2019, p. 41).

2.3.3 Principal phases
As one of the main elements of the concretion of the Journey Map, we find the information architecture that according to Garrett, is linked to time and is "el diseño estructural del espacio de información para facilitar el acceso intuitivo al contenido [the structural design of the information space to facilitate intuitive access to content]" (Garrett, 2000) which goes together with the simplicity and assertiveness of each content presented in the application, which is why the design of the information must be articulated in the same way.
On the other hand, the design of interface elements is established to facilitate the movement of users through the information architecture (2000) with the help of visual design to generate a better perception of the "look & feel". It is here when the idea of having the client's feeling in mind begins to take on more importance and forces us to think strictly about the step by step that the person must live within the experience.

2.3.4 Steps or activities
The customer experience must be aimed at building loyalty with the brand. Therefore, the activity path should have turning points, where the person can make decisions that positively or negatively affect their role in the game. The uncertainty and mystery undoubtedly generates intrigue in the user, which is why each trigger must throw a lesson together with an innovative practice in order to generate enough engagement, making the user wanting to continue with the next step in the adventure.

2.3.5 Dramatic Arc (Intensity)
The rhythm generated by the sequence of events will allow for the dramatic arc of the experience, because not all activities have to be necessarily exciting. There is the possibility of generating spaces where the person should be relaxed and even feel melancholic, it all depends on the intention of the initial message. For this it is important to generate an instrument capable of measuring, on a scale of 1 to 5, the step-by-step
client feelings, where 1 is the state of minimum relaxation and 5 that of maximum excitement.

2.3.6 **Channels of communication**
It is the way to try to measure a technological experience but also physical interaction. Hence, the importance of implementing a measurement channel that enables the possibility of understanding the sensation of the person through an off-line medium or an element belonging to the platform as such.

2.4. **User Interface Design**
The narrative used in a digital application is determined taking into account the context, contents, and field of use of the technology. The digital narrative is the starting point to define the user experience and the user interface. Once the narrative is established, developments are planned to generate pieces of visual design, branding, generation of mock ups and front end.

The visual identity strategic plan is based on four phases that allow us to understand the origin of the problem and specifically to define the need to be addressed. The structure of this approach is based on the methodology made for professional projects in graphic communication set out by the School of Arts of the Autonomous University of Mexico (Vilchis, 2016). This study describes the different key points for the development used in multiple design methodologies and emphasizes the critical interpretation of the problem addressed in order to magnify the designer's possibilities for cognitive forms and resources when projecting creative solutions, systematically structuring the dimensions of praxis design.

This process is applied in each of the phases of the methodological model of design thinking. It then establishes, based on the results obtained from the application of multiple tools applied in the empathy phase, a series of relevant data for from there the generation of ideas and debugging processes to define the base concept of creation that allows consolidating the parameters of visual realization of the first brand prototypes. This visual result must contemplate each one of the analyzed elements and their variables to generate an assertive communication. The analysis tools from the testing of the prototypes establish analysis guidelines to redefine the visual impact of the proposal. Finally, it is important to establish a rigorous final evaluation process to determine the success of the proposal. Empathize, idea, prototype, test, and evaluate. Thus, the description of the phases involves two parts: the investigative analysis or conceptual support and the analysis and creation tools that allow effective results at each stage of the project.

2.5. **Augmented Reality, Virtual Reality and Big Data**
As it has been described, new technologies have revolutionized different industries in terms of productivity, innovation and efficiency. The digital transformation as a generator of new business models has made industries such as commerce, marketing and tourism focus primarily on these trends. Technologies such as: internet of things - IoT, cloud computing, artificial intelligence - AI, robotics, nanotechnology, big data, augmented reality and virtual reality have addressed a large part of the market in terms of new solutions on marketing processes, and marketing strategies. These have been the beginning of the fourth industrial revolution that brings with it new opportunities and challenges in these industries. The possibility of digital transformation and process improvement is not foreign to any sector, and this is an important advantage offered by new generations and technological trends, mainly in the tourism and gastronomy industry.

From the perspective of tourism the customer experience, two of the proposals that have become most relevant due to their results and the possibilities of experiencing a complete digital immersion are: augmented reality and virtual reality, having in turn an implication in large amounts of data to determine the behavior of consumers and
customers, own data processing that will allow understanding the characteristics of the target population and that are an important point to take into account big data within these implementations.

Augmented reality is a technology within mixed reality, in which the user interacts between the real world and the virtual world through his mobile device or tablet. For Milgram, Takemura, Utsumi, and Kishino (1994), mixed reality is made up of virtual reality and augmented reality (see Figure 3), which can be used in a complementary way, each having aspects that differentiate them from each other.

**Figure 2. Simplified representation of a RV continuum**

![Figure 2. Simplified representation of a RV continuum](source: Milgram et al., 1994, p. 283)

In order to make use of this technology, it is necessary to have three indispensable components: an object in the real plane that serves as a reference for the creation of the object in the virtual plane, a device with a camera to transmit the image and the software responsible for interpret the signal that is transmitted through the device's camera (Sangheon, 2020).

Many leading marketing companies have been implementing this technology for the new era of advertising. According to figures from the MarketsAndMarkets web portal, the augmented reality market was valued at USD 4.21 billion in 2017 and is expected to reach USD 60.55 billion by 2023, at a compound annual rate of 40.29%, between 2018 and 2023. On the other hand, the virtual reality market was valued at USD 5.12 billion in 2017 and is expected to reach USD 34.08 billion by 2023, at a compound annual rate of 33.95%, between 2018 and 2023. (Marketandmarkets, 2018). Companies such as Samsung, Coca-Cola, The New York Times, Uber and Nike have bet on the development of digital marketing based on these new trends, obtaining positive results.

Augmented reality has had great significance in fields where the immersion experience can be a factor in innovating the commercialization processes, allowing a transformation towards a new business model. In the field of guided tours and tourism, in the cultural tourism sector several projects are evident, mainly in museums, where the mobile device allows to analyze works of art in their great magnitude, making the experience of visiting galleries different and more informative and profound, allowing the viewer to be involved with the works in way that was not possible before (Trunfio, 2019). These studies have also been focusing on generating creative and interactive experiences with the field of history, generating knowledge of historical heritage, encouraging archaeological and historical knowledge in some specific context (Scianna, 2019; Siang, 2019).

Over the last two decades, these technologies have positively impacted the gastronomic, tourist sector and, likewise, the cultural trade. Although the field of restaurants and gastronomy in general has had a considerable space within the economy, gastronomic experiences have increased, associating it with a cultural environment. Peter Björk and Hannele Kauppinen have named this fact as gastronomic-culinary tourism, to classify everything that is associated with tourists or travelers who are constantly looking for culinary and gastronomic experiences in different countries and / or cultures. These
experiences start from the cultural approach that some restaurants can provide to the social context in which these experiences take place (Björk, et. al, 2014; Yuan, 2018). Gamification is also one of the factors that complements these mixed realities, allowing a new experience to be generated from a feeling of suspense or intrigue, emblems and levels to overcome, competitiveness, among others. Pokémon GO was one of the games that caused the most impact at the time of its release. This game, from the famous Pokémon anime program, by the Japanese company Nintendo, which mixes augmented reality and geolocation to catch Pokemons in the real environment, brought to light the advantages of this technology.

Pamuru, Khern and Kannan conducted a study on what impact has this popular game on local restaurants. Integrating everything from rewards for catching Pokémon in their establishments to discounts and promotions for finding rare Pokémon, they have been the strategies that some restaurants implement in order to attract customers, integrating their business model to current trends (Pamuru, 2018; Kondamudi, 2017; Aluri, 2017). It is important to point out the effect that these experiences generate and the great contribution that these gastronomic aspects can have to the partial knowledge of a culture and the immersion in it. Similarly, Cho, Wang and Fesenmaier, address the effects that various experiences in tourism and culture can have from an immersion from virtual environments and modern technology in this field of action (Cho, 2002).

Various important projects have been worked through these technologies which allow to generate experiences in each of the consumers in an innovative way, taking into account a series of factors that allow us to really evaluate the degree of satisfaction with these offered experiences (Arshad, 2019). For Margetis, Grammenos, Zabulis, and Stephanidis (2013), initiatives that aim to entertain and encourage human communication and socialization through food have already appeared as commercial solutions. The project called iEat, provides through augmented reality an option to improve the customers’ experience with the restaurant, taking into account the interaction that it naturally performs with the table and thus being able to place orders such as a pizza or a hamburger in an interactive way, to the liking of each of the users who choose this option (see Figure 3).

Figure 3. Left: Experimental installation of the iEat table. Right: UI layout.

Source: Margetis, 2013
Lee, Kaipainen and Väänänen carried out a Project called “Local foodie”, through which they designed an experience as a gamification of an augmented reality application, so that tourists can find local restaurants or food places and that allow through this experience to find the desired dish (Lee et al, 2020).

Rollo, Bucher, Smith, and Collins in an augmented reality project, which allows to track the diets of the users of this application. The experience starts from being linked to the portions that are recommended to a certain user and also the ingredients that must be selected to meet their goals of physical and healthy improvement. In figure 4 the user is observed receiving indications of what to eat and in which portions that dish should be served (Rollo, 2017).

**Figure 4. The ServAR tool.**

![Image of ServAR tool](source.png)

Source: Rollo, 2017

Shabani, Munir and Hassan develop a project in which they study the tourism and hospitality sector properly seen from augmented reality. This in turn generates that electronic marketing takes a certain value for advertising processes and campaign generation through this technology. Figure 4 shows an application with which tourists can get to know the different tourist points of interest, as well as the rating by all users. This in turn could be improved by adding connection functions with big data, to show the availability of a specific hotel or the information of the movie that they are giving in a certain cinema without the need to enter to ask or to enter the establishment itself (Shabani, 2019).
On the other hand, virtual reality generates a similar experience and leads to total immersion for each user. This technology aims to integrate the participant in the virtual world completely through a transmission device, which disconnects the user's vision of the real world. This experience allows you to make tours and experiences without leaving the site, and at the same time interact by casting visual content that affect the emotions and feelings of the user. In the field of gastronomic tourism, projects have been evidenced that try to generate new sensations from a vision obtained three-dimensionally, and in which one interacts with the taste and smell that they generate in the real plane.

Korsgaard, Bjøner and Nilsson developed a mixed reality process, prioritizing virtual reality within the technique, in which through a virtual environment they simulate a restaurant in order to eat what you want, in the place you would like to eat, initially for older people with reduced mobility or mobility impairments. This is one of the different experiences that can be generated by carrying out total immersion experiences, allowing the client to be placed on another plane temporarily, and in exchange generate a sensation or emotion that impacts their experience of consumption. Figure 6 shows the immersion process generated, where the woman is eating a normal product but from a restaurant or somewhere in the world where she wants to eat it.
And finally, within these technologies, it is important to acknowledge the amount of data that is handled, which can be quite large and highly complex. Big data technology provides valuable support for these implementations and the generation of these experiences. In the same way, all these big data provide us with a support for decision making and consumer knowledge. Owais and Melike, through a massive data analysis, determine food predictions from the location of consumers (Owais, 2018). On the other hand, projects are also developed for the visualization of large data sets from augmented reality technology (Ramaseri, 2019).

Another important case of the implementation and need for big data within augmented reality projects arises when it comes to manipulating large amounts of images and / or multimedia content, since it must be stored in particular servers with the power and tools for managing big data (Chounassi, 2010). All this amount of data will allow addressing knowledge within the tourism and gastronomic sector, being able to know the tastes of consumers, the time in which a product is being more purchased than others, the location and time in which users traveled to the establishment, the most frequent order, etc. (González-Rodríguez, 2020; Cranmer, 2020).

Knowing the different aspects of gastronomy and tourism in this field, restaurants with greater reception, better sales, habitual consumers, among other features, are the ones analyzed through the collection and treatment of large amounts of data. Recognizing the characteristics that describe the tourist, and the relationship of their tourism with local gastronomy (Marine, 2019) results to be imperative. Another study that allows us to understand the great importance of this field, within the experience of the consumer, and the gastronomic sector, is the one developed by Lichy and Kachour. Their study details the perception and use of big data in small and medium-sized companies; and the long-term impact, taking into account the knowledge that can be acquired about the habits and customs of their clients (Lichy, 2019).

For Ma, Tian, Luo and Zhang, the importance of big data when predicting future events based on data trends is quite significant. In this study they demonstrate how this technology can allow future visitors to a restaurant to be known, which allows expanding
the competitiveness panorama and generating strategies to attract even more customers with the knowledge they are acquiring from them (Ma, 2018). The analysis of feelings and emotions is not far from this aspect of data processing, where feedback can show what feelings have been generated in consumers at the end of the experience, and be able to build improvements to the process of immersion (Micu, 2017).

3. Data and Method

3.1. Methodology
This interdisciplinary project, focused on the development of a new application for mobile devices, utilizes a mixed methodology, utilizing quantitative data and qualitative information. A major part of the methodology is constituted by the elements of design thinking (Serrano & Blázquez, 2015).

Additionally, a group of marketing tools have been selected involving the design of marketing objectives, the design of a marketing strategy, the planning of actions, the macro and micro analysis of the gastronomic context, and the typing and classification of restaurants and consumers. It also applied tools to analyze the value of digital scenarios such as social media and its content related to cultural expressions, such as culinary tourism, including hashtags, or other digital indexing techniques.

The first phase of the research applied a poly-systemic analysis of cultural behaviors in social media liked to specific urban areas. It focused on analyzing the dynamics and expressions found on the internet by cultural groups in connection with the geographical territory. Based on Parasecoli’s scholarship, this analysis was carried out in order to identify the movements and trends of digital manifestations in relation to culture, recognizing their identity, whether they belonged to typical of local food, or to mainstream culture, or to other gastronomic customs of foreign origin. Its scope was based on the social network, Instagram. It looked for how various commercial places and restaurants were represented, and what possible connections were made between its geographical location and its gastronomic offer, among a visual category of analysis, color patterns.

A compilation and selection of photographic posts was made, images related to gastronomy published on Instagram over a period of one month, June 2018. The area covered was the Town of Chapinero, recognized for its diverse gastronomic offer in the city of Bogota. Once this material was recovered, an analysis of the characteristics of such content was carried out, verifying its chronology and its digital referencing with the geographical space.

The filter had to be done manually, since there were no results applying coded filters designed to find hashtags related to food and territory, for example #chapinerocomida or #chapinerorestaurante. This meant that all images posted with a GPS tag within the town of Chapinero was revised. Likewise, to achieve a manageable sample due to the manual nature of the search, publications made between the 1st and the 30th of June 2018 were analyzed. Those in which dishes of food without commercial elements were shown were filtered, that is, images of posters, posters, flyers, menus, etc. were avoided. The result yielded 197 out of a total of 2736 leaked publications.
As part of this process of collecting and selecting the material found, it was categorical to separate the content that responded to digital marketing strategies and publicity from content generated spontaneously by common users. We wanted to identify media that arose organically, and how interactivity showed other members of a community that looked to integrate. However, content generated for commercial and marketing purposes is relevant to analyze in the sense that it highlights this type of activity as a strategy for building a migratory landscape.

The principal result of this first phase was digital gap between customers using GPS tags and the establishments where the first had a gastronomic experience. This sign also encouraged for the design of a technological application that not only would fill that gap, but would enhance the experience with the cultural values present in the territory. This was a major turning point for the project, where marketing experts define the segmentation needed to establish solid foundations for a sustainable business model. Additionally, tools for the creation of a significant digital experience were selected from user experience models and user interface concepts, including digital narratives and modern technologies such as augmented reality and virtual reality.

For the analysis of the needs present in the problem, the initial study of the gastronomic routes of Bogotá is taken as a reference (Instituto Distrital de Turismo - Observatorio de Turismo, 2019), studies carried out by the city government, the Mayor’s Office of Bogotá in the last 5 years, as well as the economic and business reports of the town of Chapinero published by the Bogotá Chamber of Commerce. (CCB Cámara de Comercio de Bogotá, 2005). Tourist guides of a global nature and as a socio-cultural analysis tool, the theory of needs proposed by the American psychologist A. Maslow, used as a world reference in studies from psychology to human needs and their relationships of multiple social roles (Maslow, 2000).

This analysis model is also used by the World Tourism Organization (López de Heredia & Gaztelumendi, 2019) to identify the behaviors of gastronomic tourists in the world. Taking into account these models of analysis, the needs that determine the meaning of the research were defined.
3.2. Market Segmentation, user profile and restaurant profile

Bogotá attracts essential tourism, which is business, there are two types of tourists: international and regional. 63 percent of foreigners stay in hotels and 88 percent have university or postgraduate studies. In contrast, 53 percent of national tourists are essentially high school graduates and technologists.

The growth of international tourists to our country (Figure 9) has become an important source of income for the different economic sectors. This implies that new opportunities are opened for the offer of new services, supported by technological tools.

According to figure 10, Bogotá represents a city that receives a significant number of visitors, becoming a potential space for the offer of products and services for this market niche.
Figure 10 - Number of foreign tourists in Colombia between 2009 and 2019, broken down by region

<table>
<thead>
<tr>
<th>Year</th>
<th>Anzoátegui</th>
<th>Atlántico</th>
<th>Bogotá, D.C.</th>
<th>Bolívar</th>
<th>Caldas</th>
<th>Cesar</th>
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<td>2012</td>
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<td>2019</td>
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<td>317,647</td>
<td>200,405</td>
<td>503,564</td>
<td>375</td>
</tr>
</tbody>
</table>

Source: CITUR (2019)

3.2.1 Segmentation of the International Tourist by demography
- Ages: Between 18 a 45 años
- Genre: Male and female.
- Travelling group: couples, solo, with family, working partners and academic colleagues.
  - Level of study: High School and Professional/University level.
  - Level of income: Above USD$25,000 per year.
  - Nationality: United States of America, Peru, Ecuador, Spain, Panama, Mexico, Costa Rica, France and Germany.
  - Occupation: Public sector employees, private sector employees, entrepreneurs, independents, students.
  - Motivations: Vacation, recreation, family visit, education, health, business, work.
  - Distribution of expenses: Food, transport, entertainment, shopping, accommodation.

3.2.1.1 Geographic Segmentation of the international tourist
- Bogotá, D.C., the capital of the Republic of Colombia, is located in the north of South America, in the geographical center of the country, on the eastern edge of the Sabana de Bogotá, the highest plateau in the Colombian Andes, whose average height is 2,600 meters above mean sea level.
  - Number of inhabitants of the city: 7,181,469
  - Homogeneous climate throughout the year with an average temperature of 14 °C (57 °F).

3.2.1.2 Psychographic segmentation of the international tourist
- Lifestyle: liberal people, family, open to change, willing to live different experiences, allowing them to get out of the traditional.
- Personality Traits: extroverts, introverts, impulsive
- Social class: senior managers, intermediate positions, professionals, administrators, skilled and unskilled manual workers, retirees.

3.2.1.3 Behavioral segmentation of the international tourist
- Brand loyalty: Moderate loyal: They are loyal consumers of two or three Apps. Since technology is a fundamental tool in processes: tourist, cultural and gastronomic. Allowing the user to have different alternatives.
  - Use Rate: potential or frequent users, first-time users, irregular users.
  - Wanted Benefits: Fun, new cultural experiences, sightseeing.

3.2.2 Regional tourist segmentation by demography
• Age: 18 to 45 years old
• Male and female gender
• Travel Group: Family Couples, Friends, Alone
• Level of studies: University Professional, Secondary, Technician or technologist
  • Level of income: Above USD$8,000 per year.
• Place of origin: Provinces of Cundinamarca, Antoquia, Tolima, Meta, Santander, and Valle del Cauca.
• Occupation: Public sector employees, private sector employees, businessman, student and independent
• Motivations: Vacation, recreation, family visit, education, health, business, work.
• Distribution of expenses: Food, transport, entertainment, shopping, accommodation.

3.2.2.1 Geographical segmentation of the regional tourist
• Bogotá, D.C., the capital of the Republic of Colombia, is located in the north of South America, in the geographical center of the country, on the eastern edge of the Sabana de Bogotá, the highest plateau in the Colombian Andes, whose average height is 2,600 meters above mean sea level.
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• Social class: senior managers, intermediate positions, professionals, administrators, skilled and unskilled manual workers, retirees.

3.2.2.3 Behavioral segmentation of the regional tourist
• Brand loyalty: Moderate loyalists. They are loyal consumers to two or three Apps. Since technology is a fundamental tool in processes: tourist, cultural and gastronomic. Allowing the user to have different alternatives.
  • Use Rate: potential or frequent users, first-time users, irregular users.
  • Wanted Benefits: Fun, new cultural experiences, sightseeing.

3.2.3 Archetype User App Salores
• Title: The Explorer.
• Motto: Don’t Lock Me Up.
• Basic wish: The freedom to discover.
• Objective: to experience a better, more authentic world, a fuller life.
• Greater fear: the emptiness of being trapped, conformity.
• Strategy: travel and experience new things, escape boredom.
• Weakness: wandering aimlessly, becoming a misfit.
• Talent: autonomy, ambition, being true to your own soul.
• He is also known as “he who seeks”, the iconoclast, the tramp, the individualist, the pilgrim.

3.2.3. Demographic segmentation of restaurants.

3.2.3.1 Classification by restaurant category:

A. Luxury restaurant - 5 forks.
B. First class restaurant - 4 forks.
C. Second class restaurant - 3 forks.
D. Third class restaurant - 2 forks.
E. Fourth class restaurant - 1 fork.

3.2.3.2 Classification by restaurant concept:

A. Gourmet.
B. Specialty.
C. Family friendly.
D. Buffet.
E. Fast food.
F. Thematic.
G. To take out.

3.2.3.3 Geographic segmentation of Bogotá restaurants:

A. Zone C in the La Candelaria neighborhood
B. T zone in the sector of Calle 82 with Carrera 13
C. Zone G between streets 65 and 70 with races 6 and 5
D. Zone M in the La Macarena neighborhood
E. In addition to sectors such as Usaquén and Parque de la 93.

3.3. User Typology

The user's physical projection variables in the interrelation both with the mobile device and with the route or movement of the user in the city is taken into account:

- Age: young people, adults and older adults (retirees).
- Rhythm and form of reading, level of reading, speed of reading: Complex reading abilities in the visual and textual fields.
- Physical limitations: None, except environmental and urban structures for people with difficulty of transit. For blind people an audio instructor can be implemented. For deaf people, vibration and luminescence factors allow adequate interaction with the mobile device and the app.
- Reading environmental conditions: Those of a mobile device in open and closed spaces, as well as variables of night or daylight.
- Mobility possibilities: People who have an itinerary, a schedule for prior travel planning are taken into account.
- Factors of possible closeness to various types of communication: The various multi-sensory means of urban space, billboards, advertisements, flyers, posters, signage. And the possibilities of interaction with a mobile device.
- Physical characteristics: Average height of adult person: 1.55 - 1.90 meters. Field of view: Natural range of vision and those restricted by the app.

Psychological factors are important for averaging the narrative scope and the construction of visual elements that will influence the interaction dynamics with the digital application. For this, the following was taken into account:

- Identification of behaviors: People seeking tourist experiences that facilitate a route of cultural recognition of the area.
- Levels of understanding of knowledge: High, people with a specific level of knowledge are expected, in this case the interest in culture, history and gastronomy.
- Psychological limitations: Those that can be established from the cultural origin.
• Retention capacity, repeatability: High, and determines the capacity to reproduce messages virally, of their content through social networks.
• Characteristics and limits of concentration and continuity: General, depending on the circumstances caused by digital platforms.

When analyzing cultural factors to determine user behaviors in front of the digital application, their possible behavior and decision-making, the following factors were taken into account:

• Schooling: Superior at an academic level or at an experiential level.
• Vocabulary limits: limitations with the native language, regionalisms, cultural idioms.
• Legibility limits: Those derived from the Spanish language. It can be solved with the development of iconography and visual indices.
• Critical social aspects, (individual) habits: Those determined by the socio-cultural environment to which one belongs. Cultural compatibility limitations.
• (Social) customs: They are those that are sought to be known in the tourist actions.

4. Results

4.1. Prototype

When analyzing and evidencing these advances at the technological level and the incursion of gastronomic tourism from the trends of augmented reality, virtual reality and big data, the technical components to be taken into account for the development of the project will be addressed.

The project in its first version - prototype - will be developed for mobile devices based on Android as an operating system. The development process will be planned in 4 phases which are: selection of the development environment, selection of the component for augmented reality development, selection of the database engine, development of components. For the development of mobile applications on Android there are ways of realization. One of them is through native development, which is done in Java or Kotlin as programming languages, and in the Android Studio IDE, which allows you to directly emulate the application as it is established and in the same way execute the application directly from a mobile connected by USB. The advantages are being able to work with native functions directly.

Another way to carry out this mobile development is through hybrid development, which allows native development to be combined with other technologies, allowing multiplatform applications to be generated, integrating various programming languages to facilitate their coding and development. This is done mainly through the use of Frameworks, currently the market leaders are: React Native (Developed by Facebook), Flutter (Developed by Google), Ionic and Xamarin (Purchased by Microsoft since 2016), with the first two being more relevant. Through a comparative analysis, the use of React Native for the development of the project is established taking as acceptance criteria: ease of use, ease of integration with APIs, integration with elements of augmented reality, compatibility with non-relational database engines and in the cloud (Firebase, AWS, Azure), a web-based programming language.

From this, at a later stage, the development component for augmented reality is selected, taking into account the compatibility and availability of the operating system. Figure 6 shows the most used frameworks for the development of augmented reality and virtual reality.
As for augmented reality, there is ARKit, a framework created by Apple for all devices with the iOS 11 operating system and with an A9 chip onwards, which allows the development of immersion experiences on these devices. ARCore for its part, is the proposal made by Google on its Android devices, however with far fewer compatible devices. On the other hand, virtual reality has two platforms for the development of these, one of them is DayDream, a virtual reality platform created by Google since 2016. Samsung in 2015 released a device for the execution of augmented reality, this being a case for virtual immersion. For the project, the ARCore framework will initially be used taking into account the operating system on which the first prototype will be made.

The next phase is the selection of the database engine that allows to effectively generate the treatment of large amounts of data, and that is compatible with the aforementioned aspects. One of the aspects to take into account is that the type of database should be non-relational (NoSQL), since when handling large amounts of data other types of databases are not so recommended, in addition to being suitable for large file management, extensive documentation, large number of concurrent users and easy scaling. Currently there are 10 database engines for big data management: riak, hibari, flockdb, couchdb, orientdb, casandra, neo4j, terrestone, hbase and mongodb. Due to the advantages it offers and the compatibility with React Native, the project will be working with mongodb. At the end of these phases the development of the system begins taking into account the requirements addressed for the development of the first prototype.

4.2 Definition of Idea and concept
For the construction of the conceptual theoretical structure, the definition of discourses, genres and visual styles that arise, consolidate and develop from the analysis of the first stage of exploration are taken into account:

4.2.1 Definition of graphic communication
Definition of graphic discourse: Allegory and metaphor are considered visual discourses that determine the historical value of the city and the symbiotic relationship with contemporary spaces.
Definition of gender and style: After analyzing the visual references related to digital navigation by structures or levels, as well as the narrative approach of video games and audiovisual references, a recognition of the parameters represented in games of chance is made.
A visual style where character design predominates is called Steampunk, viewed in all aspects of culture. Therefore, the decision has been made to take these two paths by merging multiple aspects of their aesthetics and we propose a hybrid approach in communicative elements.

4.3 Technical factors: Technical and material projections
The developments of the project are projected in the visual languages supported in digital spaces, virtual territories and in physical planes of displacement and social interaction. The cognitive relationship of multiple cultural states and of symbolic interpretation regarding the lived place is also evident.

4.3.1 Message preview
Composition of the main image: representation parameters that imply color associations are defined, together with a guide. The guide is a traditional or emblematic character of the city or local folklore.
4.3.2 Definition of the secondary image:
Figure 16 shows different textures, icons developed based on everyday or vernacular elements of the city of Bogotá and its localities.

Figure 16. Visual samples of brand design associated with Mobile Apps and Gambling Games

Source: Own source.

4.4 Conceptual Solution: Conceptual theoretical structure.
In order to define the morphological code, a dynamic structure is taken into account so that it adapts to any device in visual development.
In order to define the chromatic code, we have taken into account those colors that are associated from the analysis of visual references with the gastronomic field at first, and with a color scheme that generates empathetic environments associated with video games, and the appearance cultural history of the city, without losing dynamism. This aspect is still in development.

Figure 17. Selection of color palettes used for the development of dynamic spaces within the application

Source: Own source.

For the definition of the typographic code, 12 typographic sources were studied that have an approximate value at a stylistic level of high impact, solid, but that evoke the narrative field between Steampunk and gambling games.
The conceptual articulation indicates the stylistic criteria applied to the composition. The possibilities of visual representation of the identifying elements of the application are being developed, as well as the elements such as visual indexes, icons and interface design, which are gradually taking over the interactive prototype of the application. This is how exploratory production is addressed of the guiding characters and the appropriation of visual concepts to represent them in identity.

Figure 19 shows a sample of the process of character development for the application. It is based on the iconic “Margarita La Loca”, which is part of the popular culture of Bogota.

Current projections seen on figure 21 include the integration of the color elements, typography, and concepts studied from the previous mentioned references in order to create an original image that would represent the application and its experience.
At the moment the research project is waiting to enter the testing phase of the prototypes. It is expected that for the testing, analysis tools will be developed to finish determining the global elements of the App. Instruments of narrative structure such as the storyboard, the final interaction maps, pre-visualization mockups, 2d and 3d projections will be used to be able to establish a more effective control in the last phases of the methodology implemented at a general level in the research.

5. Discussion

The socio-cultural development of the various geographical areas of Colombia, generate over time various emblematic, heritage sites. In this cultural phenomenon, new places arise and try to position themselves that try to offer unique, particular experiences for tourists.

This constitutes a framework of circumstances that allow the approach of the digital project that allows consolidating a multi-sensory experience that through the symbolic revaluation of the areas and their multiple plurality of companies or ventures that make up the Colombian tourist universe. It is assumed as the first geographical space to intervene the main towns with the highest commercial traffic in the city of Bogotá. These localities are large urban areas, where there is a greater influx of tourists. The App and its study focuses on some of the areas of greatest cultural interest in the towns of Chapinero, Teusaquillo and Santa Fe.

In general terms - without mentioning other types of data that are used massively today in the study of marketing trends-, this phenomenon generates an invisibility (Guzman, Nieto, et. al, 2018) of various processes as precise as the new movements in the gastronomy of a city like Bogotá. If citizen participation increases in the punctuation of this type of geolocation data, it would allow identifying more precisely how the culture of a city is mobilized, in relation to the spaces it inhabits and the types of consumption that characterize it.

In terms of digital culture, one of the weaknesses of Colombian society is related to the handling of data that Colombians commonly include in their publications on social networks or in digital tools such as Google Maps. The way in which Internet 2.0 has globally impacted by the way information is shared has not been as beneficial in Colombia since Colombians do not usually require digital geolocation data of their cultural activities or their commercial premises.

Nevertheless, Colombian culture and its infrastructure has significant differences in the use that people give to tools such as social networks in the local environment, with respect to the use that occurs in other societies where access to state-of-the-art technology is not as limited and the level of technological literacy is higher. An example, the way in which Peruvian restaurants and food festivals in Chilean territory have allowed migrants from Peru to integrate into a society in which they have traditionally been discriminated against, a case that is analyzed and described by Walter Imilan (2015), to carry out comparisons and contrast the obtained material at a geographical and visual language level.
6. Conclusions

Possible alternatives preceding the expression of current need were categorized. At this point, a tour of the background that converges in 5 essential points is made. First the applications or similar projects of digital support in operation or purposes are pointed out. Various transmedia narrative projects were analyzed. Specifically, the analysis focused on the project that won awards and recognitions called “Pregoneros de Medellín” (Carabalí Grupo Creativo; Thibauld Durand, 2019). Geolocation data, visual indexes, characters and sound environments were reviewed. Secondly, an analysis of existing projects is carried out from the narrative structure such as identification of goals, obstacles, languages, bonuses, routes, narrative possibilities, types of use, interaction nodes, etc. The project was based on other gamification and visual gamer experience to identify key points such as level types, decision making, bonuses, prizes and difficulties. Third, an analysis of maps and cartography was performed on digital platform representations. Visual guidelines typical of video games were established to make decisions about visual styles and illustrated cartographies. Likewise, illustrated map displays representing cities and places in the world were reviewed. Fourth, visual compilation analyzes were performed from the representation of restaurant brands or those associated with gastronomy: global compilation of trends in visual styles related to branding and gastronomy. Finally, narrative structures based on television series or movies that involve dynamics typical of the cultural, traveling and gastronomic sector were reviewed. The study of the user and the characteristics of the problem are taken from historiographic, documentary and digital relationship studies. Due to social factors related to COVID 19, physical interactions and field studies or examinations have had to be postponed. Salores application establishes a playful link with the user, because through its interface, visual presentations, sounds, levels of interaction and operating mechanics, it allows the user to incentivize their ability to dream and imagine about the places, or flavors to find. The application to be developed allows the user to acquire new knowledge through a device similar to the game and reinforces its emotional intensity by interacting with the colors associated with the subject's real emotions and which, when using the Salores application, allows them to activate perceptions about what is new and what is unique or different. The sector has managed to consolidate an important cultural identity in the city. One of the purposes of the Salores application is to consolidate this notion of identity by searching for and discovering spaces and environments in which Chapinero's different gastronomic offerings are present. Salores application not only seeks to satisfy the need for eating, but also allows the individual's social relationships to be expanded further by finding new food places and by interacting with other users through the Salores application. Based on the relational factors of cultural identity, the Salores application allows the user to project their personality by feeling affiliation with respect to color and therefore a flavor that defines their individual condition. In other words, it helps him to project himself personally when looking for his own space, which establishes his personal identity. Those looking for a unique, selective or innovative experience. They seek to satisfy their need for pleasure through food. This involves the complex sensory action of trying a known food, a different dish, or an exotic one. Feeling expanded through smell, taste, sight, taste and listening make this a unique action. The Salores application is a device to help find those new sensations, in people looking for original or endearing flavors according to their taste or cultural interest.
References


A PROPOSAL OF AN ANALYTICAL CONFLICT MANAGEMENT MODEL FOR THE CHINESE CONTEXT

Pedro Fontes Falcão ¹; Ricardo de Oliveira Faria ²; Renato Lopes da Costa ³

Abstract
Purpose: China’s culture is different from Western cultures, with various implications including conflict management styles. Many conflict management studies have been based in a set of models with the same or similar assumptions, namely two axis related with concern for self and concern for the other or for the relationship with the other, that produce four or five conflict management styles (e.g., Rahim 2002). However, those similar models do not reflect China’s culture. This study aims to create a model for conflict management styles structure definition that is adapted to Chinese culture.

Methodology: After analyzing the existing literature, 19 interviews with relevant experts in the field of conflict management in the Chinese context were conducted. This was followed by the elaboration of a structure aimed at gathering, simplifying and explaining the main dynamics of Chinese decision making, allowing for a better understanding of the dynamics between different elements identified. Finally, a model was created that aims to provide a possible explanation to how and why the identified mechanics work and how they can assist a given individual in a conflict management situation.

Originality: The proposed model is original in the sense that it adapts conflict management styles structure originally reflecting Western cultures (e.g., Rahim, 2002) to the Chinese culture.

Findings: Findings show that extreme positions in a relationship or negotiation are eliminated. There is no room for attempts of dominating another’s decision or ignore our own interests in favor of others. As Harmony and Guanxi are pillars for any Chinese social living, they were selected as the two axes of the conflict management styles definition, which, based on the literature review and interviews findings, led to the creation of the SETH (Stability, Expansion, Transformation and Hindrance) model of conflict management styles.

Practical implications: The Chinese context and culture have their own specific rules and intricacies, which cannot be ignored when dealing with them. As they are different, they require a different appropriate response. So, the preparation and the approaches to conflict situations involving Chinese people should be based on this new model, avoiding potential mistakes that could arise from using a Western model that does not reflect the Chinese culture.

Research limitations: Taking into consideration the size and population of China, the study, although based in extensive literature review and the interviews, should not be extrapolated to all Chinese regions. Future studies could test the application of the created model in large samples.

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References

Keywords: Conflict management; Culture; China,
FACTORS SUPPORTING ELECTRIC VEHICLES ADOPTION: THE CASE OF USA
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Abstract
Purpose: The transition to electric mobility is recognized as one of the most powerful solutions in order to reduce greenhouse gases emissions. However, currently, the plug-in electric vehicle (PEV) market share remains small, as consequence of the lack of attractiveness of these vehicles comparing with the traditional ones. This attractiveness of PEV remains dependent on the technological progress of the batteries, namely the autonomy, the charging infrastructure and charging speed. Besides that, there is a set of other factors that have been identified in the literature as boosters or barriers for PEV adoption which could really be crucial for the policymaking decision process.

Methodology: This paper uses annual data from 2011 to 2017 for 50 states of the United States of America, and one federal district. In order to go further in the analysis, the sample is divided into low and high population densities in order to identify the possible differences in factors for PEV adoption according with different population density states and to reduce the panel heterogeneity. The data features make the Panel-Corrected Standard Errors (PCSE) estimator appropriated.

Originality: This paper intends to contribute for the electric mobility debate, by providing further evidence of the role of a set of factors on PEV adoption, specifically, battery electric vehicles (BEV), and plug-in hybrid electric vehicles (PHEV). This paper assumes itself as one of the most unique papers on the theme. It studies one important country, that is known as one of the most dependent countries on fossil fuels, and the division into different population density clusters provides important findings.

Findings: The preliminary results suggest that the factors supporting BEV are different from those supporting PHEV and additionally, they are also different between high and low population densities. The electricity prices and education level do not reveal yet statistically significant to explain the enlargement of BEV market share. However, highest levels of education lead to the adoption of PHEV’s. The air pollution is statistically significant on the BEV models, contrarily to what occurs in the PHEV ones. The positive influence of the number of charging stations is verified in all four models, supporting de current literature trend. This suggests that the charging stations are one of the most influential factors for PEV adoption, and the policymakers should encourage the investment on faster chargers, as well as on more charging stations near areas with more concentration of workplaces and residences. The gasoline prices are statistically significant in the low population density models. Also, in this panel, higher gasoline prices generate higher shares of both BEV and PHEV, suggesting that residents of low population density states are more encouraged to buy a PEV based on the fuel cost savings than the remaining population groups. The lack of effectiveness of incentives for BEV in low population density states is one important finding of this paper. This suggests that the policies supporting the electric mobility for low population clusters should be

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redesigned, and it should be different from those that are applied in high population density clusters.

**Keywords:** United States of America; Population density; PCSE; Battery electric vehicles; Plug-in hybrid electric vehicles.

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EXAMINATION OF A PATH MODEL RELATING INTANGIBLE RESOURCES AND EXPORT PERFORMANCE IN THE AUTOMOTIVE INDUSTRY: THE MEDIATING EFFECT OF INNOVATION
Orlando Rua¹; Ana Ferreira²

Abstract
Purpose: The aim of this study is to analyse the impact that intangible resources have on the export performance, considering the mediator effect of innovation in this relationship.

Methodology: We have adopted a quantitative methodological approach applied to a sample of Portuguese exporting companies from the automotive sector. The application of the structural equation model is highlighted, using Partial Least Squares (PLS).

Findings: The results allow us to conclude from the existence of a positive and direct impact of intangible resources on export performance and the mediator effect of innovation in this relationship.

Originality/value: This is a pioneer study establishing a path model to assess the mediating effect of innovation on the relationship established between intangible resources and export performance concerning companies from the automotive sector.

Keywords: Intangible resources; Innovation; Export performance; Automotive sector.

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1. Introduction

The success of a company, expressed in its competitive advantage, therefore depends on its ability to detect and seize opportunities, the combination of internal and external innovations, efficient inter and intra-company technology transfer, intellectual property protection, improved benchmarking, adoption of new business models, the making of conscious decisions, the development of forms of protection for imitation and new ways to lead the global market (Porter, 2000). Innovation and knowledge transfer can thus be considered as competitiveness enhancers (Silva, 2007). In their turn, Arbix, Salerno and Negri (2004) concluded that there is evidence that companies’ competitiveness would be positively influenced by technological innovations, following internationalization processes. Some scholars (Miller, 1983; Covin & Slevin, 1989) point out that in order to achieve sustainable competitive advantage, the company must continually reinvent processes and strategies, launching new products, be proactive in the market and be willing to take risks.

The strategic role of intangible resources and their impact on competitive advantage and performance have been emphasized by various contributions in the area (Morgan et al., 2006; Bakar & Ahmad, 2010). In particular, the role of dynamic capabilities as a source of sustainable competitive advantage has caught the attention of academics (Teece et al., 1997; López, 2005; Teece, 2007; Wu, 2010). In this context, export is a strategic option to access and diversify international markets for many companies (Monteiro, Soares & Rua, 2017; Rua, 2018a,b; Rua & França, 2018). Export performance has been studied under the Resource-Based View (RBV) and Dynamic Capability View (DCV), which focus on strategic resources and capabilities (Rua, 2018a,b; Rua & França, 2018).

The automobile industry, as one of the decisive engines for the country’s development, through the significant boost to national exports, needs that in addition to productivity improvements, a strong policy of innovation in relation to products, production and commercial processes is implemented. Thus, improving international performance is crucial for companies, as it stimulates growth and guarantees long-term survival, as well as economic growth (Leonidou, Katsikeas, Palihawadana & Spyropoulou, 2007; Sousa, Martínez-López & Coelho, 2008), which is why this study intends to answer Sousa et al.’s (2008) call to better understand the determinants that influence export performance. This study builds upon the theoretical frameworks of RBV (Penrose, 1959; Amit & Schoemaker, 1993; Barney, 1995) and aims to understand the impact of intangible resources on export performance, considering the mediating effect on this relation.

This paper is organized as follows: first, the theoretical framework for this study are presented, leading to the hypotheses development. In the following section, we put forward the methodology, including the research design and measures. Then, results are analysed. Finally, we discuss these results and present our conclusions.

2. Theoretical framework and research hypotheses

RBV builds its theory on two assumptions: 1) resources are heterogeneous, that is, companies that compete within the same industry may have different sets of resources and (2) that resources are immovable, that is, resources are immovable among companies, thus enabling perpetuation over time of heterogeneity (Barney, 1991; Barney, 2001). Based on these assumptions, the author defined resources in his VRIS model as value (because resources have the potential), rarity, imitability and non-substitutability.

For Amit and Schoemaker (1993), resources are a set of specific factors owned and controlled by the company, which are later converted into products or services through the use of technology mechanisms, information management systems, incentive and trust systems among the different social partners. These resources consist of
commercial know-how (patents and licenses), financial or physical assets (real estate, facilities and equipment) and human resources.

In this sense, Barney (1995) classifies resources as (a) human resources: experiences, knowledge, value judgments, risk propensity and individual wisdom associated with the company, (b) physical resources: machines, equipment and installations, (c) financial resources: debts, profits and shares and (d) organizational resources: history, relationships, trust, organizational culture (attributes of groups of individuals linked to the company), formal and informal communication, control systems and compensation policies. This author considers resources all assets, competencies, the organizational process, attributes and information controlled by the organization to enable strategies that allow the increase of its efficiency and effectiveness.

Intangible resources are responsible for an organization’s ability to innovate. It encompasses the whole body of tacit and explicit knowledge accumulated in the company. Thus, it involves, in addition to the competencies incorporated in their individuals and groups, the knowledge assets encoded in the internal records, whether or not they are appropriated in the form of intellectual property (Quadros, 2008). For Burlamarqui and Proença (2003), companies are increasingly articulating in favour of the development of strategies, which focus primarily on innovation and competition, which corroborates RBV’s assumptions. In this context, we intend to confirm the following hypothesis:

H1: Intangible resources positively influence innovation.

The essence of resource-based insight (Barney, 1991) links superior-than-average performance in an industry with the quality of its strategic resources. The performance of companies is explained by the presence of valuable, rare, difficult to imitate, hardly substitutable strategic resources for competitors, enabling the creation of sustainable asymmetries and competitive advantages for the organizations that have them, that is, the result of heterogeneous resources. Thus, heterogeneous resource ownership and capabilities directly affect firm performance (Makadok, 2001; Teece et al., 1997). Finally, we aim to test the following hypothesis:

H2: Intangible resources positively influence export performance.

Atuahene-Gima and Ko (2001) investigated the effect of entrepreneurial orientation on innovative small business product performance and found that it positively affects business performance. Liu, Luo and Shi (2003) found that a higher level of entrepreneurial orientation increases the competitive advantage of Chinese state-owned enterprises. Hult, Hurley and Knight (2004) found, in large companies on an industrial scale, the positive relationship between innovation and performance. Thus, we have as hypothesis of work:

H3: Innovation positively influences export performance.

Innovation is the ability to simultaneously pursue both exploration and exploitation, efficiency and flexibility, or alignment and adaptability (De Clercq, Thongpapanl & Dimov, 2013). Innovation requires different strategic orientations, technological resources and processes. Innovation provides a mechanism to effectively manage change by repeatedly pursue and achieve both disruptive and incremental innovation (Andriopoulos & Lewis, 2009). For some scholars (e.g., Andriopoulos & Lewis, 2009; Jansen et al., 2005), innovation requires different strategic orientations, technological resources and processes. It provides a mechanism for managing change effectively and can achieve both disruptive and incremental innovation.

This research tests the mediating effect of innovation in the relationship between intangible resources and export performance. The significance of the variables’ mediating effect was assessed by Aroian test (Baron & Kenny, 1986). This test is used to determine whether the indirect effect of the independent variable on the dependent variable via the mediator is significantly different from zero (Aroian, 1947). Thus we propose:

Thus, based on the above, the following hypothesis is:
H4: Intangible resources positively influence export performance through the mediating effect of innovation.

Figure 1 shows the research model.

Figure 1 - Research model

Source: Own elaboration.

3. Data and Method

3.1. Sample and data collection process

The population of this study corresponds to the Portuguese automobile industry exporting companies. To this end, we collected data by sending the survey by e-mail to companies belonging to the sector “15 - Vehicles and components” of AICEP’s website - “Buy From Portugal - Catalogue of Portuguese Suppliers” - excluding sub-sectors of two-wheeled vehicles, railway and naval equipment - and those of AFIA associates not listed.

The questionnaire was applied from 1 August 2018 to 31 January 2019, with a total of 54 responses from 179 companies, corresponding to a response rate of around 44.69%, and was done by email, linking a link to the survey that was online. The answer to the questionnaire was anonymous, containing no confidentiality or identifying information from the respondent or company, and the IP was conditional on only one answer.

3.2. Measurement instrument

The study instrument used will be the questionnaire survey, in that no variable will be manipulated and all data related to the variables will be collected at the same time (Bryman & Cramer, 2012). This data collection method is best suited for this type of research (Sousa, Martínez-López & Coelho, 2008), as there is a need to interrogate a large number of companies (Campenhoudt & Quivy, 2008).

We measured using Morgan, Vorhies and Schlegelmich’s (2006) measurement scale for reputational, (access to) financial, human, relational, cultural and informational/knowledge resources. For the analysis of innovation, the scales of Hurley and Hult (1998) and Atuahene-Gima (1996) were used. Finally, to assess export performance we used the Okapara (2009) scale, evaluating export performance through five profitability indicators: sales growth, profit, activities and operations, and overall company performance.

4. Results

In order to verify the reliability of overall variables, we estimated the stability and internal consistency through Cronbach’s alpha (α). Generally, an instrument or test is classified with appropriate reliability when α is higher or equal to 0.70 (Nunnally, 1978; Chin, 2010). The result of 0.965 achieved for all variables is considered excellent, confirming the sample’s internal consistency (Pestana & Gageiro, 2008). Table 1 show all constructs largely achieved the required level.
We also use the composite reliability coefficient to assess construct validity (Chin, 1998). This coefficient reflects construct adequacy for a level higher than 0.6 using confirmatory factor analysis (Gefen & Straub, 2005), as in our case. Table 2 illustrates that the studied constructs (all multidimensional) highly exceeded the minimum required for a good fit.

Table 2 - Composite reliability

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Composite reliability</th>
<th>p values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intangible Resources</td>
<td>.954</td>
<td>.000</td>
</tr>
<tr>
<td>Innovation</td>
<td>.893</td>
<td>.000</td>
</tr>
<tr>
<td>Export Performance</td>
<td>.871</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

For validity assessment, two subtypes are usually examined: convergent and discriminant validity. Convergent validity implies that a set of indicators represents one and the same underlying construct (Henseler et al., 2009). Fornell and Larcker (1981) suggest using the Average Variance Extracted (AVE) criterion and that an AVE value of at least 0.5 indicates sufficient convergent validity (Table 3).

Table 3 - Convergent validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>AVE</th>
<th>p values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intangible Resources</td>
<td>.584</td>
<td>.000</td>
</tr>
<tr>
<td>Innovation</td>
<td>.546</td>
<td>.000</td>
</tr>
<tr>
<td>Export Performance</td>
<td>.578</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

Discriminant validity is the degree to which any single construct is different from the other constructs in the model. To have discriminant validity a construct must exhibit weak correlations with other latent variables that measure different phenomena. There are two measures of discriminant validity in PLS. The Fornell–Larcker criterion (1981) recommends that the AVE should be greater than the variance between a given construct and the other with which it shares the model. The second criterion suggests that the loading of each indicator is expected to be greater than all of its cross-loadings (Henseler et al., 2009).

We can observe the explanatory power of each variable in the model. Entrepreneurial orientation is the only purely explanatory variable and reputational resources and absorptive capacity of knowledge exploitation the explained variables. Chin (1998) distinguishes the explanatory power from moderate to substantial. Table 4 expresses the good results in terms of discriminant validity of the research model, confirming that constructs do differ significantly.
Table 4 - Discriminant validity

<table>
<thead>
<tr>
<th>Fornell-Larcker Criterion</th>
<th>Export Performance</th>
<th>Innovation</th>
<th>Intangible Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Performance</td>
<td>.760</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>.596</td>
<td>.667</td>
<td></td>
</tr>
<tr>
<td>Intangible Resources</td>
<td>.752</td>
<td>.526</td>
<td>.696</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

In order to determine the significance of the studied relationships and the confidence intervals of the path coefficients, we used bootstrapping technique. The weighted coefficients indicate the relative strength of each exogenous construct. According to Hair Jr., Hult, Ringle and Sarstedt (2014), relationships between constructs, with structural coefficients higher than 0.2, are considered robust. From Table 5, we thus conclude that the original model does not present non-significant paths.

Table 5 - Path coefficients effects

| Hypotheses       | Original Sample (O) | Sample Mean (M) | Standard Error (STERR) | T Statistics (| O / STERR |) | p values |
|------------------|---------------------|-----------------|------------------------|----------------|-------------|----------|
| H1: IR -> + I    | .526                | .575            | .098                   | 5.363          | .000 *      |
| H2: IR -> + EP   | .607                | .608            | .093                   | 6.550          | .000 *      |
| H4: IR -> + I -> + EP | .145            | .158            | .072                   | 2.029          | .043 **     |

Notes: Key: IR - Intangible resources; I - Innovation; EP - Export performance; * p <0.001; ** p <0.05.

Source: Own elaboration.

5. Discussion

The relationship between intangible resources and innovation has been supported, corroborating the fact that these types of resources are responsible for the innovativeness of an organization. This result is in line with the conclusions of Burlamarqui and Proença (2003), who state that companies are increasingly articulating themselves in favour of developing strategies aimed primarily at innovation and competition. Export performance is explained by the presence of valuable, rare, difficult to imitate, hardly substitutable strategic resources for competitors, enabling the creation of sustainable asymmetries and competitive advantages for the organizations that own them, that is, the result of heterogeneous resources. This runs counter to the essence of the resource-based view (Barney, 1991), which links higher than average performance in an industry with the quality of its strategic resources. The relationship between innovation and export performance was further confirmed by meeting Liu, Luo and Shi (2003), who found that a higher level of innovation increases competitive advantage. On the other hand, the relationship between intangible resources and export performance, taking into account the mediating effect of innovation, is valid. Some scholars (e.g., Andriopoulos & Lewis, 2009; Jansen et al., 2005) argue that innovation requires different strategic orientations, technological resources and processes. It provides a mechanism for managing change effectively and can achieve both disruptive and incremental innovation. This result was also corroborated by Rua (2018a,b).

6. Conclusions

The aim of this study was to analyze the impact of intangible resources on the export performance of automotive companies, considering the mediating effect of innovation in this relationship. 54 companies responded to the study through a questionnaire survey to collect data that would allow us to test the research hypotheses formulated using statistical procedures.
and tests. The companies in this questionnaire assessed export performance, innovation and performance against their main competitor(s). There is not only one way to define the best strategy for a company in the global business world. For exceptional performance, companies need to distinguish themselves from the competition with unique management and superior performance. These companies that have (or use) strategic resources tend to have superior performance as these are valuable, rare, hardly imitable, hardly replaceable by competitors (Barney, 1991), adding that innovation, while variable mediator, regardless of their type, allow the optimization of resources in order to boost superior performances (Andriopoulos & Lewis, 2009; Jansen et al., 2005).

In this sense, the present study reinforces the contribution of intangible resources to leverage innovation, in order to improve and differentiate their products and services, so that their superior performance can be enhanced (Tidd, Bessant & Pavitt, 2003). All research work has limitations, either in terms of methodology, procedures used or even analysis and interpretation of study results. The size of the sample was the most difficult limitation we found, as not all companies were available to cooperate in this investigation. The fact that it is a non-probabilistic sample for convenience may also be considered as a limitation. Throughout this investigation, we used the 1 to 5 point Likert scale to evaluate the constructs. However, it should be noted that most responses to the questionnaire were based on the subjective opinion of the respondent. Therefore, it can be said that some of the answers do not represent the reality regarding companies' performance in international markets.

Whenever scientific research is carried out, it is possible to leave the way clear so that this subject can be approached in other ways, with different perspectives, with different techniques or until new knowledge on the subject is added. In future studies, we suggest that the industry construct 4.0 be considered empirically as a mediating variable of the relationship between intangible resources and absorptive capacities. We also suggest extending the scope of the study to other upstream and downstream industries, drawing on other sectors of the automotive industry than the one that was the subject of the present study. Finally, we suggest to promote future comparative studies between the Portuguese industry and those of other countries.

Acknowledgments
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References


IMPACT OF EARNINGS QUALITY ON COMPANY’S PERFORMANCE: A LITERATURE REVIEW
Ana Filipa Duarte¹; Inês Lisboa²; Pedro Carreira³

Abstract
Purpose: Stakeholders use financial information in their decision-making process. Although, if financial information lacks appropriate quality, stakeholders’ perceptions will be biased. Thus, understanding earnings quality is crucial. Earnings quality is linked with the thematic of earnings management, as managing earnings is likely to decrease their quality. More recently, the literature has turned its attention to the impact of earnings quality on company’s performance. This work aims to understand the characteristics of earnings quality and how can it be measured. Additionally, it plans to investigate the impact of earnings quality on company’s performance.

Methodology: This work is a literature review about earnings quality and its impact on company’s performance. Seven characteristics of earnings quality are simultaneously considered: accruals quality, persistence, predictability, smoothness, value relevance, timeliness, and conservatism. Different measures of these characteristics are analyzed, by explaining the differences among them and identifying the specific cases when these characteristics can be used. Moreover, the impact of earnings quality on company’s performance is analyzed to investigate if low earnings quality has a negative impact on company’s performance. Different measures of performance/ratios are also addressed, both market-based and accounting-based.

Findings: High earnings quality usually has a positive impact on performance since the investment and financing decisions are based on correct information, thus increasing company’s profits and value creation. The use of earnings management practices, or of other techniques that reduce earnings quality, increase the probability of financial distress, as decisions may not be accurate, and the company’s financial situation may be different from the one presented in the financial statements.

Originality: This paper presents an in-depth study of earnings quality and its impact on company’s performance. Most studies focus on earnings management, or other specific characteristic of earnings quality, but in an isolated perspective. Few studies consider the seven characteristics of earnings quality simultaneously. This study addresses this caveat. Moreover, the impact of earnings quality on performance is also relevant, especially to stakeholders, for a better understanding of the company’s financial information and for better decision making that can increase the company’s value.

Keywords: Earnings quality; Financial information; Earnings management; performance.

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1. Introduction

Earnings quality is a widely discussed topic, given that the lack of quality in financial information impacts stakeholders’ decision-making. Although, it is an unobservable variable and a complex multidimensional concept that must be assessed based on several factors.

The literature has presented several proxies related with the characteristics of earnings quality, namely accruals quality, persistence, predictability, smoothness, value relevance, timeliness and conservatism (Penman & Zhang, 2002; Schipper & Vicent, 2003; Francis, LaFond, Olsson & Schipper, 2004; Gaio & Raposo, 2011).

However, most studies measure earnings quality using a single variable - accruals - more specifically discretionary accruals, which are related to earnings management practices that decrease earnings quality (Healy, 1985; Jones, 1991; Dechow, Sloan & Sweeney, 1995; Dechow & Dichev, 2002; McNichols, 2002; Kothari, Leone & Wasley, 2005).

Earnings quality is much more than earnings management though, calling the need to use more than one variable to measure it. Therefore, this work intends to understand and explain how earnings quality can be measured, considering the different characteristics of earnings quality, and when each of the proxies should be used. Differences among proxies are explained and specific cases when these characteristics can be used are identified.

Moreover, most studies on earnings quality focus on large-size and/or listed companies. This is because some of the proxies of earnings quality cannot be used on small and medium size companies, which constitute the majority of firms all over the world, or because non-listed firms have no market values available. In this work we aim to present different ways to measure each characteristic of earnings quality in order to be applied to all type of companies.

Since the lack of earnings quality can bias the decisions made by the various stakeholders, with special emphasis on managers, the company’s financial performance can also be affected. Improving earnings quality can thus increase the company’s value due to better decisions regarding investment and financing, and to the alignment of incentives between managers and shareholders.

In this way, this work also aims to investigate the impact of earnings quality in the company’s financial performance. There are few studies analyzing this relation. In this work we intend to fulfill this gap in the literature by explaining how and why earnings quality can impact financial performance, proposing a method to test this relation.

This paper is organized in four sections. After this first introductory section, the second one presents a review of literature about earnings quality and its proxies. Section three discusses the link between earnings quality and company’s financial performance and proposes a model to test this relation. Finally, the main conclusions are presented in the last section.

2. Earnings Quality

Financial statements should “provide information about the financial position, performance and changes in an entity’s financial position” (Comissão de Normalização Contabilística, 2009:6). These statements should follow the international accounting standards issued by the International Accounting Standards Board (IASB) and the four qualitative characteristics: comprehensibility, relevance, reliability and comparability. Stakeholders will support their decisions based on the reported information. Any error, omission or management of the reported financial information may lead to biased decisions. Thus, understanding earnings quality is crucial.

The literature does not present a unanimous definition of earnings quality. Dechow and Schrand (2004) refer that earnings are of high quality if: 1) accurately reflect the company's current operating performance, 2) are a good indicator of the company's future operating performance, and 3) allow access to the company’s intrinsic value.
Therefore, earnings quality is related with the absence of earnings management (Kamarudin & Ismail, 2014). Earnings management is an intentional intervention in the reporting of financial information to obtain private gains (Schipper, 1989). According to Healy and Wahlen (1999), earnings management occurs when managers use their judgment in financial reporting or in the design of transactions to mislead some stakeholders about the company’s underlying economic performance.

The literature suggests several proxies to assess earnings quality. Martínez-Ferrero (2014) analyze earnings quality through three items, while Latif, Bhatti, and Raheman (2017) use five items. Francis et al. (2004) and Gaio and Raposo (2011) suggest seven proxies for earnings quality: quality of accruals, persistence, predictability, smoothness, value relevance, timeliness and conservatism. As previously stated, not all of them can be applied to all companies, given that, for example, some are based on market values, thus being limited to listed companies. These characteristics and their proxies are explained in more detail below.

2.1. Accruals quality
Accruals are temporary adjustments recognizing the difference between cash flow and net income. Total accruals (TA) can be calculated using the following equation (Jones, 1991):

\[ TA_{i,t} = \Delta CA_{i,t} - \Delta CL_{i,t} - \Delta Cash_{i,t} + \Delta Debt_{i,t} - \text{Dep}_{i,t} \]  

(1)

where: \( \Delta CA \) - annual change in current assets, \( \Delta CL \) - annual change in current liabilities, \( \Delta Cash \) – annual change in cash and cash equivalents, \( \Delta Debt \) – annual change in current debt, \( \text{Dep} \) – annual depreciation expenses, \( i \) – company, \( t \) – period.

Total accruals are typically subdivided in two components: non-discretionary accruals (NDA), which are related to the company’s current activity and performance, and discretionary accruals (DA) that are related with earnings management.

\[ DA_{i,t} = TA_{i,t} - NDA_{i,t} \]  

(2)

The larger discretionary accruals, the lower the earnings quality, since accounting information does not reflect the company’s real situation.

Healy (1985) was the first researcher who describes a formula to calculate non-discretionary accruals. He considers the variation in accruals as a proxy for non-discretionary accruals. The proposed model was the following:

\[ NDA_{i,t} = \frac{\sum_{t} TA_{i,t}}{T} \]  

(3)

Several models were developed afterwards. Jones (1991) proposes a model to estimate total accruals using changes in revenues and gross property, plant, and equipment, since these variables help to explain the variations in the components of customer debts, stocks and credits from suppliers, and the effect of depreciation on total accruals. The proposed model was the following:

\[ \frac{TA_{i,t}}{A_{i,t-1}} = \beta_0 + \beta_1 \left( \frac{1}{A_{i,t-1}} \right) + \beta_2 \left( \frac{\Delta REV_{i,t}}{A_{i,t-1}} \right) + \beta_3 \left( \frac{\text{PPE}_{i,t}}{A_{i,t-1}} \right) + e_{i,t} \]  

(4)

where: \( A \) - total assets, \( \Delta Rev \) – annual change in revenues, \( \text{PPE} \) - value of gross property, plant and equipment.

Jones (1991) argues that the non-discretionary component of accruals is obtained using the coefficients obtained in the model (4), and the discretionary component is obtained by the residuals of model (4), since it corresponds to the part that is not explained by the economic conditions of the company. This model is one of the most relevant models analyzing discretionary accruals as a proxy for earnings management. However, this
model considers that the company's revenues are non-discretionary, which means that it assumes that they are not managed by managers.

To overcome this problem, Dechow, Sloan and Sweeney (1995) propose a Jones' modified model, which eliminates the variation in trade receivables of the non-discretionary part of original model. Dechow et al. (1995) proposed the following model:

$$\frac{TA_{it} - A_{it-1}}{A_{it-1}} = \beta_0 + \beta_1 \left( \frac{1}{A_{it-1}} \right) + \beta_2 \left( \frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} \right) + \beta_3 \left( \frac{PPE_{it}}{A_{it-1}} \right) + \epsilon_{it} \quad (5)$$

where: $\Delta$Rec – annual change in trade receivables.

While this model tries to improve the previous one, it considers that all changes in trade receivables are discretionary.

Alternatively, Dechow and Dichev (2002) present a model that is based on the idea that accruals temporarily adjust the recognition of cash flows in the different periods. The authors propose a regression that relates the cash flows of the different periods to the Working Capital Accruals (WCA):

$$\frac{WCA_{it} - A_{it-1}}{A_{it-1}} = \beta_0 + \beta_1 \left( \frac{OCF_{it-1}}{A_{it-1}} \right) + \beta_2 \left( \frac{OCF_{it}}{A_{it-1}} \right) + \beta_3 \left( \frac{OCF_{it+1}}{A_{it-1}} \right) + \epsilon_{it} \quad (6)$$

where: WCA - short-term accruals is equal to $TA_{it} + Dep_{it}$; OCF – operational cash flows.

This model is also criticized because forecasting errors can prevent the control of fundamental factors that influence accruals. Therefore, McNichols (2002) presents a modification to the model of Dechow and Dichev (2002) that includes the economic variables of the Jones model (1991). The proposed model is the following:

$$\frac{WCA_{it} - A_{it-1}}{A_{it-1}} = \beta_0 + \beta_1 \left( \frac{OCF_{it-1}}{A_{it-1}} \right) + \beta_2 \left( \frac{OCF_{it}}{A_{it-1}} \right) + \beta_3 \left( \frac{OCF_{it+1}}{A_{it-1}} \right) + \beta_4 \left( \frac{\Delta REV_{it}}{A_{it-1}} \right) + \beta_5 \left( \frac{PPE_{it}}{A_{it-1}} \right) + \epsilon_{it} \quad (7)$$

Later, Kothari, Leone and Wasley (2005) argue that the models presented by Jones (1991) and Dechow et al. (1995) can lead to wrong conclusions when applied to companies with high performance. For this reason, the authors propose a different model, similar to Jones (1991), but with the addition of the variable Return on Asset (ROA) to control the level of performance of the company. The proposed model is thus:

$$\frac{TA_{it} - A_{it-1}}{A_{it-1}} = \beta_0 + \beta_1 \left( \frac{1}{A_{it-1}} \right) + \beta_2 \left( \frac{\Delta REV_{it}}{A_{it-1}} \right) + \beta_3 \left( \frac{PPE_{it}}{A_{it-1}} \right) + \beta_4 \left( \frac{ROA_{it-1}}{A_{it-1}} \right) + \epsilon_{it} \quad (8)$$

In all these models, discretionary accruals are calculated using the residuals of the proposed model, since they are the part that the normal activity of the firm lefts unexplained.

To analyze earnings quality, the McNichols model (2002) is the most used since it combines the Jones model (1991) with the Dechow and Dichev model (2002), joining operational cash flows with economic variables. The higher (smaller) the variability of discretionary accruals, the lower (greater) the accruals quality and, therefore, the lower (greater) the earnings quality since the information presented may not reflect the company’s real situation (Dechow & Dichev, 2002).

2.2. Persistence

Earnings persistence is desirable by investors since they can estimate more easily future earnings, while less persistent earnings have a punctual character (Schipper & Vincent, 2003). Thus, earnings persistence is seemed as good quality, as the company is trying to sustain its activity over the years (Penman & Zhang, 2002).
Lev (1983) measures earnings persistence as the slope coefficient $\beta_1$ of the following model:

$$NIBE_{it} = \beta_0 + \beta_1 NIBE_{i,t-1} + \varepsilon_{it}$$ (9)

Where: NIBE – net income before extraordinary items.
A high (low) value of $\beta_1$ means low (greater) earnings persistence and, in turn, low (greater) earnings quality (Francis et al., 2004).

2.3. Predictability
Earnings predictability is related with the capacity of present reported earnings in predicting future ones (Lipe, 1990). If past earnings are good estimates of current ones, then predictability is high (Schiemann & Guenther, 2013) and, therefore, earnings quality increases. However, the ability to predict future earnings can be questioned when managers engage in earnings management practices, reducing earnings quality.
Predictability and persistence are linked (Perotti & Wagenhofer, 2014), since persistent earnings are those that tend to be repeated in the future (more predictable).
Lipe (1990) uses equation (9) to measure earnings predictability and considers that earnings predictability is the square root of the residual variance of the residuals of equation (9):

$$PRED_i = \sqrt{\frac{2}{\partial^2 (\varepsilon_{it})}}$$ (10)

A high (low) value of PRED means low (high) capacity of the reported earnings in predicting future ones, and thus low (high) earnings quality (Francis et al, 2004).

2.4. Smoothness
Earnings smoothing is related with the absence of variation in earnings. It can be natural or intentional (Eckel, 1981). Natural smoothness is the process of generating smooth cash flows, while intentional smoothness results from earnings management practices and can be divided into real and artificial. Real smoothing aims to control current economic events that impact future cash flows, while artificial smoothing aims to smooth current economic events by transferring income/expenses from one period to another, without impacting cash flows (Eckel, 1981).
To measure earnings’ quality is necessary to isolate intentional smoothing. Earnings with less fluctuations are seen by investors as more interesting for decision making. However, when engaging in earnings management practices, managers are adding “noise” to the company’s earnings and, therefore, managers’ decisions can be biased.
Eckel (1981) was the first to develop a model aiming to identify smoothing practices. The author signals a company as a possible practitioner of earnings smoothness if the coefficient of variation for the change in sales is greater than the coefficient variation for the change in income.

$$CV_{\Delta \text{Sales}_{it}} > CV_{\Delta \text{Income}_{it}}$$ (11)

Leuz, Nanda, and Wysocki (2003) suggest measuring earnings smoothness as:

$$\text{SMOOTH}_i = \frac{\sigma (\frac{\text{EBIT}_{it}}{\text{Assets}_{it}})}{\sigma (\frac{\text{OCF}_{it}}{\text{Assets}_{it}})}$$ (12)

where: EBIT – earnings before interest and taxes.
Francis et al. (2004) substitute EBIT for NIBE, although the two concepts tend to be similar. The higher (lower) the value of SMOOTH, the lower (greater) the earnings smoothness, and so the higher (lower) the earnings quality.

Black, Pierce and Thomas (2020) create fictitious years, consisting of four consecutive quarters of different years (earnings of q4 from the previous fiscal year and q1, q2 and q3 of current fiscal year) to create an annual earnings measure. This measure is called earnings for the year q3. Then, earnings smoothness is measured as the difference between the volatility of (five years) of earnings of the year q3 and the volatility of (five years) of earnings of the fiscal year, it means:

$$\text{SMOOTH}_i = \sigma(\text{earnings of q3}) - \sigma(\text{earnings of fiscal year})$$  \hspace{1cm} (13)

Black et al. (2020) argue that their model, in comparison to the one of Leuz et al. (2003), has the advantage of not using cash flow volatility as a benchmark, as it can be affected by managers’ operational activities.

2.5. Value Relevance

Amir, Harris and Venuti (1993) were the first authors to use the expression value relevance to denote the ability of earnings to explain variations in market returns or in stock prices. Francis and Schipper (1999) refer that it is necessary to estimate first total return (RET), measured using the following equation, to be able to estimate value relevance afterwards:

$$\text{RET}_{i,t} = \beta_0 + \beta_1 \text{EARN}_{i,t} + \beta_2 \Delta \text{EARN}_{i,t} + \varepsilon_{i,t}$$  \hspace{1cm} (14)

where: RET - is the 15-month yield, finishing 3 months after the end of the fiscal year, EARN - is equal to NIBE divided by the market value, and \( \Delta \text{EARN} \) - is the annual variation of NIBE divided by the market value.

Value relevance (RELEV) is then estimated as follows:

$$\text{RELEV}_i = - R^2_{i,eq(14)}$$  \hspace{1cm} (15)

A high (low) value of RELEV is related with less (more) capacity of earnings to explain variations in market returns or in stock prices (Francis et al., 2004).

2.6. Timeliness

Timeliness refers to the time period that current earnings need to incorporate value-relevant information (Ball, Kothari & Robin, 2000; Beekes, Pope & Young, 2004). Earnings are timely when they fully reflect the information that was incorporated by the market in its pricing of a firm’s equity, and are less timely when the changes in value recognized by the market in the current period are not incorporated in accounting calculations in some future period (Raonic, McLeay & Asimakopoulos, 2004). Basu (1997) proposes the following equation to estimate earnings as a first step to estimate timeliness:

$$\text{EARN}_{i,t} = \beta_0 + \beta_1 \text{NEG}_{i,t} + \beta_2 \text{RET}_{i,t} + \beta_3 \text{NEG}_{i,t} \text{RET}_{i,t} + \varepsilon_{i,t}$$  \hspace{1cm} (16)

where: EARN - is the earnings per share for year t divided by the shares’ market price at the end of year t-1; NEG - is a dummy variable that takes the value 1 if RET < 0 (negative returns - bad news) and 0 otherwise (positive returns - good news).
Timeliness is then estimated as:

\[ \text{TIME}_i = -R_i^{eq,(16)} \]  

(17)

A high (low) value of TIME means low (high) timely earnings and, therefore, low (high) earnings quality, given that earnings do not reflect immediately the information incorporated in the stock returns (Francis et al., 2004).

Ball and Shivakumar (2005) have adapted the Basu (1997) model to unlisted companies using operational cash flow (OCF) as a proxy for the news, while not considering the return on shares (RET).

\[ TA_{it} = \beta_0 + \beta_1 \text{DOCF}_{it} + \beta_2 \text{OCF}_{it} + \beta_3 \text{DOCF}_{it} \text{OCF}_{it} + \epsilon_{it} \]  

(18)

where: DOCF - is a dummy variable that takes the value 1 if OCF < 0 (negative returns - bad news) and 0 otherwise (positive returns - good news).

### 2.7. Conservatism

Conservatism is the ability of earnings to reflect the nature of financial information, whether is positive or negative (Basu, 1997). The evidence suggests that the reported earnings more quickly reflect bad news (such as a decline in profits) than good news (such as rising profits) - conditional conservatism (Basu, 1997; Givoly & Hayn, 2000).

Under a more conservative accounting perspective, bad news are recognized earlier than good news, which are only recognized later, and gradually (Basu, 1997; Givoly & Hayn, 2000; Chen, Folsom, Paek & Sami, 2014). Conservative companies recognize the impact of bad news immediately and completely by reducing the amount of bad news to recognize in the future; on the other hand, good news is associated with more persistent results, because the verification requirements for good news are more stringent. Therefore, conservative companies delay the recognition of good news (Chen et al., 2014).

Francis et al. (2004) measure earnings conservatism (CONSER) using the coefficients of equation (19):

\[ \text{CONSER}_i = -\frac{\beta_2 + \beta_3}{\beta_2} \]  

(19)

If the value of CONSER is high (low), the company has high (low) propensity to recognize bad news more quickly than good news, which means that the reports are more (less) conservative, and therefore the reported earnings are of higher (lower) quality.

Basu (1997) also developed a model that can be used to analyze company’s conservatism and that can be applied to unlisted companies. This model is the following:

\[ \Delta \text{Earnings}_{it} = \beta_0 + \beta_1 \text{BN}_{it-1} + \beta_2 \Delta \text{Earnings}_{it-1} + \beta_3 \left( \text{BN}_{it-1} \times \Delta \text{Earnings}_{it-1} \right) + \epsilon_{it} \]  

(20)

where: \( \Delta \text{Earnings} \) - annual change in earnings, BN - dummy variable that takes the value 1 if \( \Delta \text{Earnings} < 0 \), and 0 otherwise.

The immediate recognition of bad news supposedly affects only one period, while the recognition of good news, by being gradual, affects several subsequent periods (Carmo, 2013). Thus, negative variations in earnings (bad news) will be less persistent and will revert faster than positive variations (good news). Thus, the more negative \( \beta_3 \), the higher the level of conservatism (Basu, 1997).

### 3. The impact of earnings quality on company’s performance
After several international financial scandals about the lack of earnings quality, such as Lehman Brothers in 2008, Banco Português de Negócios in 2008, Banco Espírito Santo in 2014, Dick Smith in 2016, British Telecom in 2017, among others, financial investors are more concerned with the quality of earnings (Gaio & Raposo, 2011; Martínez-Ferrero, 2014, Latif et al., 2017).

Several researchers found that earnings quality has an impact on company’s financial performance (Gaio & Raposo, 2011; Latif et al., 2017; Huynh, 2019). Companies with higher earnings quality can achieve competitive advantages, which in turn cause a positive impact on performance.

Reported earnings with higher quality help to reduce asymmetry of information among all stakeholders, being a way to monitor managers opportunistic behaviors (Latif et al., 2017). In fact, higher earnings quality ensure that market participants are fully informed (Martínez-Ferrero, 2014). This information transparency prevents managers from using discretionary power for their own benefit. The accounting standard allows companies’ directors to engage in earnings management if there are conflicts of interests between them and other stakeholders (Huynh, 2019). Although, when all participants have similar information about the company it is more difficult to managers to engage in this type of practices which can have a negative impact in the company’s reputation, and in future financial performance.

Moreover, higher earnings quality leads to a reduction in the costs of capital, since additional and valuable information is given to stakeholders, reducing misappropriation risk (Francis et al., 2004). This additional information provided is a signaling activity perceived as a positive sign by all parties (Machdar, Adler, & Murwaningsari, 2017). Higher earnings quality also helps in the decision to select or reject good or bad projects (Latif et al., 2017). Companies with more relevant, timely and accurate information can sustain better their investment and financing decisions. This in turn helps to increase the company’s financial performance due to the improvement in the efficiency in the decision-making process (Martínez-Ferrero, 2014).

Finally, the use of techniques that damage earnings quality increases the probability of financial distress, as decisions may not be truthful, and the company’s real financial situation may be different from the one presented in the financial statements (McNichols & Stubben, 2008).

For the previous reasons presented, it is expected that earnings quality has a positive impact on company’s performance, since companies with more credible information, free of error and bias, can increase the company’s efficiency, and, in turn, its performance. To analyze the relationship between the impact of earnings quality on company’s performance, we suggest the following model:

\[
\text{Performance}_{it} = \beta_0 + \beta_1 AQ_{it} + \beta_2 \text{PERS}_{it} + \beta_3 \text{PRED}_{it} + \beta_4 \text{SMOOTH}_{it} + \\
\beta_5 \text{RELEV}_{it} + \beta_6 \text{TIME}_{it} + \beta_7 \text{CONSERV}_{it} + \sum_{j=1}^{3} \alpha_j \delta_{it} + \epsilon_{it} \quad (21)
\]

Performance can be measured using market-based or accounting-based measures. Listed firms can measure performance using Tobin’s Q (Gaio & Raposo, 2011; Zeitun & Tian, 2007; Huynh, 2019), which is the most relevant market-based measure. All companies can use accounting measures, namely those related with returns, including Return on Assets (ROA) (Latif et al., 2017; Huynh, 2019), and value creation measures such as EVA (Economic Value Added).

Purwantini and Prabhata (2019) argue that EVA is a more accurate measure of accounting financial performance because it shows not only if the firm is generating earnings but also if the earnings are sufficient to cover the cost of financing the capital invested.

Regarding earnings quality, not all proxies referred previously in the paper can be applied to non-listed companies, namely the value relevance (RELVE) since it is based in market
values and in the investor’s perception. The other measured can be applied to both listed and unlisted firms. AQ is the accruals quality, PERS - persistence, PRED - predictability, SMOOTH - smoothness, TIME – timeliness, and CONSERV - conservatism. Of course, not only earnings quality affect company’s performance. Hence, some additional characteristics of the companies were included in equation (21) as control variables ($\delta_{i,t}$) that also help to explain the company’s performance. The most relevant of these control variables are size, leverage and growth opportunities.

Regarding size (calculated as the natural logarithm of total assets), the effect on performance is ambiguous. In the one hand, large-size companies enjoy from higher negotiation power, business diversification and scale economies, which can increase earnings (Serrasqueiro & Nunes, 2008; Martínez-Ferrero, 2014; Latif et al., 2017). In the other hand, smaller companies can recognize growth opportunities and establish networks with other companies more easily and can adjust better and more rapidly to innovation processes, which can lead to an increase in their performance (Serrasqueiro & Nunes, 2008).

The company’s leverage can also have an impact on performance. Leverage (measured as the ratio of total liabilities to total assets) is a proxy for the company’s financial risk (Carmo, 2013). It can negatively influence the company’s financial performance as the increasing of debt leads to an increase in interests’ expenses, and thus to a reduction in earnings. Moreover, the company can have difficulties in obtaining new financing, which can put at risk new investments regarding new growth opportunities (Goddard, Tavakoli & Wilson, 2005; Serrasqueiro & Nunes, 2008; Martínez-Ferrero, 2014; Huynh, 2019).

Finally, growth opportunities (calculated as sales growth) can affect performance given that companies with more growth opportunities are able to increase earnings resulting from new investments, while companies with less opportunities tend to suffer a decrease in turnover and, consequently, in earnings and performance (Zeitun & Tian, 2007).

4. Conclusions

This work related two strands of literature: earnings quality and performance. Several works measure earnings quality only through one of its characteristics - accruals quality, which is a proxy of earnings management. Nevertheless, earnings quality is a more complex concept.

This work presented and discussed a literature review of different proxies of earnings quality, namely: accruals quality, persistence, predictability, smoothness, value relevance, timeliness, and conservatism. Different measures of these characteristics were analyzed, and differences between them were highlighted. We propose proxies that can be used to both small and medium enterprises and large companies.

In addition, this work linked earnings quality with company’s performance. Few works analyze this relationship, and the existent ones focus only on listed companies, or only on the link between earnings management and performance. This paper exposes why the link between the two thematic should be analyzed. Moreover, we proposed a model to analyze the impact of earnings quality on company’s performance that can be applied to all companies, listed and non-listed, large and small-size companies. This model may be used to analyze if a low earnings quality has a negative impact on company’s performance. When information is not accurate, the company’s decisions will be biased, leading to a decrease in its performance and value creation.

Different measures of performance were also addressed, both market-based and accounting-based. We also explained the advantages and limitations of each alternative way to measure performance.

This paper includes two main contributions. First, it provided a literature review on two themes: earnings quality and performance increase. This is important given that are few studies that consider the seven characteristics of earnings quality simultaneously and/or that address the impact of earnings quality on performance. Second, it proposed a model to study the relation between earnings quality and performance that can be applied to all
companies, regardless of their size and of being listed or not, thus helping stakeholders for a better understanding of the company’s financial information and for a better decision making that can increase the company’s value. This work has fulfilled its aims. For future research we suggest the use of the proposed model to verify the impact of earnings quality on companies' performance, and to understand which characteristics of earnings quality are more relevant. We recommend analyzing not only listed companies but also small-size companies and compare the difference between results. Moreover, different markets should be analyzed to understand if there is some country effect.

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DETERMINANTS OF TOURIST EXPENDITURE: THE ROLE OF TOURIST EXPERIENCES IN THE CITY OF PORTO
Ana Maria Reis 1; Elvira Vieira 2; Ana Pinto Borges 3

Abstract
Purpose: In the management and promotion of a tourist destination, the main stakeholders have to understand, in addition to the tourists’ profile, where they spend their money. In this sense, we intend to evaluate how tourists’ experiences during their visit to the city of Porto influence their expenditure, also controlling for the effect of tourists’ sociodemographic characteristics. Gastronomy and wine are the main experiences considered, in addition to the destination itself.

Methodology: We applied a survey through direct interviews to the national and international tourists and we used a Tobit regression to explain tourist spending. The appropriateness of this model was previously exhibited in the literature explaining tourist spending patterns (e.g. Craggs & Schofield, 2009; Wang & Davidson, 2010; Brida & Scuderi, 2013; Jurdana & Frleta, 2017).

Originality: Tourist expenditure’s determinants have been a widely studied topic. However, there is no consensus on the impact of the sociodemographic variables, and little attention has been paid to the specificities of the city tourism and related experiences. This research intends to contribute to this topic.

Findings: Our results show that the tourists’ characteristics influence city tourists’s spending. Moreover, the positive experiences during the trip have a positive effect on tourist expenditure.

Practical implications: The results will allow the segmentation of tourists and reveal the influence of the experiences offered at a tourist destination. Moreover, the results also give concrete and measurable indications that destinations should not only focus on the dissemination of their heritage but also on the experiences that a tourist can take away.

Research limitations: The model does not consider the tourist’s well-being and does not address the tourist’s satisfaction with the visit. These variables can be analysed in a future investigation.

Keywords: Tourism; Tourist expenditure; Experience in the city.

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FEMALE SOLO TRAVELERS: A QUALITATIVE APPROACH
Andreia Pereira ¹; Carla Silva ²; Cláudia Seabra³

Abstract
Purpose: The research aims to recognize the role of female solo travelers as an important tourism segment contributing for an underexplored research field, identifying top of mind keywords that describe the tourist experience of these women.

Methodology: This study uses a qualitative approach using an open-ended question to collect data freely and advance to content analysis procedures.

Findings: The discussion focuses on the results regarding how female solo travelers describe their personal experience, categorizing the different dimensions through the results of qualitative analysis.

Originality: Considering the increase of the economy of experience, female tourists seek more than simply move from one place to another. They intend to live authentic experiences, they seek moments of leisure, freedom and liberation, they wish to escape from their routines and live their individuality in a holistic way (Wilson & Little, 2008; Pereira & Silva, 2018). The traveling solo tourist activity is considered one of the main tourist trends for the next years (Travel Tends Report, 2018). The existing data indicates a significant number of individuals who opt to travel alone, looking for tourism products targeted to their choices. This trend is explained by the search for challenges and the pursuit for memorable moments. These aspects are partially responsible for new trends in world tourism and above all in the way tourists make trips, as is the case of solo travelling journeys, being one of the fastest growing travel phenomena. However, despite being a growing trend, there is still a shortage of literature in this tourist segment.

References

Keywords: Solo travel; Female tourists; Tourism experience; Gender studies.

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ATTITUDES TOWARD NATURE THROUGH DIFFERENT GENERATIONS: AN ANALYSIS OF NATURE-BASED TOURISTS
Carla Silva 1; Juliana Marques 2; José Luís Abrantes 3; Manuel Reis 4

Abstract
Purpose: Nature-based tourism is one of the largest and fastest growing areas contributing to the growth of the world tourism industry. It is also a form of tourism appealing for (almost) of tourists from all generations. But the particular characteristics of each generation influence their attitudes and behaviors. Within this, and based on the two dominant attitudes to nature, anthropocentrism and ecocentrism, the purpose of the study is to measure the attitudes toward Nature of nature-based tourists through different generations.

Originality: Given the growing research of Nature-based tourism and of generations and travel behavior, there is no study that measures the ecocentric and anthropocentric attitudes toward Nature of Millenials, Generation X and Baby Boomers nature-based tourists.

Methodology: A quantitative research was design for this study, relying on a questionnaire comprising of 8 question-statements adapted from instruments used previously in related studies. Questionstatements were answered on a 5-point Likert scale, with 1 referring to strongly disagree and 5 referring to strongly agree. The questionnaire was applied to 315 domestic and international tourists - 105 Millennials, 105 Generation X and 105 Baby Boomers – who visit Natural Parks in 2017 and 2018.

Findings: The results indicate that the Millennials and Baby Boomers’ tourists are more ecocentric regarding Nature than the tourists of Generation X, which reveals a more anthropocentric attitude.

Practical Implications: The findings suggest that there are differences on people’s attitudes toward Nature based on the generations’ cohorts, which could be useful to Nature-based destinations managers particularly to design, develop and implement a strategy of Sustainable Tourism.

Keywords: Nature-based tourism; Travel behavior; Generations.

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INTELLECTUAL CAPITAL IN PORTUGUESE TOURISM SECTOR: STUDY OF ITS IMPACT ON ORGANIZATIONAL PERFORMANCE
Vânia Costa¹; Maria de Lurdes Silva²; Paula Loureiro³

Abstract
Purpose: According to the literature, the intellectual capital is one of the main competitiveness enhancers of today's companies and a fundamental dimension of organizational performance. This work aims to: (1) identify the added value and the efficiency of intellectual capital in its three dimensions - (i) human capital, (ii) structural capital and (iii) relational capital – in the tourism sector; (2) evaluate its impact on the business performance; (3) analyse the results of Value Added Intellectual Coefficient (VAIC) according to the tourism region where the companies are based in.

Methodology: Data are drawn from Simplified Business Information based on the Iberian Balance Analysis System (SABI). This study was performed with a sample of sheets and financial reports of 46,951 Portuguese companies in the tourism sector, during the period 2007 to 2016.

Findings: VAIC varied slightly between 2007 and 2016. The human capital is the most effective dimension of Intellectual Capital and value creation, which suggests that the tourism sector created substantially more efficient value of Intellectual Capital than the financial component. The human capital efficiency presented with a high and statistically significant association with the VAIC. The results indicate the influence that VAIC have on the financial performance of companies. The analysis of the VAIC indicator by regions shows that there are statistically significant differences in the value of the variable VAIC. This indicator show a decrease in all regions in 2016 compared to 2007. The VAIC is higher in the Madeira region.

Originality/value: The paper represents a pioneering attempt to understand the relationship between intellectual capital and the firm’s profitability in the Portuguese tourism sector. In this sense, the objective of this study is to provide solid recommendations about the importance of intellectual capital and how it is responsible for ensuring the sustainable growth of organizations in this sector.

Research limitations: This study has some limitations, namely the VAIC methodology itself, which serves only a quantitative view of intellectual capital, as well as the use of some proxies.

Keywords: Intellectual capital; Human capital; Tourism sector; Value added intellectual coefficient (VAIC); Region.

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1. Introduction

The tourism has been presented as one of the most important sectors of the different economies. The year 2018 continued to be a growth booster in job creation, having contributed to about one out of ten worldwide jobs, representing about 319 million jobs (World Travel & Tourism Council, 2019).

Currently, organizations including the completely corporate structure of the tourism sector are faced with the challenge of strategic and policy changes in response to social and demographic developments (Obeidat, Abdallah, Aqqad, Akhoershiedah, & Maqableh, 2017). In this sense, according to these authors, organizations need to adopt new forms of management in order to ensure their competitiveness, which may pass by investing in areas such as employee training, customer relations, research and development. These investments fall in the Intellectual Capital approach.

For Obeidat et al. (2017) literature has asserted the influence of Intellectual Capital in areas of significant importance, such as economic growth (Huang & Liu, 2005), the creation of value (Kateb, Swies Masa'deh & Maqableh, 2014; Nazari & Herremans, 2007), competitiveness (Will & Martos, 2009), business performance (Kommenic & Pokrajcic, 2012), performance at work (Vratsikih, Masadeh, Al-Lozi & Maqableh, 2016) and sustainability (Sherif & Elsayed, 2016). In addition, the Intellectual Capital demonstrates that organizations composed by employees with the right skills allows superior organizational results.

Organizations differ in performance depending on the variation of organizational resources. The improvement of organizational performance depends on the successful deployment of tangible but also intangible resources as the effective management of knowledge and behavior of employees. Knowledge and intelligent management of all human resources that represent the knowledge capital of organizations support them to sustain and maintain a competitive advantage and to achieve high levels of performance.

The tourism industry includes a variety of businesses, offers different ways of tourist experiences, and provides diversity of supply services for the tourists. In addition, the enterprises are mainly micro ones, with a small number of workers. The talent of the human capital in this sector emerges as a significantly bigger challenge than the one faced in all the other sectors.

Considering the importance of this subject, this paper aims contribute with a study for the tourism sector, seeking understand the human capital, as well as identify the efficiency and value creation. The main objective is to evaluate and compare the IC, within the tourism sector, by applying the methodology VAIC (Pulic, 1998) and analysing the relationship between Intellectual Capital and financial performance.

After reviewing the literature of Intellectual Capital and the financial performance, it will be expect analyse the relationship between Intellectual Capital and the financial performance of hospitality and tourism region in Portugal.

2. Literature review

Pulic (1998, 2000, 2003 and 2005) was one of the first authors that focused the research on the perspective of Intellectual Capital in order to explicitly focus on the relationship between Intellectual Capital and economic performance. For the design of the VAIC model, the author goal was to find a way of measuring the knowledge-based economy that is able to indicate the amount of value created (Flores, García & Adame, 2017).

According to these authors, the main argument of Pulic (2008) draws on the knowledge of human resources that transform and incorporate knowledge into products and services that create value. In this sense, the author interprets the costs with knowledge workers as an investment in human capital, which expects a return.

The Intellectual Capital has become a topic of great interest in the investigation. The new knowledge-based economy shifted attention to the intangible assets of organizations and how they are managed, being considered Intellectual Capital as valuable because the
intangible assets are more important than tangible assets. To remain competitive organizations should be performed a systematic approach of this assets. The components of Intellectual Capital are Human Capital, Structural Capital and Relational Capital. The Human Capital is the knowledge and skills of individual workers, the Structural Capital is a strategic asset that includes infrastructure, information systems, internal processes and the Relational Capital is the value of the relations established with the stakeholders. These components of Intellectual Capital are the drivers of value creation that contribute most to innovation and sustained achievement of competitive advantages.

Several studies analyses the relation between components of Intellectual Capital and value creation using the VAIC model to evaluate the level of value creation efficiency of Intellectual Capital as indicated by human capital efficiency, structural capital efficiency, capital employed efficiency and VAIC (Kujansivu & Lõnnqvist, 2007; Laing, Dunn & Hughes-Lucas, 2010; Zéghal & Maaloul, 2010; Chang & Hsieh, 2011; Paknezhad & Ahmadvandkhani, 2012; Shaban & Kavida, 2013; FitzPatrick, Davey, Muller & Davey, 2013; Bontis, Janošević & Dženopoljac, 2015; Matinfard & Khavari, 2015; Svanadze & Kowalewska 2015; Maji & Goswami, 2016; Flores, García & Adame, 2017; Hasan, Mohammad & Alam, 2017; Shawtari, Saiti, Mohamad & Rashid, 2017; Kamath, 2017; Oezkan, Cakan & Kayacan, 2017; Pradana, Nidar & Aripin, 2018; Khairiyansyah & Vehtasvili, 2018; Yilmaz & Acar, 2018).

The VAIC is the value creation per invested monetary unit in IC, then the higher the value of VAIC the better that management is utilizing the company's value creation potential. Laing et al. (2010) analyses the extent to which Intellectual Capital adds value to a service provider using VAIC model in two companies operating in the Australian hotel industry over a four-year period (2004-2007). The conclusions are that the correlation between the human capital efficiency and intellectual capital efficiency is very much evident. This suggests that the reliance on Human Capital is a key element of the business performance, at least in the hospitality sector. Zéghal and Maaloul (2010) use VAIC model in 300 UK companies divided into three groups of industries: high-tech, traditional and services. Results show that the capital employed efficiency has a significantly positive association with a company's financial and stock market performance.

Bontis et al. (2015) verified that after controlling for firm size and advantage, employee productivity and, to some extent, profitability were affected by human and structural capital. The research confirms that the financial performance of hotels in Serbia remains predominantly influenced by efficient use of physical capital. In Hasan et al. (2017) study VAIC and its components have a significant association with profitability. Kamath (2017) investigate the impact of Intellectual Capital efficiency on the financial and export performance of firms in India. The results further confirmed that productivity and export performance of all firms is highly influenced by human capital efficiency.

The empirical studies on Intellectual Capital in tourism pointed out the relevance of the approach. “The current debate argues that work with Intellectual Capital enhances business performance” (Engstrom, Westnes & Westnes, 2003, p. 5). In this sense, it becomes critical to measure the performance of the application of knowledge in creating value, because it is one of the mechanisms that "support and enhancement the intellectual capital of an organization" (Bilhim, 2007, p. 51).

The tourism sector reached record numbers in the Portuguese economy by 2020. Tourism is a strategic sector in Portugal since it generates employment and it is a factor of economic and social development. In 2019, employment in tourism had a weight of 6.9% in the Portuguese economy, with a sharp pace of growth in tourism revenues from the domestic and foreign markets (WTTC, 2019). Several tourism regions in Portugal have had a remarkable international recognition with the award of several awards.
3. Data and Method

For research objectives align with the methodology, a quantitative study was conduct using secondary data. The data set is based on secondary data from Portuguese hospitality and tourism industry, so this study is based on secondary data on Portuguese companies, collected from the Simplified Business Information (IES) through SABI (Iberian Balance Sheet Analysis System) database. Therefore, the economic and financial information was collected from balance sheets and financial reports of 46,951 Portuguese companies in the tourism sector, during the 2007 to 2016 period. SPSS statistical software was used to conduct this analysis.

VAIC model aims to measure the efficiency and the creation of heat and, in this sense, to evaluate the information concerning the efficiency of processes and people in the context of creating value by measuring the coefficients of efficiency in use of capital financial and Intellectual Capital (Martins, Morais & Isidro, 2012). In this model, the measurement of Intellectual Capital is based on the relationship between four main components: (I) capital employed; (II) Human Capital; (III) Structural Capital; (iv) Relational Capital.

In this sense, the VAIC model is intended to measure the extent to which a company produces added value based on the use of Intellectual Capital that is measured by the sum of ratios that incorporate the three components in which the model is based. Inspired on these definitions and assumptions, VAIC is calculated as the direct sum of the main indexes of efficiency, which are calculated as ratios of the capital employed efficiency coefficient, the human capital efficiency coefficient, the structural capital efficiency coefficient and Relational capital efficiency. While form performance is considered through Return on Asset (ROA) for measures of profitability.

Following Pulic (1998), the model of this study denotes all of the given variables that may affect firm’s performance (Figure 1).

4. Results and Discussion

The results of VAIC evolution between 2007 and 2016 and the capital employed efficiency, human capital efficiency, structural capital efficiency and relational capital efficiency demonstrate that the average capital employed efficiency used between 2007
(.58) and 2016 (.52) declined slightly (Table 1). The minimum value was reached in 2013 (.35) and in 2009 has reached the maximum value (.64). The human capital efficiency shows average values between 1.98 in 2007 and 1.56 in 2016, the minimum values were recorded in 2016 (1.56) and the maximum values were recorded in 2010 (3.13).

Table 1 – Average coefficient of efficiency of intellectual capital in the tourism industry in Portugal

<table>
<thead>
<tr>
<th>Year</th>
<th>CEE</th>
<th>HCE</th>
<th>SCE</th>
<th>ICE</th>
<th>RCE</th>
<th>VAIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>.52</td>
<td>1.56</td>
<td>.33</td>
<td>1.95</td>
<td>.47</td>
<td>3.03</td>
</tr>
<tr>
<td>2015</td>
<td>.33</td>
<td>1.59</td>
<td>.47</td>
<td>2.01</td>
<td>.45</td>
<td>2.89</td>
</tr>
<tr>
<td>2014</td>
<td>.36</td>
<td>1.72</td>
<td>.35</td>
<td>2.01</td>
<td>.40</td>
<td>2.82</td>
</tr>
<tr>
<td>2013</td>
<td>.35</td>
<td>2.20</td>
<td>.40</td>
<td>2.54</td>
<td>.29</td>
<td>3.21</td>
</tr>
<tr>
<td>2012</td>
<td>.36</td>
<td>1.59</td>
<td>.85</td>
<td>2.51</td>
<td>.39</td>
<td>3.26</td>
</tr>
<tr>
<td>2011</td>
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<td>1.84</td>
<td>-.16</td>
<td>1.66</td>
<td>.56</td>
<td>2.66</td>
</tr>
<tr>
<td>2010</td>
<td>.54</td>
<td>3.13</td>
<td>.17</td>
<td>3.23</td>
<td>.52</td>
<td>4.36</td>
</tr>
<tr>
<td>2009</td>
<td>.64</td>
<td>2.10</td>
<td>.32</td>
<td>2.37</td>
<td>.69</td>
<td>3.70</td>
</tr>
<tr>
<td>2008</td>
<td>.56</td>
<td>2.05</td>
<td>.31</td>
<td>2.31</td>
<td>.62</td>
<td>3.52</td>
</tr>
<tr>
<td>2007</td>
<td>.58</td>
<td>1.98</td>
<td>.33</td>
<td>2.26</td>
<td>.58</td>
<td>3.47</td>
</tr>
</tbody>
</table>

Source: own elaboration

Regarding structural capital efficiency, the average amount kept throughout the period under review, from .33 (2007 and 2016). Reached minimum value in 2011 and the maximum value in 2012. The intellectual capital efficiency in 2007 was around the average value of 2.26 and 1.95 in 2016, has reached the maximum value in 2010 the minimum value in 2011. The relational capital efficiency ranged from .58 in 2007 and .47 in 2016, showing minimum values of .29 in 2013 and peak values of .69 in 2009.

Finally, analysing the VAIC, it completes a minimum value in 2011 (2.66) and a maximum value in 2010 (4.36). On the other hand, VAIC varied from 3.47 in 2007 and 3.03 in 2016. In 2007 the tourism sector created €3.47 for each €1.00 invested, of which the capital used accounted for €0.58 (16.7%), human capital (57%), entry €1.98 the capital €0.33 (9.5%), structural and relational capital €0.58 (16.7%).

In 2016, the tourism sector created €3.03 for every €1.00 used, slightly less than 2007. That same year the human capital efficiency is €1.56, being the component of Intellectual Capital with the highest representation of value creation (51.5%). On the other hand, the structural capital represents €0.33 (10.9%) and the physical and financial capital, that translates the value generated for each unit invested in tangible assets, represents €0.52 (17.1%) and relational capital €0.47 (15.5%).

The human capital is the most effective dimension of Intellectual Capital and value creation, which suggests that the tourism sector created substantially more efficient value of Intellectual Capital than the financial component. The results are coincident with some studies of literature (Kujansivu & Lönqvist, 2007; Zéghal & Maaloul, 2010; Laing et al., 2010; FitzPatrick et. al., 2013; Shaban & Kavida, 2013; Matinfard & Khavari, 2015; Maji & Goswami, 2016; Flores et al., 2017; Kamath, 2017; Lopes, 2017; González, Calzada & Hernández., 2017; Yilmaz & Acar, 2018).

It should be noted that the data of the sum of the coefficients show some deviations with the value of the VAIC, which results from the large dispersion of data from the sample and the fact that the results show the average values of each indicator, having calculated the value of the VAIC individually for each company, however, table 1 only reflects average values.

The correlation analysis revealed several findings in terms of the relationship between the independent and dependent variables in the research model. The correlation results provided in Table 2 indicated statistically significant association among all variables except between structural capital efficiency and human capital efficiency, relational
capital efficiency and human capital efficiency, ROA and intellectual capital efficiency, ROA and relational capital efficiency.

Table 2 – Correlation Analysis among Variables

<table>
<thead>
<tr>
<th></th>
<th>CEE</th>
<th>HCE</th>
<th>SCE</th>
<th>ICE</th>
<th>RCE</th>
<th>VAIC</th>
<th>ROA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCE</td>
<td>.040&quot;</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCE</td>
<td>-.054&quot;</td>
<td>.001</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICE</td>
<td>-.003</td>
<td>.770&quot;</td>
<td>.637&quot;</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCE</td>
<td>.019&quot;</td>
<td>.009</td>
<td>-.205&quot;</td>
<td>-.197&quot;</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAIC</td>
<td>.238&quot;</td>
<td>.722&quot;</td>
<td>.397&quot;</td>
<td>.810&quot;</td>
<td>.370&quot;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>.325&quot;</td>
<td>.033&quot;</td>
<td>-.015&quot;</td>
<td>-.003</td>
<td>.005</td>
<td>.081&quot;</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: ** sig<.01; * sig<.05

Source: Own elaboration

As can be seen, the human capital efficiency presented with a high and statistically significant association with the intellectual capital efficiency and with the VAIC, revealing that human capital is the key element that contributes to the competitiveness and business success of the entities of this sector. Laing et al. (2010) consider that this may be interpreted as indicating a high reliance on human capital, which is consistent with the core business of being a hotel resort chain. However, although with a low association, it is the capital employed efficiency is dominant in terms of value creation when ROA are used as indicators of created value (Chang & Hsieh, 2011; Bontis et al. 2015; Hasan et al. 2017).

The negative sign of correlation means a variation in the opposite direction in the variables. In this way, the component structural capital efficiency has a negative association on profitability indicators, revealing that the larger the structural capital of an entity, the lower its profitability, such as in the study of Chang and Hsieh (2011); Hasan et al. (2017); Ozkan et al. (2017) and contrary to that verified by Farrukh and Joiya (2018).

The results show that in Portugal the profitability of the tourism sector is more affected by the value of human capital efficiency rather than structural capital efficiency and relational capital efficiency (such as in the study of Al-Musali & Ismail, 2014). Physical and financial capital or capital employed efficiency has a relatively low average as well as a low standard deviation when compared to the other indicators.

The publication of Law No. 33/2013, of May 16, established five regional tourism areas in Mainland Portugal, which reflect the areas covered by the territorial units used for statistical purposes NUTS II – Norte, Centro, Lisboa e Vale do Tejo, Alentejo and Algarve. We add the autonomous regions of the Açores and Madeira.

We analysed in detail the indicators VAIC, intellectual capital efficiency, capital employed efficiency, human capital efficiency, structural capital efficiency and relational capital efficiency, in the first and last year (2007 and 2016, respectively), for each of the seven regions considered. Table 3 presents the results for the regions of Alentejo, Algarve, Centro, and Lisboa e Vale do Tejo.
Table 3– Indicators by central and southern regions in the years 2007 and 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>Alentejo</th>
<th>Algarve</th>
<th>Centro</th>
<th>Lisboa e Vale do Tejo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
<td>Std. Deviation</td>
<td>Mean</td>
</tr>
<tr>
<td>VAIC2007</td>
<td>3.23</td>
<td>2.55</td>
<td>9.28</td>
<td>2.73</td>
</tr>
<tr>
<td>VAIC2016</td>
<td>3.64</td>
<td>2.78</td>
<td>9.37</td>
<td>2.63</td>
</tr>
<tr>
<td>ICE2007</td>
<td>1.94</td>
<td>1.54</td>
<td>7.89</td>
<td>1.89</td>
</tr>
<tr>
<td>ICE2016</td>
<td>2.07</td>
<td>1.71</td>
<td>7.5</td>
<td>1.79</td>
</tr>
<tr>
<td>CEE2016</td>
<td>0.53</td>
<td>0.26</td>
<td>3</td>
<td>0.55</td>
</tr>
<tr>
<td>CEE2007</td>
<td>0.43</td>
<td>0.35</td>
<td>0.52</td>
<td>0.51</td>
</tr>
<tr>
<td>HCE2016</td>
<td>1.65</td>
<td>1.18</td>
<td>5.93</td>
<td>1.46</td>
</tr>
<tr>
<td>HCE2007</td>
<td>1.9</td>
<td>1.38</td>
<td>5.34</td>
<td>1.41</td>
</tr>
<tr>
<td>SCE2016</td>
<td>-0.99</td>
<td>0.35</td>
<td>50.28</td>
<td>0.49</td>
</tr>
<tr>
<td>SCE2007</td>
<td>0.25</td>
<td>0.36</td>
<td>4.88</td>
<td>0.44</td>
</tr>
<tr>
<td>RCE2016</td>
<td>0.58</td>
<td>0</td>
<td>5.12</td>
<td>0.21</td>
</tr>
<tr>
<td>RCE2007</td>
<td>1.0</td>
<td>6.34</td>
<td>0.2</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: own elaboration

The table below shows data for the Norte, Madeira and Açores regions.

Table 4 - Indicators by northern regions and islands in the years 2007 and 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>Norte</th>
<th>Madeira</th>
<th>Açores</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
<td>Std. Deviation</td>
<td>Mean</td>
</tr>
<tr>
<td>VAIC2007</td>
<td>3.17</td>
<td>2.56</td>
<td>9.78</td>
<td>3.29</td>
</tr>
<tr>
<td>VAIC2016</td>
<td>1.65</td>
<td>1.39</td>
<td>7.94</td>
<td>2.54</td>
</tr>
<tr>
<td>ICE2007</td>
<td>1.89</td>
<td>1.52</td>
<td>9.41</td>
<td>3.23</td>
</tr>
<tr>
<td>ICE2016</td>
<td>0.51</td>
<td>0.36</td>
<td>1.98</td>
<td>0.43</td>
</tr>
<tr>
<td>CEE2007</td>
<td>0.56</td>
<td>0.44</td>
<td>0.61</td>
<td>0.5</td>
</tr>
<tr>
<td>CEE2016</td>
<td>1.35</td>
<td>1.11</td>
<td>5.62</td>
<td>1.96</td>
</tr>
<tr>
<td>HCE2007</td>
<td>1.74</td>
<td>1.26</td>
<td>7</td>
<td>3.01</td>
</tr>
<tr>
<td>SCE2007</td>
<td>0.38</td>
<td>0.29</td>
<td>5.32</td>
<td>0.34</td>
</tr>
<tr>
<td>SCE2016</td>
<td>0.21</td>
<td>0.27</td>
<td>5.98</td>
<td>0.28</td>
</tr>
<tr>
<td>RCE2016</td>
<td>0.51</td>
<td>0</td>
<td>5.68</td>
<td>0.28</td>
</tr>
<tr>
<td>RCE2007</td>
<td>0.68</td>
<td>0</td>
<td>6.77</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Source: own elaboration

The results presented in tables 3 and 4 show that the VAIC indicated a decrease in all regions in 2016 compared to 2007 (with the exception of the Açores region). However, it is given to the high value of the standard deviation that the VAIC presents that there is a great dispersion between the minimum and maximum values, that is, among the companies analysed there is a great variety in the indicator of efficiency of IC. The intellectual capital efficiency indicator in 2016 compared to 2007 also decreases in all regions.

A detailed analysis of the year-on-year averages of each of the variables studied in each of the tourism regions allows us to verify that the VAIC over the analysed period is higher in the Madeira region. The same is true of the intellectual capital efficiency indicator, with the highest average in the autonomous regions, mainly in Madeira. In the capital employed efficiency indicator, which represents the efficiency of physical and financial capital, the region of Lisboa e Vale do Tejo has, on average, by 2011, the highest value in this indicator. From 2012, it is the region of the Algarve that has the highest value in relation to the capital employed efficiency.

Analysing the components of Intellectual Capital (Human Capital, Structural Capital and Relational Capital), there was a wide variety between regions in each of the years, with
a higher incidence in the tourism region of Madeira, the one with the highest value present in these indicators. The Madeira region is considered a mature tourist region, which over the years has received several distinctions. It was voted the "Best Island Destination in the World" in 2015, 2016, 2017, 2018 and 2019 by the World Travel Awards (Turismo da Madeira, nd). In 2013, 2014, 2016, 2017, 2018 and 2019 won the award for "Best Island Destination in Europe" (Europe's Leading Island Destination), having competed in this category alongside major tourist destinations such as the Canary Islands, Balearic Islands, Sardinia, Malta, Cyprus, among others. In each edition, in addition to electing the best European hotel units, the organization of the World Travel Awards (WTA) also names the best hotels in each country, where Madeira’s hotel industry has been distinguished with these awards, in the most diverse categories, recognizing the quality of the Hotel Park and service of excellence of the region. The strategic objectives of tourism in Madeira focus on the qualification and consolidation of supply, on strengthening the notoriety and attractiveness of the destination and on improving the performance indicators of the destination (SRETC, 2016).

We proceeded to statistical inference to compare the means of VAIC and its components in the period from 2007 to 2016, depending on the tourism region. To proceed with the choice of the test to be applied, we started by testing the normality of the variables (Kolmogorov-Smirnov test), which revealed, for all variables, a p-value > 0.05, which led us to reject the hypothesis of normality of the results. Thus, the non-normality of the data leads to the application of the Kruskal-Wallis test to analyse the existence of significant changes between the values of the VAIC indicator by the different tourism regions.

Table 5 results allow us to verify that there are statistically significant differences in the value of the variable VAIC, depending on the region of tourism. In addition, the components of the VAIC indicator (intellectual capital efficiency and capital employed efficiency) follow the same trend.

Table 5. Kruskal Wallis Test - test applied to tourism regions in Portugal

<table>
<thead>
<tr>
<th></th>
<th>VAIC</th>
<th>CEE</th>
<th>HCE</th>
<th>SCE</th>
<th>RCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2016</strong></td>
<td>112.59</td>
<td>157.53</td>
<td>353.031</td>
<td>132.395</td>
<td>215.239</td>
</tr>
<tr>
<td><strong>2015</strong></td>
<td>92.323</td>
<td>216.532</td>
<td>259.836</td>
<td>65.095</td>
<td>194.851</td>
</tr>
<tr>
<td><strong>2014</strong></td>
<td>76.937</td>
<td>209.02</td>
<td>226.14</td>
<td>41.813</td>
<td>157.653</td>
</tr>
<tr>
<td><strong>2013</strong></td>
<td>40.241</td>
<td>197.481</td>
<td>245.156</td>
<td>77.781</td>
<td>158.757</td>
</tr>
<tr>
<td><strong>2012</strong></td>
<td>104.58</td>
<td>182.614</td>
<td>182.932</td>
<td>74.014</td>
<td>165.37</td>
</tr>
<tr>
<td><strong>2011</strong></td>
<td>109.122</td>
<td>401.188</td>
<td>182.595</td>
<td>74.014</td>
<td>165.37</td>
</tr>
<tr>
<td><strong>2010</strong></td>
<td>70.588</td>
<td>184.851</td>
<td>196.032</td>
<td>74.014</td>
<td>165.37</td>
</tr>
<tr>
<td><strong>2009</strong></td>
<td>154.537</td>
<td>174.549</td>
<td>182.595</td>
<td>74.014</td>
<td>165.37</td>
</tr>
<tr>
<td><strong>2008</strong></td>
<td>158.041</td>
<td>205.966</td>
<td>179.101</td>
<td>106.436</td>
<td>126.937</td>
</tr>
<tr>
<td><strong>2007</strong></td>
<td>106.436</td>
<td>236.036</td>
<td>171.862</td>
<td>126.937</td>
<td>106.436</td>
</tr>
</tbody>
</table>

Source: own elaboration

The verification of the results in the components of the Intellectual Capital (Human Capital, Structural Capital and Relational Capital) allowed concluding on the existence of statistically significant differences between these indicators, depending on the tourism regions considered, over the period analysed.

The Intellectual Capital is recognized in the literature as the most important productivity factor in the current economy. It was possible verify a dramatic growth of intangible factors of development in the world in the last decades of the twentieth century, being responsible for this situation the large mergers and acquisitions, the expansion in the services sector, the sophistication of the technologies and markets and the strong customer orientation (Rodrigues, 2011). Pulic (1998) sought, through the VAIC model, allows the measure business performance in the knowledge-based economy through the quantification of the intellectual efficiency in value creation context.
Findings of this study support the concept that Intellectual Capital has the potential to become the new source of wealth in the Portuguese hospitality and tourism sector as support that Intellectual Capital has a direct and positive effect on business performance.

5. Conclusions

This study sought to analyse the efficiency of Intellectual Capital value creation in the tourism sector in Portugal from 2007 to 2016. The results revealed a positive and significant impact of all dimensions of Intellectual Capital in business performance. Specifically, in 2016, the tourism sector in Portugal created €3.03 for every €1.00 used, being a value lower than that obtained in 2007 (which was 3.47). In 2016, the efficiency of human capital is the component with the largest representation in the value creation (51.5%), followed by the Structural Capital (10.9%), physical and financial capital or capital employed efficiency (17.1%) and Relational Capital (15.5%). There is a significant and positive association between ROA and VAIC, human capital efficiency and capital employed efficiency. On the other hand, the structural capital efficiency presents a negative association with profitability. Finally, the results of the relationship between the variable relational capital efficiency and ROA do not present statistical significance.

The analysis of tourism regions shows that it is the autonomous regions that have the highest indicator of VAIC and intellectual capital efficiency. In the components of Intellectual Capital (Human Capital, Structural Capital and Relational Capital) there was a wide variety between regions in each of the years, with a higher incidence in the tourism region of Madeira, the one with the highest value present in these indicators. This study has some limitations, namely the VAIC methodology itself, which only serves a quantitative view of intellectual capital. The VAIC model is based on financial indicators, which rely on past strategy and decision-making. Another limitation of the study is the use of a proxy for the calculation of variables, such as relational capital efficiency, where its calculation is considered as cost of goods. Another limitation of the study is the high degree of variance of the data and the heterogeneity of the sample, which may distort the results, since average values are used.

Given the importance of this issue, this study contributed to identify the creation of efficiency and value in Portuguese tourism regions. Future research on this subject should be undertaken to study the years of 2017 to 2019 and to analyse the year 2020, at which time, since because of the COVID-19 pandemic the tourism sector was violently affected.

References


Lei nº 33/2013, de 16 de maio. Estabelece o regime jurídico das áreas regionais de turismo de Portugal continental, a sua delimitação e características, bem como o regime jurídico da organização e funcionamento das entidades regionais de turismo.


THE INFLUENCE OF SERVICE INNOVATION IN CUSTOMER SATISFACTION: CASE STUDY OF HOTEL INDUSTRY
Ana Melissa Cabral¹; João Paulo Coelho Marques²

Abstract
Purpose: The main goal of innovation is to improve customer service and products and also customer satisfaction. Taking into account the four types of innovation recognized by OECD, the purpose of this research is to evaluate the impact of these four types of innovation on customer satisfaction, specifically in the hotel industry.

Methodology: The data collection was done through qualitative and quantitative methods. Through the questionnaire, 205 valid responses were obtained. For the quantitative data processing, the SPSS software was used through statistical inference methods.

Findings: The results show the influence of the four dimensions of innovation on customer satisfaction. These results confirm previous studies on the influence of product/service, marketing and process innovation on customer satisfaction. However, the results also show the positive relation between customer satisfaction and organizational innovation as well as the relationship between organizational innovation and the other types of innovation.

Originality/value: Focusing on understanding the relation between the rate of innovation and its impact on customer satisfaction, the study expands the knowledge about the importance of services innovation on a specific hotel in Madeira Island.

Practical implications: The confirmation that customer satisfaction is associated with innovation, in its four dimensions, can contribute to better decision making, not only for the hotel in the study, but also for the sector.

Research limitations: The results of this study were based only on one hotel unit. The extension to other cases may strengthen the results.

Keywords: Innovation; Services; Hotel industry; Customer satisfaction.

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1. Introduction

Innovation is strongly related to the success of companies (Calik, Calisir & Cetingu, 2017). Thus, its goal is to improve customer service and loyalty, increase productivity, reduce costs and create opportunities in the face of each challenge. Innovation is often seen as a solution and value creation in organizations. Therefore, organizations use innovation as a competitive advantage, as innovation is the beginning of an idea that reaches its excellence through continuous results and determines its long-term success (Dantas & Moreira, 2011).

The positive results of the service innovations contribute to customer satisfaction (Yeh, Chen & Chen, 2019; Weng, Ha, Wang & Tsai, 2012). In fact, it is necessary to improve services and increase their quality through innovation, as customer needs are increasingly diverse. Customers need to be impressed and convinced through the services that the hotel units can offer (Hu, Horng & Sun, 2009).

The hotel industry is facing a situation of strong and rapid growth that contributed to the creation of jobs, local development and has an enormous impact on the growth of the economy of each country.

As hotel organizations are the most competitive type of companies in the world according to Martin-Rios and Ciobanua (2018), it arouses curiosity to understand how innovation influences the satisfaction of its customers in Saccharum hotel, in Madeira Island, where much of the region's economy is supported by tourism.

Thus, this research paper intends to explore the concept of innovation in the hotel industry, identifying the innovation types, characterizing customers and their level of satisfaction, and also identifying what the customer’s value in the hotel's service.

The paper is structured in 3 main chapters. The literature review explores concepts and leads to the research questions. Then the methodology chapter establishes the study hypotheses, the respective conceptual model, the method of investigation and data analysis. Lastly, the results of this investigation and the respective discussion are presented, followed by the final conclusions.

2. Literature review

2.1. Innovation Concept

Innovation is one of the main factors for the companies’ success, being crucial to achieve competitive advantage (Calik et al., 2017). The main goal of innovation is to improve customer service and products and also customer satisfaction, increase productivity, reduce costs and to create opportunities (Dantas & Moreira, 2011).

Due to the innovation’s importance to companies, Schumpeter (1934) refers that innovation can be the introduction of a new good; a new type of good in the market; the introduction of a new production system; the development of a new market; the implementation of a new market structure; or new sources of materials or products supply. It is important to refer that before anything becomes an innovation, there has to be an invention, that is, an idea or model for a new or improved product, process or system. This invention only becomes an innovation when it is explored economically, in other words, it is necessary to have a commercial transaction of such invention in order to generate wealth (Schumpeter, 1934).

The OECD (p.46, 2005) defines innovation as a “new or improved service or product, process, method of marketing and/or organizational method”. According to the OECD (2005) the product innovation is the introduction of a good or service that is new or significantly improved in terms of its characteristics or its use. The process innovation is related to the implementation of new or significant improvements in the production or delivery methods. The marketing innovation means to implement new marketing methods, covering significant changes in the product design or packing, in the positioning, promotion or in the prices. At last, the OECD (2005) refers that organizational
innovation is the implementation of new organizational methods on the practices of the business organization, of the workplace or on external relations. It is important that companies use innovation as a competitive advantage to achieve better results and define the longterm success (Dantas & Moreira, 2011). Therefore, the advantage of innovation is to generate value proposition to customers, but also to reflect benefits to those who develop it. Benefits that translate into higher revenues (Hippel, 2005).

2.2. Innovation in the service sector
Services are very particular due to their specific characteristics. Those characteristics are intangibility, simultaneity, no deterioration and heterogeneity. Therefore, due to their immateriality, they are produced and consumed simultaneously, and the biggest part of their production implies a direct relationship between the producer and the customer on that specific moment because the service cannot be saved or stored. Lastly, services quality is defined by their performance, and it depends on different producers, customers or moments (Lendrevie, Lévy, Dionisio & Rodrigues, 2015). The service innovation is seen as a sustainable development strategy for many companies, in order to create value by improving products, services or innovative methods (Yeh et al., 2019). Service innovation is also defined as an addition of new services or a change in the delivery process (Menor & Roth, 2007).
Some authors refer to the concept of “new services” to describe the innovation through successful development of new services or products, including innovative and improved activities (Weng et al., 2012). Therefore, the creation of new services can be considered as a process that includes diversified activities with the mission of creating a new service or enhance one, so, it is possible to obtain new services success when focused on the consumer needs and in the delivery process of that specific service (Edgett, 1994).
The process of service innovation holds the knowledge between the market needs and the techniques of developing a new idea, concept or invention. It is important to keep the focus on the expectations and needs of the consumer while designing a service. This continuous process of design and development of a prototype is essential until it becomes an innovation. Testing and clarifying the prototype is necessary to obtain feedback and control of the process, to launch a new service (Voss, 1992).
It is mentioned by Johnson, Menor, Roth and Chase (2000) that organizational practices affect the effectiveness and efficiency of the development of new services. These practices have a positive impact on the development of new products and services, influencing their success (Thwaites, 1992).
The service innovation makes companies transform changes into opportunities, being crucial to create value through new and improved offers, processes or business models of services to their stakeholders (Yeh et al., 2019; Ostrom, Bitner, Brown & Rabionovich, 2010).

2.3. Innovation in the hotel industry
The excellence of services is an important key to the hotel industry success. Due to the competitive scenario in this industry it is crucial to differentiate from competitors. It is vital that they attract new customers, conceiving new and unique experiences (Hu et al. 2009).
The hotel firms, as service companies, also have specific characteristics, specifically in the innovation paths. Their production and consumption happen simultaneously, the consumer and the producer have to be in the same space; the elements can be tangible and intangible; the impossibility of transportation and storage, making it difficult to manage these aspects because the tangible and intangible elements are interconnected; and the variability that is related with the fact that the service offered cannot be repeated in the same way due to the different conditions and settings (Souto, 2015).
Ottenbacher and Gnoth (2005) refer nine factors that promote the success of service innovation for hotel managers. They are: market selection, strategic management of
human resources, employees training, market opening, empowerment, evaluation based on behavior, marketing synergies, employees' commitment and intangible qualities. Organizational innovation is seen as a challenge to this industry due to the transformation of the structures in order to manage the organization based on customer-oriented processes (OECD, 2005). Vuković, Gagić, Terzić, Petrović and Radovanović (2018) refer that innovation in hotel industry results from the organization’s ability to continually transform knowledge and ideas into new products, services, processes and systems, in order to provide benefits to stakeholders. Thus, organizational knowledge leads to the improvement of the main competences of the organization resulting from the involvement of the members of the organization with the exchange of knowledge and experiences. The organizational knowledge is a fact that precedes innovation and affects its performance (Fraj, Matute & Melero, 2015).

The innovation process in the hotel industry requires a high commitment by the employees to focus on the customers, applying new knowledge according to their needs (Souto, 2015; Orfila-Sintes & Mattson, 2009). Most innovations are developed due to financial performance, increasing revenue and profit (Griffin & Page, 1993). Beyond that, customer satisfaction and employees’ feedback are important innovative measures to the success of the hotel industry (Ottenbacher & Gnoth, 2005).

2.4. The influence of service innovation in customer satisfaction

According to Wikhamn (2019) it is relevant to study the customer satisfaction in the hotel industry context, justifying that customer satisfaction is a hotel positioning indicator in the competition for customers, which represents the hotel's reputation and image, enhancing customer loyalty and attracting new ones. It is also important to refer that when the customers receive what they expect they get satisfied (Kotler, Brown & Makens, 1998). Dantas and Moreira (2011) noticed that customer satisfaction is an important path to guarantee the success of new services.

In this way, studies by Weng et al. (2012) and Yeh et al. (2019) reveal that service innovation has a positive influence on customer satisfaction. The innovation generates customer satisfaction when new products or services are introduced in the market and the company influences consumers' perception of its ability to satisfy their needs (Luo & Battacharya, 2006). When customers are satisfied, they tend to buy more and their positive feedback attracts new customers easily and at a low cost. Therefore, companies can count on an acceleration of cash flows that will positively affect their value. It is important to invest in innovation because it helps companies build satisfied customers (Gruca & Rego, 2005; Grewal, Chandrashekaran & Citrin, 2010).

The results of Weng et al. (2012) study about the relationship between service innovation, value to customer and customer satisfaction show that service innovation has a positive correlation with customer satisfaction. Affirming that customer satisfaction increases when they perceive more service innovation.

Service innovation is mostly a company strategy in order to create new products or increase the value of services in response to customer’s demand. Thus, it is necessary to face the challenges proposed by consumers and at this point the ability to innovate is important to improve the interaction with customers in the service or technology transmission system (Dannels & Kleinschmidt, 2001; Weng et al., 2012).

The study of Yeh et al. (2019), mentions the positive effect of service innovation in customer satisfaction. Based on the study of Chuang and Hsu (2012) that focuses on bed-and-breakfast tourists in Taiwan, and also the study of Tsai et al. (2020) that is based on rent-a-car business, both studies observe that service innovation has a significant effect on customer satisfaction and their loyalty. Yeh et al. (2019) enhance the fact that service innovation not only reflects competitive advantage, but also sets the longterm relationships with customers providing them with high quality products and services (Kotler & Keller, 2009; Drejer, 2004).
As a way of extending this study, it is important to highlight the influence of marketing innovations. With the focus on developing new market needs in order to have greater satisfaction, customers have to be persuaded about the new types of products and services. In this sense, marketing innovation leads to strategy, knowing customers’ needs better in order to satisfy them, as well as showing a good image of the company, (Zúñiga-Collazo & Castillo-Palacio, 2016). Lee, Tsao and Chang (2015) mention that great marketing innovations can positively influence customer evaluations, transforming them into satisfaction.

Nkemkiafu, Asah, Felix and Sylvie (2019) contributed to the extension of this study referring that the implementation of process innovation allows companies to satisfy their customers and attract new ones. They also mention that it is important for companies to implement innovative strategies from the product design process to its distribution in order to satisfy their customers, employees and achieve growth.

As customers are the main recipients of innovations and consequently those who will evaluate them, only through them will we be able to get the answers we are looking for (Dantas & Moreira, 2011), and based on previous studies the following research questions are proposed:

Q1: What is the characterization of guests, in terms of age, gender and nationality?
Q2: What are the expected value attributes for the service provided at the hotel?
Q3: What is the satisfaction level of the customers towards the product/service innovations introduced?
Q4: What is the satisfaction level of the customers towards the process innovations introduced?
Q5: What is the satisfaction level of the customers towards the marketing innovations introduced?
Q6: What is the satisfaction level of the customers towards the organizational innovations introduced?

3. Data and Method

3.1. Formulation of hypotheses

The main objective of this research paper is to analyse the relationship between the innovation types in customer satisfaction, analyzing the reality of the Saccharum hotel, in Madeira Island.

Research questions Q1 and Q2, as mentioned in the previous chapter, relate to the characteristics of the customers, namely their age, gender, nationality, reason to visit and what they value most in the hotel service. As mentioned by Dantas and Moreira (2011) customers are the main recipients of innovations and, consequently, those who will evaluate them, hence the importance of their characterization.

Based on previous studies that affirm the influence of innovation on customer satisfaction, we intend to verify this relationship in the hotel firm. In order to decode this innovation in services, the four types of innovation defined by the OECD (2005) are studied, realizing which one has more influence on customer satisfaction. Question Q3 refers to the influence of service innovations on customer satisfaction based on previous studies. Additionally, Q4 to Q5 refer to the influence of innovations of marketing and process on customer satisfaction and question Q6 refers to organizational innovation influence on customer satisfaction.

The previous research questions lead to the following hypotheses:

Q3: What is the satisfaction level of the customers towards product/service innovations introduced?

H1 - The product/service innovations affect customer satisfaction.

Q4: What is the satisfaction level of the customers towards the process innovations introduced?

H2- Process innovations affect customer satisfaction.
Q5: What is the satisfaction level of the customers towards the marketing innovations introduced? 
H3 - Marketing innovations affect customer satisfaction.

Q6: What is the satisfaction level of the customers towards the organizational innovations introduced? 
H4 - Organizational innovations affect customer satisfaction.

3.2. Conceptual Research Model

![Figure 1 – Conceptual Model](source: Authors.)

To follow up this research, the model in Figure 1 was elaborated considering the review of previous literature considering each type of innovation and customer satisfaction. The goal is to understand how the four types of innovation defined by the OECD (2005) influence customer satisfaction and whether it is possible to explain these relationships.

3.3. Research method

The problem with this research is related to customer service, with the intent to identify the types of service innovations that affect the degree of satisfaction of hotel customers. This is an exploratory study, with regard to qualitative research, focusing on understanding the problems, analyzing behaviors, attitudes or values. Being a kind of inductive and descriptive research, developing concepts and ideas and understanding from the data provided (Sousa & Batista 2014). The research methodology will be mixed, that is, qualitative and quantitative. Qualitative research is used to collect data through interviews. An interview guide was developed to support the interview with the director of the Corporate Development and Innovation Department of the company. During the interview it was proposed to develop a study about the Saccharum hotel that was the most suitable for this theme, due to their minimalist design, innovative concept, and being the most recent hotel in the group at the time we started this study. Quantitative research aims to identify and present observable data, indicators and trends from a population sample through the study of quantifiable variables (Sousa & Batista 2014; Calik et al. 2017). The data collection technique used was the questionnaire survey.
in order to obtain information on the customers’ characteristics, what they value in the hotel service, and most importantly their degree of satisfaction with the existing types of innovation and the degree of satisfaction of their stay at the hotel. The questionnaire to customers aims to understand whether the types of innovation defined by the OECD (2005) influence the customers’ level of satisfaction. In the construction of the questionnaire, special attention was given to considerations of Sousa and Baptista (2011), regarding the adequacy of the language, concepts and structure. The questionnaire survey, resorting to the Likert scale of 5 points (1 to 5, where 1 is (strongly disagree) and 5 (strongly agree), is intended to obtain the following information: 1- customer characterization, 2- the customer value regarding hotel service, 3- customer’s degree of satisfaction towards different services innovations found at the hotel, 4- customer’s degree of satisfaction towards different process innovations found at the hotel, 5- customer’s degree of satisfaction towards different marketing innovations found at the hotel, 6- customer’s degree of satisfaction towards different organizational innovations found at the hotel, and 8- the overall degree of satisfaction with the hotel. Field work was carried out between April and May 2019. During this period, all hotel customers were asked at check-out to complete the questionnaire.

3.4. Data analysis
The customer characterization data were subject of descriptive analysis, and the data on the degree of customer satisfaction with the four types of innovations were subjected to inferential analysis. For this purpose, the data were treated using the SPSS (Statistical Package for Social Science). For the analysis of the data correlation, the Pearson correlation coefficient and significance level was used. The Pearson correlation coefficient (r) or linear correlation, is the degree of correlation between two quantitative variables, expressing the degree of correlation across values between -1 and 1. When the correlation coefficient approaches 1 there is a positive linear relationship, and when it approaches -1, there is a negative linear relationship. When the coefficient is close to 0, there is no relationship between the variables, and the closer to 1 or -1, the stronger the ratio.

The significance level for this study is 95%, then p-value=0.05 is established. For the inferential analysis, the levels of significance considered are:
p <0.05 - statistically significant difference;
p <0.01 ** - very significant statistical difference;
p <0.001 *** - highly significant statistical difference;
p ≥ 0.05 - non-significant statistical difference.

4. Results and discussion
In the period in which the responses were collected, the hotel unit obtained a 60% occupancy rate out of a total of 243 rooms. The interview provided information about frequent customers of the hotel unit, who are usually middle/upper class individuals, childless couples, single mothers, LGBT, etc. The hotel collects customer feedback through satisfaction questionnaires, but also gives a lot of importance to the opinion of customers through their quality card and internal audits, as well as through comments and rankings provided by customers on Booking, TripAdvisor, Facebook and Google. They identified as main services provided by the hotel the food & beverage, the spa, the guest experience, workshops and their premium experience. In terms of innovation, they see it as creating value and solving problems. Through the questionnaire, 205 valid responses were obtained.

About the customers characterization, of the 205 responses, 103 were female and 102 were male, where the predominant age of respondents was between 46-65 years. On the sample, 95% defined leisure as their reason for visiting. The majority of the customers were from Portugal, France, Germany and the United Kingdom. The average satisfaction with the stay at the hotel was 4.44, where 1 would be completely dissatisfied.
and 5 completely satisfied. In total, 58.5% of the customers were completely satisfied with the stay.

Regarding the frequency of what customers value most in the hotel service, it is important to note that (1) is the most valued and (6) the least valued. Therefore, what customers value most in the hotel's service are hygiene and comfort, the involvement and availability of employees, followed by the quality of the food, free wi-fi and media. Lastly, what they value less are the activities and events present at the hotel and its social responsibility. Through the questionnaires it was possible to confirm the study by Ottenbacher and Gnoth (2005) in which they state that attitude and behavior of hotel employees is an important factor in the customer's perception of the service, as well as its quality, so one of the factors that customers value most in the hotel service is the employee's involvement and availability.

In the data analysis through SPSS, it is possible to verify that the level of customer satisfaction is higher in the product/service innovation (r=0.549) (see Table 1) having a strong positive correlation, which means that the variables are related to each other. It is important to note that the innovative concept, the differentiation by new and improved services and the quality of this hotel have an important emphasis on customer satisfaction. Thus, it confirms the studies by Weng et al. (2012), Yeh et al. (2019), Chuang and Hsu (2012), and Tsai et al. (2010) about the influence of service innovation on customer satisfaction. We could still verify that when the hotel meets the customers needs it obtains greater success for new services, confirming the study by Edgett (1994). The correlation coefficient between the level of customer satisfaction and organizational innovation (r=0.536) (see Table 1) also has a strong positive correlation. This may justify that the commitment involvement of hotel employees as well as their organizational structure have impact on customer satisfaction. As Ottenbacher and Gnoth (2005) and Zeithmal and Bitner (2000) refer, one of the factors that promotes the success of service innovations for hotel managers is the employee commitment and it affects directly customer satisfaction.

We can also observe in Table 1, the correlation coefficient between the level of customer satisfaction and marketing innovation (r=0.476). As Lee et al. (2015) mentioned, great marketing innovations can positively influence customer evaluations, transforming them into satisfaction. Hence, we can confirm the possibility of marketing innovations on customer satisfaction. Otherwise, we can also state that events and programs provided by the hotel to customers, as well as used sensory marketing have impact on their satisfaction.

There is also a relationship between the level of customer satisfaction and the innovation of process (r=0.420), but it is not as strong as the others (see Table 1). Even so, it is possible to confirm the study of Nkemkiafu et al. (2019) which notes that implementing an innovative process allows companies to satisfy their customers and attract new ones. The level of significance is p=0.000 between the level of customer satisfaction and the four types of innovation which translates into a significant association between variables. More specifically, H1 to H4 have the same p-value (p=0.000), meaning that these hypotheses are supported.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Level of customer satisfaction with the hotel stay</th>
<th>Pearson Correlation (r)</th>
<th>Sig. (bilateral) (p)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: S</td>
<td>.549**</td>
<td>0.000</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td>H2: S</td>
<td>.420**</td>
<td>0.000</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td>H3: S</td>
<td>.479**</td>
<td>0.000</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td>H4: S</td>
<td>.536**</td>
<td>0.000</td>
<td>205</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 – Correlations and significance of variables

** The correlation is significant on 0.01 level (bilateral); S= Supported; NS= Not Supported

Source: Data collected from SPSS based on questionnaire responses.
The results of Table 2 were obtained while analyzing the general data and reveal a strong positive correlation coefficient between organizational innovation and other types of innovation, which is an important finding in this study. As Johnson et al. (2000) said, organizational influences affect efficiency and effectiveness on the development of new services. In a way, organizational innovation supports all other types of innovation, as mentioned by Fraj et al. (2015), organizational knowledge is a factor that precedes innovation and affects the performance of the organization. The relationship of these variables can translate into a great involvement by the employees and their organizational structure, as well as the existence of good mechanisms, using technology to develop new services. According to Thwaites (1992), some organizational practices that promote success, include the support of team work, the emergence of winning products, support in terms of rewards, risky behavior, autonomy in handling failures, encouraging employees to submit new ideas, giving them free time to develop those ideas, and making venture capital or make money available for projects.

<table>
<thead>
<tr>
<th>Organization Innovation</th>
<th>Product/Service Innovation</th>
<th>Process Innovation</th>
<th>Marketing Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation (r)</td>
<td>.542**</td>
<td>.633**</td>
<td>.623**</td>
</tr>
<tr>
<td>Sig. (bilateral) (p)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>205</td>
<td>205</td>
<td>205</td>
</tr>
</tbody>
</table>

Notes: ** The correlation is significant on 0.01 level (bilateral); S= Supported; NS= Not Supported

Source: Data collected from SPSS based on questionnaire responses.

Is it possible to conclude that the four types of innovation defined by the OECD (2005) positively affect customers satisfaction, that is, the innovations present when staying at the hotel were an important factor for their well-being and contentment. The results obtained reinforce the studies by Weng et al. (2012) and Yeh et al. (2019), Chuang and Hsu (2012) and Tsai et al. (2010) which refer that service innovation effectively has a positive effect on customer satisfaction as well as the study by Lee et al. (2015) on the influence of marketing innovation on customer satisfaction, and further confirmation of the study by Nkemkiafu et al. (2019) on customer satisfaction through implementation of innovative processes.

5. Conclusions

In the hotel industry, it is necessary that its capacity to innovate allows it to adapt to new challenges, conditions and requirements of consumers, offering specialized and differentiated services. In this way, it will be possible to obtain more satisfied customers, which translates into a revenue return and loyalty.

The intention of this research was to understand how innovation in the hotel industry can influence customer satisfaction. We tried to verify the level of customer satisfaction regarding the hotel under study, identifying which type of innovation generates greater satisfaction to the guests.

The hotel unit uses innovation as a way of solving problems and creating value for its stakeholders, confirming not only the study by Yeh et al. (2012) but also the one from Ostrom et al. (2010).

It has been found that 58.5% of the customers were completely satisfied with the stay at the hotel. In this sense, Kotler et al. (1998) refers that when the customer receives what he expects he is satisfied, so it can be said that the hotel meets most of the customer’s expectations.
This study allows to verify that the type of innovation that generates greater satisfaction to customers is the service innovation. This happens because this hotel is visibly innovative for its concept, as well as the unique services provided and their quality, referred by hotel guests who responded to our questionnaire. The more customers agreed with the mentioned innovations the more satisfied with the hotel unit they were. In an attempt to establish a relationship between organizational innovation and other types of innovation, resulting in positive correlation coefficient, it could mean that organizational innovation influences the efficiency and effectiveness of developing new services, as mentioned by Johnson et al. (2000).

This research paper confirms previous studies by Weng et al. (2012), Yeh et al. (2019), Chuang and Hsu (2012), Tsai and Hsu (2012), Lee et al. (2015) and Nkemkiafu et al. (2019) about the influence of service, marketing and process innovation on customer satisfaction. Also, this research goes further by showing a positive relationship between customer satisfaction and organizational innovation as well as the relationship between organizational innovation and other types of innovation under study. Thus, the customer satisfaction is positively related to the use of innovation, and the use of the four types of innovation together is ideal for companies to achieve their goals more efficiently.

5.1 Practical implications
The confirmation that customer satisfaction is associated with innovation, in its four dimensions, can contribute to better decision making, not only for the hotel in the study, but also for the sector.

5.2 Limitations
The results of this study were based only on one hotel unit and with a low number of respondents. The extension to other cases may strengthen the results.

References


OCDE (2005), Oslo Manual - Guidelines for Collecting and Interpreting Innovation Data, (3rd Ed.)


THE POTENTIAL OF GASTRONOMIC TOURISM IN THE PORTUGUESE MUNICIPALITY OF MIRANDELA
Ricardo Correia 1; Aida Carvalho 2; Armando Troca 3

Abstract
Purpose: The gastronomic heritage of a territory can be a valuable differentiator element for its tourist offer. In this context, it was considered important to survey the main gastronomic references of one of Portugal's most gastronomically iconic municipalities: Mirandela, which however has a reduced hotel capacity. The other central objective of this study is related to the evaluation of two large groups (the local inhabitants and other stakeholders with a closer connection to consumer) about the perceptions related to the enhancement of the gastronomic heritage of Mirandela municipality.

Methodology: A qualitative methodology was adopted, which, due to its specificity, can configure a case study. The technique of collecting information relied on semi-structured interviews, to the local inhabitants (9 interviews) and to several stakeholders with knowledge about the needs and interests of the tourist demand related with gastronomy (10 interviews).

Findings: The position of the inhabitants, who argue that the methods and techniques of the old days should be practically unchanged, under penalty of distorting the quality and authenticity, was identified as the main divergence between the 2 groups. Indeed the remaining respondents, namely chefs, argue that it is essential to innovate methods and techniques for the benefit of that same quality, with the potential offered by new concepts (eg. the evolution in the seasoning of the "sufficiently" concept for the accuracy of the measurement) and the use of new support instruments (eg. probes for temperature control) as a product enhancement, but always respecting its authenticity. In terms of convergence, it was consensual to recognize the importance of imparting knowledge to young people, from the outset with inclusion in school curricula, in raising awareness of the importance of products and recipes as integral parts of local history and in the transmission of knowledge through practice at school, in "workshops", interpretive centres or community spaces.

Originality/value: Although the municipality of Mirandela has important gastronomic references, where alheira (a traditional smoked sausage famous all around Portugal) and olive oil stand out, there were no studies that characterized this heritage. Simultaneously the perception of the residents and other stockholders (more focused on consumption) about the best way to enhance this gastronomic heritage was never studied. This study managed to confront these two perspectives generating important insights for territorial managers.

Practical implications: We recognize that the characteristics of the intangible heritage are inducers of the possibility of developing attractive tourist experiences, in terms of gastronomic and cultural tourism, boosted by the appetite of the tourist markets for this segment, considered as the one with the greatest growth in the tourism industry as a whole. It will be essential that the territorial managers are able to align the visions of the local inhabitants with the needs and expectations of the tourists. In fact, at the same time that the locals are the guardians of the heritage, they should also be able to enhance this heritage, adding value compatible with the demand and tourist expectations.

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Research limitations: The main limitations are related to the exploratory nature of the study and its restriction to a specific municipality, which makes no possible to generalize conclusions to other territorial realities from the same.

Keywords: Tourism; Gastronomic tourism; Mirandela; Experiences; Locals.
1. Introduction

There is currently a demand from tourists for original experiences and products that avoid copies and banality (Yeoman, et al., 2007). Tourists look for connections and experiences that are rooted in the destination (Boyle, 2004). They are increasingly sophisticated making the choice of the destination they visited part of their lifestyle and a way of expressing their identity (Morgan, et al., 2004). Regional products and gastronomy stand out among the multiple characteristics that provide authenticity to a destination. “It is a destination’s food, people and places which make up its heritage and its character and which thereby provide a destination with its own authenticity” (Yeoman, et al., 2007, p. 1135).

The typical dishes and food products of a certain area are an expression of the region, they are produced with local ingredients, with the knowledge derived from traditions and shaped by historical circumstances that make each dish unique and impossible to make in other regions (Groves, 2001). However consumers do not seek only the finished product but all the social and cultural conditions under which the product was generated (Littrell, et al., 1993).

Gastronomic tourism is under the focus of the regions because its capacity to attract consumers is recognised as an essential part of the territorial experience (European Travel Commission, 2018). Gastronomy is not only important to generate a tourist experience but “has become a significant source of identity formation in postmodern societies” (Richards, 2002, p. 3). Typical and genuine food acts as a powerful tool to avoid the general ‘McDonaldization’ of food (Ritzer, 2018). Local gastronomy is considered “as being a vital part of culture and community and this is the reason for which it must be kept and protected” (Nistoreanu et al 2018, p.711) Nistoreanu et al 2018, have no doubts to consider food as “the new cultural capital of the destination” (p.712).

Portugal is one of the countries with more potential regarding the gastronomic tourism (Richards 2002) with a diversity of IGP products, and a Mediterranean diet, which is part of UNESCO Intangible Heritage. Mirandela is a municipality on the northeast area of Portugal, which has a considerable number of traditional foods (all of them IGP) - the “Alheira de Mirandela”, the olive oil from “Trás-os-Montes”, the honey from “Terra Quente”, the “Terrincho” cheese, the goats and goat cheese from “Trás-os-Montes”, the “Transmontano” lamb and the “Negrinha de Freixo” olives.

The Mirandela gastronomy was already referenced by Jonh Latouche (1875) in his book Travels in Portugal when the author mentions a roasted lamb that he ate while in Mirandela.

This entire heritage constitutes a potential touristic product of high economic interest. However it’s stage of development and structuring of the offer, as well as the respective placement in the markets, still requires a considerable additional effort. It is also necessary reinforce the collective awareness about the value and advantages of all of this heritages in the local community (Rosa, 2009).

In this context, this paper has 2 main goals: to survey the main gastronomic references of one of Portugal's most gastronomically iconic municipalities and having in mind that the gastronomic tourism is rooted in the locals and should be aligned with their culture and perceptions, we pretend to evaluate the perception of two large groups (the local inhabitants and other stakeholders with a closer connection to touristic market) about the enhancement of the gastronomic heritage of Mirandela municipality generating important insights for territorial managers.

This paper is divided in five sections. After this introduction, the research starts with the literature review and an overview of the main definitions. Secondly, we describe and justify the methodology used in this research. Then we present the main results of the qualitative empirical research. The paper ends with the conclusions and recommendations for regional managers.
2. Literature review

Although different terms relating food and tourism are possible to apply like “culinary tourism”, “gastronomy tourism”, “gastro-tourism”, “wine tourism”, “food tourism”, and “gourmet tourism” (Sormaz et al 2016), the authors deliberately used the term “gastronomy tourism,” rather than “food” or “culinary,” because in the same line and view as De Jong et al (2018) “gastronomy” is understood as “all-encompassing in its approach to food and drink, relating to the cultural and material processes through which certain things become consumable (Scarpato, 2002). Gastronomy, as here understood, encapsulates everything relating to the nourishment of individuals” (De Jong et al, p. 133).

“Gastronomic tourism” is a holistic concept that could be defined as “being in pursuit of unique experience of eating and drinking” (Sormaz et al 2016 p.726). It includes visiting food producers, food festivals, restaurants and other places related to some special and unique foods together with tasting a special dish, observing its production and preparation processes or eating a special dish from the hands of a very famous chef as well as seeing how a certain dish is being prepared (Hall et al.2003; Hall & Mitchell, 2005).

Despite of the current interest about gastronomy in tourism, that was not the case in the past were it was perceived more in its functional dimension. However “the positioning of food and gastronomy in the tourism field has changed substantially, as destinations have increasingly recognised their potential as a major attraction for visitors and as a means of making places distinctive in an increasingly crowded global marketplace” (Richards, 2015, p.2).

Currently, gastronomic tourism is understood as one of the main motivations for the selection of the destination by the tourists. The concept involves now a strong experiential dimension and a connection with the local culture of the regions.

Gastronomy has become an indispensable element to know and understand the culture and lifestyle of a territory, so it involves a set of traditional values associated with new trends in tourism, such as respect for culture and tradition, a style healthy living, authenticity, sustainability and above all experience. (UNWTO, 2012). In fact food can be “considered as a reflection of the culture of a country and its people” (du Rand & Heath, 2006, p.207).

The strong connection between food and regional development is also well documented (Hall et al, 2003a; Richards, 2002; Scarpato, 2002). The future of peripheral regions, which are increasingly deruralized, will involve the valorization of endogenous resources and products as differentiating elements and connecting to the territory, in a strategy of identity affirmation and as an added value that contributes to a sustainable future, to the improvement of conditions and the quality of life of the population and for tourism development. Tourists looking for the authenticity of a place tend to spend more and distinguish themselves more evenly across territories and promoting a greater impact on the entire tourism value chain (Correia & Brito, 2009).

Since the local are at the heart of the uniqueness and all intangibilities associated to gastronomy, this regional development should be not only based in the local culture and heritage but it must be aligned with the characteristics and complexities of the region, and should not be out of step with its history, its values and culture (Correia & Brito, 2020).

3. Data and Method

The purpose of the study was, among others, to survey the main gastronomic references of one of Portugal's most gastronomically iconic municipalities: Mirandela. Another central goal was to obtain data from 2 sociological profiles: the inhabitants, with their “know-how” and other stakeholders according to their areas of competence - political, technical, academic and social - to confirm or invalidate the degree of alignment of the
different perspectives and to find the most relevant points of convergence and/or divergence about the perceptions related to the enhancement of the gastronomic heritage of Mirandela municipality.

A qualitative methodology was adopted and a case study approach was chosen, due to its ability to capture the dynamics of the phenomenon under study (Eisenhardt, 1989). One of the advantages of case studies is the use of multiple sources of information for the research (Eisenhardt & Graebner, 2007).

The case study was about in Mirandela a municipality on the north-eastern (Figure 1) part of Portugal which historical cultural heritage combined with the natural resources comprise factors of differentiation and attractiveness of the territory.

Figure 1 – Location of Mirandela Municipality in Portugal

As Mirandela is a vast territory, the authors selected a number of parishes that were considered as representative of the entire municipality. Thus, it was decided to apply the interviews in five parishes (out of a total of thirty). We selected São Pedro Velho, to the north, Avantos and Romeu, to the east, Abreiro to the south, Suçães, to the west and the county seat, Mirandela (Figure 2), in a logic of covering the county spectrum according to the cardinal points.
The technique of collecting information relied on semi-structured interviews, to the local inhabitants (9 interviews) and to several stakeholders with knowledge about the needs and interests of the tourist demand related with gastronomy (10 interviews) (Table 1). All the interviews were conducted between July and October 2018. Regarding the local inhabitants we use as a selection criteria that they should have more than 50 years old, born or live in the parish and have knowledge about the food traditions of the region. For the stakeholders we considered the collaboration of the presidents of the selected parishes to be essential in order to help with their knowledge to the selection of the inhabitants and to validate some of the information collected. On the other hand, the collaboration and support of the Municipality Executive was considered essential, to know defined political lines or to be defined in this scope.
Table 1 – Interviews

<table>
<thead>
<tr>
<th>1st Group: local inhabitants</th>
<th>2nd Group: stakeholders with a closer connection to consumer</th>
</tr>
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<tbody>
<tr>
<td>9 local inhabitants</td>
<td>5 presidents of the selected parishes</td>
</tr>
<tr>
<td>More than 50 years old, born or living in the parish, knowledge about the food traditions.</td>
<td>Rental Municipality representative for Culture and Tourism</td>
</tr>
<tr>
<td>Vera Preto</td>
<td>Mirandela Municipality representative for Culture and Tourism</td>
</tr>
<tr>
<td>Virgílio Gomes</td>
<td>Professor of food history</td>
</tr>
<tr>
<td>António Monteiro</td>
<td>Grand Master of the Confraternity of Enophiles and Gastronomers of Trás-os-Montes and Alto Douro.</td>
</tr>
<tr>
<td>António Bóia Martins</td>
<td>Chef</td>
</tr>
<tr>
<td>Alexandre Ferreira</td>
<td>Chef</td>
</tr>
</tbody>
</table>

Source: The authors

Then we selected a Professor of food history and the grand Master of the Confraternity of Enophiles and Gastronomers of the region and two Chefs who provide an eclectic view about the problem under analysis. 
With the information collected from the interviews we proceeded to a Simple Content Analysis using the MAXQDA qualitative analysis program.

4. Results

4.1 Main gastronomic references
Typical local products represent a cultural and identity heritage, conveyed through recipes passed down from generation to generation. It is generally mentioned that there is a clear need to use typical local products in the preparation of the recipes. The main reasons for use and consumption are based on tradition, with some diversity, but in relation to products, “what the land gives”, depending on seasonality and depending on the circumstances and the time of the year. The main gastronomic references, according to the answers obtained, pass through the “rancho” (pork meat with pasta, potatoes and chickpeas), “feijoada” (beans with pork meat), “leitão” (roasted piglet), goatling, lamb, sausages (where it is include the famous – “alheira”), and “milhos” (pork meat and sausages with corn). Also worth mentioning the codfish, which obviously does not originate in the region, but that is part of the historical tradition of local food, due to widespread consumption in earlier times. Its affordable price, accessibility and durability when the use of salt was
the only way to preserve food, make it particularly popular in this region. In this context (use of codfish) all natives/residents mentioned dishes (as soup of codfish) where it’s used together with local ingredients. Noteworthy for the use of olive oil (raw or cooked), in almost all proposals, as well as garlic in terms of condiments. The collection of recipes is an eminently family legacy, mainly obtained through direct family members (mainly grandparents) or close friends, orally or through direct observation. In some cases, a historical reference is also associated to that collection, such as the case of cereals mowing event. The products, methods and techniques are similar in all the analysed parishes. The predominance of the same products appears across the entire municipality, regardless of territorial location. The quality of the products, their history and diversity were mentioned as the distinctive brand of the region.

4.2 The Vision of the Stakeholders

It was recognized that the traditional cuisine of Mirandela Municipality is not yet sufficiently valued. This statement is clear in the following comments by the interviews: “In my opinion there is no real appreciation for this type of gastronomy. Due to the lack of knowledge or choice, our traditional cuisine does not have the prominent place in the Portuguese gastronomic panorama that the so-called contemporary traditional cuisine has.” Chef António Bóia

“Traditional food is not properly divulged and we are increasingly observing mass consumption without any concern for the origin and authenticity of the products.” President of Abreiro Parish

Regarding the perception of the touristic demand behaviour the stakeholders characterized it by:
- Increase in recent years;
- Gastronomic experiences as a specific category of tourism;
- Wanting to know the local, regional, national history;
- Want proximity to the daily life of local populations;
- More Healthy and sustainable lifestyle.

The following sentence by chef António Bóia summarizes well the trend identified in touristic demand:

“They want to have traditional cooking experiences to better understand the habits and culture of a people.” Chef António Bóia

There is also a common opinion among the stakeholders that the local offer is not oriented towards the consumer or for the preservation of tradition/cultural heritage. All respondents identified the sector of gastronomy professionals, public schools and municipalities as having a fundamental role for that alignment and preservation. The creation of a gastronomic offer that, through tourism, incites greater economic dynamism in rural areas around typical products is encouraged. Within the scope of schools, it is proposed to include classes on careful eating and on heritage and gastronomic tradition. Concerning the perception of the influence of different contexts of evolution and global change all the interviews identify the following ones as with the capacity to influence the traditional gastronomy:

- Emergence of new products;
- Change of the environment;
- Cultural influences;
- New forms of transport;
- Free circulation of products;
- Best equipment and technologies
- More information and knowledge.

The position of the inhabitants, who argued that the methods and techniques of the old days should be practically unchanged, under penalty of distorting the quality and authenticity, was identified as the main divergence between the 2 groups regarding the adaptation to the new context. Indeed, the remaining respondents, namely chefs, argue that it is essential to innovate methods and techniques for the benefit of that same quality, with the potential offered by new concepts (e.g. the evolution in the seasoning of the “sufficiently” concept for the accuracy of the measurement) and the use of new support instruments (e.g. probes for temperature control) as a product enhancement, but always respecting its authenticity.

5. Conclusions

Gastronomy is relevant to tourism, the preservation and dissemination of intangible cultural heritage, and the inclusion of the local communities in an interactive process of improving their living conditions, is essential for sustainable development. It is a matter of collective action, aggregated in the recognition of the role of typical food as a differentiating and identity element.

We are aware that each region must define and classify its products and offers, giving them an integrated consistency. On the other hand, it must rank its offer in terms of importance and impact in relation to potential markets and segments.

In peripheral territories, the role of local authorities is a critical factor. Inertia, apathy and inoperability, often superior to those of the central power, are impediments to any possibility of development. In addition to the importance of public authorities, the essential role of the inhabitants is clear, and they should be informed about the intrinsic value of their contribution (Correia & Brito, 2017).

In the case of Mirandela Municipality we recognize that the characteristics of the intangible heritage are inducers of the possibility of developing attractive tourist experiences, in terms of gastronomic and cultural tourism, boosted by the appetite of the tourist markets for this segment, considered as the one with the greatest growth in the tourism industry as a whole. However, there are transversal constraints: the need to promote the training of resources (technical and human), the use of available support to ensure a higher quality of the service provided, the urgency of involving all stakeholders, the use of new technologies in a integrated communication methodology, well-defined lines of conduct in a global and concerted strategy among all stakeholders. Indeed, the creation of interaction mechanisms between the different operators is essential to guarantee an integrated and qualified service that will allow attracting tourists.

It is understood, therefore, based on the research that is being presented, that Mirandela, should define strategies and actions to enhance a competitive, differentiating and sustainable tourist-gastronomic offer, which values the attractiveness of its territory and the differentiation of endogenous products.

In view of these assumptions, it seems imperative in the short and medium term to develop some of the following actions:
- Strengthen information and awareness campaigns with restaurants and other important suppliers.
- Restaurants should be understood as a space for experimentation, innovation and creativity, and they should be motivated to implement a greater connection between the traditional recipes and the new kitchen trends.
- Inventory and systematization of resources.
- Connection of the various dishes to their history, to the symbolic they contain and the time of year and festivities in which they were cooked and served.
- Collection and documentary analysis of Mirandela gastronomy, from products related to recipes, moments, places and traditions.
- Characterization of the forms of intergenerational and intergroup transmission of knowledge

References
ORGANIZATIONAL CONTROL MODEL. A PROPOSAL APPLICABLE TO SMALL COMPANIES IN THE TEXTILE SECTOR IN SANTIAGO DE CALI, COLOMBIA

Jairo Alberto Olarte Cabana

Abstract

Purpose: Organizational control is presented in contemporary times as the first link to start a linear and upward career towards total quality, for this reason, in small companies it's study and inclusion contribute to the fulfillment of strategic objectives and safeguards organizational resources, key aspects when it comes to mitigating the risks that arise in this type of organization due to the absence of formal control and governance structures; therefore, the objective of the work is to design an organizational control model applicable to small companies in the textile sector in the city of Santiago de Cali, Colombia.

Methodology: The research is non-experimental since the variables/categories studied are not manipulated, it is method is deductive since reality was studied from the theoretical foundation, the descriptive scope, its applied application, and information from qualitative character -a triangulation of data, sources and operationalization of categories-; based on this type of information, instruments -interviews and semi-structured questionnaires- were designed, validated and applied to obtain empirical evidence regarding the needs and interests and procedures for the design of an organizational control model applicable to small companies in the textile sector in the city of Santiago de Cali.

Results: A proposal based on the own conformation of the topological, holistic models is presented, which observes the control in the organization through three subcategories -administrative control, operational control, and accounting control- and in its constant operationalization of the following triad: 1. Measurement Initial: the moment where through a diagnostic tool risks can be measured and their levels of criticism can be identified. 2. Application of action plans: a scenario in which solutions are designed to face the problems identified in the initial measurement; on this point, it is significant that the action plans are proposed with a structure that integrates an improvement component in the control culture, control activities, and space for monitoring and feedback. 3. Subsequent measurement: the model closes its cycle with the preparation of a new diagnosis and with it, the validation of the evaluation of the proposed activities and their fulfillment.

Originality: The promise of value of this work is based on the opportunities it offers to small companies in terms of simplicity, coverage, access, replication, use of resources and capabilities, that is, it is a solution that adjusts to the characteristics of sector under study. Also, the model is expected to be useful in economic sectors with characteristics such as the one studied and in various latitudes.

Keywords: Model; Organizational control; Measurement; Risks; Textile sector

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1. **Introducción**

Las organizaciones, en la sociedad contemporánea, como unidades productivas o prestadoras de servicios se convierten en el mayor influenciador de los mercados y la creación de valor; ahora, si bien estas potencialidades se visibilizan en las grandes empresas, resultaría inapropiado excluir del análisis y la discusión a las pequeñas, o en su conjunto, a las micro, pequeñas y medianas empresas (MIPYMES), toda vez que generan impactos significativos en la construcción de territorios y naciones.

La anterior afirmación en un contexto como el de Colombia, cobra relevancia al reconocer que la significancia de las MIPYMES es respaldada por la densidad de su participación en el ámbito colombiano y por la contribución que estas organizaciones realizan a favor de las sinergias que posibilita el sistema económico imperante y que tras sus aportes, fomentan el empleo, son asilo para la iniciación de nuevas apuestas empresariales (emprendimiento) y gestan oportunidades en tiempos de crisis. Por lo expuesto, no sería desconcertante exponer en palabras de la Asociación Bancaria y de Entidades Financieras de Colombia -ASOBANCARIA (2018) que el segmento de empresas al que se ha hecho referencia aporta al producto interno bruto (PIB) algo más del 40% y son responsables en un porcentaje superior al 80% de empleos formalizados en dicho país.

Pese a los argumentos descritos, la creación de empresas en Colombia resulta una tarea desafiante, ante todo, cuando el propósito es la rentabilidad exacerbada como principal estandarte de la idea de progreso material, la agilidad en los retornos financieros y la sostenibilidad; lo anterior, si se quisiera soportar en estadísticas solo bastaría con observar lo expuesto por ASOBANCARIA (2018) en tanto afirma que en Colombia, un poco más del 40% por ciento de este tipo de empresas logra sobrevivir durante sus primeros cinco años de vida, información relevante que se constituye en foco de estudio al notar que en comparación con latitudes como las de la Argentina y Chile, el grado de supervivencia es superior -excede la mitad de las MIPYMES creadas- y se homogeneiza con las tendencias propias de países como Francia, España y Estados Unidos (ASOBANCARIA, 2018).

Previo a la descripción de la problemática identificada, es relevante mencionar que el Departamento del Valle del Cauca es un escenario denso en su estructura productiva y tendiente a convertirse en uno de los principales focos de desarrollo económico en Colombia, para tal propósito, múltiples han sido las iniciativas del sector gubernamental, académico y el empresariado, por aportar dinámicas que conduzcan a la generación de conocimiento y transferencia tecnológica, siendo esto representativo de mayores índices de competitividad en el mercado globalizado. En dicho contexto, no se puede obviar que en el cumplimiento de los objetivos estratégicos del Estado las micro, pequeñas y medianas empresas cumplen un papel vital, no obstante, entes avocados al desarrollo empresarial como la Red de Cámaras de Comercio (CONFECÁMARAS) (2018) informan que en Colombia durante el año 2018 142.048 organizaciones finiquitaron sus registros mercantiles ante Cámara de Comercio y aunque en el Valle del Cauca se vio reducido el impacto del anterior comportamiento, aún existen obstáculos en el fortalecimiento de las pequeñas empresas referenciadas (CONFECÁMARAS, 2018).

En lo que concierne al sector textil, este se ha visto afectado gracias a diversos hechos, por ejemplo, el contrabando y la caída del arancel mixto que limitaba y controlaba las importaciones de otros países. También, aportó en forma negativa el impacto económico generado por el incremento en el impuesto al valor agregado (IVA) sobre el producto textil de acuerdo con la Ley 1819 de 2016 y, el aumento exponencial de las importaciones provenientes de China como resultado de políticas arancelarias que no salvaguardan la industria local y exponen al productor colombiano a la competencia frente a una manufactura con mayor tecnificación (Redacción el país, 2017). Situaciones cercanas a las mencionadas han llevado a que organizaciones en el país y la región se encuentren ante dificultades financieras, conduciéndolas a la reducción en sus plantas.
de personal, el mantenimiento de esquemas de costos poco competitivas, incluso, pausa en sus labores por los excesos de inventario -caso Fabricato por la disminución de ventas- y en últimas, el extremo del cierre definitivo de algunas organizaciones (Redacción el país, 2017).

Las anteriores acotaciones, propias al sector textil en el país, en el departamento del Valle del Cauca y concretamente, en la ciudad de Santiago de Cali, son identificables si se observa que las principales problemáticas a las que se someten este tipo de organizaciones parten desde su informalidad, la baja disponibilidad de recursos, ausencia de planes para el desarrollo competitivo, debilidad en sistemas de información como los que configura la contabilidad de gestión y sus utilidades en la toma de decisiones, fragilidad en la noción de procesos, principal estándar de producción y la carencia de modelos aplicados al control organizacional que mitiguen riesgos críticos, salvaguarden los activos y permitan el cumplimiento del objeto social. Igualmente, se observan límites para su supervivencia, por ejemplo, escasez de recursos económicos y oportunidades de acceso a capital financiero, reducida tecnificación en la producción, poca densidad en sus estructuras de gobierno e inexistencia de planificación estratégica a mediano y largo plazo.

Por los anteriores argumentos, se plantea como expresión interrogativa de la problemática estudiada la siguiente pregunta de investigación: ¿qué características debe tener el diseño de un modelo de control organizacional aplicable a pequeñas empresas del sector textil en la ciudad de Santiago de Cali, Colombia? Dicha cuestión, es pertinente responder y con ello, materializar la estructura, contenidos y lineamientos para la operacionalización del modelo propuesto, dado que el control organizacional es un recurso que impacta positivamente en el ámbito administrativo, operacional y contable de una organización, especialmente, en pequeñas empresas por las necesidades y esfuerzos que realizan en pro de la sostenibilidad, ante todo, en su primer lustro. Lo anterior, es significativo si se observan las implicaciones prácticas de este trabajo en tanto el modelo interviene la realidad y tras su documentación se podrá obtener evidencia empírica alrededor de diversos fenómenos organizacionales. Desde otra arista, el modelo que se presenta busca aportar bajo una orientación clara, sencilla y adaptable a las necesidades (personal, recursos económicos, tiempo) de la pequeña empresa, de esta forma, se superarían las limitaciones que modelos con reconocimiento internacional pudieran representar, ante todo, porque las condiciones del territorio son determinantes en el éxito o fracaso de intervenciones sociales. Así, y en el contexto de referencia, los hallazgos y experiencias obtenidas se observan como un insumo estratégico en el fomento del clúster sistema moda. Adicionalmente, la presente investigación disminuye los vacíos o reduce las brechas que en la revisión de literatura se identificaron frente al control organizacional en pequeñas empresas y en un sector en particular, esto se identificó por la ausencia de evidencia empírica y resultados de investigación como los expuestos en este artículo.

El trabajo tiene como objetivo diseñar un modelo de control organizacional aplicable a pequeñas empresas del sector textil en la ciudad de Santiago de Cali, Colombia; para lograr la meta trazada, se caracterizó desde la perspectiva del control a las organizaciones objeto de estudio y posterior al levantamiento de información, se precisaron las necesidades en control organizacional, con esto, se planteó la estructura y exposición de cada uno de los elementos que integran el modelo. En su desarrollo, esta investigación se presenta más como un insumo para el debate académico que un resultado acabado e incuestionable, por ello, se llama a la interpretación y la visión integral para discutir sus contenidos.

Teniendo en cuenta lo expuesto, el artículo se estructura en cinco parte incluyendo esta introducción, así, se describe la problemática estudiada y las razones que justifican su pertinencia en el campo de los estudios organizacionales. En un segundo momento se analizan antecedentes identificados en la revisión de la literatura, luego se exponen algunas perspectivas teóricas que respaldan la propuesta y finalmente, se describen las bases conceptuales que hacen expedita la cohesión y coherencia de los planteamientos
2. Revisión de literatura

Tras realizar una aproximación a la literatura asociada con la temática objeto de estudio y en busca de sondear un diagnóstico sobre el estado, alcance y configuración de las investigaciones que propongan diseños de modelos de control organizacional, se puede decir que referente a pequeñas empresas del sector textil en el Departamento del Valle del Cauca–Colombia, no se identificó un número de investigaciones con un enfoque similar al planteado; no obstante, con la intención de dar contexto y rondando algunas de las categorías estudiadas, en el ámbito nacional e internacional se pueden mencionar múltiples referentes relacionados de manera directa e indirecta. En lo concreto, la revisión de literatura evidencia una positiva disimetría en el abordaje del control organizacional como objeto de estudio, desde aportes a nivel de la filosofía y la sociología, hasta acepciones en el ámbito empresarial y de las organizaciones. A continuación, se enuncian referentes identificados con el control organizacional y sus derivados en el campo del control administrativo, el control operacional y el control contable. La tabla 1, no resulta ni tiene la pretensión de ser exhaustiva o acabada en la presentación de antecedentes provenientes del análisis documental, no obstante, se exponen algunos ejemplos que permiten validar la robustez de la investigación académica sobre el control organizacional y las dimensiones observadas por el modelo propuesto.
<table>
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<tr>
<th>Control administrativo</th>
<th>Autor (es)</th>
<th>Enfoque</th>
<th>Control operacional</th>
<th>Autor (es)</th>
<th>Enfoque</th>
<th>Control contable</th>
<th>Autor (es)</th>
<th>Enfoque</th>
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<td></td>
<td>Cardinal, Kreutzer, and Chet Miller (2017)</td>
<td>Su objetivo fue estudiar la estructura y el funcionamiento del control de gestión, incluyendo evidencia empírica</td>
<td>Pavón, Villa, Rueda, Lomas (2019)</td>
<td>La investigación buscó conocer la forma en que el control de inventario aporta a la generación de competitividad en una pequeña y mediana empresa PYME.</td>
<td>Otley (2016)</td>
<td>Observan literatura de forma diacrónica con respecto a la teoría de contingencia de la contabilidad y el control de gestión.</td>
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<td></td>
<td>Malmia y Brownb (2008)</td>
<td>Centran la atención el los criterios que permiten identificar a los sistemas de control de gestión como paquetes y desde esa visión, observan oportunidades, desafíos y posibles rutas en investigación. Estudió la naturaleza y el rol que juega el control organizacional con respecto al cumplimiento de los objetivos y la forma en que se pueden canalizar los recursos a favor de la creación de valor.</td>
<td>Chakraborty, Leyer, Willis, &amp; Moormann, (2013).</td>
<td>En esta investigación se observó a través de evidencia empírica las características del control operativo en entidades financieras de Australia</td>
<td>Broadbent &amp; Laughlin (2013)</td>
<td>Estudian a la contabilidad como instrumento de control y determinan prácticas de control aplicables desde la contabilidad.</td>
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**Fuente:** elaboración propia basada en la revisión de literatura.
Tal como se había expuesto con antelación y pese a que el objetivo con la información descrita no era presentar de manera exhaustiva un estado del arte sobre el tema estudiado, interesa plantear al menos un par de ideas que sinteticen la revisión de antecedentes. Fundamentado en los corpus enunciados en la tabla 1, se evidencia la representativa participación del control organizacional en la literatura empresarial; igualmente, en el campo administrativo los contenidos observados ubican en un lugar central al control de gestión y con esto, la mitigación de riesgos estratégicos (Sihag y Serge 2019; Bostan, Bîrcă y Sandu 2018). En el campo del control operacional, la literatura centra atención en el componente de los inventarios y los procesos productivos dado que es el escenario en donde pudiera atentarse (por diversas acciones) contra el cumplimiento de objetivos organizacionales. Por otra parte, en lo que respecta al control contable, es variado el enfoque obtenido en la consulta, no obstante, prima la condición probatoria de la contabilidad y su asunción como una herramienta de control.

Con respecto al control organizacional, también conocido como control interno, es amplia y difundida la presencia de modelos con reconocimiento internacional, por ejemplo, COSO, COCO, CADBURY, COBIT, MICIL y otros cuyo origen es aportar prácticas y soluciones frente a las necesidades de control en todo tipo de organizaciones. Por otra parte, se identifica en la literatura de habla hispana aportes como los de Mejía (2002) y reflexiones desde una perspectiva crítica sobre los sistemas y modelos de control organizacional, esto último, es visible en las contribuciones de diversos autores, entre ellos, Franco (2001), Arango (2007), Bohórquez (2011) y Franco (2011).

Sobre la fundamentación teórica y onto-epistemológica que permitió el diseño del modelo de control organizacional, se puede decir que sus premisas se supeditan a la teoría general del control y otras, por ejemplo, DiMaggio & Powell (1983) son referentes significativos en teoría institucional –observada bajo la óptica de los estudios organizacionales- y brindan una perspectiva que facilita la comprensión de las interacciones entre agentes sociales y económicos, en especial, aquellas relacionadas con las organizaciones. McPherson & Pike (2001) y Pike & Ross (2004) fueron consultados dado sus aportes a la teoría de la medición, elemento ineludible gracias a que el modelo sugiere métricas y generación de inferencias cualitativas; así mismo, Sunder (2005) desde la teoría de la contabilidad y el control propone un cuerpo teórico para comprender al contrato en su función de institucionalizar el control y por ello, es posible observar a la organización en su acepción como un conjunto de relaciones mediadas por contratos.

Conceptualmente, en el presente trabajo de investigación la noción de modelo es clave en tanto encierra la construcción que se propone, por lo anterior, se describen algunos argumentos que permiten identificar sus componentes, premisas y objetivos, para, desde tal fundamentación, soportar el diseño del modelo de control organizacional. Dando apertura, Thalheim (2013) compila diversas posiciones y describe que el modelo de forma simple puede ser considerado, bajo propiedades materiales o virtuales, como artefacto; sus fundamentos son juicios aceptados por una comunidad para la representación de otro tipo de artefactos, haciendo alusión con esta última postura a cosas que pertenezcan a una realidad o sistema. De acuerdo con lo expuesto por Carvajal (2002), los modelos y las teorías configuran instrumentos o representaciones conceptuales que, pese a referenciarse en conjunto dentro de la literatura, no corresponden a la misma categoría semántica; de esto último, da cuenta Kuhne (2004) al llamar la atención sobre la existencia de imprecisiones a la hora de determinar que es y no es un modelo.

Con respecto a las especificidades del concepto de modelo, dentro de sus funciones se encuentra: aportar a la construcción y conocimiento de los sistemas, servir como herramienta de razonamiento (Dahanayake & Thalheim, 2015) y a su vez “describir, comprender, explicar y predecir los acontecimientos, hechos, fenómenos o para situaciones que suceden en los diferentes ámbitos de lo real” (Carvajal, 2002, pág.1). También, en la visión de Carvajal (2002) el modelo “[…] es una entidad intermedia entre
la teoría y la realidad“ (pág.1), en esta dimensión, es el recurso utilizado en la prueba de hipótesis o validación de un postulado teórico, no obstante, puede tener el alcance de expresar una realidad en dimensiones abstractas (Thalheim, 2010, 2011). Así, se propone que el modelo da cuenta o representa realidades y la teoría es el respaldo o soporte que fundamenta el modelo (Mahr, 2010; Carvajal, 2002).

Ahondado en las especificidades del concepto de modelo, se identifica que resulta escurridizo y diverso en función de la pluralidad de funciones que se le atribuyen; Carvajal (2002), describe que este -el modelo- es visto como un objeto reproducible con el fin de imitarlo, con ello se refiere a las posibilidades que brinda, por ejemplo, un patrón de confecciones o costura; igualmente, en el manejo cotidiano de esta aproximación conceptual pueden remitir al objeto (físico o abstracto) que exhibe características con respecto a algo. Así, se infiere que al modelo se le asignan condiciones ideales o perfectas sobre la proyección de una realidad, postura que, a pesar de ser habitual, no se ajusta a lo real entre tanto esto no se ve acabada en una sola representación (Carvajal, 2002). De manera complementaria, vale precisar que los modelos reproducen propiedades y particularidades dentro de un contexto determinado (Dahanayake & Thalheim, 2015), argumento pertinente para el objetivo planteado en la investigación.

En términos de presentación, es relevante mencionar que según Becker y Schutte (2004) la perspectiva onto-epistemológica es significativa dado que el modelo proyecta la construcción del sujeto que modela; en ese sentido, los recursos habitualmente utilizados para diseñar un modelo se asocian a un paradigma (perspectiva singular) y pueden presentarse a través de fórmulas matemáticas, conjugaciones lingüísticas, sistemas -dimensión abstracta-, o maquetas, estructuras y formas -dimensión concreta o física-, en donde independientemente de cómo se represente el modelo, cumple con las premisas de ser una creación ideal que aproxima las características de un objeto, fenómeno, sistema o realidad. Con respecto a los tipos de modelo, Carvajal (2002) realiza algunas precisiones alrededor de las denominaciones o tipologías asignadas al concepto de modelo y describe cinco tipos: icónicos, analógicos, topológicos, simbólicos y matemáticos (ver tabla 2).
Tabla 2. Tipos de modelos, características y recursos de representación.

<table>
<thead>
<tr>
<th>Tipos de modelos</th>
<th>Características y recursos de representación</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Icónicos</strong></td>
<td>La principal característica de este tipo de modelos es su semejanza directa a las propiedades de lo que se quiere representar. Dicha representación, agota una dimensión abstracta que se reproduce por medio de recursos como planos, imágenes o mapas. Asimismo, también incluye un factor físico a través de insumos palpables o visibles que expongan las cualidades de lo estudiado.</td>
</tr>
<tr>
<td><strong>Analógicos</strong></td>
<td>En directa sincronía con su denominación, este tipo de modelo -ubicado en una dimensión altamente abstracta- representa a través del uso de analogías. Ejemplo de lo descrito es el diseño de estructuras o formas que expresen lingüísticamente modelos como el del sistema solar, el crecimiento de una planta, entre otros.</td>
</tr>
<tr>
<td><strong>Topológicos</strong></td>
<td>Este tipo de modelo ubica los elementos que lo integran en una especie de plano que permite dar orden a los componentes del sistema que busca ser representado y puede indicar direcciones o sentidos en un sistema de flujos. Ejemplo de modelos topológicos son visibles en diagramas, esquemas, mapas conceptuales u otros.</td>
</tr>
<tr>
<td><strong>Simbólico</strong></td>
<td>Son modelos que representan utilizando taxativamente símbolos relacionados con algún tipo de sistema. Un ejemplo de este tipo es el símbolo químico que representa al agua -H₂O-.</td>
</tr>
<tr>
<td><strong>Matemático</strong></td>
<td>Estos modelos son representaciones aritméticas o lo que es lo mismo, un conjunto de proposiciones matemáticas; son ejemplos explícitos las ecuaciones y modelos de regresión lineal.</td>
</tr>
</tbody>
</table>


Otro concepto que es significativo para las pretenciones y el objetivo trazado es el control organizacional; esta categoría conceptual como objeto de estudio ha sido central en diversos campos del conocimiento científico, es decir, se ha observado desde múltiples visiones disciplinares; en el área de las ciencias sociales y puntualmente, en saberes y prácticas propios a los de la sociología, la administración de empresas y la contabilidad, es relevante en tanto el sujeto, actuante social y organizacional, se expone a hechos donde debe primar el bien general (principal y demás stakeholders) y no prevalecer la satisfacción de intereses particulares que pudieran detractar el cumplimiento de los objetivos estratégicos, por ello, el control en las organizaciones se impregna en la gestión como recurso para mediar los problemas derivados de la relación agente y principal, reducir las asimetrías en la información, minimizar comportamientos oportunistas, entre otros aspectos negativos o en contra del bienestar de una organización (Bohórquez, 2011).

Relacionado con lo anterior, desde una perspectiva amplia Granada (2014) propone qué la teoría del control se constituye como un esquema mental -igual que otros referentes teóricos, dice Granada, 2014)- que sobrepasa los esquemas lógicos, matemáticos o estructurales del método científico. En el campo de estudio del control, es valiosa la precisión realizada dado que son los sujetos -directivos y colaboradores en términos contemporáneos-, en primera medida, aquellos sobre los que se ejerce el control, no obstante, este se extiende a un fin operativo que hace que cualquier sistema funcione de la mejor manera posible, es decir, hacerlo conveniente, confiable y económico.

Por otra parte, según Castañeda (2014), la palabra control se asume desde diferentes significados o sentidos, por ejemplo, puede ser entendida como sinónimo de verificar, ejercer autoridad sobre algo, limitar o restringir; incluso, en la obra del pensador Michel Foucault se infiere su equivalencia al concepto de poder. De las acepciones mencionadas, Castañeda (2014) pone énfasis en la verificación por su utilidad y articulación a los mecanismos de medición que facilitan marcos de referencia para controlar, interpretación de la que subyace que un componente implícito del control es la medición. En el ámbito de la gestión política y pública, desde la perspectiva Bruno, Schweinheim & Muchnik (2006) el control es parte esencial en la democracia y el interés
común, por ello, el control sobre los gobernantes es lo que diferencia a la democracia de régimen autoritarios o dictatoriales, siendo un auténtico instrumento de gobierno. Desde otra arista y tal como se había planteado en un comentario previo, el control puede ser asumido a partir de diferentes puntos de vista dependiendo de la disciplina desde la cual sea pensado; por ejemplo, en el ámbito social, el control es entendido como aquel instrumento que a través de la institucionalización -contrato social- aporta a la estabilidad y el bienestar de la sociedad. Desde el campo de la economía, es visible por medio de los mecanismos que permiten medir variables micro y macroeconómicas que apuntan hacia al equilibrio de los mercados y median los problemas emergentes de la división entre agente y principal y los costos de transacción. En el campo de los estudios organizacionales, es una función de la administración que propende por el cumplimiento de los objetivos estratégicos, el uso eficiente de los recursos y la generación de competitividad.

Teniendo en cuenta las perspectivas desde las cuales puede ser asumido el control, se ahonda en una dimensión que resulta clave en el desarrollo de esta investigación, el control en la organización. Como punto de partida, es imperativo mencionar que en lo concerniente al último tipo de control mencionado, Freeman, Gilbert & Stoner (1996), proponen que este es un “[...] proceso que garantiza que las actividades reales se ajusten a las actividades proyectadas” (p. 610) identificando en esta mirada al control como una función de la administración que aporta a la planificación, organización y dirección, constituyéndose el tradicional proceso administrativo. De tal forma, el control es institucionalizado como mecanismo para el cumplimiento de objetivos estratégicos.

Frente a la posición de entender el control como un medio para alcanzar los objetivos estratégicos, Granada (2014) aporta una reflexión en tanto, si bien el control debe dar cuenta del logro de un propósito particular, tiene la prioridad de velar porque las condiciones organizacionales sean óptimas en el mantenimiento de los escenarios que permiten a la organización desarrollar su objeto fundamental, es decir, aquello que responde a su creación. Desde otra perspectiva, Robbins y Coulter (2014) proponen que el control regula que las acciones trazadas a través de proyecciones o pronósticos se cumplan según lo planificado (evitando la distorsión y el incumplimiento). En esta definición, emerge de manera explícita un componente que hace relevante este último aporte al incluir en el epicentro las desviaciones que se presentan durante el desarrollo de las acciones planificadas, para de tal forma, identificarlas y proponer mejoras que eviten impactos negativos en el cumplimiento de las metas planeadas por la dirección. Finalmente, se pueden destacar varias ideas que sobresalen en las definiciones narradas y que son un sustrato diacrónico de los aportes de Freeman, Gilbert & Stoner (1996), Robbins y Coulter (2014), Granada (2014) y Ruiz y Hernández (2007):

- El control es un medio útil para coordinar las actividades que aportan al cumplimiento de los objetivos.
- Cumple una función de regulación que permite medir el desempeño real frente a las estimaciones o proyecciones realizadas.
- Es un todo en tanto no disocia los medios de los fines.
- Favorece la estabilidad a largo plazo.
- Mide los criterios de eficacia y eficiencia.

Dentro del marco de la organización, el control puede ser caracterizado desde sus funciones, grados, tipos, mecanismos, estructuras, entre otros aspectos (Ruiz y Hernández, 2007). De cara a la diversidad de acciones que le son asignadas a los sistemas de control, la revisión de Ruiz y Hernández (2007) puntualiza algunas de las más comunes y visibles en la literatura de este corte temático, en un primer momento, el énfasis en los objetivos expone que el control permite realizar una trazabilidad de la manera en que se utilizan los recursos organizacionales y como su uso apunta al cumplimiento de las metas estratégicas. Por otra parte, el control satisface una función de coordinación en cuanto traza directrices y lineamientos para encausar todos los esfuerzos hacia un solo propósito; aunado a esto, la función de generar autonomía según Ruiz y Hernández (2007), promueve la creación de un ambiente de cuidado para...
los recursos y propende por prácticas éticas al interior de la organización. La última función mencionada por los autores previamente citados es aquella en la cual al control se le asigna la facultad de apoyar la implementación y seguimiento a la planeación estratégica.

En términos de grado se identifican dos direcciones, la primera, relacionada con la influencia que se ejerce sobre el comportamiento de las personas que integran un sistema y la segunda, va en dirección de la intensidad con que el grado de control aporta en el cumplimiento de los objetivos (Ruiz y Hernández, 2007). De otro lado, según Geringer y Hebert (1989) el ámbito de control es una referencia tipológica que apunta en dos sentidos, uno en el que se identifica un control interno, propio a la organización e institucionalizado por medio de diferentes mecanismos y otro en donde el control tiene una dimensión externa, es decir, se operacionaliza a través de las diversas variables que en la noción de entorno hacen de la organización un actuante de la dinámica social y económica. Referente al grado de formalización, el control desde la perspectiva de Ruiz y Hernández (2007) puede considerarse formal e informal, no obstante, es clave mencionar que en la gestión organizacional prevalece el uso de controles formales y explícitos por encima de las oportunidades que brinda el control no formalizado.

Con respecto a la naturaleza del control, se identifica un grupo de referentes que coinciden en la determinación de tres tipos distintos, el control estratégico, lo que incluye acciones de dirección y coordinación, por ejemplo, establecer una misión, visión, objetivos, estrategias, metas a largo plazo y monitoreo. También, se menciona el control de naturaleza administrativa, que desciende a un nivel funcional y a su vez, cuestiona el uso eficiente de los recursos con miras al incremento de los niveles de competitividad, concreción de objetivos y logro de propósitos e indicadores; por último, se encuentra el control de naturaleza operativa, en donde se vela por el desarrollo de las actividades encomendadas a cada área y se supervisa la articulación de toda la organización (Ruiz y Hernández, 2007). Un criterio adicional que permite clasificar los tipos de control es aquel que se asocia con el momento en que se realiza, así, son considerados los controles que se ejecutan de manera previa o ex ante, aquellos que son aplicados posterior a hechos y acontecimientos, es decir, un control ex post, asimismo, es identificable una clasificación permanente, como aquella en la que la realización del control es implícito a la organización (Ruiz y Hernández, 2007).

Abordando un nuevo criterio para caracterizar la amplitud del concepto de control organizacional, se enuncian a líneas seguidas algunas apreciaciones sobre los mecanismos mediante los cuales es ejecutado el control. Una de las clasificaciones más frecuentes, es el medio a través del cual se aplica el control; estos medios, pueden ser físicos (institucionalización del control, reglamentos, manuales, contratos), materiales (recompensas, incentivos) o simbólicos (valores y normas) (Ruiz y Hernández, 2007; Robbins y Coulter 2014).

Una última mirada que se suma al conjunto de características o criterios que permiten aproximar la dimensión organizacional del control, es su estructura como sistema. Entender el control como un sistema implica concebir un núcleo que integra toda la funcionalidad sistémica -evaluación, comportamiento humano, planeación estratégica, operativa, medición del desempeño y retroalimentación-. Los anteriores componentes son posibles y potencializados si se cuenta con una estructura organizacional acorde al estilo de liderazgo y al desarrollo de las actividades de control en el ámbito estratégico, administrativo y operativo, así, la estructura organizacional se entiende como el vehículo que posibilita su dirección. Todo lo expuesto, se desarrolla en el marco de un ambiente o una especie de sombrilla que cubija a la organización a través de la promoción de una cultura organizacional tendiente al control explícito e implícito, formal e informal, de naturaleza estratégica, administrativa y operacional, con actividades de control, medición de riesgos y seguimiento, cubriendo así todos los elementos que conforman un modelo de control organizacional.
3. **Metodología**

Con respecto a los componentes metodológicos que hicieron posible abordar la problemática planteada, el método, como premisa y delimitación epistemológica, es deductivo en tanto desde las perspectivas teóricas se fundamentó y proyectó el modelo; el diseño de esta investigación es no experimental dado que no hubo manipulación de las categorías objeto de estudio, es decir, en el marco de investigaciones como la presente la revisión y observación de los fenómenos fue en su estado natural o en el contexto propio y no se generó influencia directa. Por otra parte, el alcance es descriptivo y se suman impactos a nivel propositivo con la estructura (modelo) aquí propuesta.

El tipo de información analizada fue de corte cualitativo y se accedieron a fuentes de información primarias y secundarias. Las fuentes primarias procedieron de cuatro (4) informantes claves perteneciente al sector académico (muestra intencional); igualmente, se levantó información en cuatro (4) pequeñas empresas, tales unidades de análisis, mantuvieron como generalidad o rasgos comunes su participación en el sector textil y de las confecciones en la ciudad de Santiago de Cali. Dando cuenta sobre las fuentes secundarias, estas fueron recabadas a través de la técnica de fichas y el instrumento apropiado fue la reseña bibliográfica.

### 3.1. Instrumentos para el levantamiento de información

En cuanto a instrumentos para el levantamiento de información, se elaboró una matriz conceptual que permitió descomponer la categoría objeto de estudio y de forma posterior, aproximar la realidad a través de la realización de una entrevista en profundidad a expertos académicos relacionados con el tema y conocedores del sector estudiado. La segmentación del control organizacional como categoría compleja se parceló inicialmente en tres subcategorías, control administrativo, control operacional y control contable, a cada una de las anteriores se les discriminó en indicadores que les hicieran identificables, en total fueron diez (10) (ver tabla 3) y sobre ellos se obtuvo evidencia empírica con el diseño de ítems o reactivos, cuya totalidad suman 50 y los cuales son excluidos del presente artículo por asuntos de extensión y alcance.

**Tabla 3. Indicadores subcategorías control organizacional**

<table>
<thead>
<tr>
<th>Subcategoría</th>
<th>Indicadores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control administrativo</td>
<td>Planeación estratégica, seguimiento y evaluación,</td>
</tr>
<tr>
<td></td>
<td>Cumplimiento legal y reglamentario</td>
</tr>
<tr>
<td>Control operacional</td>
<td>Gestión de inventarios, estructura organizacional área de producción y gestión de costos.</td>
</tr>
<tr>
<td>Control contable</td>
<td>Sistema de información contable, marco técnico contable normativo vigente, estructura organizacional área contable.</td>
</tr>
</tbody>
</table>

**Fuente:** Olarte (2019, p. 176).

Bajo la misma estructura que se planteó en la tabla 3, es decir, considerando las subcategorías e indicadores resultados de la operacionalización de categorías (medio de validación), se elaboró una encuesta que permitió medir riesgos a nivel del control administrativo, operacional y contable, derivando finalmente en conocimiento sobre el control y sus mecanismos en las organizaciones estudiadas. Este recurso, fue objeto de difusión en una publicación previa denominada *Herramienta de diagnóstico en control organizacional, un insumo para la generación de buenas prácticas de gobierno corporativo en pequeñas empresas* (Olarte, 2019); en su génesis, el anterior resultado es una extensión del primer instrumento (entrevista), sin embargo, su diseño y la orientación de los ítems se modificó para hacer accesible, sencilla y fácil de responder por parte de los empresarios. Brevemente, se menciona que la herramienta permite la medición de niveles de riesgos (bajos, medios, altos) e identifica si el control interno es efectivo, parcialmente confiable con debilidades y no confiable, todo ello, articulado con
la siguiente escala de medición (respuestas a los ítems): si, si parcial, no y no aplica (Olarte, 2019).

4. Resultados

A continuación, se presentan los resultados que en conjunto permitieron construir el modelo de control organizacional. En un primer momento, y fundamentado en el levantamiento de información se enuncian algunos aspectos que dan cuenta del estado y las necesidades en control organizacional, seguidamente, se presenta la estructura del modelo y las acciones que permiten su operacionalización.

En el levantamiento de información se observó contenido suficiente para generar inferencia con respecto a la situación actual y las necesidades de pequeñas empresas en el campo del control organizacional. Tras un análisis de frecuencias aplicado a las entrevistas realizadas, se identificó que pequeños empresarios desconocen la relevancia y oportunidades del control organizacional; en este sentido y procedente de las respuestas obtenidas luego de la aplicación del instrumento, los expertos indican que tal desconocimiento (barrera) pudiera ser causa de los imaginarios que pequeños empresarios tienen alrededor del control organizacional, el cual es asociado directamente con erogaciones de recursos de las cuales no se obtiene retorno inmediato y por ello es percibido como algo innecesario o poco relevante.

Por otra parte, las principales limitaciones se hacen visibles en los indicadores del control administrativo y el control operacional; elementos como la planificación estratégica y la gestión de costos se vislumbran como potenciales focos en la materialización de riesgos dada la escasa formalidad y actividades de control frente a tales indicadores. De otro lado, la ausencia de estructuras formales a nivel organizativo y de gobierno afectan las oportunidades de pequeñas empresas para acceder a mayor competitividad y visibilidad de cara a sus diferentes grupos de intereses.

De acuerdo con las descripciones planteadas, se infiere que las necesidades en control organizacional para pequeñas empresas son altas; de la misma forma, es clara que la inclusión de esta categoría en el día a día de organizaciones como las que se ha referido este documento requerirá un proceso de aceptación paulatino y dotado de simplicidad, claridad y oportunidad en la relación costos – beneficios. En línea con lo expuesto, la construcción de imaginarios diferentes y mayormente consciente por parte de los líderes de este tipo de organizaciones, será el fundamento para que más que iniciar actividades que satisfagan indicadores, se dé paso a un ejercicio crítico y que involucre a todos los agentes de la organización para lograr una visión compartida sobre el control y desarrollar buenas prácticas frente a la mitigación y gestión del riesgo.

Luego de haber identificado algunas necesidades que dotan de pertinencia la propuesta del modelo de control organizacional, seguidamente se expone una presentación general en donde se trazan aspectos relacionados con su fundamentación, objetivos y componentes, de forma posterior, se describe la estructura del modelo y los elementos que conforman su operatividad.

4.1. Presentación modelo

El modelo de control organizacional diseñado, se concibe como una solución aplicable a las especificidades de pequeñas empresas pertenecientes al sector textil en la ciudad de Santiago de Cali, Colombia y también, a otras organizaciones con características similares a nivel nacional e internacional; dentro de sus objetivos, se busca aportar directrices y orientar el diseño de planes de acción, al alcance de este tipo de organizaciones, que permitan monitorear el estado del control interno y posibiliten la aplicación de actividades que mitiguen los riesgos críticos y deriven en el cumplimiento de los objetivos estratégicos, la salvaguarda de los recursos y en sí, la sostenibilidad y articulación con los grupos de interés con los que interactúa la organización y le permiten crear valor.
Por otra parte, el modelo fue estructurado bajo la premisa de ser una construcción abstracta que facilita el tránsito entre los postulados que derivan de la teoría general del control y sus aplicaciones en ambientes propios de una realidad, por ello, la postura acogida sobre la noción de modelo articula la determinación antes mencionada y se fundamenta en el entendido de que cualquier tipo de modelo, sin eximir las diferencias cualitativas en su poder explicativo, es una especie de imagen o representación construida con el propósito de captar las propiedades o características de una realidad y representarla. Por lo anterior y en atención al objetivo y alcance de esta investigación, el modelo se concibe como topológico dado que permite representar a través de figuras o estructuras, los elementos, variables y dinámicas que lo integran, asimismo, reconoce la naturaleza del control en el ámbito estratégico, administrativo y operacional, dentro de una temporalidad o aplicación que premia el control preventivo y permanente, por encima del control ex-post, no obstante, el anterior se considera como posibilidad en la carrera de mejora continua. Igualmente, el modelo opta en sus lineamientos por la implementación de mecanismos de control físicos y simbólicos, en superposición a los medios materiales.

4.2. Estructura
Se cimienta en la categoría control organizacional, pero, al ser una categoría compleja requirió se identificara qué subcategorías representaban esta construcción en las dimensiones y características de la pequeña empresa perteneciente al sector objeto de estudio. Así, se planteó que las subcategorías que respondían al anterior criterio son las siguientes:

- Subcategoría control administrativo: componente del sistema organizacional que evalúa el cumplimiento de los objetivos estratégicos trazados, es decir, es una evaluación de rendimiento.
- Subcategoría control operacional: componente del sistema organizacional que mide el cumplimiento de los objetivos asignados a las áreas encargadas de desarrollar el objeto social.
- Subcategoría control contable: componente del sistema organizacional que mide el cumplimiento de la contabilidad como sistema de información útil a la toma de decisiones.

Luego de tener claridad sobre la categoría y la segmentación en subcategorías, se presentan a continuación los principales momentos que permiten la operacionalización o el desarrollo de actividades que propone el modelo; en este punto, es relevante aclarar que los pasos o momentos atienden una numeración que induce a la secuencia y que trae a colación los fundamentos sistémicos que representan su base teórica. Estos son:

1. **Momento 1** (Pre). Medición inicial
2. **Momento 2** (Concurrente). Aplicación planes de acción
3. **Momento 3** (Post) Medición posterior

Los anteriores momentos permiten confeccionar una trazabilidad en el tiempo de las diferentes etapas o momentos por las cuales se transita al aplicar el modelo de control organizacional diseñado por Unipanamericana Sede Valle. Así, a líneas seguidas se presentan algunas orientaciones sobre las actividades que hacen parte de cada uno de los puntos enunciados con anterioridad.

4.2.1. **Momento 1. Medición inicial**
Medición Inicial – Diagnóstico. El primer momento por el que se transita en la aplicación del modelo es la medición inicial de riesgos, para ello, el modelo aporta una herramienta de diagnóstico con la cual se puede obtener evidencia empírica de los principales riesgos que podrían afectar a la organización y así mismo, diagnosticar las condiciones...
favorables o desfavorables- del control en una unidad de análisis. El recurso de análisis mencionado previamente es producto de la operacionalización de la categoría control organizacional y las subcategorías control administrativo, operacional y contable; estas, se hicieron identificables a través de 10 indicadores que a su vez permiten levantar datos reales gracias a la configuración de 50 reactivos o ítems que hacen posible el proceso de medición - ver Olarte (2019) -.

4.2.2. Momento 2. Aplicación planes de acción
De manera posterior a la obtención del diagnóstico referente al estado del control organizacional (momento 1, medición inicial) y concretamente, tras la identificación de los riesgos que pudieran afectar el cumplimiento de los objetivos y comprometer la integridad de los recursos, las actividades del momento dos (2) se orientan a cumplir con los planes de acción que propiciarán las mejoras frente a los hallazgos obtenidos. Sobre esto último, es imperativo mencionar que en el modelo y en sí, dentro de las organizaciones, estos planes deberán ser construidos bajo las consideraciones de los siguientes tres pilares:

- Cultura de control. Primer pilar y ubicado en esta posición dado que la efectividad de un modelo de control parte de la aceptación y/o construcción de un imaginario en donde este componente se inserta o permanece implícito en las acciones que se desarrollan dentro de la organización. Para ello, se propone que cada plan de acción integre alguna herramienta que favorezca la inclusión y promoción de un entorno de control; ejemplo de herramientas como las planteadas son los códigos de éticas y buenas prácticas corporativas, los manuales de políticas, entre otros.

- Actividad de control. Para fundamentar la promesa de valor del modelo se incluye la realización de actividades de control, en tanto son estas, las actividades, quienes de manera directa, a través de las personas, intervienen la realidad y afectan positivamente las posibilidades de que los riesgos identificados en el momento uno (1) no se materialicen. Dentro de las alternativas propuestas a este pilar, se identifica la construcción de formatos, minutas, flujo-gramas, manuales de funciones y otros recursos que permitan orientar y ejemplificar la forma en que se hará visible y operativo el control al interior de la organización.

- Seguimiento y retroalimentación. Este último pilar es la oportunidad que brinda el modelo para que se realice un tipo de “feedback” que permita en análisis del proceso y la revisión concurrente sobre las actividades implementadas. Podría identificarse como recurso al interior del presente componente las listas de chequeo y otros recursos similares de validación.

4.2.3. Momento 3. Medición posterior

Finalmente, el modelo cierra su ciclo con la elaboración de un nuevo diagnóstico y con ello, la validación de la efectividad de las actividades propuestas y el cumplimiento de las mismas, aspectos que permiten implicitamente medir la aceptación al cambio y el fomento a un entorno de control que propende por la integración de nuevas conductas y acciones que apoyen el logro de los objetivos y protejan los recursos custodiados al interior de la organización. Para observar de manera visual la estructura que hasta ahora se ha descrito, se presenta la figura 1.
Figura 1. Estructura modelo de control organizacional.

Por otra parte, es notable destacar que pese a que la estructura propuesta se observa a simple vista diacrónica y holística, se requiere una planeación que integre aspectos de formación, asignación de recursos y responsables, para que, con el respaldo de un equipo de trabajo que puede prescindir de conocimientos especializados y del que no se espera generar cargas económicas a las organizaciones, se generen soluciones que consideren la especificidad de cada empresa y se fundamenten en los momentos y pilares que incluye el modelo; de esta forma, los pequeños empresarios pueden aproximar un diseño organizacional más sólido y del cual derivan acciones de mejora continua soportadas en el control.

A la hora de confrontar los resultados obtenidos en este trabajo con otros observados en la revisión de literatura, se observan algunos puntos de conexión y divergencia, por ejemplo, es homogénea la presencia del componente de cultura de control (denominado por otros ambiente o entorno de control) en modelos con trayectoria a nivel internacional (entre ellos, COSO y MICIL), esto, pudiera dar cuenta de la centralidad que los valores éticos y morales representan en el ejercicio del control organizacional, esto, es consistente con lo planteado por Granada (2014) al ubicar al sujeto (sus prácticas) como un objetivo del control. Asimismo, es concordante y concluyente la inclusión de actividades de retroalimentación como práctica de análisis a los procesos e implementación de medidas para mitigar y gestionar riesgos. Por otra parte, una promesa de valor observada en el modelo descrito se concreta en la estructura diseñada y, ante todo, el recurso de los flujos de trabajo (momentos), siendo relevante o clave la medición inicial en tanto diagnóstica en las especificidades de los casos de estudio y permite focalizar la atención en las necesidades latentes de cada organización que opte por acoplar e implementar el modelo.

5. Conclusiones

Tras los argumentos expuestos, se presentan las siguientes reflexiones a manera de conclusión. Las necesidades del sector estudiado representaron la base para asir,
desde lógicas que directa e hibridamente incluyeron los fundamentos derivados de diversas perspectivas teóricas, la solución a problemáticas que se cimientan en el desconocimiento y el reconocimiento de las funciones y aportes del control organizacional, por parte de pequeños empresarios; pese a que esto último suele ser un componente relevante en la problemática, su dimensión se extiende al identificar, producto del levantamiento de información, que en términos de impactos o necesidades, el control organizacional pudiera ser considerado innecesario.

En la forma como se diseñó el modelo de control organizacional, se consolida la oportunidad de aplicabilidad y relevancia en el sector estudiado, esto, en tanto se integraron criterios exhaustivos de claridad y sencillez para cumplir con la promesa de brindar un modelo fácil de comprender y al alcance del tipo de organizaciones estudiadas. Concretamente, la estructura final se integra por tres momentos que conforman un círculo virtuoso y la posibilidad gestiones en términos de medición, intervención y seguimiento.

El modelo propuesto es adecuado para mejorar el control organizacional en pequeñas empresas, especialmente, en aquellas pertenecientes al sector textil en la ciudad de Santiago de Cali, Colombia, u otras que presentan cualidades similares. Lo anterior, fue el resultado de considerar tres perspectivas de análisis, entre estas, el banco o arsenal teórico consultado a través de la revisión sistemática de literatura, las visiones de los académicos o informantes claves y las experiencias y realidades observadas en pequeños empresarios, por ello, se constituye en una solución holística, integra y que observó el fenómeno objeto de estudio mediante diversas perspectivas o como se conoce en el léxico académico e investigativo, bajo premisas de triangulación de fuentes y datos. Todo lo mencionado, fue requerido para el diseño de este modelo pues las especificidades del contexto, en sí, la infinidad y complejidad de la dinámica socioeconómica exige la vinculación de paradigmas y formas de pensar mayormente abarcativas y sistémicas que permitan delinear pautas aplicables a una realidad.

Como líneas de trabajo futuras para la presente investigación, se estima la inclusión directa de la variable entorno en el modelo de control organizacional; esto último, podría estar integrado por la medición o identificación de riesgo ambientales, sociales y tecnológicos, que pudieran afectar el cumplimiento de los objetivos, por ello, y dado que la organización contemporánea interactúa constantemente con el entorno y puede ser modificado por este y la organización también puede influenciar sobre el entorno, su consideración al interior de esta propuesta pudiera representar un elemento para crear valor y sumar prácticas integradas a la dinámica actual de las empresas.

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WORKING CAPITAL MANAGEMENT (WCM) AND FIRM PROFITABILITY: AN ANALYSIS OF THE SPANISH ELECTRICAL ENERGY SECTOR
Sara Fernández-López 1; Adrián Dios-Vicente 2; María Jesús Rodríguez-Gulías 3; David Rodeiro-Pazos 4

Abstract
Purpose: The main objective of this paper is to analyse whether Working Capital Management (WCM) policies affect the profitability of the firms in the Spanish electrical energy production sector.

Methodology: Using a sample of 1,007 firms in the electrical energy production sector over the period 2010–2017 and applying panel data methodology, this paper analyses the extent to which the main components defining the WCM policies — days sales outstanding (DSO), days inventory outstanding (DIO), days payable outstanding (DPO), and cash conversion cycle (CCC) — affect firms’ profitability. Additionally, we control for other potential profitability drivers, such as firm leverage, liquidity, size and growth.

Findings: Empirical evidence reveals a positive effect of the DIO and the CCC on the economic profitability of firms. In contrast, the obtained results suggest a U-shaped relationship between the DPO and the profitability, even though, this last result must be taken with caution.

Originality/value: To the best of our knowledge, no study on how WCM impacts on the firms’ profitability in the electrical energy production sector has been conducted in Spain.

Practical implications: The current assets of these firms tend to represent more than 20% of the total assets. Hence, gaining insights into the role played by WCM in the firms’ profitability will help to ensure their success.

Research limitations: The availability of the information gathered in the SABI database limited more in-depth analyses.

Keywords: Working capital management (WCM); Firm profitability; Panel data; Electrical energy sector

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1. **Introducción**

Uno de los mecanismos a través de los cuales las empresas pueden mejorar su situación es la correcta gestión de las finanzas operativas, entendida como la gestión del capital circulante, formado por deudores, existencias, tesorería y proveedores. Efectivamente, las empresas invierten grandes cantidades de dinero en circulante, lo cual puede afectar negativamente a su rentabilidad (Deloof, 2003). Por el contrario, una política de gestión del circulante “estricta” incrementa el riesgo de la empresa (por ejemplo, el riesgo de experimentar costes de ruptura en el proceso productivo, o a la hora de servir el producto final al cliente, entre otros).

Por otra parte, el sector eléctrico resulta crucial en cualquier economía, y particularmente en la española. Tres elementos determinan la centralidad del sector. En primer lugar, las cifras que supone a nivel macro; esto es, el propio peso relativo del sector eléctrico en la economía, representando en 2012 el 3,1% del PIB, el 25,7% de la cifra de negocios total de la industria, creando más de 68.000 empleos directos y realizando una inversión en I+D del 1,7% del total estatal (Costa Campi, 2016), teniendo en cuenta, además, una creciente importancia de las energías renovables (APPA, 2019). En segundo lugar, el consumo eléctrico tiene una elevada importancia sobre la renta familiar, ya que, para el año 2018, el consumo eléctrico representó el 2,66% de la renta familiar según la Encuesta de Presupuestos Familiares desarrollada por el INE, con valores absolutos crecientes en el periodo 2013 – 2018. En paralelo, el consumo eléctrico actual obliga a la caracterización de la electricidad como bien básico, lo que implica la necesidad de regulación de cara a facilitar su consumo bajo parámetros de redistribución social (Latonda, 2011). Por último, la electricidad tiene un impacto fundamental para el conjunto de cualquier economía dada su importancia como input para la producción, en particular en sectores industriales, donde puede ser el principal coste.

Howorth y Westhead (2003) y López-Pérez et al. (2018), por su parte, sostienen que la gestión del capital circulante es más relevante para las PYMES, dadas sus características financieras: tendencia a una mayor deuda a corto plazo, menor solvencia, mayor peso del capital corriente en el balance y generación de flujos de caja menos predecibles. En este sentido, hay que destacar el elevado peso de las PYMES en la economía española, así como en el sector de la producción eléctrica. Al mismo tiempo, en períodos de crisis se producen importantes restricciones financieras, lo que incrementa la importancia de la gestión del capital circulante. Por tanto, la gestión del capital circulante puede desempeñar un papel fundamental no solo en la liquidez a corto plazo de la empresa y en su rentabilidad, sino también para poder seguir operando día a día con normalidad.

El presente trabajo tiene como objetivo testar la relación entre la gestión del capital circulante, medida a través de los distintos periodos que integran el ciclo de efectivo, y la rentabilidad en el sector eléctrico español en el periodo 2010 - 2017, de cara a tomar decisiones que permitan mejorar la rentabilidad sectorial mediante la gestión eficiente de dichos elementos. Para ello, se ha construido una muestra de 1.007 empresas productoras a partir de diversas tecnologías (eólica, térmica convencional e hidroeléctrica). Dado el carácter transversal y temporal de la muestra, que consiste en un panel no balanceado, se utilizan los estimadores de efectos fijos y aleatorios para datos de panel.

Si bien existen múltiples estudios sobre la relación entre rentabilidad y capital circulante, tanto en diversos países como orientados a otros sectores, son escasos los trabajos en relación con el sector de la producción eléctrica. Al mismo tiempo, los estudios sobre el tejido empresarial eléctrico suelen orientarse a la evolución de las principales empresas del sector (Iberdrola, Endesa y Gas Natural), pero omitiendo la existencia de un importante grupo de empresas de menor tamaño cuya actividad es la producción eléctrica. Por lo tanto, el presente trabajo alcanza originalidad en dos aspectos: el
análisis del capital circulante en el sector eléctrico, y el análisis del sector eléctrico desde un punto de vista global y no orientado tan solo a un pequeño número de empresas.

El presente artículo está organizado del siguiente modo: en el apartado dos se realiza una revisión de la literatura, prestando atención a los fundamentos de gestión del capital circulante y a las características del sector eléctrico. El apartado tres desarrolla la obtención de la muestra y los modelos utilizados, mientras el apartado cuatro presenta resultados. Finalmente, los apartados cinco y seis son dedicados a la discusión de los principales resultados y al establecimiento de las conclusiones, respectivamente.

2. Revisión de la literatura

2.1. Gestión del Capital Circulante

Para el análisis del capital circulante suelen emplearse indicadores como el Fondo de Maniobra (FM) o el Fondo de Maniobra Operativo (FMO). El modo cómo ambos se combinan no solo refleja la política de financiación para los activos corrientes seguida por la empresa, sino que implica asumir diferentes niveles de riesgo. Esta decisión relativa al riesgo tendrá, al mismo tiempo, efectos sobre la rentabilidad. Si bien el FMO mide en euros las necesidades operativas de financiación que una empresa tiene para cubrir sus operaciones diarias con activos corrientes, una aproximación más ‘dinámica’ a dichas necesidades se consigue a través del Ciclo de Transformación de Tesorería (CTT), que mediría lo mismo, en días. Así, el CTT se calcula del siguiente modo:

Plazo medio de existencias + Plazo medio de cobro a clientes - Plazo medio de pago a proveedores.

El plazo medio de cobro es el promedio de días que una empresa tarda en cobrar sus facturas por los bienes entregados o servicios prestados. Desde un punto de vista teórico, los autores defienden una relación rentabilidad-plazo de cobro positiva (Jakpar et al., 2017; Khan et al., 2018), dado que plazos de cobro largos atraen nuevos clientes, provocando un aumento en las ventas al mismo tiempo que, al permitir probar el producto antes de pagar, provoca clientes más leales (Deloof, 2003). No obstante, plazos de cobro más largos atraerían, en mayor medida, a aquellos clientes que puedan tener problemas de solvencia y que son propensos a no pagar, provocando posteriores pérdidas (Serrasqueiro, 2015). En el plano empírico, la relación más encontrada entre el plazo de cobro y la rentabilidad es una relación negativa (Deloof, 2003; Serrasqueiro, 2015; Kasozi, 2017; Ng et al., 2017; Díaz et al., 2018). Ante estos argumentos contrarios, se plantea la siguiente hipótesis:

Hipótesis 1: Se espera una relación en forma de U invertida entre el plazo de cobro y la rentabilidad de la empresa.

Es decir, concediendo mayor número de días de crédito la rentabilidad se puede ver incrementada, al aumentar los ingresos por ventas, pero hay un punto en que se puede atraer a más clientes con problemas de liquidez, generando morosos, y se eleva el coste de oportunidad de los recursos necesarios, reduciendo la rentabilidad.

El plazo medio de existencias es el tiempo medio que la mercancía está en la empresa, ya sean productos en curso, materias primas, o productos terminados, antes de ser vendida. Diversos estudios defienden una relación positiva entre la rentabilidad de la empresa y el plazo de existencias (Jakpar et al., 2017; Kasozi, 2017; Ng et al., 2017), ya que evita la pérdida de ventas, elimina costes de ruptura (Deloof, 2003) y permite obtener descuentos comerciales (Baños-Caballero et al., 2014). Sin embargo, el mantenimiento de un volumen elevado de existencias lleva aparejado unos costes también elevados que disminuyen la rentabilidad, como, por ejemplo, los costes de mantenimiento (almacén, luz, seguros…) o los costes de oportunidad. De hecho, la mayoría de los estudios encuentran un vínculo negativo entre la rentabilidad de una empresa y el plazo de existencias (Deloof, 2003; Gul et al., 2013; Serrasqueiro, 2015; Díaz et al., 2018; Mulyono et al., 2018). Como consecuencia de las dos posibles relaciones defendidas en el plano teórico, se plantea la siguiente hipótesis:
Hipótesis 2: Se espera una relación en forma de U invertida entre el plazo de existencias y la rentabilidad de la empresa.
Dicho de otro modo, un nivel óptimo de existencias tiene su lado positivo (posibilita cubrirse de las fluctuaciones en precios, acceder a descuento por cantidad…) que hará aumentar la rentabilidad de la empresa. Sin embargo, los rendimientos se verán mermados con un exceso de existencias, al dispararse los costes de mantenimiento y de oportunidad. El plazo medio de pago representa el promedio de días que una empresa tarda en pagar sus facturas a los proveedores. La financiación espontánea que conceden los proveedores es una forma de financiarse de manera muy flexible y asequible por sus bajos costes (Deloof, 2003). Al proporcionar financiación, los proveedores permiten invertir en operaciones más provechosas sin tener que acudir a entidades financieras u otras entidades proveedoras de fondos que suelen ser recursos con alto coste (García-Teruel y Martínez-Solano, 2007). En línea con estos argumentos, varios de los estudios analizados detectan una relación plazo de crédito-rentabilidad positiva (Musau, 2015; Serrasqueiro, 2015; Khan et al., 2018). Sin embargo, la relación mayoritariamente es negativa (ver Tablas 1 y 2). Desde el plano teórico, esta relación negativa podría obedecer a la renuncia de importantes descuentos por pronto pago ofrecidos por proveedores de mercancía. Así, se establece la siguiente hipótesis:
Hipótesis 3: Se espera una relación en forma de U invertida entre el plazo de pago y la rentabilidad de la empresa.
El CTT, además de afectar a la rentabilidad, se puede usar como un instrumento para evaluar la eficiencia en la gestión del capital circulante de una empresa, debido a que proporciona mucha información que afecta a su liquidez, proveedores y al mercado (Serrasqueiro, 2015). A diferencia de los periodos previamente vistos, para los cuales los trabajos suelen establecer hipótesis lineales, Baños-Caballero et al. (2014) plantean una relación cuadrática entre el CTT y la rentabilidad económica. Así, los autores afirman que mantener un CTT óptimo previene los costes de ruptura de aprovisionamiento y de producción (plazo de existencias) y atrae más clientes (más plazo de cobro aumentando las ventas), por lo que es positivo para la rentabilidad. Ahora bien, cuando se supera dicho nivel, la rentabilidad se desplomará como consecuencia del coste de los recursos invertidos en dicho ciclo. En particular, mayores CTT están asociados a un mayor FMO y mayores inversiones en activos corrientes, lo que perjudicará la rentabilidad. De hecho, la relación negativa entre CTT y rentabilidad es la más abundante en los trabajos de análisis de análisis (Gul et al., 2013; Musau, 2015; Khan et al., 2018; Le et al., 2018). Aun así, algunos estudios detectan una relación positiva (Ng et al., 2017). Siguiendo a Baños-Caballero et al. (2014), se plantea la siguiente hipótesis:
Hipótesis 4: Se espera una relación en forma de U invertida entre el CTT y la rentabilidad de la empresa.
A continuación, las Tablas 1 y 2 presentan los resultados empíricos de la literatura analizada.
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Notas: MCO: Mínimos Cuadrados Ordinarios; MCG: mínimos cuadrados generalizados; AC/AT: Activo Circulante / Activo Total; PC/AT: Pasivo Circulante / Activo Total; AC/PC: Activo Circulante / Pasivo Circulante; NTC: Rendimiento Corporativo; n.s: no significativo.

Fuente: Elaboración propia
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</tbody>
</table>

**NOTAS:** AC/AT: ACTIVO CIRCULANTE / ACTIVO TOTAL, ANC/AT: ACTIVO NO CORRIENTE / ACTIVO TOTAL; MCO: MINIMOS CUADRADOS ORDINARIOS; AC/PC: ACTIVO CIRCULANTE / PASIVO CIRCULANTE

**Fuente:** Elaboración propia
2.2. El capital circulante en el sector eléctrico

Es necesario caracterizar el sector eléctrico antes de realizar cualquier análisis sobre el mismo, dadas sus particularidades. En primer lugar, el sector se conforma como una industria de red, lo que significa que existen rendimientos de escala crecientes en la propia red, por lo que no puede existir una situación eficiente en competencia (Lafuente y Ocaña, 2001), lo que obliga a la segmentación del sector en cuatro actividades: generación, distribución, transporte y consumo.

Al mismo tiempo, las redes de interconexión suelen estar orientadas a un mercado estatal, limitando la capacidad de importación/exportación (Soares y Castro, 2007), lo que puede generar dificultades en la calidad de suministro y en el correcto funcionamiento de los precios como asignador de recursos, transformándose el mercado desde la competencia de producto a la competencia por los activos (Beato y Laffont, 2002). La imposibilidad de almacenaje en grandes cantidades profundiza estos problemas, por lo que, como indica Wilson (2002), la creación de un mercado mayorista de electricidad es inherente y competitivamente imperfecto, lo que en última instancia deriva en procesos de concentración (Bel y Costas, 2006).

Teniendo en cuenta lo anterior, coexisten dos circunstancias en el panorama empresarial eléctrico español: una importante concentración entre las mayores empresas, dado que tan solo cinco entidades controlan aproximadamente el 65% de la producción total (Dios-Vicente, 2019), al mismo tiempo que un gran número de empresas de escaso peso relativo mantienen actividades de producción eléctrica.

Atendiendo a la gestión del capital circulante, la realidad de las empresas de producción eléctrica presenta una serie de características propias en relación con otros sectores económicos. En primer lugar, la producción eléctrica no puede almacenarse, por lo que debe ser volcada a la red en el momento de la producción, lo que llevaría a que no existieran existencias en las empresas de producción de electricidad. Si bien esto ocurre para los productos terminados (la electricidad), las empresas eléctricas si tienen partidas de existencias derivadas de sus necesidades de materias primas para la producción, como el carbón o el gas natural. Al mismo tiempo, las empresas contabilizan como existencias otro tipo de elementos, como los derechos de emisión (ENDESA, 2018) o certificados renovables. Por último, ciertas actividades inmobiliarias en curso pueden también incorporarse en este epígrafe (Iberdrola, 2020). Las existencias representan un elemento fundamental para las empresas eléctricas que emplean combustibles para producir, ya que una incorrecta gestión de estas puede derivar en rupturas en la producción por la falta de materias primas.

Respecto a los clientes, en la mayoría de las empresas eléctricas el cierre contable no se corresponde con el período habitual de lectura de los contadores, por lo que hacen una estimación de los clientes pendientes de cobro y, por otra parte, muchas empresas cobran las facturas bimensualmente.

Por último, la gestión de los acreedores comerciales también resulta importante, particularmente para aquellas productoras térmicas, dadas las necesidades de adquisición de combustible. Al mismo tiempo, las productoras renovables (hidroeléctricas y eólicas) también necesitan una correcta gestión de este apartado por la importancia de los suministros para los parques, así como el mantenimiento de las centrales.

3. Metodología

3.1. La muestra

La muestra para el trabajo fue creada a partir de la búsqueda de las empresas productoras de electricidad, identificadas con los siguientes códigos CNAE (Clasificación Nacional de Actividades Económicas):

- 3515 – Producción de energía hidroeléctrica.
- 3516 – Producción de energía eléctrica de origen térmico convencional.
- 3518 – Producción de energía eléctrica de origen eólico.
Con esta identificación ha sido empleada la base de datos SABI (Sistema de Análisis de Balances Ibéricos), a partir de los cuales obtuvimos la información económico-financiera de las compañías seleccionadas. Una vez realizada esta búsqueda, la muestra inicial quedó conformada por 2.259 compañías, que finalmente fue depurada hasta una cantidad final de 1.007 empresas (Tabla 3).

<table>
<thead>
<tr>
<th>Filtro</th>
<th>Empresas eliminadas</th>
<th>Empresas resultantes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muestra original</td>
<td>-</td>
<td>2.259</td>
</tr>
<tr>
<td>Eliminar los años para los que no había datos</td>
<td>136</td>
<td>2.123</td>
</tr>
<tr>
<td>Eliminar las observaciones de activo total &lt; 1.000€</td>
<td>9</td>
<td>2.114</td>
</tr>
<tr>
<td>Eliminar las observaciones de deudas totales &gt; Activo total</td>
<td>897</td>
<td>1.217</td>
</tr>
<tr>
<td>Eliminar las observaciones con periodo de cobro &gt; 365</td>
<td>203</td>
<td>1.014</td>
</tr>
<tr>
<td>Eliminar las observaciones con periodo de crédito &gt; 365</td>
<td>6</td>
<td>1.008</td>
</tr>
<tr>
<td>Eliminar las observaciones con ratio de circulante &gt; 100</td>
<td>1</td>
<td>1.007</td>
</tr>
</tbody>
</table>

Nota: No se realiza depuración a través del periodo de existencias porque en el sector eléctrico hay compañías con almacenamientos de materias primas a largo plazo, incluso superior al año.

Fuente: Elaboración propia

3.2. Definición de las variables

La variable dependiente será la rentabilidad económica calculada como el cociente del EBITDA (Beneficio Antes de Intereses Impuestos y Amortizaciones) entre el Activo Total. Comparado con los Beneficios Antes de Intereses e Impuestos (EBIT por sus siglas en inglés), el EBITDA permite menor discrecionalidad en lo que respecta a las amortizaciones, depreciaciones e impuestos (Cronqvist y Fahlenbrach, 2013), algo que podría ser relevante en una muestra de empresas como la analizada, puesto que presenta grandes inversiones en activo fijo. Esta mayor dificultad para manipular el EBITDA lo hace más apropiado que el EBIT en el cálculo de la rentabilidad económica de las empresas.

Como variables independientes emplearemos el plazo de cobro a clientes, el plazo de pago a proveedores, el plazo de existencias y el CTT. SABI ofrece información en relación con los plazos de cobro y de pago, mientras que el cálculo del plazo de existencias se realizará a través de la rotación de inventario, también obtenido en SABI (ver Tabla 4). El CTT es calculado manualmente a través de la siguiente fórmula: Plazo de cobro a clientes + Plazo de existencias – Plazo de pago a proveedores. Estas cuatro variables, referidas a la gestión del capital circulante, también será usadas en su forma cuadrática, dadas las hipótesis planteadas.

Finalmente, en los modelos estimados también se incluyen variables de control referidas al tamaño de la empresa, medido a través tanto del volumen de ventas como de su inversión en inmovilizado material, su crecimiento, el tipo de actividad, su nivel de endeudamiento y liquidez, esta última medida a través de la ratio de circulante. Se incorpora, además, una variable dummy (comerc) que tendrá el valor 0 para las empresas que solo producen electricidad y el valor 1 para las empresas que, además de producir, realizan otras actividades al presentar en SABI CNAE secundarios. En particular, las empresas con un valor 1 presentan entre sus CNAE secundarios la actividad de comercialización, algo que por ley no estaría permitido desde 20091. Esta

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1 Según la Ley 17/2007, de 4 de julio, por la que se modifica la Ley 54/1997, de 27 de noviembre, del Sector Eléctrico, para adaptarla a lo dispuesto en la Directiva 2003/54/CE, del Parlamento
incongruencia entre lo que indica la normativa y lo que recoge SABI nos llevó a controlar este aspecto.

<table>
<thead>
<tr>
<th>Clasificación</th>
<th>Variables</th>
<th>Denominación</th>
<th>Cálculo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable dependiente</td>
<td>Rentabilidad económica</td>
<td>Ebitda_at</td>
<td>EBITDA/ Activo Total</td>
</tr>
<tr>
<td></td>
<td>Plazo de cobro</td>
<td>Pcob</td>
<td>Clientes / (IE/360)</td>
</tr>
<tr>
<td></td>
<td>Plazo de existencias</td>
<td>Pexist</td>
<td>(1/Rotación de existencias)*360</td>
</tr>
<tr>
<td></td>
<td>Plazo de pago</td>
<td>Pcre</td>
<td>Proveedores/(IE/360)</td>
</tr>
<tr>
<td></td>
<td>CTT</td>
<td>Ctt</td>
<td>Plazo de cobro + Plazo de existencias – Plazo de Pago</td>
</tr>
<tr>
<td></td>
<td>Tamaño de ingresos</td>
<td>Ln_ing</td>
<td>Ln(IE)</td>
</tr>
<tr>
<td></td>
<td>Tamaño de activo</td>
<td>Ln_inmmat</td>
<td>Ln (Inmovilizado Material)</td>
</tr>
<tr>
<td></td>
<td>Endeudamiento</td>
<td>Endeudam</td>
<td>(Pasivo corriente + Pasivo no corriente) / Activo Total</td>
</tr>
<tr>
<td></td>
<td>Crecimiento</td>
<td>Crecim</td>
<td>(IE_t – IE_{t-1}) / IE_{t-1}</td>
</tr>
<tr>
<td></td>
<td>Ratio de circulante</td>
<td>Rat_circ</td>
<td>Activo corriente / Pasivo Corriente</td>
</tr>
<tr>
<td></td>
<td>Actividad</td>
<td>Comerc</td>
<td>0 si solo produce / 1 si produce y realiza otras actividades</td>
</tr>
</tbody>
</table>

Notas: IE equivale a ingresos de explotación. **Fuente: Elaboración propia**

### 3.3. Especificación del modelo

En la estimación de los modelos se utilizó metodología de datos de panel. Dicha metodología permite incluir en el análisis aquellos elementos que no podemos observar (heterogeneidad no observable \( \alpha_i \)), junto aquellos observables, y que afectan a la rentabilidad económica. De un modo más concreto, se estimarán modelos lineales de datos de panel según la siguiente ecuación (Wooldridge, 2010):

\[
\text{EBITDA\_AT}_{it} = \mu + X_{it} + C_{it} + \alpha_i + \lambda_t + \varepsilon_{it}
\]

Donde:

- \( X_{it} \): variables explicativas principales referidas a la gestión del capital circulante (plazo de cobro, de crédito, de existencias y CTT).
- \( C_{it} \): variables de control (logaritmo neperiano de los ingresos, logaritmo neperiano del inmovilizado material, el endeudamiento, la ratio de circulante y el crecimiento).
- \( \alpha_i \): Elementos particulares de cada empresa que no son observables (diferentes para cada empresa, pero iguales en todos los años para una misma empresa).
- \( \lambda_t \): Factores temporales no observables (los mismos para todas las firmas, pero diferentes a lo largo de los años). En este sentido, recogería el impacto sobre el ROA que pueden provocar factores macroeconómicos como la inflación.
- \( \varepsilon_{it} \): Error estadístico. Su distribución es normal \( \mu = 0 \) y \( \sigma^2 = \sigma^2_{\varepsilon} \).
4. Resultados

En la Tabla 5 se presentan los resultados de la estimación de los modelos de efectos fijos (FE) y de efectos aleatorios (RE). La diferencia entre ambos es que el modelo de efectos aleatorios asume que no existe correlación entre las variables independientes del modelo ($X_{it}$) y aquellas particularidades de cada una de las empresas ($\alpha_i$), mientras que en los modelos de efectos fijos se asume correlación entre ambas. Para conocer los modelos más apropiados, se aplicó el test de Hausman (1978) cuya hipótesis nula ($H_0$) es que los modelos de efectos aleatorios son consistentes, siendo la hipótesis alternativa que los modelos de efectos fijos son consistentes (Cameron y Trivedi, 2010). Los resultados llevan a rechazar la $H_0$ en todos los modelos con un nivel de significación inferior a 0,001 y, por lo tanto, los modelos de efectos fijos son mejores. Por ello, de aquí en adelante se comentarán los resultados referidos a los modelos de efectos fijos. Nótese también que la Tabla 5 muestra los resultados de las estimaciones de efectos aleatorios solo para las variables referidas a los periodos de la gestión del circulante\footnote{Los resultados completos para los modelos aleatorios podrán pedirse a los autores.}.

El primero de los modelos, o modelo base, está constituido por los años y las variables de control (tamaño de las ventas, tamaño de los inmovilizados materiales, endeudamiento, liquidez, tipo de actividad y crecimiento). Partiendo de ese modelo base, se generan cuatro modelos adicionales, uno para cada periodo analizado (plazo de cobro, de existencias, de pago y CTT), que contienen la variable relativa a dicho plazo, tanto en su versión lineal como cuadrática.
### Tabla 5: Estimación modelo

<table>
<thead>
<tr>
<th>EFECTOS FIJOS</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>M5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ln_ing</td>
<td>0.096***</td>
<td>0.096***</td>
<td>0.088***</td>
<td>0.099***</td>
<td>0.096***</td>
</tr>
<tr>
<td>ln_inmmat</td>
<td>0.005</td>
<td>0.005</td>
<td>0.009</td>
<td>0.005</td>
<td>0.005</td>
</tr>
<tr>
<td>endeudam</td>
<td>-0.031</td>
<td>-0.036</td>
<td>-0.069</td>
<td>-0.036</td>
<td>-0.041</td>
</tr>
<tr>
<td>endeudam2</td>
<td>-0.149***</td>
<td>-0.142***</td>
<td>-0.099</td>
<td>-0.147***</td>
<td>-0.144***</td>
</tr>
<tr>
<td>crecim</td>
<td>0.014***</td>
<td>0.014***</td>
<td>0.016***</td>
<td>0.014***</td>
<td>0.014***</td>
</tr>
<tr>
<td>rat_circ</td>
<td>0.000</td>
<td>0.000</td>
<td>-0.001*</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Años</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comerc_acum</td>
<td>0.003</td>
<td>0.003</td>
<td>0.009*</td>
<td>0.003</td>
<td>0.003</td>
</tr>
<tr>
<td>pcob_100</td>
<td>-0.001</td>
<td>-0.011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pcob2_100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pcre_100</td>
<td>-0.050***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pcre2_100</td>
<td>0.012**</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>pexist_100</td>
<td></td>
<td></td>
<td>0.012*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pexist2_100</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ctt_100</td>
<td></td>
<td></td>
<td></td>
<td>0.006**</td>
<td></td>
</tr>
<tr>
<td>ctt2_100</td>
<td></td>
<td></td>
<td></td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>_cons</td>
<td>-0.427***</td>
<td>-0.426***</td>
<td>-0.402***</td>
<td>-0.445***</td>
<td>-0.439***</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.04</td>
<td>0.029</td>
<td>-0.041</td>
<td>0.044</td>
<td>0.045</td>
</tr>
<tr>
<td>Obs.</td>
<td>3823</td>
<td>3710</td>
<td>2350</td>
<td>3823</td>
<td>3823</td>
</tr>
<tr>
<td>Nº de empresas</td>
<td>862</td>
<td>854</td>
<td>622</td>
<td>862</td>
<td>862</td>
</tr>
<tr>
<td>VIF media</td>
<td>1.42</td>
<td>2.26</td>
<td>2.09</td>
<td>2.66</td>
<td>1.92</td>
</tr>
<tr>
<td>Hausman (g.l.)</td>
<td>365.94 (12)***</td>
<td>265.74 (14)***</td>
<td>182.32 (14)***</td>
<td>394.75 (14)***</td>
<td>409.42 (14)***</td>
</tr>
</tbody>
</table>

### EFECTOS ALEATORIOS

| pcob_100      | -0.008        |               |               |               |               |
| pcob2_100     | -0.002        |               |               |               |               |
| pcre_100      | -0.067***     |               |               |               |               |
| pcre2_100     | 0.013***      |               |               |               |               |
| pexist_100    | -0.008*       |               |               |               |               |
| pexist2_100   | 0.000*        |               |               |               |               |
| ctt_100       |               |               |               | 0.000         |               |
| ctt2_100      |               |               |               | 0.000         |               |

**NOTAS:** la variable dependiente es la rentabilidad económica; pcob_100, pcre_100, pexist_100 y ctt_100 son las variables del capital circulante divididas entre 100; y pcob2_100, pcre2_100, pexist2_100 y ctt2_100 su cuadrado. ***, ** y * denotan un valor p de 0.001, 0.01 y 0.05, respectivamente. Para el test de Hausman, los grados de libertad (g.l.) se muestran entre paréntesis. VIF media recoge la media de las puntuaciones VIF para las variables independientes utilizadas en el modelo.

**Fuente:** Elaboración propia
Los resultados en relación con el periodo de cobro muestran que la Hipótesis 1 no puede ser aceptada, dado que se obtienen resultados no significativos. Esta evidencia difiere de la encontrada mayoritariamente en la literatura empírica revisada (ver Tablas 1 y 2). Esta ausencia de relación entre el periodo de cobro y la rentabilidad económica de las empresas podría venir explicado por el hecho de que en el sector eléctrico los periodos de pagos están fijados por la normativa estatal, rondando los dos meses. Por lo tanto, serían comunes para las empresas del sector sin que tuviesen margen para actuar sobre ellos y conseguir una mayor rentabilidad.

En relación con el plazo de existencias tampoco se cumple la Hipótesis 2. Ahora bien, se encuentra una relación lineal positiva entre el periodo de existencias y la rentabilidad; a mayor plazo de existencias la rentabilidad aumenta. Esta relación tiene una posible explicación asociada a las características de la producción en el sector: un plazo de existencias muy ajustado puede llevar a costes de ruptura y, por lo tanto, provocar una baja rentabilidad cuando el plazo de existencias es muy bajo. Por ello, resulta fundamental para las empresas la búsqueda de un inventario que minimice el riesgo de ruptura productiva.

Los resultados en relación con el plazo de pago no permiten aceptar la Hipótesis 3, ya que el modelo M3 muestra una relación en forma de U con la rentabilidad económica. Así, nuestros resultados son atípicos en relación con la literatura analizada, pudiendo deberse a las características específicas del sector; el reducido tamaño de la mayoría de las empresas productoras puede generar poder de negociación en los proveedores, si bien las empresas de mayor tamaño sí tienen capacidad de negociación dado el elevado volumen de pedidos, lo que les permite alargar plazos de pago y así aumentar la rentabilidad. No obstante, estos resultados han de ser tomados con cautela ya que, aunque los modelos de efectos aleatorios apuntan a una relación en el mismo sentido, el R² resultante en los modelos de efectos fijos hace dudar de la fiabilidad de la evidencia obtenida. Además, en el caso de esta variable (periodo de cobro), el número de empresas que se incorpora a las estimaciones se reduce notablemente (622 comparadas con las más de 850 para el resto de los modelos).

Los resultados relativos al CTT difieren de aquellos planteados en la Hipótesis 4, encontrándose una relación positiva entre CTT y la rentabilidad, en línea con algunos trabajos, como Gill et al. (2010), Javid (2014) o Ng et al. (2017), si bien la mayoría de los estudios señalan una relación negativa. Algunas variables de control resultaron significativas en los modelos estimados. En particular, tanto el tamaño como el crecimiento en ventas mantienen una relación positiva con la rentabilidad (a mayores ingresos de explotación y crecimiento de ventas, mayor rentabilidad).

5. Discusión

En esta sección apuntaremos algunos elementos de gestión e implicaciones teóricas derivadas del presente trabajo, así como limitaciones y posibles nuevas investigaciones. En primer lugar, el sector de la producción de electricidad posee una serie de características muy específicas como sector, lo que tiene como consecuencia que el comportamiento de determinadas variables relativas al capital circulante sea diferente al de los análisis para empresas de diferentes sectores. Por lo tanto, la gestión del capital circulante en las empresas de electricidad tendrá unos rasgos específicos, en particular en relación con la gestión de existencias, cuya prioridad no será reducir los plazos para disminuir costes, si no evitar costes de ruptura, manteniendo siempre un stock de seguridad.

Al mismo tiempo, los resultados relativos al plazo de pago indican importantes diferencias derivadas del tamaño de la empresa y su diferente capacidad de negociación con los proveedores, lo que tiene efectos sobre la rentabilidad. Por lo tanto, sería importante desarrollar políticas públicas que faciliten la capacidad de obtención de
materias primas para la producción eléctrica, como instrumento para mejorar la situación relativa de las compañías de menor tamaño.

En relación con esta última cuestión, una interesante línea de análisis futura sería la realización de un estudio similar, pero atendiendo a la variable tamaño entre empresas, y así poder observar diferentes comportamientos en la gestión del circulante, lo que permitiría ofrecer recomendaciones de política económica con mayor grado de detalle. En el mismo sentido, sería también interesante observar el diferente comportamiento por tipo de tecnología empleada para la producción eléctrica, dado que los insumos entre modelos de producción son muy diversos y los plazos tanto de existencias como de pago pueden ser, en consecuencia, muy distintos.

Por otra parte, este trabajo no estuvo exento de limitaciones. En particular, la información obtenida a través de SABI dificulta la estratificación de las empresas por actividad y tecnología empleada. Al mismo tiempo, los filtros establecidos para la generación de la muestra final también pueden tener consecuencias en la distribución de la muestra, limitando el peso de empresas orientadas a actividades no solo de producción, si no también contando con actividades de comercialización.

6. Conclusiones

El objetivo del presente trabajo pasa por observar si la gestión del circulante en las empresas de producción eléctrica afecta a su rentabilidad económica. Para ello, se construyó una muestra de 1.007 empresas eólicas, térmicas e hidroeléctricas durante el periodo 2010 – 2017, realizando estimaciones a través de modelos de efectos fijos y de efectos aleatorios, siendo asumidos los primeros como más consistentes dados los resultados del test de Hausman. Se trata, así, del primer trabajo que realiza un análisis similar para el sector en España, y uno de los primeros en el mundo específico para la producción eléctrica.

Para el análisis del sector se presentaron cuatro hipótesis que fueron rechazadas. Mientras se observa que el plazo de cobro no resulta significativo, los plazos de existencias y el CTT muestran una relación positiva con la rentabilidad económica de las empresas productoras de energía eléctrica. Por su parte, el plazo de pago parece mantener una relación en forma de U con la rentabilidad, si bien este resultado ha de ser tomado con mucha cautela.

Finalmente, algunas variables de control también resultaron significativas. Así, el tamaño y el crecimiento de las ventas mantienen una relación positiva con la rentabilidad económica de las empresas del sector.

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REAL TRANSFER FROM UNIVERSITIES IN THE GALICIA-NORTH PORTUGAL EUROREGION: ANALYSIS OF USOS GROWTH

María Jesús Rodríguez-Gulías¹; David Rodeiro-Pazos²; Sara Fernández-López³; Ana Paula Faria⁴; Natalia Barbosa⁵

Abstract

Purpose: The aim of this work is to analyse the business growth of university spin-offs (USOs) as a "living firm" sign that reflects the real and competitive transfer of research results from the University to the productive sector.

Methodology: The sample was made up of 214 USOs, 49 Galician and 165 from Northern Portugal. In order to have standardized information of the USOs, the SABI (Iberian Balance Analysis System) database was used to collect sales data over the period 2000-2017. Based on those data, a descriptive analysis of the USOs sales and growth was performed. Finally, the growth averages are compared between the USOs of Galicia and those of the North of Portugal by a t-test with the intention of identifying differences between the two territories.

Originality: To the best of our knowledge, no study on USOs growth has been conducted in the Galicia – North Portugal Euroregion.

Findings: The results of descriptive analyse seem to indicate that there is a real transfer of the universities of the Euroregion through the creation of USOs since these firms have positive sales growth data and therefore would not be "living dead" that survive without growing thanks to the support institutional. Additionally, the t-test found no significant differences in terms of sales growth but there is a difference in total sales.

Practical implications: USOs must be supported as they contribute to the research results real transfer.

Research limitations: It is impossible to know if all the products sold are derived from the technology transferred from the universities.

Keywords: University spin-offs; Growth; Net sales; Euroregion Galicia-North of Portugal.

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1. Introducción

En el contorno macroeconómico actual, se considera que la competitividad del territorio está en gran medida vinculada a su capacidad para investigar, tanto en el ámbito público como privado, y para transferir esta investigación al mercado. En este sentido, el Plan de Inversión Conjunto de Euroregión Galicia-Norte de Portugal (2014-2020) (PIC)\(^1\) establece como uno de sus ejes prioritarios lograr “E1. Una Euroregión innovadora que apuesta por la investigación y la transferencia”.

En particular, la prioridad estratégica “P2. Potenciación de la transferencia de resultados al sector productivo” pretende aliviar la debilidad identificada en el análisis diagnóstico del PIC que indica una interacción débil entre el sector público y privado y que produce deficiencias significativas en el uso de los resultados de I+D+i. Es por eso por lo que el PIC establece planes de inversión en esta área, en concreto “1.2.1. Promoción de EBT y Spin-off que fomentan la cooperación en I+D+i entre empresas, centros de investigación y administraciones”, ya que la creación de USO es una de las formas disponibles para transferir los resultados de la investigación de las Universidades.

El objetivo de este trabajo es analizar el papel de las USO como “catalizadoras del I+D+i” desarrollado en las Universidades de la Euroregión Galicia-Norte de Portugal, esto es, analizar la efectividad de la transferencia de resultados de investigación y, por tanto, la contribución de las USO a una Euroregión más innovadora. Para ello se estudia el crecimiento de las USO, medida habitual del éxito empresarial, tratando de reflejar lo que hemos llamado “transferencia real”, esto es, el éxito de la transferencia.

Con la intención de lograr el objetivo planteado, el presente estudio se estructura en seis epígrafes. Después de esta introducción, se realiza una revisión de la literatura sobre el crecimiento de las USO. Seguidamente, en el tercer apartado, se detallan los datos, las variables y la metodología seguida en este trabajo. Los resultados obtenidos se muestran el cuarto epígrafe y se discuten en el quinto. Finalmente, en el sexto apartado, se establecen las principales conclusiones, se proponen medidas y políticas a aplicar, se muestran las limitaciones y se proponen futuros trabajos a realizar.

2. Revisión de la literatura

Los mecanismos de transferencia de tecnología y de conocimiento en las universidades se han modernizado y actualizado en las últimas décadas facilitando la interacción universidad-empresa. Uno de los que ha tenido un mayor desarrollo es la creación de USO. La creación de una USO constituye una vía directa de comercialización de nueva tecnología de la universidad, a través de la cual, el propio investigador, la universidad y la sociedad pueden obtener una serie de beneficios (Bray y Lee, 2000). Además, estas empresas pueden facilitar la transferencia de conocimiento de forma continuada (Beraza, 2010) mediante nuevos contratos entre grupos de investigación y las propias USO.

La creación de USO genera beneficios económicos y sociales especialmente positivos en el área geográfica en la que se instalan (Zucker et al., 1998). Se crean redes de empresas basadas en la tecnología que atraen inversión externa (Beraza, 2010) y estimulan el desarrollo de infraestructuras y servicios de apoyo que pueden beneficiar a otras nuevas empresas (Lockett et al., 2003). También aumentan las opciones de salida laboral de calidad para personal altamente cualificado (Hernández et al., 2003). Pero estas empresas también pueden generar beneficios en un ámbito mayor que el local o regional, ya que ponen en el mercado productos y servicios altamente innovadores que cubren necesidades insatisfechas hasta el momento (Beraza, 2010). Algunas de las USO se centran en ámbitos tan específicos que su mercado potencial puede ser mayor

\(^1\)Disponible en:
que el local. Son este tipo de empresas las que generalmente atraen también inversores extranjeros.


Por tanto, parece que no siempre hay una transferencia real y competitiva. Mediante la creación de USO. En ocasiones, estas empresas tienen la posibilidad de sobrevivir largos períodos de tiempo, mostrando un crecimiento reducido debido al apoyo de los actores que les proporcionan los recursos necesarios para que la empresa no cierre (Ferguson y Olofsson, 2004), esto se conoce como el fenómeno de los “muertos vivientes” (Hayter, 2010).


En las empresas de nueva creación, el crecimiento es comúnmente considerado como el indicador de resultados más relevante (Wennberg et al., 2011). Otra de las medidas utilizadas habitualmente en la literatura es el empleo. En este trabajo, dado que el crecimiento del empleo depende de los cambios en la productividad de los trabajadores causados por los avances tecnológicos o como se ha mencionado, en ocasiones en el caso de las USOs, este es financiado por terceros para continuar en funcionamiento (Ferguson y Olofsson 2004; Hayter 2010), decidimos utilizar el crecimiento de las ventas.

En este sentido, el crecimiento de las ventas muestra la aceptación en el mercado de los bienes / servicios de la empresa y, por lo tanto, es un buen indicador de su éxito. De este modo, en este trabajo se ha considerado el crecimiento en las ventas netas de las USO como reflejo de su éxito empresarial y señal de que no son “muertos vivientes”. El objetivo de este trabajo es analizar el crecimiento del negocio de las USO como un signo de "empresa viva" que refleja la transferencia real y competitiva de los resultados de la investigación de la Universidad al sector productivo.

### 3. Datos y metodología

En este trabajo se ha empleado una base de datos longitudinal conformada por 214 USO de la Eurorregión Galicia-Norte de Portugal, de las cuales 49 son gallegas y 165 del Norte de Portugal, todas ellas creadas en 2010 o antes y observadas durante el período 2000 – 2017. La muestra de estudio final se consiguió de la fusión de dos bases de datos originales preexistentes. Por una parte, la base de datos de 531 USO españolas construida por Rodríguez-Gulías et al. (2016). Por otra parte, la base de datos de 580 USO portuguesas elaborada por Conceição et al. (2017). Se mantuvieron únicamente en la muestra de estudio de este trabajo aquellas USO ubicadas en la Eurorregión Galicia-Norte de Portugal.

Los datos de ventas netas, a partir de los que se calcula el crecimiento en ventas, se obtuvieron de la base de datos SABI1 y se reflejan en este trabajo como medida del tamaño de las USO. En la Tabla 1 se muestra la definición de ambas variables.

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1 [www.sabi.bvdinfo.com](http://www.sabi.bvdinfo.com)
Tabla 1 - Definición de las variables de análisis

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DEFINICIÓN</th>
</tr>
</thead>
<tbody>
<tr>
<td>VENTAS</td>
<td>Ventas netas obtenidas en el año $t$ (en términos nominales)</td>
</tr>
<tr>
<td></td>
<td>Tasa de crecimiento anual de las ventas netas, calculada como la diferencia en las ventas netas del año $t$ y las ventas netas de $t-1$ dividida las ventas netas de $t-1$.</td>
</tr>
</tbody>
</table>

Fuente: Elaboración propia.

En base a los datos y variables expuestos, el análisis descriptivo ha sido la metodología empleada en este trabajo. En primer lugar, para las ventas netas y el crecimiento de las ventas netas de las USO de la Eurorregión Galicia-Norte de Portugal de forma conjunta, se calculan los estadísticos descriptivos (número de observaciones, media, desviación típica, mínimo y máximo) y se elaboran gráficos que muestran la evolución de estas variables a lo largo del periodo de estudio (2000 - 2017). En segundo lugar, para las USO de cada una de las regiones que conforman la Eurorregión (Galicia y Norte de Portugal) se calculan de forma separada los estadísticos descriptivos, se realiza un test estadístico de diferencia de medias ($t$-test) con el objetivo de determinar si las diferencias entre ambos territorios son significativas y se elaboran gráficos que muestran la evolución de estas variables a lo largo del periodo de estudio (2000 - 2017).

4. Resultados

El análisis de los estadísticos descriptivos de las ventas netas y el crecimiento de estas en las USO de la Eurorregión Galicia - Norte de Portugal se muestra en la Tabla 2.

| Tabla 2 - Estadísticos descriptivos: Eurorregión Galicia – Norte Portugal |
|-----------------------------|--------------------------|-----------------|-----------------|-----------------|-----------------|
| Variable                  | Obs. | Media | Desv. típica | Min  | Max  |
| VENTASº                   | 2080 | 779,00 | 1754,72 | 0,00 | 18182,64 |
| CRECIMIENTO               | 1706 | 1,70   | 21,93   | -1,00 | 792,42   |

Nota: * Datos en miles de euros

Fuente: Elaboración propia.

En las USO de la Eurorregión Galicia – Norte de Portugal las ventas netas anuales promedio son de 779 miles de euros, mientras que el crecimiento anual medio de las mismas es del 170,16% para el periodo 2000-2017 (Tabla 2). Por años, el Gráfico 1 y el Gráfico 2 muestran respectivamente la evolución de las ventas netas medias y del crecimiento medio de las ventas netas de las USO de la Eurorregión.
A partir del año 2006, en general, la tendencia es positiva en cuanto a la evolución de las ventas netas medias (Gráfico 1).

En cuanto al crecimiento medio (Gráfico 2), este se sitúa para todo el periodo en valores positivos. Nótese el importante pico producido en 2002. Hay que interpretar este pico con cautela ya que se debe al hecho de que existen muy pocas observaciones de crecimiento para dicho periodo, únicamente cuatro USO tienen datos de ventas en 2001 y 2002 que permitan calcular su crecimiento, y que una de ellas presenta valores ciertamente elevados distorsionando la media. En concreto, la citada USO pasa de vender en torno a 4 mil euros en 2001 (año de su constitución) a 845 miles de euros en 2002.

Seguidamente, se recogen de forma separada los estadísticos descriptivos de crecimiento en ventas netas de las USO de Galicia y del Norte de Portugal y se
compran las medias mediante la realización de un test estadístico, concretamente un t-test (Tabla 3).

<table>
<thead>
<tr>
<th>Variable</th>
<th>GALICIA</th>
<th>NORTE PORTUGAL</th>
<th>N</th>
<th>Media</th>
<th>N</th>
<th>Media</th>
<th>t-test</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>VENTAS *</td>
<td>423</td>
<td>650,40</td>
<td>1657</td>
<td>811,83</td>
<td>1,689*</td>
<td>0,0913</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRECIMIENTO</td>
<td>363</td>
<td>1,51</td>
<td>1343</td>
<td>1,75</td>
<td>0,1887</td>
<td>0,8504</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Nota:** * Datos en miles de euros. * p < 0,1; ** p < 0,05; *** p < 0,01

Fuente: Elaboración propia.

Los resultados (Tabla 3) muestran que las ventas netas anuales promedio de las USO son de, aproximadamente, 650 miles de euros en Galicia, mientras que en el Norte de Portugal asciende a 812 miles de euros, siendo esta diferencia significativa según el análisis t-test. De este modo, parece que las USO del Norte de Portugal presentan un tamaño significativamente superior al de las gallegas. En cuanto al crecimiento promedio de las ventas netas, este es del 151% en las USO de Galicia y del 175% en las del Norte de Portugal. En este caso el t-test no ha resultado significativo. Así, aunque el crecimiento promedio en las USO del Norte de Portugal es ligeramente superior al que presentan las USO gallegas, esta diferencia no es significativa estadísticamente. Finalmente, la evolución de las ventas netas medias y del crecimiento medio de las ventas netas de las USO gallegas y del Norte de Portugal se recogen en el Gráfico 3 y el Gráfico 4 respectivamente.


En cuanto a las ventas netas medias (Gráfico 3), en el caso de las USO gallegas es posible observar una evolución algo más estable con una tendencia creciente a lo largo de todo el periodo, mientras que en el caso de las USO del Norte de Portugal las ventas netas medias caen entre 2003 y 2008, tomando una tendencia positiva a partir de este periodo. Comparativamente, se observan datos claramente más elevados para el caso del Norte de Portugal en cuanto a ventas netas medias para los períodos anteriores a 2008, situándose en valores próximos ambas regiones a partir de dicho periodo y siendo incluso superiores en Galicia para los años 2011 y 2017.
Por su parte, el crecimiento medio de las ventas netas en las USO de Galicia y el Norte de Portugal se sitúa en valores próximos a lo largo del periodo de análisis, exceptuando los años 2010 a 2012 donde el crecimiento medio en el Norte de Portugal toma valores superiores, especialmente en 2012. Tómense con cautela los valores especialmente altos para la submuestra del Norte de Portugal en 2012 puesto que se deben a los valores presentados por únicamente dos de las empresas observadas que en este periodo ven sus ventas netas incrementadas de forma exponencial.

5. Discusión

El análisis de los estadísticos descriptivos de las USO de la Eurorregión Galicia – Norte de Portugal parece indicar que hay una transferencia real de las Universidades de la Eurorregión a través de la creación de USO, ya que estas presentan, en promedio, datos positivos de ventas netas y crecimiento de estas y, por lo tanto, no serían "muertos vivientes" que sobreviven sin crecer gracias al apoyo institucional. De esta forma, las USO podrían estar jugando el papel de "catalizadoras del I+D +i" desarrollado en las Universidades de la Eurorregión, y, por tanto, contribuyendo a una Eurorregión más innovadora. El debate sobre la contribución de las USO a la economía sigue estando en la mesa de políticos, administraciones y gestores de universidades, entre otros agentes. Desde el punto de vista principalmente descriptivo de este trabajo las USO son consideradas como una alternativa adecuada para la transferencia de conocimiento de las universidades a la sociedad.

Además, del análisis de diferencia de medias entre las USO gallegas y las del Norte de Portugal, parece que, si bien las USO del Norte de Portugal son significativamente más grandes en términos medios de ventas netas, no hay diferencias significativas en términos de crecimiento de las ventas de las USO entre ambos territorios. En este sentido, sería interesante analizar cuál es el punto de salida de las USO en ambas regiones para conocer si existen diferencias que provoquen ese nivel diferente de ventas netas. En muchas ocasiones se ha mencionado que existe un gap temporal muy amplio entre el nacimiento de las USO y el momento en que alcanzan un nivel de ventas significativo. Es por ello por lo que la existencia de un nivel de ventas adecuado desde los primeros años puede ayudar al desenvolvimiento de las USO.
6. Conclusiones

En la actualidad, la potenciación de la transferencia de los resultados de I+D+i de las Universidades al sector productivo es una de las preocupaciones de los responsables políticos. La creación de USO es una de las vías disponibles para tal fin, pese a que no siempre garanticen una transferencia real y competitiva. El objetivo de este trabajo es analizar el papel de las USO de la Eurorregión Galicia-Norte de Portugal como "catalizadoras del I+D+i" desarrollado en las Universidades y, por tanto, su contribución a una Eurorregión más innovadora. Para tal fin se estudia el crecimiento en ventas de las USO de la Eurorregión, concluyendo que este es positivo durante todo el periodo de análisis y reflejando la transferencia real al sector productivo del I+D+i universitario. Además, no se encuentran diferencias significativas en cuanto al crecimiento de las USO gallegas y las del Norte de Portugal.

Las recomendaciones a establecer están orientadas a facilitar el crecimiento de estas empresas. Ya que en un primer momento la expansión de estas se realiza en los entornos más cercanos se propone el desarrollo de mecanismos que faciliten la inserción en los mercados de la Eurorregión. Al estar formado por zonas geográficas de dos países diferentes puede permitir a las USO conocer cómo funcionan mercados diferentes al de su lugar de origen. La realización de encuentros entre los equipos de USO de las dos zonas, programas de intercambio o de conocimiento de mejores prácticas también pueden facilitar el crecimiento. Finalmente, las siempre mencionadas ayudas de financiación pueden colaborar en este objetivo, por ejemplo; mediante sociedades de garantía recíproca, identificación de inversores o contacto con business angels.

No nos consta que exista ningún estudio previo sobre el crecimiento de las USO en la Eurorregión Galicia - Norte de Portugal. No obstante, como suele ser habitual, el presente estudio no está exento de limitaciones. La principal limitación es que no es posible saber si el total de las ventas netas registradas por las USO se deben a productos o servicios derivados de la tecnología transferida desde las universidades. Esto supone que se podría estar sobreestimando el éxito de la transferencia. En el futuro sería interesante poder diferenciar las ventas basadas en el I+D+i transferido desde las universidades de las ventas derivadas de productos o servicios no vinculados con la misma. Por otra parte, las ventas netas se han medido en términos nominales, en el futuro, de cara a proporcionar una comparación intertemporal más adecuada, convendría ajustar estos datos para realizar el análisis en términos reales. Adicionalmente, en un futuro, al disponer de una muestra más completa, los datos de ventas estarían más “estabilizados” arrojando resultados más robustos. Por otra parte, sería interesante estudiar los determinantes del crecimiento de las USO de la Eurorregión Galicia-Norte de Portugal. ¿Los factores que inducen el crecimiento son los mismos para las USO gallegas que para las del Norte de Portugal? Sería posible realizar este análisis empleando la metodología de datos del panel. Por último, un análisis que incluya USOS y empresas similares creadas fuera de la universidad ofrecería una visión comparativa del crecimiento de ambos grupos.

Agradecimientos

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Referencias


THE ROLE OF USOS IN THE ACHIEVEMENT OF A MORE INNOVATIVE GALICIA-NORTH PORTUGAL EUROREGION

María Jesús Rodríguez-Gulías ¹; Sara Fernández-López ²; David Rodeiro-Pazos ³; Natalia Barbosa ⁴; Ana Paula Faria ⁵

Abstract:

Purpose: The aim of this work is to analyse the direct contribution of university spin-offs (USOs) from Galicia and Northern Portugal to the achievement of the priority axis E1: “An innovative Euroregion that bets on research and transfer”.

Methodology: A dataset of 49 Galician and 165 Northern Portugal USOs is observed over the period 2002-2017 to analyse one of the main indicators of innovation: patents. The patent data have been compiled from ESPACENET for both Galician and Northern Portugal USOs. Patent variables, both applied and granted, have been collected at different territorial levels. The analysis performed includes descriptive statistics of the patent variables and a statistical test of mean difference for the USOs companies of the two regions considered.

Originality: To the best of our knowledge, no study on USOs innovation performance has been conducted in the Galicia – North Portugal Euroregion.

Findings: The results of descriptive analyse show that studied USOs perform patent activity including presence beyond their borders. The comparative analysis (t-test) results show that the USOs from Galicia present greater activity of patents that those from Northern Portugal.

Practical implications: USOs contribute to the euroregional innovation, so they must be supported.

Research limitations: We only considered USO’s innovation in terms of patent activity, which can underestimate the innovative activity of USOs, since not all innovations are patented.

Keywords: University spin-offs; Innovation; Patents; Galicia-Northern Portugal Euroregion.

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1. Introducción

Uno de los cuatro ejes prioritarios establecidos por el Plan de Inversión Conjunta de la Eurorregión Galicia-Norte de Portugal (2014-2020) (en adelante PIC\(^1\)) es lograr “E1. Una Eurorregión innovadora que apuesta por la investigación y la transferencia”. Los análisis DAFO incluidos tanto en el PIC (página 44) como en la RIS3 Transfronteriza\(^2\) (página 36) coinciden en señalar el bajo número de patentes como una de las principales debilidades del sistema de I+D+i de la Eurorregión Galicia-Norte de Portugal. Por otro lado, el PIC considera a las USO como catalizadoras de la transferencia de resultados al sector productivo. Esto queda reflejado en proyectos de inversión tales como el establecido por el PIC “1.2.1. Promoción de EBT y Spin-off que fomenten la cooperación en I+D+i entre empresas, centros de investigación y administraciones” que intentan paliar otra de las debilidades identificadas en el análisis de diagnóstico del PIC, que indica una interacción débil entre el sector público y el privado y que produce carencias significativas en el aprovechamiento de los resultados de I+D+i.

Sin embargo, el PIC deja de lado otra contribución potencial de las USO al eje prioritario E1, es decir, no contempla la contribución directa de las USO al sector productivo que, en muchos casos, puede llevar asociada actividad de I+D+i o ser una actividad de I+D+i en sí misma.

Este trabajo pretende dar un paso más y analizar la contribución directa de las USO de la Eurorregión Galicia-Norte de Portugal como “generadoras de I+D+i” a la consecución de una Eurorregión más innovadora mediante el análisis de sus datos de patentes. Para alcanzar el objetivo propuesto, este trabajo se divide en seis apartados. Tras esta introducción, se revisa la literatura sobre la innovación en las USO. En el tercer apartado, se detalla la metodología seguida. En el cuarto epígrafe se presentan los resultados obtenidos, que se discuten en el quinto apartado. Por último, se establecen las principales conclusiones y se proponen una serie de medidas y políticas a aplicar por parte de los responsables en el ámbito de las USO.

2. Revisión de la literatura

En las últimas décadas el modelo de Triple Hélice, propuesto por Etzkowitz y Leydesdorff (2000), ha sido empleado como marco para el estudio de las relaciones entre Estado, Universidad y Empresa. Dentro de este modelo la Universidad, las instituciones académicas, participan activamente en la economía. Las universidades y sus centros de investigación constituyen uno de los principales focos de creación de conocimiento, de tal forma que a través de la interacción con los otros agentes de la economía este conocimiento puede ser trasladado a la sociedad.

En el análisis de la innovación y el cambio tecnológico se ha prestado una atención creciente a la transferencia de conocimiento y la cooperación entre la investigación realizada dentro de las universidades y el sector empresarial (Schartinger et al., 2002). En este sentido, el modelo de la Triple Hélice se ha utilizado para fomentar las innovaciones y el crecimiento empresarial y regional. Eztkowitz y Leydesforff (2000), afirman que las relaciones establecidas en la Triple Hélice son un elemento clave en la estrategia de la innovación. Recientemente autores como Carayannis et al, (2012) hablan de un modelo de “quintuple helix” en donde estas nuevas helices son necesarias para construir una sociedad basada en el conocimiento y la innovación (Dubina et al., 2012; Kolehmainen et al., 2016).

\(^1\) Disponible en: https://iacobus.gnpaect.eu/sites/default/files/docs/descarga/pic_eurorrexion_gnp_13.pdf
\(^2\) Disponible en: https://iacobus.gnpaect.eu/sites/default/files/docs/descarga/ris3t-ris3_transfronteriza_galicia-norte_portugal.pdf
Dentro de estos modelos Etzkowitz y Klofsten (2005) justifican el papel de la universidad en la innovación, al mismo nivel que el sector industrial y el gobierno, tomando como base la sociedad del conocimiento. Además, señalan que las políticas de innovación son un resultado de la interacción y de las relaciones de colaboración entre los diferentes agentes en lugar de decisiones unilaterales. En este sentido, diversos autores han encontrado una relación positiva entre las actividades en I+D a nivel regional y las innovaciones de producto (Tojeiro-Rivero y Moreno, 2019) y de proceso (López-Bazo y Motellón, 2018) a nivel empresarial.

A la hora de transferir ese conocimiento entre las universidades y la industria existe una gran variedad de opciones (Bekkers y Bodas Freitas, 2008) y la mayor parte de los gobiernos y autoridades han buscado el desarrollo de diversos mecanismos. El desarrollo de patentes, de espacios de trabajo comunes, el aumento de número de contratos y licencias o la creación de empresas son algunos de ellos. Dentro de los mismos, la creación de USO ha sido uno de los que ha centrado la mayor atención (Shane, 2004). Uno de los motivos para ello es que el emprendimiento es generalmente presentado como una actividad innovadora y disponer de un entorno socioeconómico que favorezca el mismo facilita el desarrollo de las regiones (Vázquez-Rozas et al., 2012). Por tanto, las USO son una vía para crear empresas que tengan origen en las universidades y que, en ocasiones, sirven para ofertar tecnologías que de otra forma no alcanzarían el mercado (Fini et al., 2018).

Sí bien, no existe una opinión consensuada sobre la importancia de las USO, sí que existen numerosos autores que afirman que estas empresas tienen una supervivencia mayor que otras empresas y que realizan una contribución a la generación de empleo, a los niveles de exportación, a la innovación y en general al desarrollo regional (Storey y Tether, 1998; Fernández, et al., 2007). Además, las spin-offs se dan en mayor medida en industrias en las que las patentes son más efectivas (Beraza Garmendia y Rodríguez Castellanos, 2010).

Para conocer el nivel de innovación de estas empresas se pueden analizar diversos indicadores, entre los que el nivel de patentes es uno de los más empleados. El número de patentes solicitadas y/o concedidas es considerado como una forma de evaluar el nivel de innovación de las empresas (Liberati et al., 2016; Lamperti et al., 2015; Motohashi, 2013). Las patentes son un indicador objetivo del proceso innovador, por ser un mecanismo que necesita un proceso de evaluación y registro independiente.

La existencia de patentes permite un mayor nivel de protección e impedir que los competidores exploten la misma tecnología. En el caso específico de las USO muchos inventores necesitan un periodo de tiempo amplio para crear una cartera de patentes adecuada que sea el origen de la spin-off (Wallmark, 1997). Por ello, la protección de la propiedad intelectual es importante para una spin-off, porque es la única ventaja competitiva disponible frente a las empresas establecidas (Beraza Garmendia y Rodríguez Castellanos, 2010).

Por tanto, en los próximos epígrafes analizaremos el nivel de innovación, medido a través de las patentes, de las USO de la Eurorregión por ser estas un mecanismo empleado dentro del modelo de Triple Hélice para el desarrollo de la cooperación entre agentes y el fomento de la innovación.

3. Datos y Método

Para realizar el análisis propuesto, se utiliza una base de datos longitudinal conformada por 214 USO de la Eurorregión Galicia-Norte de Portugal, 49 de ellas gallegas y 165 del Norte de Portugal, creadas en 2010 o antes y observadas durante el período 2002 – 2017. Esta muestra final se obtuvo de la combinación de dos bases de datos originales preexistentes. Por un lado, la base de datos de 531 USO españolas construida por Rodríguez-Guilas et al. (2016). Por otro lado, la base de datos de 580 USO portuguesas elaborada por Conceição et al. (2017). Del número total de USO españolas y portuguesas de las bases de datos originales, se descartaron de la muestra de estudio.
de este trabajo aquellas USO ubicadas fuera de la Eurorregión Galicia-Norte de Portugal.
Como medida del esfuerzo en I+D+i de las USO se emplearon diversas variables de patentes. Los datos de patentes se obtuvieron recurriendo a la base de datos Espacenet\(^1\), disponible de forma gratuita a través de la Oficina Europea de Patentes (EPO). Las patentes son derechos territoriales; esto significa que solo pueden aplicarse en los países donde la protección se ha establecido y está vigente. Así, las variables de patentes, tanto solicitadas como concedidas, se construyeron a diferentes niveles territoriales. La Tabla 1 muestra con más detalle cómo se define cada una de las variables de patentes estudiadas en este trabajo.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DEFINICIÓN</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES_A</td>
<td>Número de patentes solicitadas en España (ES) por año de prioridad</td>
</tr>
<tr>
<td>PT_A</td>
<td>Número de patentes solicitadas en Portugal (PT) por año de prioridad</td>
</tr>
<tr>
<td>ES_B</td>
<td>Número de patentes concedidas en ES por año de prioridad</td>
</tr>
<tr>
<td>PT_B</td>
<td>Número de patentes concedidas en PT por año de prioridad</td>
</tr>
<tr>
<td>WO_A</td>
<td>Número de solicitudes de patente PCT (Patent Cooperation Treaty) por año de prioridad</td>
</tr>
<tr>
<td>EP_A</td>
<td>Número de solicitudes de patente europeas (EP) por año de prioridad</td>
</tr>
<tr>
<td>EP_B</td>
<td>Número de patentes concedidas EP por año de prioridad</td>
</tr>
<tr>
<td>US_A</td>
<td>Número de solicitudes de patente en Estados Unidos (US) por año de prioridad</td>
</tr>
<tr>
<td>US_B</td>
<td>Número de patentes concedidas en US por año de prioridad</td>
</tr>
<tr>
<td>JP_A</td>
<td>Número de solicitudes de patente en Japón (JP) por año de prioridad</td>
</tr>
<tr>
<td>JP_B</td>
<td>Número de patentes concedidas en JP por año de prioridad</td>
</tr>
<tr>
<td>CN_A</td>
<td>Número de solicitudes de patente en China (CN) por año de prioridad</td>
</tr>
<tr>
<td>CN_B</td>
<td>Número de patentes concedidas en CN por año de prioridad</td>
</tr>
<tr>
<td>KR_A</td>
<td>Número de solicitudes de patente en República de Corea (KR) por año de prioridad</td>
</tr>
<tr>
<td>KR_B</td>
<td>Número de patentes concedidas en KR por año de prioridad</td>
</tr>
<tr>
<td>OT_A</td>
<td>Número de solicitudes de patente por año de prioridad en otros países (OT). Incluye: Argentina (AR), Australia (AU), Brasil (BR), Canadá (CA), Chile (CL), Colombia (CO), España (ES), Reino Unido (GB), Hong Kong (HK), Marruecos (MA), México (MX), Filipinas (PH), Polonia (PL) o Portugal (PT).</td>
</tr>
<tr>
<td>OT_B</td>
<td>Número de patentes concedidas por año de prioridad en OT: AR, AU, BR, CA, CL, CO, ES, GB, HK, MA, MX, PH, PL o PT.</td>
</tr>
</tbody>
</table>

| Fuente: Elaboración propia. |

La metodología empleada es el análisis descriptivo de los datos. En primer lugar, se calculan los estadísticos descriptivos (número de observaciones, media, desviación típica, mínimo y máximo) de las diferentes variables de patentes para las USO de la Eurorregión Galicia-Norte de Portugal. En segundo lugar, se calculan los estadísticos descriptivos para las USO de Galicia y Norte de Portugal de forma separada (Galicia vs. Norte de Portugal) y se realiza un test estadístico de diferencia de medias, en particular el \( t \)-test, con el objetivo de determinar si las diferencias entre ambos territorios son significativas. Finalmente, se elaboran gráficos que muestran la evolución de la actividad de patentes a lo largo del periodo de estudio (2002 - 2017) para cada una de las regiones que conforman la Eurorregión Galicia - Norte de Portugal.

### 4. Resultados

Los resultados obtenidos en términos del análisis de los estadísticos descriptivos de los datos de patentes de las USO de la Eurorregión Galicia - Norte de Portugal se muestran en la Tabla 5.

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\(^1\) https://worldwide.espacenet.com/
Tabla 5 - Estadísticos descriptivos: USO Eurorregión Galicia – Norte de Portugal

<table>
<thead>
<tr>
<th>Variable</th>
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<th>Max</th>
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<td>0,1247</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

Fuente: Elaboración propia.

El número anual promedio de patentes solicitadas españolas o portuguesas (ES_A o PT_A) por las USO de la Eurorregión Galicia – Norte de Portugal es de 0,0132 solicitudes de patente; mientras que la cifra media de patentes concedidas españolas (ES_B) o portuguesas (PT_B) es de 0,009 patentes por USO. A nivel internacional, es posible observar que las USO de la Eurorregión Galicia – Norte de Portugal en promedio solicitan anualmente por la vía internacional (WO_A) 0,0193 patentes, por la vía europea (EP_A) 0,0184 patentes, en la oficina de patentes de EEUU (US_A) 0,0132 patentes, en la oficina de Japón (JP_A) 0,0057 patentes, en la oficina de China (CN_A) 0,0047 patentes, en oficina de Corea (KR_A) 0,0047 patentes, y en otras oficinas (OTROS_A) 0,0099 patentes. En cuanto a patentes concedidas, los datos medios anuales son: por la vía europea (EP_B) 0,0066 patentes, en la oficina de patentes de EEUU (US_B) 0,0071 patentes, en la oficina de Japón (JP_B) 0,0033 patentes, en la oficina de China (CN_B) 0,0028 patentes, en oficina de Corea (KR_B) 0,0009 patentes, y en otras oficinas (OTROS_B) 0,0052 patentes. A continuación, se muestran los estadísticos descriptivos de los resultados de innovación de las USO de Galicia y del Norte de Portugal de forma separada y se comparan las medias mediante la realización de un test estadístico, concretamente un t-test (Tabla 3).
En la Tabla 3 es posible observar que el número anual medio de patentes solicitadas españolas por las USO gallegas (ES_A) es de 0,0346, mientras que el número anual medio de patentes portuguesas solicitadas por las USO del Norte de Portugal (PT_A) es de 0,0072. La cifra media de patentes concedidas españolas (ES_B) o portuguesas (PT_B) es de 0,0238 y 0,0048 para las USO de Galicia y las del Norte de Portugal respectivamente. Así, se observa una mayor actividad de patentes, en términos promedio, en las USO gallegas que en las del Norte de Portugal. Además, el análisis t-test muestra que estas diferencias son significativas.

En el ámbito internacional, los resultados (Tabla 3) muestran que las USO de Galicia presentan también mayor actividad de patentes que las del Norte de Portugal, resultando esta diferencia significativa en varios territorios (ES/PT_A, ES/PT_B, WO_A, EP_A, JP_A, JP_B, CN_A, KR_A y OTROS_A) según el análisis de diferencia de medias.

Finalmente, la evolución de la actividad de patentes, en cuanto a patentes solicitadas, de las USO gallegas y del Norte de Portugal se muestra en el Gráfico 3 y en cuanto a las ventas netas medias (Gráfico 3), en el caso de las USO gallegas es posible observar una evolución algo más estable con una tendencia creciente a lo largo de todo el periodo, mientras que en el caso de las USO del Norte de Portugal las ventas netas medias caen entre 2003 y 2008, tomando una tendencia positiva a partir de este periodo. Comparativamente, se observan datos claramente más elevados para el caso del Norte de Portugal en cuanto a ventas netas medias para los periodos anteriores a 2008, situándose en valores próximos ambas regiones a partir de dicho periodo y siendo incluso superiores en Galicia para los años 2011 y 2017.

Gráfico 4 respectivamente. Es posible observar una evolución algo más estable en el caso de las USO del Norte de Portugal, mientras que en Galicia se producen importantes diferencias entre periodos. En los últimos años de análisis las cifras de ambas regiones se muestran más próximas que en los años previos.
5. Discusión

Del análisis de los estadísticos descriptivos de los datos de patentes de las USO de la Euroregión Galicia – Norte de Portugal se desprende que, en términos medios, estas empresas contribuyen directamente a la consecución de una Euroregión más innovadora que apuesta por la investigación y la transferencia, hecho que se refleja en la existencia de actividad de patentes muy por encima de la media del total de empresas de la Euroregión. Entre el periodo que va entre los años 2008 a 2017, los únicos disponibles, según los datos de los institutos de estadística de Galicia y Portugal\(^1\), el

promedio de patentes solicitadas por las empresas en la Eurorregión era de 0,000239. Este valor es considerablemente inferior al de las USO. Adicionalmente, los datos muestran que las USO de la Eurorregión protegen sus invenciones más allá de sus fronteras, reflejando la proyección internacional de las mismas, puesto que proteger sus invenciones no solo en el país de origen de la empresa sino también en los principales mercados mundiales (EE. UU., Europa, Japón o China, entre otros).

En muchas ocasiones se ha cuestionado la utilidad de las empresas creadas en las universidades y si la inversión que es requerida para estas actividades de emprendimiento universitario en entornos académicos es útil. Hasta el momento no existen estudios que hayan contrastado la relación coste-beneficio de la creación de USO y probablemente no sea posible contestar a esa pregunta de una forma directa. La creación de empresas es una actividad que se ha extendido por un gran número de universidades y países y que constituye única y una actividad o parte de una estrategia mayor en la que universidades y sociedad tratan de aproximarse. Por tanto, este tipo de actividades no se pueden considerar de una forma aislada ya que forman parte de estrategias que fomentan las regiones innovadoras, la interacción de la triple hélice o simplemente una mayor conexión de la universidad con su entorno.

En este trabajo, de una manera muy simple, se ha mostrado que el nivel de innovación, medido a través del número de patentes, es superior a la media de empresas. De esta manera creemos que el apoyo a las mismas está justificado. También hemos comprobado como existen diferencias regionales por lo que el intercambio y aprendizaje de las mejores prácticas es una necesidad.

6. Conclusiones

Los responsables políticos reconocen como una de las principales debilidades del sistema de I+D+i de la Eurorregión Galicia-Norte de Portugal el bajo número de patentes registrado. El objetivo de este trabajo es analizar la contribución directa de las USO de la Eurorregión Galicia-Norte de Portugal, como “generadoras de I+D+i”, a la mejora de esta debilidad. Para ello se estudian sus datos de patentes mediante un análisis estadístico descriptivo. De este estudio es posible concluir que las USO de Galicia y Norte de Portugal contribuyen al logro de una Eurorregión más innovadora puesto que presentan actividad de patentes. Además, el análisis muestra también una importante proyección internacional de estas empresas dado que protegen sus invenciones en los principales mercados internacionales.

Adicionalmente, se analizan las diferencias existentes en los datos medios de forma comparativa entre Galicia y Norte de Portugal mediante un t-test. Los resultados muestran que en promedio las USO gallegas presentan significativamente mayor actividad de patentes en la mayoría de los territorios estudiados. En base a los resultados obtenidos las recomendaciones estarían en la línea del apoyo a la obtención de un mayor número de patentes por parte de las USO. Las patentes facilitan la participación de nuevos inversores y la obtención de capital externo. Además, las USO pueden seguir una estrategia de diferenciación frente a las economías de escala y otras ventajas en costes que habitualmente utilizan las empresas establecidas (Shane, 2001). Algunos mecanismos de apoyo a la obtención de patentes por parte de las USO pueden ser la financiación y asesoramiento por parte de las universidades de origen en la solicitud. También pueden establecerse convenios de colaboración entre universidad y USO para la creación y transferencia de nuevo conocimiento patentable. Debemos indicar que aquellas empresas que ya poseen alguna patente deben de continuar renovando y actualizando su cartera de patentes para posicionarse adecuadamente en el mercado, ya que las industrias en las que operan acostumbra a tener una gran variabilidad.

Hasta donde sabemos, no se ha realizado ningún estudio previo sobre el desempeño de la innovación en las USO de la Eurorregión Galicia - Norte de Portugal. Sin embargo,
como es habitual, el presente trabajo no está exento de limitaciones. La principal limitación es que se considera la innovación de las USO únicamente en términos de actividad de patentes. Esto podría subestimar la actividad innovadora de las USO, puesto que no todas las innovaciones son susceptibles de patentar o, aun siéndolo, la empresa puede optar por no hacerlo. Continuando con esta línea de investigación, en el futuro sería interesante incorporar otras medidas de actividad de innovación como el gasto en investigación y desarrollo (I+D) o la introducción de nuevos productos en el mercado o de nuevos procesos de producción. Así mismo, sería de interés comparar los resultados obtenidos con otras regiones.

Referencias


THE IMPACT OF BLENDED LEARNING IN WRITTEN SKILLS ACQUISITION OF SPANISH AS A SECOND LANGUAGE (SL2): AN EMPIRICAL RESEARCH WITH STUDENTS OF TOURISM, ADMINISTRATION AND HOSPITALITY MANAGEMENT

Alegría Beltrán

Abstract

Purpose: The aim of this work is to show the importance of a blended learning approach in higher education SL2 written skills acquisition. The level of language and the processing and expression of ideas are improved by the interactions between face to face learning (written composition in the classroom), e-learning environment (discussion panels and collaborative writing – wikis) and written production in a context of formal assessment (reports and exams).

Methodology: Considering the recent literature on blended learning and L2 writing as theoretical framework, this empirical research tries to explore the written production of B1 level (CEFR) SL2 students of Tourism, Administration and Hospitality Management, in order to show the advantages of blended learning.

Originality: The research on written acquisition of SL2 in higher education is relevant as it opens a new line of research on second language writing (SLW) that has been mainly focused on the study of English as a second language (EL2). It also approaches the study of the interactions between new learning tools and their contribution to the successful achievement of L2.

Findings: This work exposes a consistent approach to L2 writing acquisition, that enables students to learn a second language and articulate, organize and share ideas, which is essential for the development of critical thinking, a big must nowadays.

Keywords: Spanish as a second language (SL2); L2 writing; Blended learning; Higher education; Critical thinking.

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THE EFFECT OF ACADEMIC SELF-EFFICACY ON THE INTENTION TO CREATE A NEW BUSINESS: A CASE STUDY INVOLVING HIGHER EDUCATION PORTUGUESE STUDENTS
Maria Isabel Ribeiro 1; António José Fernandes 2; António Pedro Fernandes 3

Abstract

Purpose: This study aimed to know the level of academic self-efficacy of higher education students and to verify the effect of academic self-efficacy on the intention to create new business.

Methodology: To achieve these objectives, a quantitative and cross-sectional study was carried out based on a probabilistic sample of 1329 Portuguese students out of 6500, who attended, in academic year 2018-2019, a Portuguese higher education institution. The margin of error was 2.40%. To collect the data, a questionnaire was directly applied to the students, in the classroom in the presence of the teacher, from October 2018 to January 2019. Students' participation was voluntary and the anonymity and data confidentiality were guaranteed to all participants. The questionnaire had three sections. The first section included sociodemographic and academic variables. The second section included the adaptation of the perceived self-efficacy scale validated for the Portuguese population, in an academic context (Cerdeira, 1995). This scale consists of ten items, the answers being coded by a Likert-type scale, which ranges from 1 (Strongly disagree) to 7 (Strongly agree). Finally, the third section comprised the Simões (2016) scale consisting of four items that aimed to evaluate the entrepreneurial intention of the students. The answers were coded using a Likert scale ranging from 1 (a little) to 7 (a lot). A linear regression model was estimated in order to verify if academic self-efficacy (X1) is a predictor of the intention to create a new business (Y).

Findings: Students were aged between 17 and 47 years old and attended a degree course within four different scientific areas, existent in the institution, namely Education (62.1%), Technologies and Management (21.1%), Agriculture (5.9%) and Health (10.8%). The majority was female (54.7%) and attended a 1st cycle degree course (88.3%) in an ordinary full-time attendance mode (96.5%). The students registered a moderate level of academic self-efficacy (Mean = 4.56; SD = 1.08) and a moderate entrepreneurial intention (Mean = 3.87; SD = 1.49). Academic self-efficacy presents a correlation statistically significant, positive and moderate with entrepreneurial intention (R = 0.573; p-value = 0.000). The linear regression model was statistically significant (F = 649.93; p-value = 0.000). It was found that academic self-efficacy is a predictor of entrepreneurial intention. Moreover, the value of R2 adjusted showed that this predictor account for 32.9% of the intention to create a new business.

Originality/value: Since self-efficacy has a significant and positive impact on entrepreneurial intention (Pihie & Bagheri, 2013) and, in an academic context, self-efficacy has a positive effect in motivation and student’s performance (Honicke & Broadbent, 2016) this original study was conducted in a higher education institution from de northeast Portugal to verify if this trend occurs is this particular institution.

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Practical implications: This study provides empirical evidence that academic self-efficacy has a statistically significant and positive impact on entrepreneurial intention. So, to improve the creation of new businesses by students, the institution must focus on the development of students’ academic performance.

Keywords: Academic self-efficacy; Businesses; Students; Higher education; Professional career.

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THE IMPORTANCE OF CORPORATE SOCIAL RESPONSIBILITY IN THE CONSUMER’S PURCHASE DECISION: AN EXPLORATORY STUDY
Carina Barros ¹; Bruno Sousa ²

Abstract
Objectives: The present study aims to understand the importance of Corporate Social Responsibility in the consumer purchase decision in specific marketing contexts. Therefore, it is intended to analyze the main reason inherent to the acquisition of sustainable goods in detriment of other products with the same degree of compatibility and which factors influence this choice.

Methodology: Through the investigation of an empirical character and exploratory nature, a quantitative methodology was adopted, where the data were collected through questionnaire surveys made available to four stores that are strategically positioned as being socially responsible.

Results: The preliminary results show a consumer awareness in this type of segment that may translate into a lower price sensitivity. Socially responsible behaviors tend to be valued by consumers in specific marketing contexts (and, consequently, in decision making by the final consumer).

Practical implications: The consumer’s concern with the impact of their actions, in the most varied aspects, is upward and, therefore, it is vital for companies to obtain the factors that their target audience values, in an attempt to guarantee survival, given the requirement of the current customer.

Contribution: It is hoped that this study will conceive an expressive value proposal in the tenderness of the business environment for the inevitability of changing behaviors, given the current aspirations of the consumer population. The study intends, therefore, to examine the factors most valued by consumers when making a socially responsible purchase.

Keywords: Corporate social responsibility; Consumer behaviour; Responsible consumption.

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MACRO DETERMINANTS OF ENTREPRENEURAL ACTIVITY IN DEVELOPED AND DEVELOPING NATIONS
João Capucho ¹; João Leitão ²

Abstract

Purpose: This study aims to identify and analyze the effects of macro determinants: institutional; socio-economic; and commercial; on the nation’s entrepreneurial activity.

Methodology: The empirical analysis, uses annual panel data for the period 2003 to 2018 for 21 developed and developing countries. The fixed effects model with the Panel-Corrected Standard Error (PCSE) estimator proved to be appropriated to deal with this sample.

Originality: This study aims to fill a gap in the literature, regarding the study, in simultaneous terms, of the interconnections between entrepreneurship, corruption, economic growth, innovation, exports, foreign direct investment, human development index, unemployment and commercial freedom, applied both developed countries as well as developing countries.

Finding: The empirical evidence points out that exports, the human development index, foreign direct investment and commercial freedom have a positive and significant influence on entrepreneurial activity. Regarding the remaining variables, economic growth, unemployment and innovation, it appears that they have a negative and significant influence on entrepreneurial activity, while corruption does not reveal a significant effect on entrepreneurial activity. Bearing in mind the empirical evidence now obtained, greater control by the governments is recommended to improve the nation’s institutional environment, as well as the creation of new incentive packages in order to stimulating research and to develop activities aimed at registering patents, by nascent companies.

Keywords: Institutional approach; Entrepreneurial activity; Entrepreneurship; Innovation.

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THE IMPACT OF BRAND ATTACHMENT IN CONSUMER BEHAVIOR: MARKETING STUDY APPLIED TO THE PET-FRIENDLY SEGMENT IN PORTUGAL
Helena Margarida Alves ¹; Bruno Sousa ²

Abstract

Goals: The main objective of the study is to demystify and investigate in general, the impact of brand attachment on consumer behavior, in the specific context of pet-friendly in Portugal, using the affective and emotional connection established between consumers and existing services for the segment under study in the national context.

Methodology: The quantitative methodology was developed in the form of a questionnaire survey to consumers (i.e. national population) and semi-structured interviews with professionals in the subject under analysis (i.e. hotels, companies and other pet-friendly services). The quantitative method was chosen for analysis and treatment of the data obtained from the survey, through the SPSS (Statistical Package for the Social Sciences). For the interviews, the method of total and complete transcription was used, for further analysis of the data and extraction of quotes from the interviewees to complement the content covered.

Results: The results appear to demonstrate that the affective and emotional relationship to brands in the specific pet-friendly context, substantially influence the decision-making process of consumers in the national context, especially in relation to veterinary care, purchases of clothing and / or accessories, food, travel on vacation (i.e. travel, hotels, etc.), among others.

Practical implications: The present study aims to fuse affectivity and marketing in the consumer behavior of a new market segment - pet-friendly. Thus, a marketing study of consumer behavior will be essential for the development and success of pet-friendly services in the Portuguese context.

Contribution: The ongoing investigation emphasizes the importance of pets in the daily lives of individuals, the affective relationship of the consumer vis-à-vis the brands and services available for this expanding market segment and also, to verify the possible development of new services in this sector (ie what can be done on the business side).

Keywords: Pet-friendly; Marketing; Brand; Consumer; Affectivity.

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TO ACHIEVE SUCCESS MORE THAN EFFORT IS NEEDED
Cidália Teixeira 1; Bruno Sousa 2; Teresa Dieguez 3;

Abstract
Objectives: The main objective of this study is to systematize the benefits of an online platform where all existing trainings, conferences, workshops for companies and/or individuals are available, from the north to the south of Portugal. A digital place where it is possible to find training for everybody, in accordance to its desire and convenience: district/locality, timing, education model and cost.

Methodology: The study is supported by a quantitative research, more specifically based on questionnaire surveys. Collected data was treated through Excel and SPSS (Statistical Package for the Social Sciences) for further analysis and discussion.

Results: Training and personal development are directly linked. The current context challenges reveal that human skills are the main competitive advantage in organizational environments where hard decisions must be taken and tension is high. Vocational training must be understood as a global and continuous process whereby workers, through the acquisition and development of skills, prepare themselves for better performance and exercise of a professional activity.

Practical implications: Training is an organizational important process if carried out with the aim of providing trainees with new knowledge, skills, attitudes and behaviors in order to improve their performance, at professional and personal life levels.

Contribution: The ongoing research emphasizes the importance of developing online platforms in contexts of training and personal development. In moments of crisis like the one we are facing due Covid-19, the level of knowledge and skills learned can make the difference.

Keywords: Training; Personal development; Professional learning; e-learning; covid-19.

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THE ROLE OF CORPORATE SOCIAL RESPONSIBILITY IN PROMOTING QUALITY OF LIFE AT WORK: A CASE STUDY
Susana Leal 1; Cátia Soares 2

Abstract
Object: This work considers two areas of research, corporate social responsibility (CSR) and quality of life at work (QLW). CSR is “the responsibility of enterprises for their impacts on society. (...) Enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders” (European Commission, 2011, p. 7). Fontinha et al. (2018) define QLW as the part of the global quality of life that is influenced by work. Swamy et al. (2015) define it as the extent to which a worker is satisfied with personal and work needs through participation in the workplace while achieving the organisation's goals. This research aims to investigate whether an organization's social responsibility practices can influence employees' QLW.

Methodology: Through a case study applied to a social economy organization, a sample of 84 employees was obtained (81.9% women; 36.1% have secondary education; 17.8% hold management positions) who answered to a questionnaire survey. The measurement of CSR practices was carried out through the questionnaire made available by GRACE (2014), covering five areas: (a) management responsibility, (b) responsibility for employees, (c) responsibility in the value chain, (d) responsibility for the community and (e) responsibility for the environment. QLW was evaluated by Rueda et al. (2013)'s quality of life assessment scale, which includes four dimensions: (a) integration, respect, and autonomy, (b) fair and adequate compensation, (c) leisure and social interaction possibilities, (d) incentive and support. The two scales were submitted to exploratory factorial analyses and the Cronbach Alphas were calculated. The data were analyzed using correlation coefficients and linear hierarchical regressions.

Originality: There are very few works that relate CSR to QLW. Organisations that develop social responsibility (SR) practices towards their employees, such as fair and adequate remuneration, support to their families and job security, create desirable employment situations for their employees, thus increasing their and their families' QLW (Bohdanowicz & Zientara, 2009; Kim et al., 2017).

Results: After controlling the effect of gender, age, seniority, schooling and occupying (or not) management positions, the following results were obtained: (a) SR towards the community positively influences integration, respect, and autonomy; (b) SR related to values and ethics positively influences the fair and adequate compensation dimension and global QLW. The older the employees, the greater the perception of QLW in the dimensions of fair and adequate compensation, possibilities of leisure and social interaction, and global QLW.

Practical implications: The results can be used to define more effective strategies to promote employees' QLW.

Limitations: Given the way the data were obtained, problems may occur regarding the variance of the common method (Podsakoff et al., 2003).

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References

Keywords: Corporate social responsibility; Promoting quality of life; Quality of life at work.

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ORGANIZATION AND INSTITUTIONAL FACTORS THAT INTENSIFY THE USE OF GREENWASHING BY THE MAJOR CAR MANUFACTURERS OF THE WORLD
Pedro Baptista ¹; Oderlene Vieira de Oliveira ²

Abstract
Purpose: Under increasing pressure to be environmental friendly, some companies selectively disclose relatively benign events, creating an impression of transparency and masking its true performance. In this sense, the present study sought to identify the organizational and institutional factors that intensified the use of greenwashing by some of the main vehicle manufacturers in the world.

Methodology: The qualitative descriptive research was used, which was made possible through documentar research.

Originaly: The present work presents contextual relevance, as it analyzes events that, although might have already been analyzed by other researchers in previous studies, these studies did not contemplate more current events that are relevant to the continuation and thorough understanding of the Dieselgate case.

Findings: The results of this research made it possible to highlight two groups of factors of false and illusory action practices used by the investigated companies to promote themselves as sustainable. The first category would be associated with external agents, such as the government, agencies that approve the sales of new cars and consumers. All investigated automakers, at different times, used softwares that caused part of their respective diesel vehicles to emit smaller amounts of nitrogen oxides than allowed by European and/or North American legislation, seeking regulatory agencies approval and consumer acceptance. The second category is internal, in which the investigated companies sought to avoid suffering legal and economic losses, even if this represented the execution of more crimes and the socio-environmental balance disruption. Through selective and gradual disclosure of information, vehicle manufacturers sought self-promotion and/or self-preservation. Delmas and Burbano (2011) explain that very flexible and weak laws, associated with a low amount of information about sustainable issues, facilitate the occurrence of greenwashing.

Practical implications: As to the practical relevance, it can serve as an example for companies and managers who can observe, in addition to the erroneous and/or dishonest sustainable strategies adopted by some of the automakers and the consequences caused to some of them, that even in a competitive market and with some unfair competitors, it is possible, if not imperative, to invest in innovation.

References

Keywords: Greenwashing; Organization factos; Institutional factors.

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STRUCTURE OF CORPORATE GOVERNANCE MECHANISMS IN A PRIVATELY HELD FAMILY BUSINESS AND ITS ARTICULATION WITH SUCCESSION AND PROFESSIONALIZATION PROCESSES
Oderlene Vieira de Oliveira 1; Rosângela Andrade Pessoa 2; Roberta Feitosa de Lucena Cavalcante 3

Abstract
Purpose: Research in family businesses points out the succession process as one of the central and most complex problems in the continuity of a family business. Thus, management professionalization becomes essential for the success of the succession process and, simultaneously, for the perpetuation of the family business itself. Therefore, the particularities of corporate governance overlapping the family business can help to settle norms and rules between individual and collective interests. In this sense, a study was developed with the objective of identifying how corporate governance practices have helped in the family succession process in a large privately held family business.

Methodology: In this sense, this research utilizes a qualitative approach and descriptive typology, also employing the single case study as research strategy. The selected case was Avine Comercial e Avícola do Nordeste Ltda. It is among the largest and best egg producers in Brazil. The data were collected through semi-structured interviews, with Chairman of the Administrative Board and with Avine’s CEO.

Originality: This study contributes to the corporate governance mechanisms literature. Contributes to development of organizations by identifying the gains of corporate governance in managing family businesses since its early stages of adoption.

Findings: By a maturation process taking place for almost 25 years, Avine’s experience certainly contains contradictions and challenges not yet overcome, but also reveals alternatives constructed from the needs and from the set of peculiarities present in this business family. In a very interesting way, the decisions implemented show the redirection of the second generation to the position of shareholders, but the first generation still prevails as the major shareholder, despite the implication of greater decision power conferred to the company CEO. It was observed that there is no formalized succession plan, but the company’s President and the CEO are aware of its importance and are gradually implementing it. It was possible to highlight the strategic positioning assumed by the family in relation to the role of future generations, reconfiguring the framework of action of its members differently of what has traditionally been seen in family businesses. In addition, this issue was tailored in a way interlinked with the succession and professionalization processes, allied to the structure of asset governance, control and management, demonstrating to what extent they are connected and tend to establish a certain reinforcing relationship. Hence, one of this research’s relevant conclusions is that Avine’s search for management efficiency improvements led to the progressive adoption of corporate governance practices. Its mechanisms contributed to the improvement of quality of both strategies and management; which favored advances in the company structuration; in the establishment of unified norms and rules between the family companies and the one later acquired; in the monitoring and management of the executive team on the focal points of the organization, which

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involves the follow-up of projects in the meetings of the Administrative and Family Board and the family protocol. The results enabled to conclude that the adoption of corporate governance practices in the family succession process brought consequently greater professionalism and optimization to the process.

**Keywords:** Corporate governance; Succession processes; Professionalization process.
THE THEORETICAL PERSPECTIVE FRAMEWORK FOR FAMILY BUSINESS: BALANCED FAMILY BUSINESS (BFB)
Camilla Cruz de Carvalho ¹; Oderlene Vieira de Oliveira ²; Cícero Luis Carvalho Rocha ³; André Pascoal Rodrigues ⁴

Abstract
Propose: The overall objective is to propose a family business balancing framework. The literature exists until then, analyzing the family system based on three subsystems, namely: family, ownership and business. In this sense, this research aims to answer: What are the main subsystems that should be considered in the analysis of the family business system? Another point is the analysis of family businesses through a systemic view, because in their case to control internal aspects and strategy definition, research needs to integrate all subsystems that compose it and not in a fragmented view.

Methodology: The methodology used in this article contemplates, in a bibliographic way, what had been written in the literature about family businesses analyzing their subsystems.

Originality: However, the literature points to the existence of another subsystem, which is composed of key persons, who are those who act decisively in these subsystems. So far no studies have been found that consider all these perspectives (partners, family and key-persons) in a single framework. Another point is the analysis of family businesses through a systemic view, because in their case to control internal aspects and strategy definition, research needs to integrate all subsystems that compose it and not in a fragmented view (De Araujo, Bucher-Malouschke & Pedroso, 2016).

Findings: As a conclusion of the research is available a family business balancing framework, entitled Balanced Family Business (BFB) that composed by four systems: key persons, family, business and ownership. The Stakeholder Theory, considers that companies are formed by the relationships between the group of individuals that can affect or be affected by it (Freeman, 2010), supported the insertion subsystem “key person” in the “family business” system. This study helps to understand the elements and the relevance of the key persons that make up the family business and thus its members can recognize themselves in the subsystems.

Practical implications: Studies address that family businesses are considered a unique system that produce better results if analyzed for the completeness of its elements.

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Keywords: Family business; Framework; BFB.

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SUSTAINABLE ENTREPRENEURSHIP: CLEAR ALL DOUBTS
Bárbara Santos¹; Óscar Bernardes²; Orlando Rua³

Abstract
Purpose: This study aims to analyse the multiple definitions that exist throughout the literature about sustainable entrepreneurship and to present a consolidated view on the theme. It is also an objective to analyse the segmentation of the different concepts in the literature, clarifying the difference between sustainable entrepreneurship and other related terms.

Methodology: This article applies scientometrics techniques to analyze an evolution of sustainable entrepreneurship between 1999 and November 2019 using the Web of Science database. Combining this bibliometric analysis with a thorough review of the literature, in order to map the terms associated with sustainable entrepreneurship, as well as co-citations by authors and responses to exposures of new and popular topics in this new area of research.

Findings: This study offers a theoretical contribution to the literature on sustainable entrepreneurship. First, it seeks to provide a succinct connection between corporate activity and sustainable development. By doing this, it provides a clear perception of that relation throughout the text. Second, and taking into account that this is a recent field yet to be defined, this article seeks to provide a more complete view of its understanding, the fact that multiple definitions exist throughout the literature constitutes a difficulty, which is why a more complete and clarified reflection, because there are both similarities and differences between the theoretical contributions, but that can be completed among themselves. A clear reading about sustainable entrepreneurship is thus offered. Third, because other concepts have appeared over time, it demonstrates that there is a difficulty in differentiating and perceiving sustainable entrepreneurship from other related terms (e.g. eco entrepreneurship, green entrepreneurship…), so here we offer a short and simplified explanation of each of these terms and their differences with sustainable entrepreneurship. Thus, seeking to eliminate any doubt between the terms.

Originality/value: The sustainable entrepreneurship is an emerging area of research within the approach to entrepreneurship, although quite fragmented, without a coherent theoretical framework. This study tries to tackle the problematic existence of several concepts and definitions in the available literature. Thus, with this investigation, clear and compiled information was aggregated in one study about sustainable entrepreneurship. Also constituting a source of knowledge and information for future researchers.

Keywords: Sustainable entrepreneurship; Eco entrepreneurship; Green entrepreneurship; Sustainable entrepreneurship framework; Sustainable entrepreneurship literature review.

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1. Introduction

Entrepreneurship contributes to the sustainable development of a country (Koe, Omar, & Majid, 2014) however business practice (Zahedi & Otterpohl, 2015) has a negative impact on the environment (Cohen & Winn, 2007; Koe et al., 2014) so it is important to find a balance between both these practices. Economic activity has caused environmental problems such as, global warming and the excessive use of non-renewable resources (Koe et al., 2014). These have raised concerns within society (Gast, Gundolf, & Cesinger, 2017). From the connection between economic activity and sustainable development, sustainable entrepreneurship emerged (Dean & McMullen, 2007; Koe et al., 2014). Although sustainable entrepreneurship rises several publications and research, this field is not yet clearly defined. Through literature, several new concepts arise (Fichter & Tiemann, 2018; Gast et al., 2017; Koe et al., 2014) and new definitions are created (Fichter & Tiemann, 2018).

Our study seeks to fight a problem related to this issue, our aim is to group the existing definitions in literature and look for their similarities and differences so that we can present a complete understanding of sustainable entrepreneurship. In addition, we also expose interpretations of related concepts, in order to help readers, understand the distinction between sustainable entepreneurships. To further assist our goal, we determined to use the sciometric method. This method allowed us to understand which publications had the most impact and, consequently, the authors. Subsequently we used the Web of Science (WoS), to search for publications related to the theme. Through the use of WoS, we obtained 312 articles that we proceeded to individually analyse. Our work is allocated as follows: first we make a critical appraisal by reviewing the literature on sustainable entrepreneurship and the concepts related to it. Next, we approach the methodology used in this analysis and finally we present the reflection and discussion.

2. Literature review

Sustainable entrepreneurship has several associated concepts (fig.1), so it is important that there is a differentiation. Thus, in this section, there will be a review of the literature on the subject.

Figure 1 – Concepts

In the research, the authors identified some of the concepts related to sustainable entrepreneurship, as ecological sustainable entrepreneurship (Gast et al., 2017), ecopreneurship (Gunawan & Dhexanto, 2012), social entrepreneurship (Béchervaise & Benjamin, 2013), green social entrepreneurship (Zahedi & Otterpohl, 2015) green
entrepreneurship (Jiang, Chai, Shao, & Feng, 2018) and environmental entrepreneurship (Dean & McMullen, 2007; York & Venkataraman, 2010). The theorists of ecopreneurship (Gunawan & Dhewanto, 2012) and green social entrepreneurship (Zahedi & Otterpohl, 2015), although using different terms, their definitions give relevance to social, environmental and economic objectives. Gunawan & Dhewanto (2012) understand that the practice of sustainability is beneficial to environment, people, and business, as it constitutes a competitive advantage. Therefore, business practice must be exercised without prejudice to the environment and social environment (Gunawan & Dhewanto, 2012).

Following the same train of thought Zahedi & Otterpohl (2015), understand that the initial phase of a project must include economic, social, and environmental objectives, in order to, being initially outlined, the fulfillment of the three factors is guaranteed. Thus, in the initial phase of creating a project and during its development, are used methods that do not harm any of the objectives (Zahedi & Otterpohl, 2015), the authors also argue that sustainability translates into innovative solutions beneficial to society.

For other authors, the social factor (Béchervaise & Benjamin, 2013) and the environmental factor (Dean & McMullen, 2007; Gast et al., 2017; York & Venkataraman, 2010) are the priority of business activity. Béchervaise & Benjaminim (2013) understand that the focus is directed to social problems, so that the reduction of disparities in society (Béchervaise & Benjamin, 2013) is the objective of the activity.

Gast, Gundolf & Cesinger (2017) understand that business opportunities aim at reducing their negative impact on the environment, so business activity is oriented towards solving environmental problems (York & Venkataraman, 2010).

Gast, Gundolf & Cesinger (2017, p.46) characterize ecological sustainable entrepreneurship as “the process of identifying, evaluation and seizing entrepreneurial opportunities that minimize a venture's impact on the natural environment and therefore create benefits for society as a whole and for local communities.” Economic activity can help minimize the negative environmental impact and consequently promote social improvement. The authors recognize natural resources as promoters of sustainability (Gast et al., 2017), since the decrease of their degradation is beneficial to society, business practice is thus oriented towards solving environmental issues. Also focusing on environmental issues, Dean & McMullen (2007, p.58), adopt the term environmental entrepreneurship, defining it as “the process of discovering, evaluating, and exploiting economic opportunities that are present in environmentally relevant market failures.”, for the authors, environmental issues constitute new business opportunities. The business approach is oriented towards the economy and the resolution of environmental problems through the supply of environmentally responsible products (Jiang et al., 2018).

**Sustainable Entrepreneurship**

Sustainable entrepreneurship is based on three pillars - environmental, social, and economic - whose objectives are directed towards economic prosperity, social equity, and environmental protection. This triple current is maintained by the following authors: (Ben Youssef, Boubaker, & Omri, 2018; Chesbrough, 2012; Davies & Chambers, 2018; Dissanayake, Tilt, & Xydias-Lobo, 2016; DiVito & Bohnsack, 2017; Fichter & Tiemann, 2018; Galappaththi, Galappaththi, & Kodithuwakku, 2017; Gunawan, 2014; Hockerts & Wüstenhagen, 2010; Iyigün, 2015; Klewitz & Hansen, 2014; Koe et al., 2014; Koe, Omar, & Sa’ari, 2015; Kuckertz & Wagner, 2010; Lordkipanidze, Brezet, & Backman, 2005; Neumeyer & Santos, 2018).

Other authors add to this concept the identification of new business opportunities that result in new products and services oriented towards sustainability (Kant & Kanda, 2019; Lans, Blok, & Wesselink, 2014; Ploum, Blok, Lans, & Omta, 2018).

Sustainable entrepreneurship can also remain a competitive benefit because it discovers in sustainability a new business opportunity (Karlusch, Sachsenhofer & Reinsberger, 2018), since it is founded in an innovative and entrepreneurial action with environmental benefits (Chen, Chen, Chen, & Xie, 2018). Cohen & Winn (2007) argue that the social,
economic, environmental, and psychological impact must be assessed in the sustainable entrepreneurship practice. Despite the existence of all these traits, most authors argue that sustainable entrepreneurship comprises of creating new products and services that are environmentally and socially beneficial and result in economic gains (Schaltegger & Wagner, 2011; Shepherd & Patzelt, 2011). Therefore, the benefits achieved include the three pillars involved (environmental, social, and economic), while maintaining sustainable entrepreneurship consistent with sustainable development aims. However, it is not just a matter of implementing new products and services on the market, but also of developing and/or improving new production methods, as the authors defend (Lans et al., 2014; Ploum et al., 2018) and management (Burch et al., 2016; Ploum et al., 2018) and promote innovative actions within the company (Fichter & Tiemann, 2018).

Aware of the relationship between entrepreneurship and sustainable development Pacheco, Dean & Payne (2010) also argue that sustainable entrepreneurship consists in discovering, creating, evaluating, and exploring opportunities to create products and services in line with sustainable development aims. This discovery, creation, evaluation, and exploration of activities, for some theorists, originates from environmental and social issues, the economic activity oriented to solving new problems (Kardos, 2012; Muñoz & Cohen, 2017). These, opportunities for sustainable entrepreneurship arise from imperfections (Cohen & Winn, 2007) imbalances (Hockerts & Wüstenhagen, 2010) and market failures (Chen et al., 2018; Dean & McMullen, 2007; Shepherd & Patzelt, 2011). Thus, as stated by Dean & McMullen (2007, p. 58), sustainable entrepreneurship is "the process of discovering, evaluating and exploring economic opportunities that are present in market failures that harm sustainability, including those that are environmentally relevant". The exploitation of the opportunities for market imbalances, provide the opportunity to make this market more sustainable from an environmental and social point of view (Hockerts & Wüstenhagen, 2010).

Sustainable entrepreneurship finds in social and environmental problems an economic opportunity (Hockerts & Wüstenhagen, 2010) that results in new products and services which generate economic and non-economic gains (Dean & McMullen, 2007; Shepherd & Patzelt, 2011). According to Cohen & Winn (2007), these new products and services can help reduce environmental degradation and improve continuously ecosystems (Chen et al., 2018). Being able to develop in the shape of new configurations and / or help existing configurations to grow (Fichter & Tiemann, 2018), an organizational activity must aware of the environmental and social environment in its performance (Klewitz & Hansen, 2014).

3. Data and Method

To give a profound insight about sustainable entrepreneurship the authors used a two steps approach, first using scientometrics to identify the main clusters related with this topic and, furthermore, the most influential quoted authors and journals. Next, web-scraping was used to collect all articles related to the topic as well as individual analysis to determinate the most relevant sustainable entrepreneurship definitions.

Frist stage – Scientometrics:

Scientometrics was first defined in 1969 by Nalimov as the quantitative method which deals with the analysis of science viewed as an information process (Hood & Wilson, 2001). Major research issues detected include the measurement of the quality and impact of research papers and academic journals, the understanding of scientific citations, map scientific fields (Mingers & Leydesdorff, 2015) and the use of such measurements in policy and management contexts such as: economic themes (Laverde-Rojas & Correa, 2019) education (Ramírez, Armando, & Devesa, 2019), health (Pakdel, Gharebaghi, & Ghazavi, 2019), environment (Zandi, Nemati, Jahanianfard, Davarazar, & Sheikhnejad, 2019), tourism (Jiang, Woosnam & Draper, 2014).
After comparing the main abstract and citation databases, we decided to use WoS - Web of Science (formerly ISI Web of Knowledge) as data source. WoS is a specialized academic database indexing 34,000 journals and conferences proceedings, books and papers in around 161 million records (WoS, n.d.). The research was developed using WoS search engine, in November 20th of 2019, operating the exact phrase “sustainable entrepreneurship” and topic as option parameter. The topic parameter will return all articles with the exact phrase on the title or abstract or author keywords or keywords plus.

Second stage – Web-scraping and individual analysis:

Academic databases have an abundance of knowledge however it is challenging to resume and make a consensus of it. For the propose of this article, to determine the origin of the “sustainable entrepreneurship” definition, evolution of term and to make harmonizes concepts, we could use two methods: machine learning and/or human wisdom.

Machine learning it will be a major assistance in the future but it is still a very complex work, the research needs to parametrize the algorithms and statistical models in other do avoid false positives (non-definitions, bad quotes, etc.) then review all meanings. Human wisdom is a very arduous and time-consuming task, the researcher needs to download and review all articles related with a topic, however nowadays the scientific data growth rate on these databases is increasing every year and the data is predominantly unstructured, due to different journals framework and the authors’ autonomy. Therefore, the research must read all articles for further indexation otherwise can break the meaning network or miss an important path definition.

Since “sustainable entrepreneurship” designations on articles do not follow any data model, information assembly is not easy. The first step, extraction, and download can be realized using software solution called Web Scraping Software. We did use CG enterprise web-scraping software, it has been developed by Sequentum for corporations with a critical reliance on structured data and includes advanced qualities for monitoring data extraction, legal observance and production fail-over that are not available in other software solutions.

We decided to crawl ScienceDirect instead of WoS to make our research more robust, therefore, we will combine the most influential cited authors from WoS and all articles from ScienceDirect.

ScienceDirect was establish in 1997 and hosts over 12 million pieces of content from 3,500 academic journals and 34,000 e-books (ScienceDirect, n.d.). We process all available articles (271) on this database with the exact keyword “sustainable entrepreneurship” in October 11, 2019, then proceed with a human wisdom review.

4. Results

We obtained a total of 312 articles distributed from 1999 to 2020 (table 1). It is possible to conclude an increased interest in the topic, and it is relevant to mention the year 2019/20 is not established because of journal publish guidelines and the date of our research (*).

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<td>32</td>
<td>43</td>
<td>48</td>
<td>84</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: Own study

It is possible to conclude the interrelation between the keyword “sustainable entrepreneurship” (plot 2) and clusters (plot 3) related with engineering, environment,
ethics, among other academic areas. Meaning the term is being disseminated over the years (Figure 2).
Figure 2 – Sustainable entrepreneurship and related areas

Source: Own study
Using a three-plot graph we associate (Graph 1) and filter the most influential cited authors (plot 1) with the keyword "sustainable entrepreneurship" (plot 2) and the cluster of interest / where the final article was published (plot 3).
Graph 1 – Publishing Authors

Source: Own study
The most influential cited authors (plot 1) were pre-selected for the second step, e.g.: Dean T., 2007 (cited: 129); Cohen B., 2007 (cited: 111), Schaltegger S., 2011 (cited: 107), etc. And the main authors’ journals were: Sustainability (34 articles); Journal of cleaner production (31 articles); Entrepreneurship and sustainability issues (16 articles); International journal of entrepreneurial venturing (11 articles); Journal of business venturing (9 articles); International journal of entrepreneurial behaviour & research (8 articles); Business strategy and the environment (6 articles).

Through a deep analysis by filtering, only, the articles with keyword “sustainable entrepreneurship” subsequently removing all articles without that keyword, we obtained a total of 142 articles and then selected the most influential cited authors for the second stage, e.g.: Dean T., 2007 (cited: 66); Schaltegger S., 2011, (cited: 66); Cohen B., 2007, (cited: 64); Hockerts K., 2010, (cited: 59); Hall J., 2010, (cited: 49); Shepherd D, 2011, (cited: 46); Kuckertz A, 2010, (cited: 36); Pacheco D., 2010, (cited 36), etc.

5. Discussion

According to the results obtained, we can see that sustainable entrepreneurship has several associated factors, so it is not just a question of achieving positive financial results while the environment and society are preserved. It is essential that all factors intrinsic to economic activity are considered, as it is the whole set that determines sustainable entrepreneurship. From the analysed articles, we identified the similarities and differences between the definitions presented. From this, we understand that these definitions complete each other leading to a deep interpretation. Sustainable entrepreneurship plays an important role in society as a whole as in sustainable development itself and should therefore respect the stipulated objectives and contribute to their achievement.

Many authors contributed to this theme, however, there are some authors who are more influential and more cited. For example, it is important to note that the authors Dean & McMullen (2007) are identified in two of the concepts (sustainable entrepreneurship and environmental entrepreneurship). The authors understand sustainable entrepreneurship as a subfield of entrepreneurship, and environmental entrepreneurship as a subfield of sustainable entrepreneurship. According to these authors, market failures (sustainable and environmental) represent economic opportunities for entrepreneurial activity. In this light, sustainable entrepreneurship is directed towards sustainability, and environmental entrepreneurship towards environmental issues. In the same line of thought, the authors Cohen & Winn (2007) understand that market imperfections must be corrected in order to achieve sustainability. We can thus understand that the market represents business opportunities for business activity, but with the purpose of making a “correction”. Shepherd & Patzelt (2011), are also pointed out as more influential, as well as Schaltegger & Wagner (2011), the authors share the premise that sustainable entrepreneurship provides positive results for the three pillars of sustainability. Kuckertz & Wagner (2010), share the same idea mentioned. We can also point out Hockerts & Wüstenhagen (2010), the authors share the premise that market imbalances are business opportunities, and that sustainable entrepreneurship must be directed towards the economy, environment, and society.

However, there are other concepts (table 2) that emerge from the research carried out. In some cases, the shared ideals are the same as those of sustainable entrepreneurship, and so there are only one changes in the term used. As ecopreneurship (Gunawan & Dhewanto, 2012) and green social entrepreneurship (Zahedi & Otterpohl, 2015).
There are also two other terms that share the same ideals but with different terms, such as ecological sustainable entrepreneurship (Gast et al., 2017) and environmental entrepreneurship (Dean & McMullen, 2007; York & Venkataraman, 2010). We can conclude, two of the related concepts, also contribute to the understanding of sustainable entrepreneurship.

In our literature review we present more authors, but the authors referred to in this section, are the theorists who are present in various works throughout the articles we obtained. The various perspectives presented allowed us to make our own understanding of sustainable entrepreneurship. We can thus gather and consider that sustainable entrepreneurship consists of exercising corporate or collective practice in a conscious and responsible manner, for the organization, for the environment and for the social environment. Whether it is a new company or organization, or an existing company, the practices implemented range from the processes used to the management methods, resulting in new products and services that both produce economic gains, as well as gains for the environment and the social environment. In the case of an existing company, the factors need to be reconsidered and reformulated. So, when we think about sustainable entrepreneurship, we must think about the company as a whole, the local community, the environment and society. All stakeholders are involved, and everyone must be preserved and protected.

6. Conclusions

The interest in sustainable entrepreneurship has been growing continuously, there have been numerous publications on this topic, however the problem of trying to grasp a clear understanding of this theme leads to a dispersion of information. For this analysis, the authors of this publication pay special attention to articles, whose authors make their own contribution to a definition. Most of the results obtained have a small reference to sustainable entrepreneurship, either in the form of a sentence or a word. In our results, we present the authors most cited, however, in the articles obtained, not all are present. Thus, there are authors cited individually in the results, however, in the extracted articles these authors appear with other authors.

The authors' work also shows that when researching sustainable entrepreneurship, other concepts emerge. It is also possible to ascertain which authors are most influential, and so the most cited. The authors' contribution is important for future researchers in this field, since this work provides an extensive understanding of the definitions found. Here, scholars find all the key points about sustainable entrepreneurship. Through a complete understanding of the topic, the authors hope that readers will gain greater knowledge about it. For future research we recommend using the Scopus Platform, so that there is more data for analysis. We also recommend that a practical survey be carried out in a local community involved in sustainable projects so that the practical benefits for society can be analyze.

References


GAME ON: GAMIFICATION AND MARKETING IN THE CONTEXT OF HEALTH, FITNESS AND WELL-BEING
Vanessa Amorim ¹; Óscar Bernardes ²

Abstract

**Purpose:** This study is intended to evaluate gamification in a marketing context and analyse the different perceptions: usefulness; ease of use; social influence and satisfaction and - engagement and attitude towards the brand, of health, fitness and well-being gamified applications users.

**Methodology:** We designed structured a questionnaire based on studies defined in the literature, in order to understand the different dimensions and perceptions related with the gamification. The methodology combined multiple-choice questions with predefined answers and open-ended questions, offering respondents the possibility to choose and rank several sensitivities. Regarding the research model, was established the hypotheses based on the literature analysis under study and their respective associations.

**Findings:** The results analysis was carried out according to a reliability analysis, factorial analysis and using multiple linear regression. The statistical analysis results demonstrate that usefulness, ease of use, social influence and satisfaction have an influence on the gamified applications user's perception. Regarding brand engagement, is influenced by emotional, cognitive, and social involvement, however there is no association with user's perception. Additionally, can be concluded that the attitude towards the brand of gamified applications users in the context of health, fitness, and well-being, is influenced by the brand engagement and user global perception.

**Originality/value:** The study has as added value the possibility for brands to recognize the dimensions valued by gamified applications users, that have assumed an increasing role in the market, in order to develop their service marketing with a main focus on these variables, thus exploring the brand value and its relations with users.

**Research limitations:** There are two major limitations in this study that could be addressed in future research. First, the study focused on a limited study field, in the context of health, fitness and well-being and gamification is become more generalized and exploited by brands. Second this study presents as a possible limitation the questionnaire sample size, which may eventually limit the results generalization for other gamification environments.

**Keywords:** Gamification; Gamified applications; User perception; Brand engagement; Attitude towards the brand.

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1. Introduction

Gaming is increasingly present in our everyday lives: we play in different contexts and situations, with the aim of gaining pleasant and single experiences for ourselves and for other people (Robson, Plangger, Kietzmann, McCarthy, & Pitt, 2015). The gamification concept and its operationalization in non-gaming contexts has become a growing practice in the organizational domain, with special emphasis on marketing (Yang, Asaad, & Dwivedi, 2017).

Currently, for organizations is essential create strategies to engage their audiences through innovative game-like experiences. However, be able to increase involvement and motivation for multiple audiences is not a simple action for organizations. It is therefore necessary to highlight the contribution of digital technologies that enable organizations to modify behaviors, motivations, attitudes and involvement by transforming traditional processes into engaging experiences through gamified applications or services for their audiences (Robson, Plangger, Kietzmann, McCarthy, & Pitt, 2015).

According to Xi & Hamari (2020), gamification represents one of the greatest technological tendencies of the last decade, given the interest shown by organizations, which are progressively seeking to increase the involvement and motivation of their audiences, in order to promote the brands role. The authors also point out that gamification has a clear relationship with attitude towards the brand and brand engagement.

The social networks resources and mobile technologies web-based, has allowed the creation of interactive applications, which have changed the interaction between individuals and organizations in many ways, namely: in terms of relationship, participation, collaboration, communication, and in the alteration of any kind of experience (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Currently, gamification is present in a wide variety of areas, and its context is defined as the "core service or an activity being gamified" (Hamari, Koivisto, & Sarsa, 2014).

At this time, gamification has a significant impact in several contexts, but especially in the health and well-being area (Liu, Wang, Huang, & Tang, 2019; Leclercq, Poncin, & Hammadi, 2020). Daily exercise encompasses several advantages that can help its users promote their health and enhance their well-being globally. However, the exercise practice is now in a decline phase, which has led brands to use the various technologies and trends that exist today, such as gamification, to activate the practice of physical exercise in the individuals daily lives (Tu, Hsieh, & Feng, 2019).

This study is intended to evaluate gamification in a marketing context and analyse the different perceptions: - usefulness; - ease of use; - social influence and satisfaction and - engagement and attitude towards the brand, of health, fitness and well-being gamified applications users.

2. Literature review

2.1. The (Video)Games Universe

Game definitions often includes games and video games in the same category, as most definitions were established after video games became a representative synonym of cultural strength and an innovative industry with a significantly growth (Arjoranta, 2019). According to Esposito (2005), “a videogame is a game which we play thanks to an audiovisual apparatus and which can be based on a story”. In this sense, the concept of video game can also be defined as “a mode of interaction between a player, a machine with an electronic visual display, and possibly other players, that is mediated by a meaningful fictional context, and sustained by an emotional attachment between the player and the outcomes of her actions within this fictional context”, according to Bergonse (2017) mentioned in the study of Arjoranta (2019). However, there are elements whose presence is essential to determine a game context, namely: the fictitious activity, the unpredictability, the rules existence, the temporal and spatial limits, without any mandatory character (Esposito, 2005).
The growing attractiveness in the video game market is verified through several studies and statistics which determine that a casual user plays on average 4.59 days - male and 2.48 days - female; the average number of hours dedicated to games per day is 2.37 hours - male and 1.98 hours - female; the average daily duration of a single game session is 79.42 minutes - male and 68.6 minutes - female and the average time spent searching for video games is 25.88 minutes - male and 24.61 minutes - female (Kapalo, Dewar, Rupp, & Szalma, 2015). Thus, it can be seen that games provide higher levels of engagement and intrinsic motivation in their users, which also contributes to the achievement of cognitive, emotional and social benefits (Xi & Hamari, 2019).

The success of the video game market has contributed to the application of the gamification concept in the marketing area, which has slowly incorporated the new acceptances of executives in this area, so the value of the gamification market in 2016 was expected to increase to $2.8 billion (Lucassen & Jansen, 2014), $5.5 billion in 2018 (Conaway & Garay, 2014) and $19.39 billion by 2023 (Xi & Hamari, 2019). However, regardless of the possibility of a major expected growth, the authors Lucassen & Jansen (2014) state that the expected gamification concept adoption rate is not present in the literature. The gamification concept has shown widespread adoption by the services sector recently and 70% of the organizations present in Global 2000 are expected to have at least one gamified application or service in 2014 (Hamid & Kuppusamy, 2017; Conaway & Garay, 2014). This technological novelty is considered to be the basis for an innovative change in the business environment, and it is expected that until now, approximately 70% of the world's organizations seeking original methods will use gamification, according to Gartner's projections (2011) identified in the study of Hamid & Kuppusamy (2017).

2.2. Gamification

2.2.1. Concept

The gamification is considered a concept whose origin is associated with the digital industry and its first use was in 2008, however it has only started to be widely used from 2010 (Deterding, Dixon, Khaled, & Nacke, 2011; Huotari & Hamari, 2012). According to authors Deterding, Dixon, Khaled, & Nacke (2011), the gamification is represented by a set of specific criteria, identified through the concepts: gamefulness – which represents the quality of experience and behavior; gameful interaction - resources that provide a certain quality; and gameful design - design of the elements presents in the games. It is then possible to define gamification as “the use of game design elements in non-game contexts” (Deterding, Dixon, Khaled, & Nacke, 2011).

According to Huotari & Hamari (2012), the gamification concept is based on “a process of enhancing a service with affordances for gameful experiences in order to support user’s overall value creation”. The authors state that this definition highlights the aim of a gamified application or service represented by the experiences it creates - and not the methodologies used. It is also stressed in this definition that gamification does not necessarily need to be successful and may only contribute to the creation of meaningful experiences for users, contributing to the creation of the same psychological experiences, which games generally produce.

The authors Hamari, Koivisto, & Sarsa (2014) complement that gamification is “a process of enhancing services with (motivational) affordances in order to invoke gameful experiences and further behavioral outcomes”. It is further described in the literature that gamification represents a “process of applying elements of game design to a non-game context, where the interaction between the game mechanisms and personal disposition result in a fun and enjoyable experience” (Tobon, Ruiz-Alba, & García-Madariaga, 2020).

Accordingly, gamification definitions described above can be further divided into two main categories, based on the type of response provided by gamification or according to its constituent elements (Tobon, Ruiz-Alba, & García-Madariaga, 2020).

2.2.2. Gamification Elements

The gamification consists on the implementation and development of game design
elements, namely: components, mechanics (internal and external), and game dynamics (Friedrich, Becker, Kramer, Wirth, & Schneider, 2020). The game components represent furthestmost directly observable and tangible form of gamification, through systems that includes points, badges, content unlocking, progress bars, teams, levels, or missions. The gaming components are responsible for executing the respective gaming mechanics, through incentive-like mechanisms such as: challenges, competition, cooperation, feedback, rewards, or virtual goods. In this way, motivational dynamics are created, which corresponds to a more intangible form of gamification, as can be seen in figure 1 (Friedrich, Becker, Kramer, Wirth, & Schneider, 2020).

![Gamification aspects](image)

**Source:** Friedrich, Becker, Kramer, Wirth, & Schneider (2020).

On the other hand, some authors based on the data from the gaming literature consider the following as relevant principles of gamification: mechanics - represented by objectives, rules, settings, contexts, limits and rewards; dynamics - how users perform mechanics; and emotions - how users feel about the gamified experience, in order to create the dynamics (Robson, Plangger, Kietzmann, McCarthy, & Pitt, 2015). However, according to authors Sailer, Hense, Mandl, & Klevers (2013) and Tobon, Ruiz-Alba, & García-Madariaga (2020), in a gamified experiment, the game components represents a major importance, as they are responsible for describing the specificities and characteristics of games.

2.3. Gamification and Marketing

2.3.1. User Perception

The gamified applications are especially beneficial to reach different users in different parts of the world, however, the development of this type of applications cannot consist only in game components such as points and badges for users, neglecting the game mechanics (internal and external) and dynamics, being the major aim of this type of applications provide a similar experience to a game (Hofacker, Ruyter, Lurie, Mandcha, & Donaldson, 2016). In this way, is relevant assess the different perceptions - usefulness, ease of use, social influence, and satisfaction of gamified application users. According to Davis (1989), perceived usefulness is defined as “the degree to which a person believes that using a particular system would enhance his or her job performance”. Therefore, a system with a great perceived utility can be considered to show to the user that there is a positive relationship between its use and performance. However, as gamified systems have a utilitarian dimension, it is assumed that the usefulness of the system perceived by users is essential for its continuous use (Hamari & Koivisto, 2015). The perceived ease of use, on the other hand, refers to “the degree to which a person
believe that using a particular system would be free of effort” (Davis, 1989). If the gamified application or service is perceived as easy to use, it can promote the user-experience of efficiency, which is reflected in an experience of using the system without obstacles. Thus, users are more positive and more willing to remain using the service (Hamari & Koivisto, 2015).

Social influence refers to a “change in an individual's thoughts, feelings, communication or behavior resulting from the thoughts, feelings, communication, or behaviors of one or more people”, which may arise in a variety of ways (Kim & Hollingshead, 2015). In the context of gamification, social influence is expected to be reflected in user attitudes and intentions of use, it is also considered to be a significant factor as it represents the way a user perceives the use of a service, according to the perceptions of other users (Hamari & Koivisto, 2015). The perceived satisfaction is considered as an “extent to which the use of the system is perceived as enjoyable on its own”, according to the study referred by the authors Hamari & Koivisto (2015). Satisfaction can also be considered as the result of both positive and negative assessments when building a relationship (Sousa & Alves, 2018). Knowing that in the same way that satisfaction influences the intention to use games, satisfaction will also positively impact the intentions to use a gamified service (Hamari & Koivisto, 2015).

2.3.2. Brand Engagement
Brand engagement can be defined as “the level of an individual customer’s motivational, brand-related and context-dependent state of mind characterized by specific levels of cognitive, emotional and behavioral activity in direct brand interactions” (Hollebeek, 2011b). The engagement is also represented by “repeated interactions of a customer with an organization which strengthens emotional and psychological bonds with the organization”, to increase loyalty (Raj & Gupta, 2018). The dimensionality of this concept can be evaluated in a unidimensional or multidimensional way, thus, in this study the constructs of the cognitive, emotional, and social dimension in the brand engagement will be highlighted.

The cognitive dimension is considered “a consumer's level of brand-related thought processing and elaboration in a particular consumer/brand interaction” (Hollebeek, Glynn, & Brodie, 2014). According to the emotional component, it is related to the concept of affection, i.e., it is representative of “a consumer's degree of positive brand-related affect in a particular consumer/brand interaction” (Hollebeek, Glynn, & Brodie, 2014). The social dimension of engagement can be considered as “the connection, creation and communication of the brand's story between the firm and consumers (both existing and prospects), using brand or brand-related language, images and meanings via the firm's social networking site” (Osei-Frimpong & McLean, 2018).

Gamification can positively affect brand engagement (Xi & Hamari, 2020) and further the consumer experience with the brand. And allows firms to collect spontaneous and valuable data on consumers' emotions and interactions (Nobre & Ferreira, 2017).

2.3.3. Attitude towards the Brand
Initially, the attitude towards the brand was defined as “recipients' affective reactions toward the advertised brand (or, where desirable, attitude toward purchasing the brand)” (Lutz, MacKenzie, & Belch, 1983). However, according to the author Hollebeek (2011a), the attitude towards the brand “reflects an individual's relatively enduring evaluation of a branded object”.

In the context of gamification, the studies analyzed by the authors Berger, Schlager, & Sprott (2018) led to the conclusion that gamified interactions improves attitudes towards the brand, depending on the game design dimension. According to the study by the authors Lee & Jin (2019), through the evidence identified in the literature, it can be stated that gamified applications contribute significantly to users' experiences with brands and to the formation of an attitude towards the brand.

2.4. Gamified Applications in the Context of Health, Fitness and Well-Being
Increasingly in today's context, gamification strategy in specific health, fitness and well-
being applications has become recognized and recurrent, as can be perceived by the increasing number of applications available in the most varied application stores, where a considerable number contain at least some gamification aspects (Lister, West, Cannon, Sax, & Brodegard, 2014; Tu, Hsieh, & Feng, 2019).

Apart from the development of engagement and brand attitude, there are several motivations for the use of gamification for a change of behavior in users health, such as intrinsic motivation, wide availability through mobile technology and "ubiquitous" sensors, broad appeal, great applicability, cost-benefit efficiency, the possibility to fit in with individual daily life and the promotion of user-wanted well-being (Johnson, et al., 2016).

Most of the gamified applications developed by the brands in this context, present several commonalities, namely, the objective of evaluating the performance of various aspects of daily life and promoting different activities and habits to achieve a healthy lifestyle. These applications help create a balanced lifestyle pattern, recording a wide variety of information. Some applications have also social resources that stimulate competitiveness, community physical exercise and enhances user engagement with the activities over a longer period (Tu, Hsieh, & Feng, 2019).

According to the authors Tobon, Ruiz-Alba and García-Madariaga (2020), it is recommended that gamified applications contain one or more of the following elements: points, levels, leaderboards, badges, meaningful stories, and avatars. So, typical elements of gamified applications are present in table 1, each fulfilling a distinct function (Sailer, Hense, Mandl, & Klevers, 2013).

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<tr>
<td>Points</td>
<td>Accumulated through the development of different activities.</td>
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<td>Badges</td>
<td>Visual representations of achievements won.</td>
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<tr>
<td>Leaderboards</td>
<td>Lists that include the totality of users, classified according to the level of success.</td>
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<tr>
<td>Progress Bar</td>
<td>Information about the status of a user in relation to a specific objective.</td>
</tr>
<tr>
<td>Performance Graphs</td>
<td>Information about a user’s performance in relation to previous.</td>
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<tr>
<td>Missions</td>
<td>Small tasks accomplished within a game.</td>
</tr>
<tr>
<td>Meaningful Stories</td>
<td>Stories experienced by users.</td>
</tr>
<tr>
<td>Avatar</td>
<td>Visual representations selected by a user.</td>
</tr>
<tr>
<td>Profile Development</td>
<td>Development of avatars and their respective attitudes.</td>
</tr>
<tr>
<td>Visible Status</td>
<td>User daily/weekly/monthly progress.</td>
</tr>
<tr>
<td>Content Unlocking</td>
<td>Markers with performance prerequisites.</td>
</tr>
<tr>
<td>Levels</td>
<td>Progress indicators.</td>
</tr>
</tbody>
</table>


3. **Data and Method**

3.1. **Research Model and Hypotheses Definition**

This study aims to evaluate gamification in a marketing context and to analyze the different perceptions - usefulness, ease of use, social influence and satisfaction and the engagement and attitude towards the brand of users of gamified applications of health, fitness, and well-being. Based on the analysis of the literature described above, the hypotheses and the research model for the study were formulated, as can be seen in table and figure 2.
Table 2 - Definition of hypotheses concerning the research model.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Definition</th>
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<tbody>
<tr>
<td>H1</td>
<td>The usefulness of gamified applications influences the user's perception.</td>
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<tr>
<td>H2</td>
<td>The ease of use of gamified applications influences the user's perception.</td>
</tr>
<tr>
<td>H3</td>
<td>The social influence on gamified applications influences the user’s perception.</td>
</tr>
<tr>
<td>H4</td>
<td>The satisfaction of gamified applications influences the user's perception.</td>
</tr>
<tr>
<td>H5</td>
<td>Perception influences brand engagement.</td>
</tr>
<tr>
<td>H6</td>
<td>Emotional engagement influences brand engagement.</td>
</tr>
<tr>
<td>H7</td>
<td>Cognitive engagement influences brand engagement.</td>
</tr>
<tr>
<td>H8</td>
<td>Social engagement influences brand engagement.</td>
</tr>
<tr>
<td>H9</td>
<td>The brand engagement influences the attitude towards the brand.</td>
</tr>
<tr>
<td>H10</td>
<td>Perception influences the attitude towards the brand.</td>
</tr>
</tbody>
</table>

Source: Own study.

Figure 2 - Research model used in the study.

Source: Own study.

3.2. Questionnaire and Data Collection

The definition of the questionnaire model used to understand the different dimensions was structured from research paper defined in the literature - usefulness was based on the research by Davis (1989), in relation to the ease of use was used the research by Davis (1989) and Yang, Asaad, & Dwivedi (2017), social influence was based on the research by Hamari & Koivisto (2013) and satisfaction was defined according to the assumptions of the research by Yang, Asaad, & Dwivedi (2017). Regarding the brand engagement and attitude towards the brand, the questionnaire used by authors Xi & Hamari (2020) and Yang, Asaad & Dwivedi (2017), respectively, was adapted. However, the necessary changes have been made to the authors’ research paper for the evaluation of gamification in the context of service marketing. The different dimensions and the respective items used in the questionnaire are present in Appendix.

The pre-test of the questionnaire was composed by a group of 12 participants, with the objective of evaluating the present questions, identifying possible difficulties in their interpretation, and understanding, for the purpose of validating the items.

The survey took place between April 13th and May 1st, 2020, through a questionnaire consisting of 36 questions - quantitative and qualitative, using the online platform Google Forms. The questionnaire used in this research is composed of three sections. The first part of the questionnaire refers to the demographic data of the participants, namely: gender, age, academic background, the number of known gamified applications and the use of gamified applications. The second section is aimed at participants who have indicated that they use gamified applications, seeking to assess perceptions - usefulness, ease of use, social influence and satisfaction, as well as what health, fitness and well-being applications participants use and how often. The last section of the questionnaire aims to assess the
engagement and brand attitude of users of health applications. According to the literature used for the construction of the questionnaire, the items in the second and third section were evaluated on a scale of Likert between 1 to 5, reflecting the following response options: 1 - Totally disagree; 2 - Disagree; 3 - Indifferent; 4 - Agree; 5 - Fully agree.

4. Results

4.1. Sample Characterization
In the present study, a sample of 164 individuals was considered. The analysis of the sample allowed us to identify that 84 male individuals were considered, which corresponds to 51.2% of the sample and 80 female individuals corresponding to 48.8%. Regarding the age groups of the participants, it was found that the 19-29 age group is the most frequent (58.5%), then the 30-39 age group (22.6%), the 40-49, 50-59 and ≤ 18 years represents the least frequent age groups, with a percentage of 10.4%, 6.7% and 1.8% respectively. The academic background variable shows that most participants have a bachelor’s degree (45.7%), followed by secondary education (29.3%), master's degree (18.9%), basic education (4.9%) and PhD and postdoctoral with 0.6%, respectively. Regarding gamification, all participants know at least one gamified application. However, only 86 individuals (52.4%) state their use. The results in the table below represent the distribution of the demographic characteristics of the participants.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Typology</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>84</td>
<td>51.2%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>80</td>
<td>48.8%</td>
</tr>
<tr>
<td></td>
<td>≤ 18 years</td>
<td>3</td>
<td>1.8%</td>
</tr>
<tr>
<td></td>
<td>19 – 29 years</td>
<td>96</td>
<td>58.5%</td>
</tr>
<tr>
<td></td>
<td>30 – 39 years</td>
<td>37</td>
<td>22.6%</td>
</tr>
<tr>
<td></td>
<td>40 – 49 years</td>
<td>17</td>
<td>10.4%</td>
</tr>
<tr>
<td></td>
<td>50 – 59 years</td>
<td>11</td>
<td>6.7%</td>
</tr>
<tr>
<td>Academic Background</td>
<td>Basic Education</td>
<td>8</td>
<td>4.9%</td>
</tr>
<tr>
<td></td>
<td>Secondary Education</td>
<td>48</td>
<td>29.3%</td>
</tr>
<tr>
<td></td>
<td>Bachelor’s Degree</td>
<td>75</td>
<td>45.7%</td>
</tr>
<tr>
<td></td>
<td>Master’s Degree</td>
<td>31</td>
<td>18.9%</td>
</tr>
<tr>
<td></td>
<td>PhD</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td>Postdoctoral</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td>One application</td>
<td>45</td>
<td>27.4%</td>
</tr>
<tr>
<td></td>
<td>From 2-4 applications</td>
<td>91</td>
<td>55.5%</td>
</tr>
<tr>
<td></td>
<td>From 5-7 applications</td>
<td>23</td>
<td>14.0%</td>
</tr>
<tr>
<td></td>
<td>From 8-10 applications</td>
<td>4</td>
<td>2.4%</td>
</tr>
<tr>
<td></td>
<td>From 11-13 applications</td>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>Gamified Applications Use</td>
<td>Yes</td>
<td>86</td>
<td>52.4%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>78</td>
<td>47.6%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>164</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Own study.

4.2. Reliability Analysis
4.2.1. Cronbach’s Alpha
The Cronbach’s Alpha is one of the measures most used for checking the internal consistency of a group of variables. The Cronbach’s Alpha values in Table 4 show values greater than 0.9, which can be considered as exceptionally good in all dimensions according to the literature data.
4.2.2. **Item Correlation**

The summary of the correlations between items in the different dimensions is shown in Table 5. For the correlation between items in the perception dimension, it is noted that there is a correlation deemed to be strong (0.570), the minimum value 0.24 refers to the correlation between the variables U1 and EU3 and the maximum value 0.864 refers to the correlation between S2 and S4. The correlation between the items of the brand engagement dimension can also be considered strong (0.690), the minimum value 0.565 refers to the correlation between the BEC3 and BES2 variables and the maximum value 0.866 refers to the correlation between BES2 and BES3. In the attitude towards the brand dimension, is verified a strong correlation between items (0.734), the minimum value 0.673 is for the correlation between ATB2 and ATB1 variables and the maximum value 0.810 is shown in the correlation between ATB3 and ATB1.

The corrected total item correlation indicates the Pearson correlation coefficient of each of the dimension items with the total value. In table 6, it is possible to verify that no item presents a value below the minimum described by the literature.

To check the effect of each variable on the internal consistency of the factor, it is necessary observe the Cronbach’s Alpha if the item is excluded and compare it with the Cronbach’s Alpha value for each dimension, if it is greater the item should be removed. By analyzing table 6, no variable should be excluded from this study.

**Table 4 - Reliability analysis results.**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Cronbach’s Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>0.946</td>
<td>14</td>
</tr>
<tr>
<td>Brand Engagement</td>
<td>0.951</td>
<td>9</td>
</tr>
<tr>
<td>Attitude towards the Brand</td>
<td>0.917</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>0.968</td>
<td>27</td>
</tr>
</tbody>
</table>

*Source: Own study.*

**Table 5 - Summary of the correlations between items concerning the different dimensions.**

<table>
<thead>
<tr>
<th>Item Correlation</th>
<th>Dimension</th>
<th>Average</th>
<th>Minimum</th>
<th>Maximum</th>
<th>No. Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>0.570</td>
<td>0.240</td>
<td>0.864</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Brand Engagement</td>
<td>0.690</td>
<td>0.565</td>
<td>0.866</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Attitude towards the Brand</td>
<td>0.734</td>
<td>0.673</td>
<td>0.810</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Own study.*
Table 6 - Summary of item-total statistics for the different dimensions.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Items</th>
<th>Scale average if the item is excluded</th>
<th>Corrected total item correlation</th>
<th>Cronbach's Alpha if the item is excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>U1</td>
<td>49.8488</td>
<td>0.610</td>
<td>0.945</td>
</tr>
<tr>
<td></td>
<td>U2</td>
<td>49.4884</td>
<td>0.726</td>
<td>0.942</td>
</tr>
<tr>
<td></td>
<td>U3</td>
<td>49.4651</td>
<td>0.751</td>
<td>0.941</td>
</tr>
<tr>
<td></td>
<td>U4</td>
<td>49.5116</td>
<td>0.754</td>
<td>0.941</td>
</tr>
<tr>
<td></td>
<td>EU1</td>
<td>49.3140</td>
<td>0.770</td>
<td>0.941</td>
</tr>
<tr>
<td></td>
<td>EU2</td>
<td>49.9651</td>
<td>0.698</td>
<td>0.943</td>
</tr>
<tr>
<td></td>
<td>EU3</td>
<td>49.2442</td>
<td>0.675</td>
<td>0.943</td>
</tr>
<tr>
<td></td>
<td>SI1</td>
<td>50.2674</td>
<td>0.686</td>
<td>0.944</td>
</tr>
<tr>
<td></td>
<td>SI2</td>
<td>50.5116</td>
<td>0.636</td>
<td>0.945</td>
</tr>
<tr>
<td></td>
<td>SI3</td>
<td>50.5349</td>
<td>0.601</td>
<td>0.946</td>
</tr>
<tr>
<td></td>
<td>SI4</td>
<td>49.6628</td>
<td>0.817</td>
<td>0.940</td>
</tr>
<tr>
<td></td>
<td>S1</td>
<td>49.3953</td>
<td>0.820</td>
<td>0.940</td>
</tr>
<tr>
<td></td>
<td>S2</td>
<td>49.3721</td>
<td>0.835</td>
<td>0.940</td>
</tr>
<tr>
<td></td>
<td>S3</td>
<td>49.5233</td>
<td>0.883</td>
<td>0.938</td>
</tr>
<tr>
<td></td>
<td>S4</td>
<td>49.9302</td>
<td>0.784</td>
<td>0.946</td>
</tr>
<tr>
<td></td>
<td>BEE1</td>
<td>30.7326</td>
<td>0.871</td>
<td>0.942</td>
</tr>
<tr>
<td></td>
<td>BEE2</td>
<td>30.9186</td>
<td>0.765</td>
<td>0.949</td>
</tr>
<tr>
<td></td>
<td>BEE3</td>
<td>31.0698</td>
<td>0.755</td>
<td>0.948</td>
</tr>
<tr>
<td></td>
<td>BEE1</td>
<td>31.1860</td>
<td>0.811</td>
<td>0.945</td>
</tr>
<tr>
<td></td>
<td>BEC2</td>
<td>31.5349</td>
<td>0.791</td>
<td>0.946</td>
</tr>
<tr>
<td></td>
<td>BEC3</td>
<td>30.9186</td>
<td>0.859</td>
<td>0.943</td>
</tr>
<tr>
<td></td>
<td>BES1</td>
<td>30.7209</td>
<td>0.844</td>
<td>0.943</td>
</tr>
<tr>
<td></td>
<td>BES2</td>
<td>30.7291</td>
<td>0.795</td>
<td>0.946</td>
</tr>
<tr>
<td></td>
<td>BES3</td>
<td>30.7209</td>
<td>0.844</td>
<td>0.943</td>
</tr>
<tr>
<td>Attitude</td>
<td>ATB1</td>
<td>12.1628</td>
<td>0.818</td>
<td>0.889</td>
</tr>
<tr>
<td>towards the</td>
<td>ATB2</td>
<td>12.1163</td>
<td>0.792</td>
<td>0.898</td>
</tr>
<tr>
<td>Brand</td>
<td>ATB3</td>
<td>12.2442</td>
<td>0.886</td>
<td>0.874</td>
</tr>
<tr>
<td></td>
<td>ATB4</td>
<td>11.9651</td>
<td>0.770</td>
<td>0.906</td>
</tr>
</tbody>
</table>

Source: Own study.

4.3. Correlation between Principal Components
Pearson's correlation coefficient measures the intensity and direction of the linear type association between two continuous variables with bivariate normal distribution. Given that normality was not rejected through the analysis of the p-value significance of the Kolmogorov-Smirnov Test, it is possible to assume the Pearson's correlation coefficient. According to table 7, all Pearson's coefficients were considered statistically significant, for a significance level of 0.01.

Regarding the correlation coefficient with the total score, it can be seen that it is present in the attitude towards the brand component, which reinforces the importance of this dimension for the participants and, consequently, for the different brands that use gamified applications.

Each of the components directly and individually influences the total score, with each component presenting different and simultaneously interrelated variables, as they exert a non-exclusive influence on each other. Table 7 shows that perception and brand engagement present the lowest correlation among the components, however the brand engagement and attitude towards the brand are the components with the highest relationship among themselves.
Table 7 - Pearson’s correlations between the different components.

<table>
<thead>
<tr>
<th>Component</th>
<th>Perception</th>
<th>Brand Engagement</th>
<th>Attitude towards the Brand</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>1,000</td>
<td>0,679*</td>
<td>0,716*</td>
<td>0,867*</td>
</tr>
<tr>
<td>Brand Engagement</td>
<td>0,679*</td>
<td>1,000</td>
<td>0,839*</td>
<td>0,927*</td>
</tr>
<tr>
<td>Attitude towards the Brand</td>
<td>0,716*</td>
<td>0,839*</td>
<td>1,000</td>
<td>0,938*</td>
</tr>
<tr>
<td>Total Score</td>
<td>0,867*</td>
<td>0,927*</td>
<td>0,938*</td>
<td>1,000</td>
</tr>
</tbody>
</table>

*The correlation is significant at 0.01 level.

Source: Own study.

4.4. Factorial Analysis

In this study, three factorial analyzes were carried out in isolation to check the unidimensionality of the dimensions, i.e. whether all items in an instrument are related to a single construct (Laros, 2012, pp. 163). The total sample is composed of 164 participants, however for the respective statistical analysis, only 86 participants were considered due to the use of gamified applications.

First, a factorial analysis to the 14 items that integrate the perception was performed. Kaiser Meyer Olkin's Measure (KMO) is a method that compares the simple correlations with the observed partial correlations, as well as indicates the proportion of variability that is common to the variables. For this purpose, we used the analysis of table 8 which resulted in a value of KMO = 0.908 (90.8%), which represents an excellent result of factorial analysis.

Table 8 - KMO and Barlett's Sphericity Test for Factorial Analysis I.

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>0.908</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>1057.979</td>
</tr>
<tr>
<td>df</td>
<td>91</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Own study.

Then, Barlett's Sphericity Test was performed, which was shown to be relevant for the present factorial analysis, since p=0.000<0.05, then the null hypothesis was rejected. One can then consider that the matrix of population correlations is different from the identity matrix, that is, there is correlation between the different variables.

Regarding the Factors Extraction, the Principal Components Method was used in the SPSS software, in which it is not necessary to analyze the normality. This model generates as many factors as the number of variables included in the analysis. For the Factors Extraction different criteria can be used, having chosen the Kaiser Criteria, where the main components or factors with higher than average own values (of all the obtained own values) are used, which resulted in the retention of 3 factors, which explain 78.146% of the variance. For interpretation purposes, the axes were rotated using the Varimax Extraction Method with Kaiser Normalization - Rotating Component Matrix and the values below 0.4 were removed (Table 9).
Table 9 - Variables correlations with the Principal Components (PC) rotated and the factors (Method of Extraction: Principal Components). Rotation Method: Varimax with Kaiser Normalization.

<table>
<thead>
<tr>
<th>Components</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1</td>
<td>886</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U2</td>
<td>790</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U3</td>
<td>803</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U4</td>
<td>539</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU1</td>
<td>769</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU2</td>
<td>451</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU3</td>
<td>810</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI1</td>
<td>745</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI2</td>
<td>868</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI3</td>
<td>857</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>806</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>798</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>779</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Own study.

Table 9 presents the factor loadings rotated for each variable in each factor. The items grouped in the same components suggest that component 1 refers to ease of use and satisfaction, component 2 represents usefulness and component 3 refers to social influence.

The factorial analysis related to brand engagement, was made to the 9 items that integrate this measure. The KMO present in table 10 presents the value of 0.895 (89.5%), so the result of the factorial analysis is considered good. Then, Barlett's Sphericity Test was performed, which allowed the conclusion that there is correlation between the different variables.

Table 10 - KMO and Barlett's Sphericity Test for Factorial Analysis II.

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>0.895</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>725.196</td>
</tr>
<tr>
<td>df</td>
<td>36</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Own study.

The Factors Extraction according to the Kaiser Criteria resulted in the retention of 1 factor, which explains 72.498% of the variance. The analysis of the factor loadings of the component matrix present in table 11 permits to conclude that they are excellent since they are superior to 0.71. Therefore, the items confirm that the extracted component represents the brand engagement.
Table 11 - Component Matrix (Extraction Method: Principal Component).

<table>
<thead>
<tr>
<th>Component 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BEE1 - I consider myself linked to the brand.</td>
<td>828</td>
</tr>
<tr>
<td>BEE2 - I am excited about the brand.</td>
<td>903</td>
</tr>
<tr>
<td>BEE3 - I love the brand.</td>
<td>817</td>
</tr>
<tr>
<td>BEC1 - I like to learn more about the brand.</td>
<td>808</td>
</tr>
<tr>
<td>BEC2 - Any subject related to the brand captivates my attention.</td>
<td>854</td>
</tr>
<tr>
<td>BEC3 - I think a lot about the brand.</td>
<td>835</td>
</tr>
<tr>
<td>BES1 - I like to use brand products with my friends.</td>
<td>892</td>
</tr>
<tr>
<td>BES2 - I share my experiences with the brand's products/services with other people.</td>
<td>842</td>
</tr>
<tr>
<td>BES3 - I like to recommend the brand's products/services to other people.</td>
<td>880</td>
</tr>
</tbody>
</table>

**Source:** Own study.

The third factorial analysis was carried out to test the reliability of the attitude towards the brand, with an analysis of the 4 items related to this measure. The KMO available in table 12 resulted in the value 0.795 (79.5%), so the result of the factorial analysis is considered average. Barlett's Sphericity Test allowed considering that there is correlation between the different variables.

Table 12 - KMO and Barlett's Sphericity Test for Factorial Analysis III.

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>0.795</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>250,957</td>
</tr>
<tr>
<td>df</td>
<td>6</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Source:** Own study.

The Factors Extraction according to the Kaiser Criteria resulted in the retention of 1 factor, which explains 80.092% of the variance. The analysis of the factor loadings of the component matrix present in table 13 permits to conclude that they are excellent since they are superior to 0.71. Therefore, the items confirm that the extracted component represents the attitude towards the brand.

Table 13 - Component Matrix (Extraction Method: Principal Component).

<table>
<thead>
<tr>
<th>Component 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ATB1 - I feel more available to buy branded products.</td>
<td>900</td>
</tr>
<tr>
<td>ATB2 - The application makes me feel satisfied when selecting the brand.</td>
<td>882</td>
</tr>
<tr>
<td>ATB3 - The application makes me intend to use other services/products of the brand.</td>
<td>927</td>
</tr>
<tr>
<td>ATB4 - I could recommend the brand to other people.</td>
<td>869</td>
</tr>
</tbody>
</table>

**Source:** Own study.

4.5. **Multiple Linear Regression**

4.5.1. **Perception Analysis**

The first multiple linear regression performed considered perception as a dependent variable and usefulness, ease of use, social influence, and satisfaction as predictors. To evaluate the model's effectiveness, the summary of its details was analyzed (Table 14).
Table 14 - Model Summary (Dependent Variable: Perception; Predictors: Usefulness, Ease of Use, Social Influence and Satisfaction).

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: Own study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The R-square is related to the Coefficient of Determination, being its value in the present analysis 1.000, which means that 100% of the variation of perception is justified by the combination of the defined independent variables. The analysis to the table below allows to conclude that the model is statistically significant (p<0.05).

Table 15 - ANOVA analysis.

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>Z</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>488,707</td>
<td>4</td>
<td>122,177</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Source: Own study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 16 presents the summary of the regression coefficients. The results indicate that the usefulness, ease of use, social influence and satisfaction of the gamified application influence the user's perception (β=0.250, p<0.05).

Table 16 - Regression coefficients (Dependent Variable: Perception).

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td></td>
</tr>
<tr>
<td>Usefulness</td>
<td>0.250</td>
<td>0.000</td>
</tr>
<tr>
<td>Ease of Use</td>
<td>0.250</td>
<td>0.000</td>
</tr>
<tr>
<td>Social Influence</td>
<td>0.250</td>
<td>0.000</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.250</td>
<td>0.000</td>
</tr>
<tr>
<td>Source: Own study.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5.2. Brand Engagement Analysis

In the second multiple linear regression, brand engagement was considered as a dependent variable and perception and emotional, cognitive, and social engagement as predictors. The procedures previously described were considered for this analysis.

Table 17 - Model Summary (Dependent Variable: Brand Engagement; Predictors: Perception, Emotional, Cognitive and Social Engagement).

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: Own study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The model summary (Table 17) indicated that the R-square is 1.000, which means that 100% of the variation in brand engagement was justified by the combination of the defined predictors. The model presents statistical significance (p<0.05), which means that it successfully predicts brand engagement (Table 18).

Table 18 - ANOVA analysis.

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>Z</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>454,337</td>
<td>4</td>
<td>113,584</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Source: Own study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The analysis of the relationships between dependent and independent variables presented
in Table 19 indicates that each of the variables contributes to the model, except for perception. Emotional, cognitive, and social engagement influence brand engagement ($\beta=0.333$, $p<0.05$). However, perception does not influence brand engagement ($p>0.05$).

**Table 19 - Regression coefficients (Dependent Variable: Brand Engagement).**

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>5.5698E-16</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Emotional Engagement</td>
<td>0.333</td>
<td>0.325</td>
<td>0.000</td>
</tr>
<tr>
<td>Cognitive Engagement</td>
<td>0.333</td>
<td>0.352</td>
<td>0.000</td>
</tr>
<tr>
<td>Social Engagement</td>
<td>0.333</td>
<td>0.391</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Own study.

4.5.3. **Attitude towards the Brand Analysis**

In the third analysis of multiple linear regression, the attitude towards the brand was defined as a dependent variable and the perception and brand engagement as independent variables. In this analysis, the procedures previously described were also performed.

**Table 20 - Model Summary (Dependent Variable: Attitude towards the Brand; Predictors: Perception and Brand Engagement).**

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.862</td>
<td>0.744</td>
<td>0.738</td>
<td>0.38340</td>
<td>1.606</td>
</tr>
</tbody>
</table>

Source: Own study.

The model summary (Table 20) indicated that the R-square is 0.744, which means that 74.4% of the variation in the attitude towards the brand was justified by the combination of the defined predictors. The model presents statistical significance ($p<0.05$), which means that it successfully predicts the attitude towards the brand (Table 21).

**Table 21 - ANOVA analysis.**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>Z</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>35,407</td>
<td>2</td>
<td>17,704</td>
<td>120,438</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Source: Own study.

The results in table 22 indicate that perception ($\beta=0.084$, $p<0.05$) and brand engagement ($\beta=0.212$, $p<0.05$) influence the attitude towards the brand.

**Table 22 - Regression coefficients (Dependent variable: Attitude towards the Brand).**

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception</td>
<td>0.084</td>
<td>0.270</td>
<td>0.001</td>
</tr>
<tr>
<td>Brand Engagement</td>
<td>0.212</td>
<td>0.656</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Own study.

4.5.4. **Research Hypothesis Analysis**

The analysis of the multiple linear regressions previously performed allows us to establish the results of the hypothesis model, as can be seen in table 23.
ICABM2020 – Template for Submission Structure

Table 23 - Results summary.

<table>
<thead>
<tr>
<th>Hypotheses Definition</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 The usefulness of gamified applications influences the user’s perception.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2 The ease of use of gamified applications influences the user’s perception.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H3 The social influence on gamified applications influences the user's perception.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H4 The satisfaction of gamified applications influences the user's perception.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H5 Perception influences brand engagement.</td>
<td>Not Confirmed</td>
</tr>
<tr>
<td>H6 Emotional engagement influences brand engagement.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H7 Cognitive engagement influences brand engagement.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H8 Social engagement influences brand engagement.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H9 The brand engagement influences the attitude towards the brand.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H10 Perception influences the attitude towards the brand.</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

Source: Own study.

5. Discussion

The literature states that there are many communalities between game concepts and service marketing theory and was established by the authors Huotari & Hamari (2012) that “game design elements can be described as services and games as service systems”. According to service marketing considerations, is the user individual perception that determines the service value (Huotari & Hamari, 2012), which reinforces the importance of individual users’ perceptions in terms of usefulness, ease of use, social influence and satisfaction, which consequently contribute to their overall perception, as seen through the results of this study.

Organizations continually seek innovative ways to connect with their audiences, which reinforces the role of the brand engagement dimension. Thus, authors Robson, Plangger, Kietzmann, McCarthy, & Pitt (2015) establish three recent developments that constitute unique opportunities for brand engagement: “(1) new knowledge about the design and management of gaming experiences (2) combined with the advent of social media and technology and (3) the heightened interest in providing more engaging experiences”. In this sense, the results highlight the importance of providing several levels of engagement, namely: emotional, cognitive, and social involvement to amplify the effect of brand engagement by users. Also noteworthy is the development of iterative engagement strategies, initiated through a certain challenge, in which a user is rewarded when he reaches an objective resulting from that challenge, which will consequently result in the allocation of a component, which will thus motivate user behavior (Harwood & Garry, 2015). The authors Xi & Hamari (2020), referring to previous studies, concluded that when the gamified application or service is interactive and challenging to users, they are largely related to brand engagement, as also found through this study. Perception was not considered as a predictor of brand engagement, this result is particularly important which means that brand engagement is reflected through its emotional, cognitive and social components, which demonstrates that the level of the motivational mental state related to the brand is more valued than the overall perception of the application itself, which reminds us that each user evaluates a brand or service according to their own criteria.

Regarding the attitude towards the brand is a fundamental dimension in this study, since this component translates the user’s evaluations in relation to the brand, and the results have shown that the overall perception of the user in relation to the gamified application, as well as the brand engagement, have the capacity to influence the attitude towards the brand. According to the definition of brand engagement, it is important for brands to develop activities with specific levels in relation to the emotional, cognitive, and social components.

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to positively influence the attitude towards the brand. Regarding the user’s perception, should seek to simultaneously explore usefulness, ease of use, social influence, and satisfaction, so that the gamified applications correspond positively at each of these levels, seeking to consequently impact the attitude towards the brand.

6. Conclusions

This study analyzed gamification and marketing in the context of health, fitness, and well-being applications, exploring the effects and impacts on user perception and brand engagement and attitude. Additionally, the existing associations between the different dimensions and their variables were established. Currently, there has been an increase in the number of gamified applications available in the different application stores, largely due to the high accessibility of mobile devices, which has increased the number of users using this type of applications. This study has made possible to establish the dimensions that users value, so that brands consequently explore these aspects, in order to provide users with greater involvement with their respective brands and a positive attitude towards the brand, creating increased value for the concept of each brand. The results confirm that interactive and challenging gamified applications allow the efficient exploitation of brand perception, engagement and positive attitude, and the most influential aspects of service marketing, to which gamified applications belong, have been identified by users. The study has as added value the possibility for brands to recognize the dimensions valued by gamified applications users, that have assumed an increasing role in the market, in order to develop their service marketing with a main focus on these variables, thus exploring the brand value and its relations with users.

References


### Appendix

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Items</th>
<th>Adapted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usefulness</td>
<td>U1 - Increases my productivity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>U2 - Improves my performance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>U3 - Enhances my efficiency.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>U4 - It is useful for my daily life.</td>
<td></td>
</tr>
<tr>
<td>Ease of Use</td>
<td>EU1 - I consider applications flexible.</td>
<td>Davis (1989)</td>
</tr>
<tr>
<td></td>
<td>EU2 - It is accessible to compete with another person.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EU3 - Applications are easy to operate.</td>
<td></td>
</tr>
<tr>
<td>Social Influence</td>
<td>SI1 - If the people who influence me use it, I will use it too.</td>
<td>Hamari &amp; Koivisto (2013)</td>
</tr>
<tr>
<td></td>
<td>SI2 - People encourage me to use gamified applications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SI3 - For my friends it is pertinent to use gamified applications.</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>S1 - Applications integrate my free time.</td>
<td>Yang, Asaad, &amp; Dwivedi (2017)</td>
</tr>
<tr>
<td></td>
<td>S2 - I am satisfied with the applications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S3 - I find the applications interesting.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S4 - I feel pleasantly involved.</td>
<td></td>
</tr>
<tr>
<td>Brand Engagement</td>
<td>Emotional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BEE1 - I consider myself linked to the brand.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BEE2 - I am excited about the brand.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BEE3 - I love the brand.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cognitive</td>
<td>Xi &amp; Hamari (2020)</td>
</tr>
<tr>
<td></td>
<td>BEC1 - I like to learn more about the brand.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BEC2 - Any subject related to the brand captivates my attention.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BEC3 - I think a lot about the brand.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BES1 - I like to use brand products with my friends.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BES2 - I share my experiences with the brand's products/services with</td>
<td></td>
</tr>
<tr>
<td></td>
<td>other people.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BES3 - I like to recommend the brand's products/services to other</td>
<td></td>
</tr>
<tr>
<td></td>
<td>people.</td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>ATB1 - I feel more available to buy branded products.</td>
<td>Yang, Asaad, &amp; Dwivedi (2017)</td>
</tr>
<tr>
<td>towards the</td>
<td>ATB2 - The application makes me feel satisfied when selecting the</td>
<td></td>
</tr>
<tr>
<td>Brand</td>
<td>brand.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATB3 - The application makes me intend to use other services/products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of the brand.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATB4 - I could recommend the brand to other people.</td>
<td></td>
</tr>
</tbody>
</table>
STUDY OF THE AUDIT REPORTS OF THE MUNICIPALITIES IN THE DISTRICT OF PORTO
Sara Serra ¹; Vânia Sousa ²

Abstract
Purpose: Audit reports take on different importance than audit reports from the private sector, as stakeholders are different, mainly because these entities have to be accountable to citizens. The public audit can take various forms, being carried out by several entities, among which, the statutory auditors, which is called the statutory audit of accounts. In the municipalities, the statutory audit of accounts became mandatory as of 2013. Therefore, the objective of this research is to analyze the Audit Reports of the individual accounts of the municipalities of Porto district, for 2015, 2016 and 2017, which total 49 Audit Reports.

Methodology: Data collection was carried out by consulting the websites of the municipalities under study. Through the content analysis technique, the information was analyzed and treated, considering the following aspects: (1) Analysis of the Statutory Auditors; (2) Counting the Audit Reports by type of opinion; (3) Identification of emphasis of matter paragraphs and qualified opinions and categorization by themes; (4) Analysis of the maintenance of emphasis of matter paragraphs and qualified opinions; (5) Identification of the reasons that gave rise to Adverse Audit Report and excuses of opinion; (6) Identification of the Audit Reports with new paragraphs (only in the years 2016 and 2017) and verification of the information included; (7) Formulation of conclusions.

Originality: Since this is a new reality among municipalities, this topic is current and relevant in the context of the audit study. Also, this study is an innovative innovation, as we are unaware of the existence of a similar one in the scope of municipalities, both in Portugal and abroad.

Findings: In most cases, audits are carried out by national audit firms, with no control over Big4. Regarding the type of Audit Report issued, only 5 present an unqualified audit report. No Adverse Audit Report and Disclaimer Audit Report were published. The emphasis of matter paragraphs is about varied themes, highlighting tangible fixed assets and public domain assets. The qualified audit report represents 76% of the studied opinions, highlighting the issues of tangible, intangible assets, and public domain assets. The most used type of qualified audit report is the limitation of scope. It was also noted that the qualified audit report did not vary significantly over the years of the study. There were no significant changes with the issuance of the Audit Report in the new model, and there were few situations in which the new paragraphs were used.

Practical implications: The study contributes to deepening the theme of auditing municipalities, leaving reflections for the heads of municipalities and auditors.

Research limitations: The limitations are related to sample used, given that only 18 municipalities were analyzed, out of a total of 308.

Keywords: Audit opinions; Audit reports; Municipalities; Public audit.

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SPORTS TOURISM AND EMOTION MANAGEMENT: A PRELIMINARY STUDY IN FOOTBALL IN PORTUGAL
Ana João Peixoto 1; Bruno Sousa 2

Abstract
Objectives: The main objective of this study is to understand how emotions and brand love affect consumer decision making in specific tourism contexts (i.e. sports tourism), more specifically the case of professional football in Portugal.

Methodology: a qualitative methodology was adopted collecting data from specialists of the phenomenon to be studied (i.e. semi-structured interviews with professionals and managers linked to sports tourism in Portugal) and consumers (i.e. adept-tourist), through a focus group.

Results: The results seem to show that feelings of affection and love for brands in sporting contexts (i.e. football) significantly influence the purchase decision by consumers-fans in the Portuguese context, namely with regard to travel to attend competitions (national or international), visits in holiday contexts, recommendation to third parties and revisits the places previously visited.

Practical implications: The present study is an instrument to aid strategy and marketing and sports tourism. A marketing strategy and sports tourism will therefore be central to the success of football brands in the Portuguese context.

Contribution: the present investigation reinforces the role of sport intervention in an attempt to make individuals more aware of how to reconcile the practice of tourism and the search for leisure with their passion and loyalty for the football club (e.g. brand love) and feelings of affection towards to brands.

Keywords: Sports marketing; Sports tourism; Supporter-Tourist; Brands; Football.

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INFLUENCE OF THE BOARD OF DIRECTORS AND SUPERVISORY BOARD ON THE DERIVATIVE’S DISCLOSURE

Sofia Martins ¹; Sara Serra ²; Kátia Lemos ³;

Abstract

Purpose: This paper aims to study the influence of the characteristics of the board of directors and the supervisory board on the level of disclosure of information on derivative instruments in companies listed on Euronext Lisbon. Since it is understood that listed companies are the ones that use, with higher frequency, derivative instruments and also because the level of reporting in this type of companies is more rigorous.

Methodology: Through a content analysis of the annual reports and accounts and based on a disclosure index, we analyze the information disclosed by companies listed on Euronext Lisbon, for the year 2017. The collected data were also defined and quantified using the statistical program Statistical Package for the Social Sciences (SPSS), using, for this purpose, linear regression models.

Originality: This research is innovative because it studies, simultaneously, the influence of the characteristics of the board of directors and the supervisory board dissemination of information on derivative instruments, given that in the literature studies only cover the Board of Directors.

Findings: The results show a negative association between the number of independent members of the board of directors and the level of disclosure on derivative instruments, indicating that the lower the number of independent members, the higher the level of information presented. Also, the control variables company size and return on assets are explanatory factors of derivatives’ disclosure level. The results also demonstrated the lack of an association between the characteristics of the supervisory board and the level of disclosure about derivative instruments. As in the previous model, in this model, only the control variable company size is a determining factor in the level of disclosure about derivative instruments, revealing that the larger the size of the company, the higher the level of disclosure about derivative instruments.

Practical implications: This study contributes to a better understanding of the relationship between the disclosure of information on derivative instruments and the characteristics of the corporate governance model in Portugal, concerning the board of directors and the supervisory board.

Research limitations: Small sample, given that companies listed on Euronext Lisbon are limited and the analysis period, which concerns only one accounting period.

Keywords: Board of directors; Supervisory board; Euronext Lisbon; Derivative instruments; Disclosure index.

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1. Introdução

Os mercados financeiros, entre outras coisas, ajudam os investidores a diversificar parte do seu risco e oferecem instrumentos financeiros com diferentes relações risco-retorno, possibilitando que estes possam escolher o perfil de risco mais indicado para as suas aplicações. Para que os utilizadores da informação financeira possam tomar as decisões corretas, é necessário que estes disponham de informação suficiente e fiável. Como tal, tem existido uma grande preocupação com os níveis de divulgação de informação, quer de aspetos quantitativos, quer de aspetos qualitativos, procurando as empresas corresponder às exigências dos seus utilizadores.

A divulgação de informação sobre operações com instrumentos derivados tem sido alvo de intenso debate a nível internacional e os organismos reguladores têm demonstrado preocupação com a definição dos requisitos mínimos de divulgação.

Uma das medidas encontradas para melhorar as práticas de divulgação de informação financeira das entidades é a existência de mecanismos de governo das sociedades. De acordo com Bidabad et al. (2017), o governo das sociedades, a transparência financeira e a divulgação de informação financeira estão entre as soluções mais importantes para atrair a confiança dos stakeholders nas operações financeiras.

Face ao exposto, o principal objetivo deste trabalho é estudar a influência das características do conselho de administração e do conselho fiscal no nível de divulgação de informações sobre instrumentos derivados nas empresas cotadas na Euronext Lisbon. Para tal, foi efetuada uma análise dos relatórios e contas das referidas empresas, reportados a 2017. Para medir o nível de divulgação sobre instrumentos derivados foi construído um índice de divulgação, com base nas exigências de divulgação contidas na International Financial Reporting Standard (IFRS) 7. Posteriormente, através de modelos de regressão linear múltipla, procurou-se testar se determinadas características associadas ao modelo de governo das sociedades exerciam influência sobre os níveis de divulgação de informação das empresas analisadas.

Para além desta introdução, este artigo contém uma revisão da literatura sobre o governo das sociedades e sobre os instrumentos financeiros derivados, nos pontos 2 e 3, respetivamente. Segue-se uma revisão de estudos empíricos sobre o tema, no ponto 4. O ponto 5 é dedicado à descrição da metodologia de investigação adotada neste estudo.

No ponto 6 são apresentados e discutidos os resultados obtidos. Por fim, apresentam-se as conclusões e limitações do estudo, bem como as pistas para investigação futura.

2. O governo das sociedades em Portugal

Em Portugal, o conceito de governo das sociedades acompanhou a evolução que se verificou nos Estados Unidos da América e na Europa. Em outubro de 1999, a Comissão de Mercado de Valores Mobiliários (CMVM) elaborou um Código de Governo das Sociedades, que contemplava um conjunto de recomendações relativas aos sistemas de regras de conduta, a observar no exercício da direção e controlo das sociedades cotadas. Foram emitidas 17 recomendações, as quais foram classificadas em 5 grupos.
diferentes, sendo eles: (1): recomendações sobre a divulgação e comunicação da informação económico-financeira das empresas; (2) recomendações referentes ao ato do voto e representação dos acionistas; (3) recomendações na adopção de regras societárias; (4) recomendações sobre a estrutura e funcionamento dos órgãos diretivos e de administração e (5) recomendações para os investidores institucionais (CMVM, 1999).

Em 2001, o Código de Governo das Sociedades sofreu uma evolução. Por conseguinte, com o Regulamento da CMVM nº 7/2001 as empresas cotadas passaram a estar sujeitas ao dever de informar anualmente sobre o grau de acolhimento das recomendações contidas no Código de Governo das Sociedades (comply), devendo informar sobre o fundamento do não acolhimento das recomendações por si não observadas (explain). Este modelo de informação de origem britânica (comply or explain) é hoje imposto em termos europeus (Cunha & Rodrigues, 2018).

De acordo com Moreira (2002), só é possível uma boa reação do mercado se o modelo de governo de cada sociedade cotada for conhecido ao detalhe. Como tal, as sociedades cotadas devem publicar o relatório sobre o governo das sociedades em anexo ao relatório anual de gestão ou num capítulo separado deste.

Até 2001, apenas existiam recomendações, não vinculativas, aplicáveis às sociedades cotadas. Com o Regulamento da CMVM nº 7/2001 foi possível efetuar a imposição de um procedimento legal efetivo, existindo uma maior transparência e um maior desenvolvimento do governo das sociedades (Câmara, 2002).


Em 2006, o Instituto Português de Corporate Governance apresentou o livro branco sobre o governo das sociedades em Portugal, uma vez que o tema governo das sociedades estava a ganhar importância e existia a necessidade de aprofundar e ajudar as empresas portuguesas a desenvolver e atualizar os seus sistemas de governo das sociedades.

Porém, a partir de 2007, estas recomendações passaram a designar-se por “Código do Governo das Sociedades da CMVM”.

A partir de 2014, devido às alterações do Regulamento n.º 4/2013 da CMVM, as sociedades cotadas passaram a ter maior liberdade na escolha de um código de governo alternativo ao da CMVM, desde que fosse emitido por uma entidade vocacionada para o efeito e a sua escolha fosse justificada.


Os sistemas de governo das sociedades referidos anteriormente possuem modelos com características específicas, sendo estes: o modelo anglo-saxónico, o modelo dualista (alemão) e o modelo latino/monista. O modelo anglo-saxónico está inserido no sistema anglo-saxónico, já o modelo dualista e o modelo latino/monista estão inseridos no sistema continental.

O modelo latino/monista é praticado em países como Portugal, Espanha, Itália e França (Pereira, 2013). Este modelo é composto por três órgãos, sendo eles a assembleia geral, o conselho de administração (constituído por membros executivos e não executivos) e o conselho fiscal ou o fiscal único, que é constituído por membros maioritariamente independentes, ou seja, quando não estão associados a qualquer grupo de interesses, estes membros têm de possuir qualificações e experiência necessária para exercer a sua função (Batista, 2009). No caso de se tratar de um modelo latino reforçado, ou modelo monista, este incluirá também um Revisor Oficial de Contas (ROC), que não seja membro do conselho fiscal.

De acordo com Batista (2009), este modelo difere do modelo dualista, uma vez que neste modelo apenas existe um único órgão de administração da empresa, não havendo separação entre a gestão e as decisões da administração estratégica. A decisão final da
composição dos órgãos do controlo e gestão é realizada, em assembleia geral, pelos acionistas. A assembleia geral tem o poder de eliminar, a qualquer altura, os membros do conselho de administração. Segundo Crowther e Seifi (2011), o modelo latino é fundado no contexto da família e da comunidade local, sendo baseado em membros da mesma família e não num superior hierárquico.

A aprovação das contas para submissão à assembleia de acionistas é da responsabilidade do conselho de administração, o qual reserva para si a aprovação da política estratégica e algumas decisões fundamentais, no que diz respeito à sua concretização (Silva et al., 2006).

De acordo com Batista (2009), este modelo não deverá ser aconselhado para sistemas legais dominados por grupos de acionistas fortes e controladores, uma vez que poderá conduzir a problemas de agência entre os acionistas.

3. Instrumentos derivados

Devido à necessidade de inovar em termos financeiros, começaram a surgir outros tipos de instrumentos financeiros, tais como os instrumentos derivados que, nos dias de hoje, ocupam uma parcela significativa nos mercados financeiros e têm suscitado interesse por parte dos utilizadores da informação financeira (Antunes, 2014).

Os instrumentos derivados são considerados instrumentos que permitem às empresas uma fácil e eficaz cobertura de diversos tipos de riscos, a que se encontram sujeitos no decurso da sua atividade económica (Lemos, 2004). Este tipo de instrumento financeiro assenta numa relação contratual, estabelecida entre duas ou mais partes, onde todas as condições inerentes ao pagamento ou qualquer outra ação a executar futuramente são previamente estabelecidas. Assim, a principal característica a evidenciar neste tipo de instrumento é o facto de serem contratos que são negociados hoje, mas o seu vencimento só se dará numa data futura e que incidem sobre um elemento diferente do próprio contrato, o ativo subjacente (Lemos, 2004).

Segundo a International Accounting Standard (IAS) 39 - Instrumentos Financeiros: Reconhecimento e Mensuração (§ 9), um derivado financeiro é um instrumento financeiro ou um contrato cujo valor se altera em resposta às alterações específicas de um ativo subjacente, que não exige qualquer investimento líquido inicial ou um investimento líquido inicial que seja inferior ao que seria exigido para outros tipos de contratos que se esperaria que tivessem uma resposta semelhante às alterações nos fatores de mercado e que é liquidado numa data futura. Existem vários tipos de instrumentos derivados, contudo os mais utilizados são as opções, os futuros, os forwards e os swaps.

Segundo Ferreira (2011: 10), “a grande evolução dos instrumentos financeiros e o sempre crescente impacto da internacionalização, da globalização e da desintermediação financeira, preocupou os principais organismos responsáveis pela criação e emissão de normativos contabísticos”. A nível internacional, em relação aos instrumentos financeiros foram emitidas a IAS 39, bem como a IFRS 7 e a IFRS 9.

A IAS 39 “tem como objetivos fundamentais estabelecer os princípios para reconhecer e mensurar ativos financeiros, passivos financeiros e ainda certos contratos de compra e venda de itens não financeiros; a introdução dos instrumentos derivados e a contabilização das operações de cobertura de risco (hedge accounting) e o complemento com as outras duas normas internacionais de contabilidade quanto aos princípios para apresentação dos ativos e dos passivos financeiros (IAS 32) e para a divulgação de informações (IFRS 7)” (Ferreira, 2011: 30).

A IAS 39 defende o reconhecimento de todos os instrumentos derivados no balanço, como ativos e passivos (§14) e a sua mensuração pelo justo valor (§43 a §47), com reconhecimento dos ganhos e perdas, resultantes de alterações no justo valor, em resultados do período (§55) (Lemos, 2011).

Uma vez que as empresas assumem posições longas ou curtas faz com que fiquem
expostas a vários tipos de riscos e, desta forma, existem inúmeros tipos de instrumentos para cobrir o risco inerente. O parágrafo 86 da IAS 39 prevê um tratamento especial para operações de cobertura de risco, que irá depender da classificação da operação num dos seguintes três tipos de cobertura: (1) cobertura de justo valor; (2) cobertura de fluxos de caixa; e (3) cobertura de um investimento líquido numa unidade operacional estrangeira. Na sequência da crise financeira internacional, o International Accounting Standards Board (IASB) publicou a IFRS 9 - Instrumentos Financeiros, em julho de 2014. Esta norma visa estabelecer princípios aplicáveis para a melhoria da utilidade do relato financeiro de ativos e passivos financeiros para os utilizadores das demonstrações financeiras, contendo requisitos sobre reconhecimento, mensuração, imparidade, desconhecimento e contabilidade de cobertura em geral. Contudo, esta norma não será considerada relevante neste estudo, uma vez que esta só deverá ser aplicada para períodos anuais que se iniciem após 1 de janeiro de 2018 e o presente estudo aplica-se ao ano de 2017.

4. Revisão de estudos empíricos

Hassan et al. (2006/2007) realizaram um estudo com o objetivo de verificar os fatores explicativos da qualidade da informação dos instrumentos derivados, analisando as demonstrações financeiras de 137 empresas da indústria extrativista australiana, durante o período de 1998 a 2001. Estes autores analisaram a relação entre a transparência da divulgação e as características da empresa, tais como, o tamanho, o desempenho, as oportunidades de crescimento, o auditor, o setor de atividade e a alavancagem. Os resultados obtidos indicaram que a divulgação sobre os derivados aumentou ao longo do período em análise. Quanto aos fatores explicativos de divulgação, o estudo apontou que as variáveis tamanho da empresa, nível de endividamento, bem como pesquisa e desenvolvimento e rentabilidade estão associadas à transparência de informação. Lopes e Rodrigues (2007) procuraram estudar os determinantes do nível de divulgação de informação sobre instrumentos financeiros (incluindo os instrumentos derivados), por parte das empresas portuguesas cotadas em bolsa, relativos ao exercício econômico de 2001. Para tal, estes autores utilizaram, como variável dependente, um índice de divulgação voluntária e analisaram os relatórios e contas anuais para o ano em questão. As variáveis independentes consideradas no estudo foram o tamanho da empresa, o setor de atividade, o tipo de auditor, a cotação em mercados internacionais, a alavancagem, o mercado acionista e, por fim, os diretores independentes no conselho de administração. As autoras concluíram que os fatores determinantes da divulgação de informação sobre instrumentos financeiros são o tamanho da empresa, o setor de atividade, o tipo de auditor e, por último, o fato da empresa se encontrar cotada em mais do que um mercado regulamentado (cotação em mercados internacionais).

No estudo de Lemos et al. (2009) foram analisados os determinantes do nível de informação dos instrumentos derivados de 49 empresas cotadas na Euronext Lisbon, para o ano de 2009. Com este estudo foi possível concluir que a adoção das normas do IASB impôs um nível de divulgação mais exigente às empresas. Contudo, o estudo revelou um baixo nível de informação sobre instrumentos derivados. A investigação revelou, ainda, que as variáveis tamanho, endividamento, existência de planos sobre ações, setor e o facto de o auditor externo pertencer a uma das Big 4 influenciam o nível de divulgação sobre os instrumentos derivados. Na análise multivariada, o estudo revelou que o tamanho é a única variável que explica o nível de divulgação.

No estudo de Mapurunga et al. (2011) pretendia-se verificar se o nível da informação divulgada está relacionado com as caraterísticas económicas das empresas. Este estudo utilizou uma amostra de 75 empresas brasileiras e a metodologia de análise descritiva, com abordagem quantitativa das demonstrações financeiras e das respetivas notas explicativas de 2010. As quatro hipóteses de investigação formuladas dizem respeito ao tamanho, lucro, rentabilidade e endividamento da entidade. Os autores concluíram que existe uma grande associação entre as caraterísticas económicas e o nível de informação divulgada.
no que diz respeito ao uso dos derivados financeiros. Por conseguinte, um maior nível de divulgação sobre instrumentos financeiros derivados está positivamente relacionado com as variáveis tamanho e lucro. Contudo, este estudo não mostra uma relação significativa face às variáveis endividamento e rentabilidade.

Lemos (2011) investigou o nível de divulgação de instrumentos derivados de todas as empresas cotadas na Euronext Lisbon, durante o período de 2003 a 2009, e das empresas financeiras para o período de 2009. As variáveis independentes testadas por esta autora foram as seguintes: tamanho, concentração de capital, participações dos órgãos de administração e fiscalização no capital, endividamento, diretores independentes no conselho de administração, investigação e desenvolvimento, tipo de auditor, aumento de capital, sistemas de incentivo baseados em ações, setor económico, rácio market/book value, notoriedade da empresa e exercício económico. Este trabalho foi dividido em duas fases da investigação: na primeira fase, o estudo concentra-se em todas as empresas e, na segunda fase, apenas nas empresas financeiras (cotadas e não cotadas). No que diz respeito à primeira fase, o estudo teve como objetivo analisar o nível de divulgação e identificar os seus fatores determinantes. Os resultados demonstraram que a divulgação aumentou ao longo do período analisado e que a obrigatoriedade do normativo do IASB influenciou, sem dúvida, o nível de divulgação. Porém, Lemos (2011) afirmou que esta divulgação sobre instrumentos derivados ainda não é a desejável, principalmente no que diz respeito à divulgação sobre a cobertura de risco. Através da análise multivariada aferiu-se que os fatores explicativos são o tamanho, o nível de endividamento, a percentagem de diretores independentes no conselho de administração, a divulgação de informação sobre a investigação e desenvolvimento, o auditor externo pertencer a uma das Big 4, o rácio price to book value (que é o valor do mercado sobre o valor contabilístico) e o facto de pertencer ao PSI 20. Na segunda fase da investigação, a autora verificou que as empresas financeiras apresentam índices de divulgação bastante reduzidos, denotando a falta de cumprimento de todas as exigências normativas.

Gonçalves (2013) investigou o nível de cumprimento das divulgações requeridas pelas IFRS, bem como os fatores associados ao nível de cumprimento das divulgações. Assim, através de um índice de divulgação com 8 categorias e 35 itens, baseados nas divulgações obrigatórias da IFRS 7, este autor analisou 43 relatórios e contas das empresas cotadas na Euronext Lisbon, para o ano 2010, com um nível de divulgação médio de 50%. As variáveis independentes utilizadas foram o tamanho da empresa, o endividamento, o tipo de auditor, o desempenho da empresa, o comité de gestão de risco e a concentração de capital. Gonçalves (2013) denotou que os swaps são os mais utilizados pelas empresas e pouco menos de metade das empresas utiliza forwards e algumas opções. O estudo revelou que as empresas portuguesas têm níveis de endividamento relativamente elevados e estão orientadas para o financiamento bancário. Através da análise univariada, o autor conclui que a variável tamanho e desempenho, quando medidos pela rentabilidade do ativo (ROA), são fatores que influenciam o nível de divulgação. Como tal, as empresas de maior dimensão e com melhores resultados tendem a divulgar mais informação sobre instrumentos financeiros derivados. As restantes variáveis não foram consideradas estatisticamente significativas. O estudo revelou, ainda, que as empresas cumprem com os requisitos de divulgação em cerca de metade dos itens testados.

Nunes (2014) fez um estudo com o intuito de analisar a divulgação de informação sobre os instrumentos derivados e testar as variáveis que influenciavam a divulgação da informação. A amostra era composta por empresas do setor da indústria, pertencentes ao PSI 20, no período de 2010 a 2012, e as variáveis independentes consideradas foram o tamanho da empresa, o endividamento, o price earning ratio, o tipo de auditor, a existência de sistemas de incentivos baseados em ações, a notoriedade da empresa, a rendibilidade e o price to book value. Com base numa tabela com os índices de divulgação dos requisitos da IFRS 7, específicos dos derivados financeiros, o estudo foi dividido em duas fases. A primeira fase baseia-se na análise do nível de informação divulgada sobre instrumentos financeiros derivados nas notas explicativas. Na segunda fase, o autor procurou verificar a relação
entre algumas variáveis explicativas e a informação que é divulgada, no que diz respeito aos instrumentos derivados, com recurso às análises multivariada e bivariada. O autor concluiu que, na primeira fase do estudo, não ocorreu qualquer alteração quanto à informação divulgada no período de 2010 a 2012, ou seja, as empresas mantiveram o nível de informação sobre aos instrumentos derivados. Relativamente à segunda fase, os resultados demonstram que os sistemas de incentivos para os gestores das empresas pode ser um fator explicativo do nível de informação divulgada pelas empresas. Como tal, as variáveis independentes do estudo não são estatisticamente significativas, apenas a variável sistema de incentivos para os gestores foi considerada válida na segunda fase do estudo.

Kota e Charumathi (2018) realizaram um estudo idêntico na Índia, procurando identificar os determinantes da divulgação de informação sobre instrumentos derivados, numa amostra de empresas não financeiras cotadas no índice Nifty 50, no período de 2010 a 2017. Para o efeito, construíram um índice de divulgação, com base no normativo indiano existente (que resulta de uma adaptação ao normativo do IASB) e concluíram que o nível de divulgação evoluiu positivamente ao longo do período de análise e que se encontra positivamente associado à existência de um comitê de gestão de risco, se a empresa é de tipo familiar, à percentagem de acionistas institucionais, à rentabilidade internacional da empresa, ao tamanho da empresa e ao valor de instrumentos derivados utilizados.

Malaquias e Zambra (2018) estudaram o nível de divulgação sobre instrumentos financeiros e seus fatores determinantes, numa amostra de 72 empresas da indústria mineira, localizadas na América Latina (Brasil, Chile, Perú e México). Para o efeito, recorreram à análise de conteúdo dos relatórios e contas, para o período de 2015, através de um índice de divulgação, construído com base na IFRS 7 (de adoção obrigatória no período de análise) e na IFRS 9 (que só se tornaria obrigatória a partir de 2018). Os resultados evidenciam que as empresas situadas no México são as que apresentam maiores graus de cumprimento com as referidas normas e que o nível de divulgação se encontra positivamente associado com o tamanho da empresa.

Seguindo esta linha de investigação, Lemos et al. (2019) realizaram um estudo com base na análise dos relatórios e contas de 2016 das empresas cotadas na Euronext Lisbon, para verificar se o auditor externo exerce influência sobre a divulgação de informação sobre instrumentos derivados. Para tal, foi construído um modelo de regressão linear múltipla, considerando as variáveis independentes género do auditor, experiência do auditor, honorários do auditor, firma de auditoria (Big 4 ou não Big 4), tamanho da empresa e níveis de endividamento. A fim de alcançar o objetivo proposto, foi construído um índice de divulgação tendo em conta os requisitos da IFRS 7. Os resultados obtidos mostraram um nível médio de divulgação de cerca de 50%, revelando que as empresas não divulgam todas as informações exigidas pelas normas do IASB e que o nível de divulgação é maior nas grandes empresas e nas empresas auditadas por um auditor do sexo masculino. Contrariamente às expectativas, não foi possível comprovar a existência de qualquer associação entre o índice de divulgação e as outras características associadas ao auditor.

5. **Metodologia de investigação**

5.1 **Objetivo e hipóteses de investigação**

Com base na premissa de Elshandidy e Neri (2015), de que a literatura tem demonstrado que os mecanismos de governo das sociedades contribuem para melhorar a divulgação da informação financeira, este estudo pretende estudar a influência das características do conselho de administração e do conselho fiscal no nível de divulgação de informações sobre instrumentos derivados nas empresas cotadas na Euronext Lisbon. Para o efeito, formularam-se as hipóteses de investigação, que de seguida se apresentam.

5.1.1 **Tamanho do conselho de administração e do conselho de fiscalização**

e Surifah (2020) aferiram, nos seus estudos, que a variável tamanho do conselho de administração tem impacto positivo na qualidade das informações financeiras divulgadas. Nesta linha de pensamento, Sanni et al. (2020) obteram evidência empírica da existência de uma associação positiva entre o tamanho do conselho de administração e o grau de cumprimento com as IFRS por parte das empresas nigerianas, cotadas em bolsa. Contrariamente, Chantachaimongkol e Chen (2018), bem como Kiflee et al. (2020) aferiram que existe uma relação negativa entre o tamanho do conselho e as práticas de divulgação, denotando que os conselhos de administração menores divulgam mais informação. Porém, Oliveira (2016), no seu estudo empírico, verificou que a variável tamanho do conselho de administração não tem uma relação estatisticamente significativa com o nível de divulgação voluntária.

Face aos resultados obtidos pelos autores citados, espera-se que o tamanho do conselho de administração influencie o nível de divulgação sobre instrumentos derivados. Dada a inexistência de literatura, por analogia, espera-se que o tamanho do conselho de fiscalização influencie o nível de divulgação sobre instrumentos derivados. Deste modo, formularam-se as seguintes hipóteses de investigação:

H1.1: O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo número de membros no conselho de administração.

H1.2: O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo número de membros no conselho de fiscalização.

5.1.2 Qualificações dos membros do conselho de administração e do conselho de fiscalização

Na perspetiva de Ismail e Rahman (2011), um conselho de administração eficaz deverá ser composto por pessoas que tenham bons conhecimentos acerca dos procedimentos contabilísticos, de forma a que sejam transmitidas boas divulgações não só aos acionistas, mas também ao público. Deste modo, se o conselho de administração possuir membros com formação académica em economia, gestão, contabilidade e finanças, a divulgação de informação será melhor. Por conseguinte, estes autores chegaram à conclusão que a qualificação dos membros do conselho de administração influencia de forma positiva o nível de divulgação. Com base nesta conclusão, formularam-se as seguintes hipóteses de investigação:

H2.1: O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo número de membros qualificados no conselho de administração.

H2.2: O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo maior número de membros qualificados no conselho de fiscalização.

5.1.3 Independência dos membros do conselho de administração e do conselho de fiscalização

Segundo Barros et al. (2013), a presença de administradores independentes no conselho de administração é essencial, dado que estes contribuem, com a sua experiência, para as empresas e protegem os interesses gerais dos acionistas contra potenciais comportamentos oportunistas. Na senda deste pensamento, Liu et al. (2016) e Cunha e Rodrigues (2018) aferiram que a independência dos membros do conselho de administração tem um efeito positivo significativo na qualidade da divulgação da informação financeira. Outros autores comprovaram a existência de associação positiva entre o número de membros independentes no conselho de administração e a divulgação de informação sobre riscos (Agyei-Mensah, 2017; Kiflee et al., 2020) e sobre instrumentos derivados (Lemos, 2011).

Oliveira (2016), bem como Chantachaimongkol e Chen (2018) não obtiveram qualquer evidência empírica da associação entre a percentagem de membros independentes no conselho de administração e o nível de divulgação de informação. Também, Lopes e Rodrigues (2007) e Lemos et al. (2009) não obtiveram qualquer evidência empírica da associação entre o número de membros independentes no conselho de administração e a divulgação de informação sobre instrumentos derivados. Por sua vez, Martins (2014), no seu estudo empírico, obteve uma associação negativa entre o nível de divulgação voluntária e o número de membros independentes no conselho de administração. Ou seja, quanto menor for o número de membros independentes no conselho de administração, maior será o nível de divulgação.

Com base nos estudos anteriores, formularam-se as seguintes hipóteses de investigação:

**H3.1:** O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo número de membros independentes no conselho de administração.

**H3.2:** O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo número de membros independentes no conselho de fiscalização.

### 5.1.4 Número de reuniões do conselho de administração e do conselho de fiscalização

Segundo Vafeas (1999), reuniões frequentes podem ser interpretadas como sinal de um controlo ativo, mas podem também ser o resultado de uma má performance dos membros do conselho de administração. Miranda (2014) e Chantachaimongkol e Chen (2018) não obtiveram qualquer evidência empírica entre o número de reuniões do conselho de administração e a divulgação de informação. Todavia, Fathi (2013) evidenciou que a variável participação dos membros nas reuniões do conselho de administração possui um efeito positivo na divulgação de informação. Sanni et al. (2020) também comprovaram que o número de reuniões do conselho de administração está positivamente associado ao grau de cumprimentos com as IFRS.

Por conseguinte, formulam-se as seguintes hipóteses de investigação:

**H4.1:** O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa é influenciado pelo número de reuniões do conselho de administração.

**H4.2:** O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo número de reuniões do conselho de fiscalização.

**Membros não executivos no conselho de administração**

Atualmente, a maioria dos códigos de governo societário recomendam a presença de uma maioria de membros independentes (Cunha & Rodrigues, 2018). Contudo, do ponto de vista de Ismail et al. (2011), a percentagem de membros não executivos no conselho de administração não é um fator determinante na divulgação de informação. Face ao exposto formulou-se a seguinte hipótese de investigação:

**H5:** O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo número de membros não executivos no conselho de administração.

Para além das características associadas ao governo das sociedades, têm sido identificadas, por diversos autores, outras características empresariais que exercem influência no nível de informação divulgado pelas empresas (Guerreiro, 2006; Hassan et al., 2006/2007; Lopes & Rodrigues, 2007; Lemos et al., 2009; Mapurunga et al., 2011; Lemos, 2011; Gonçalves, 2013; Oliveira 2016; Lemos et al., 2019; Wahyono et al., 2020). Como tal, considerou-se pertinente estudar também a influência do tamanho da entidade e dos seus níveis de rentabilidade e de endividamento no nível de divulgação sobre instrumentos derivados.
5.1.5 Tamanho da entidade
Contrariamente, Nunes (2014) não obteve qualquer evidência empírica entre o tamanho da empresa e a divulgação de informação sobre instrumentos derivados.
Face ao exposto, formulou-se a seguinte hipótese de investigação:
H6: O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo tamanho da empresa.

5.1.6 Rentabilidade da entidade
Segundo Gallery et al. (2008), as empresas mais rentáveis tendem a utilizar a divulgação externa para garantir a sua posição atual e evitar a desvalorização das suas ações. Aliás, Hassan et al. (2006/2007) comprovam a existência de uma associação positiva entre a qualidade da informação divulgada sobre instrumentos derivados e a rentabilidade das empresas.
Tendo em consideração os resultados obtidos por Hassan et al. (2006/2007), espera-se que o nível de rentabilidade das empresas influencie o nível de divulgação sobre instrumentos derivados, resultando daqui a seguinte hipótese de investigação:
H7: O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pela rentabilidade das empresas.

5.1.7 Endividamento da entidade
Apesar dos resultados dispa res obtidos por estes autores, espera-se que o nível de endividamento das empresas influencie o nível de divulgação sobre instrumentos derivados, formando-se a seguinte hipótese de investigação.
H8: O nível de informação divulgada sobre instrumentos derivados, por parte das empresas cotadas em bolsa, é influenciado pelo endividamento das empresas.

5.2 Seleção da amostra e período de análise
A amostra deste estudo é constituída pelas empresas cotadas na Euronext Lisbon, uma vez que se entende que as empresas cotadas são as que utilizam, com maior frequência, instrumentos derivados e, também, porque o nível de relato neste tipo de empresas é mais exigente. Foi considerado o ano de 2017, uma vez que, à data de recolha dos dados, era o último ano com informação divulgada pelas empresas. Para a constituição da amostra final foram utilizados os seguintes critérios:
a) As empresas em análise estão inseridas na lista que foi retirada do site da...
Euronext Lisbon, no dia 9 de novembro de 2018;
b) Os Relatórios de Gestão, Relatórios de Governo das Sociedades, Relatórios de Auditoria e Demonstrações Financeiras das referidas empresas teriam que estar disponíveis no site da CMVM;
c) As empresas consideradas não são Sociedades Anónimas Desportivas, uma vez que estas entidades têm um período de relato diferente das restantes. Posto isto, após retirar a listagem das empresas cotadas na Euronext Lisbon, que contemplava 47 empresas, foram excluídas 3 Sociedades Anónimas Desportivas e 7 empresa cujos Relatórios de Governo das Sociedades e Relatórios de Gestão não continham informação suficiente para o presente estudo. Daqui resulta uma amostra de 37 empresas.

5.3 Recolha e tratamento dos dados
De forma a alcançar o objetivo definido, recorreu-se à análise de conteúdo dos Relatórios e Contas anuais de 2017 das empresas que compunham a amostra. Os referidos Relatórios e Contas foram recolhidos nas webpages das entidades e/ou na webpage da CMVM. Os documentos que foram analisados dizem respeito ao Relatório de Gestão, Relatório de Governo das Sociedades e às Demonstrações Financeiras e respetivo anexo e Relatórios de Auditoria.

De acordo com Severino (2017), a análise de conteúdo é uma metodologia que trata e analisa informações provenientes de documentos. A análise de conteúdo tem a sua própria abordagem para analisar dados que deriva, em grande parte, de como o objeto de análise e conteúdo é concebido (Krippendorff, 2018).

Os dados foram recolhidos com base na metodologia de análise de conteúdo, classificando-se, posteriormente, a informação recolhida em atributos, de forma a quantificar-la e aferir o nível de divulgação, considerando o índice de divulgação utilizado por Lemos et al (2009), Lemos (2011) e Lemos et al. (2019), construído com base na IFRS 7. Os dados recolhidos foram tratados e quantificados através do programa estatístico Statistical Package for the Social Sciences (SPSS), utilizando, para o efeito, modelos de regressão linear múltipla.

5.3.1 Variável dependente
A variável dependente utilizada neste estudo consiste num índice de divulgação sobre instrumentos derivados, obtido de Lemos (2011), que contém todos os requisitos de divulgação previstos na IFRS 7. O índice contém 38 itens, classificados em cinco categorias principais:

1. Políticas contabilísticas (6 itens);
2. Informação específica sobre riscos (8 itens);
3. Operações que não se qualificam para efeitos de cobertura de risco (2 itens);
4. Cobertura de risco (18 itens), repartidos nas seguintes subcategorias:
   4.1. Informações gerais (5 itens);
   4.2. Coberturas de fluxos de caixa (7 itens);
   4.3. Coberturas de justo valor (2 itens);
   4.4. Cobertura de investimentos líquidos em entidades estrangeiras (4 itens);
5. Justo valor (4 itens).

Na análise aos Relatórios e Contas das empresas incluídas na amostra, verifica-se se cada um dos itens que constituem o índice de divulgação do IASB (IDIASB) é ou não divulgado e atribui-se, a cada um deles, uma ponderação de 0 ou 1, consoante o seguinte critério: 0 se o item não é divulgado e 1 se o item é divulgado.

Deste modo, o valor do índice para cada uma das empresas em análise é obtido através do quociente entre o total de itens divulgados pela empresa em análise e o somatório do total dos itens que constituem o índice de divulgação. Cumpre ainda referir que o IDIASB é um índice não ponderado, ou seja, assume-se que todos os itens considerados têm o mesmo nível de importância para os diversos utilizadores das demonstrações financeiras.
Por outro lado, importa referir que, o facto de não distinguirmos os itens não divulgados de itens não aplicáveis poderá afetar os resultados obtidos. Muitos dos itens não divulgados pelas empresas poderão estar relacionados com operações que não foram levadas a cabo e, por essa razão, o facto de não divulgar, não significa falta de cumprimento com o normativo. Todavia, uma vez que é impossível controlar (pela falta de informação que é apresentada) se a não divulgação de determinado item se deve à falta de cumprimento com o normativo, ou à sua não aplicação, optámos pela classificação como não divulgado.

5.3.2 Variáveis independentes
As variáveis independentes resultam das hipóteses de investigação anteriormente formuladas e foram determinadas para o período de análise. Apresenta-se, no quadro 1, um sumário das variáveis independentes utilizadas, com indicação da forma de determinação de cada uma delas e das hipóteses de investigação subjacentes.

Quadro 1 - Variáveis independentes e associação esperada com o IDIASB

<table>
<thead>
<tr>
<th>Variáveis</th>
<th>Forma de determinação</th>
<th>Hipótese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamanho do conselho de administração</td>
<td>Número de membros no conselho de administração</td>
<td>H1.1</td>
</tr>
<tr>
<td>Tamanho do conselho de fiscalização</td>
<td>Número de membros no conselho de fiscalização</td>
<td>H1.2</td>
</tr>
<tr>
<td>Qualificações dos membros do conselho de administração</td>
<td>Percentagem de membros no conselho de administração com licenciatura em Economia/Gestão/Auditoria/Finanças</td>
<td>H2.1</td>
</tr>
<tr>
<td>Qualificações dos membros do conselho de fiscalização</td>
<td>Percentagem de membros no conselho de fiscalização com licenciatura em Economia/Gestão/Auditoria/Finanças</td>
<td>H2.2</td>
</tr>
<tr>
<td>Independência dos membros do conselho de administração</td>
<td>Percentagem de membros independentes no conselho de administração</td>
<td>H3.1</td>
</tr>
<tr>
<td>Independência dos membros do conselho de fiscalização</td>
<td>Percentagem de membros independentes no conselho de fiscalização</td>
<td>H3.2</td>
</tr>
<tr>
<td>Reuniões do conselho de administração</td>
<td>Número de reuniões efetuadas no conselho de administração</td>
<td>H4.1</td>
</tr>
<tr>
<td>Reuniões do conselho de fiscalização</td>
<td>Número de reuniões efetuadas no conselho de fiscalização</td>
<td>H4.2</td>
</tr>
<tr>
<td>Membros não executivos do conselho de administração</td>
<td>Percentagem de membros não executivos no conselho de administração</td>
<td>H5</td>
</tr>
<tr>
<td>Tamanho</td>
<td>Log do total do ativo</td>
<td>H6</td>
</tr>
<tr>
<td>Rentabilidade</td>
<td>ROA - rentabilidade do ativo</td>
<td>H7</td>
</tr>
<tr>
<td></td>
<td>ROE - rentabilidade dos capitais próprios</td>
<td></td>
</tr>
<tr>
<td>Endividamento</td>
<td>Passivo/Ativo x100</td>
<td>H8</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

5.3.3 Modelos de regressão
No sentido de identificar os fatores determinantes do nível de divulgação sobre instrumentos derivados, desenvolveram-se dois modelos de regressão linear múltipla em consonância com as hipóteses formuladas, considerando como variável dependente o índice de divulgação e, como variáveis independentes, as variáveis associadas ao conselho de administração e ao conselho de fiscalização, respetivamente, considerando nos dois modelos, como variáveis de controlo, o tamanho, a rentabilidade e o nível de endividamento das empresas. Os modelos estimados expressam-se nos quadros 2 e 3:
Quadro 2 – Modelo de regressão para o conselho de administração

\[ ID_{i,t} = \alpha_0 + \beta_1 \text{tamCA} + \beta_2 mexecut + \beta_3 qCA + \beta 4 \text{indCA} + \beta_5 rCA + \beta_6 \text{ROA} + \beta_7 \text{ROE} + \beta_8 \text{END} + \beta_9 \text{TAM}_{i,t} + \epsilon_{i,t} \]

| \( ID_{i,t} \) | valor do índice de divulgação para a empresa i no momento t; | tamCA: número de membros no conselho de administração; | mexecut: número de membros não executivos no conselho de administração; | qCA: número de membros licenciados na área da gestão/economia/finanças/auditoria no conselho de administração; | indCA: número de membros independentes no conselho de administração; | rCA: número de reuniões efetuadas no conselho de administração; | ROA: rentabilidade do ativo; | ROE: rentabilidade do capital próprio; | END: endividamento; | TAM_{i,t}: tamanho da empresa. |

Fonte: Elaboração dos autores.

Quadro 3 – Modelo de regressão para o conselho de fiscalização

\[ ID_{i,t} = \alpha_0 + \beta_1 \text{tamCF} + \beta_2 qCF + \beta_3 \text{indCF} + \beta_4 rCF + \beta_5 \text{ROA} + \beta_6 \text{ROE} + \beta_7 \text{END} + \beta_8 \text{TAM}_{i,t} + \epsilon_{i,t} \]

| \( ID_{i,t} \) | valor do índice de divulgação para a empresa i no momento t; | tamCF: número de membros no conselho de fiscalização; | qCF: número de membros licenciados na área da gestão/economia/finanças/auditoria no Conselho de Fiscalização; | indCF: número de membros independentes no conselho de fiscalização; | rCF: número de reuniões efetuadas no conselho de fiscalização; | ROA: rentabilidade do ativo; | ROE: rentabilidade do capital próprio; | END: endividamento; | TAM_{i,t}: tamanho da empresa. |

Fonte: Elaboração dos autores.

6. Análise e discussão dos resultados

6.1 Caracterização da amostra

A amostra utilizada neste estudo é constituída pelas empresas cotadas na Euronext Lisbon, a 31 de dezembro de 2017, excluindo-se as Sociedades Anónimas Desportivas e as empresas que não divulgam informação relativamente ao Relatório de Governo das Sociedades e ao Relatório de Gestão. Desta forma, a amostra é constituída por 37 empresas, que se encontram concentradas maioritariamente na zona de Lisboa e Vale do Tejo (21). Na zona Norte encontram-se 14 empresas e na zona centro 2 empresas. As empresas em análise estão repartidas pelos diversos setores de atividade conforme se pode ver no quadro 4, a seguir.

Quadro 4 - Caracterização da amostra em função do setor de atividade

<table>
<thead>
<tr>
<th>Setor de atividade</th>
<th>Frequência</th>
<th>Percentagem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gás, Petróleo e Energia</td>
<td>5</td>
<td>13,5</td>
</tr>
<tr>
<td>Indústria</td>
<td>9</td>
<td>24,3</td>
</tr>
<tr>
<td>Bens de Consumo</td>
<td>3</td>
<td>8,1</td>
</tr>
<tr>
<td>Serviços ao consumidor</td>
<td>12</td>
<td>32,4</td>
</tr>
<tr>
<td>Telecomunicações</td>
<td>4</td>
<td>10,8</td>
</tr>
<tr>
<td>Financeiro</td>
<td>2</td>
<td>5,4</td>
</tr>
<tr>
<td>Tecnologia</td>
<td>2</td>
<td>5,4</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Conforme se pode verificar, das 37 empresas em análise, o setor de atividade com maior número de empresas é o de serviços ao consumidor, com um total de 12 empresas. Os setores com menos empresas são o financeiro e o de tecnologia, com 2 empresas cada. Apresenta-se no quadro 5 a caraterização das empresas que compõem a amostra, tendo...
em conta as variáveis independentes anteriormente apresentadas.

| Quadro 5 - Caracterização da amostra em função das variáveis independentes |
|-----------------------------|--------|--------|--------|--------|
| Variáveis                  | Média  | Desvio Padrão | Mínimo | Máximo |
| Número de membros do conselho de administração | 9,22   | 4,70  | 3     | 19     |
| Membros não executivos do conselho de administração | 0,49   | 0,23  | 0     | 18     |
| Qualificações dos membros do conselho de administração (%) | 43%    | 18%   | 0%    | 79%    |
| Número de membros independentes no conselho de administração (%) | 27%    | 23%   | 0%    | 67%    |
| Número de reuniões do conselho de administração | 12,51  | 8,95  | 1     | 47     |
| Número de membros conselho fiscalização | 3,35   | 0,54  | 3     | 5      |
| Qualificações membros conselho de fiscalização (%) | 71%    | 27%   | 25%   | 100%   |
| Número de membros independentes conselho fiscalização (%) | 94%    | 13%   | 67%   | 100%   |
| Número de reuniões conselho de fiscalização | 8,73   | 5,11  | 1     | 20     |
| ROA (%) | -9,21% | 54,75% | -300% | 18%    |
| ROE (%) | -7,6%  | 53,17% | -308% | 39%    |
| END (%) | 65,41% | 34,77% | 3,00% | 214%   |
| TAM    | 8,86   | 0,97  | 6,36  | 10,86  |

Fonte: Elaboração dos autores.

Conforme se pode verificar no quadro 5, o número de membros do conselho de administração das empresas da amostra varia entre 19 e 3 membros, sendo a média de, aproximadamente, 9 membros.

Relativamente ao número de membros não executivos do conselho de administração, podemos atestar que há empresas que não possuem membros não executivos no conselho de administração. Contrariamente, há empresas que possuem, até, 18 membros não executivos no conselho de administração. Todavia, a média não chega a 1, denotando que a maioria das empresas analisadas não possui membros não executivos no conselho de administração.

No que diz respeito às qualificações dos membros do conselho de administração, é possível observar que, das 37 empresas em análise, a média de membros com licenciatura em Economia/Gestão/Contabilidade/Finanças/Auditoria é de 43%, sendo o mínimo de 0% e o máximo de 79%.

Em relação ao número de membros independentes do conselho de administração, a média é de 27%, sendo o mínimo de 0% e o máximo de 67%. Tal denota que há empresas onde os membros do conselho de administração são todos dependentes, isto pode prejudicar a empresa, dado que a presença de administradores independentes no conselho de administração é considerada importante, dado que estes contribuem, com a sua experiência, para as empresas e protegem os interesses gerais dos acionistas contra potenciais comportamentos oportunistas.

O número médio de reuniões efetuadas no conselho de administração é de, aproximadamente, 13, existindo no mínimo 1 reunião e no máximo 47 reuniões. A média de membros do conselho de fiscalização é de, aproximadamente 3 membros, sendo este, também, o número mínimo, o que significa que todas as empresas têm, pelo menos, 3 membros no conselho de fiscalização e, no máximo, 5 membros.

Quanto às qualificações dos membros do conselho de fiscalização, é possível observar que, das 37 empresas analisadas, a média de membros com licenciatura em Economia/Gestão/Contabilidade/Finanças/Auditoria é de 71%. Tal significa que, o conselho de fiscalização possui membros com mais formações nestas áreas
comparativamente com o conselho de administração. No que concerne ao número de membros independentes no conselho de fiscalização, é possível verificar que existe uma média de 94% de membros independentes, sendo o mínimo de 67% e o máximo de 100%. Ou seja, em todas as empresas há, pelo menos, 1 membro independente no conselho de fiscalização, enquanto que, no conselho de administração existem empresas onde os membros são todos dependentes. O número de reuniões realizadas no conselho de fiscalização é, em média, de 9 reuniões, sendo o mínimo 1 reunião e o máximo 20 reuniões. No conselho de administração existe um maior número de reuniões efetuadas comparativamente ao conselho de fiscalização. No que diz respeito à rentabilidade do ativo (ROA), verifica-se que a média é de -9,21%, sendo o máximo de 18% e o mínimo de -300%. Quanto à rentabilidade dos capitais próprios (ROE), a média é de -0,76%, sendo o mínimo é de -308% e o máximo de 39%. O endividamento tem uma média de 65,41%, sendo o máximo de 214% e o mínimo de 3%. Por fim, relativamente ao tamanho da empresa, é possível verificar que a média é de 8,86, sendo o máximo é de 10,86 e o mínimo de 6,36.

5.1. Análise descritiva dos resultados
No que diz respeito ao ID IASB foram calculados os valores médios, desvio padrão, mínimos e máximos, conforme consta no quadro 6.

<table>
<thead>
<tr>
<th>Índices</th>
<th>Média</th>
<th>Desvio Padrão</th>
<th>Mínimo</th>
<th>Máximo</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>0,54</td>
<td>0,30</td>
<td>0,00</td>
<td>0,87</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Da análise ao quadro 7, verifica-se que nenhuma das empresas apresenta toda a informação considerada no IDIASB. O valor médio do ID, no total das empresas, é de 0,54, sendo o valor mínimo de divulgação de 0 e o valor máximo de divulgação é de 0,87. Face aos resultados apresentados, é possível verificar que os níveis de divulgação são reduzidos, levando-nos a crer que as empresas cotadas na Euronext Lisbon não cumprem com os requisitos de divulgação contidos no normativo contabilístico em vigor. Porém, comparativamente ao estudo de Lemos et al. (2019), é possível verificar que há uma evolução positiva, uma vez que o ID deste estudo é em média de 0,54 e o de Lemos et al. (2019) é de 0,49. Deste modo, podemos verificar que as empresas no ano 2017 divulgaram um maior número de informação comparativamente ao ano de 2016.

5.2. Análise multivariada
5.2.1. Conselho de administração
Para verificar a relação entre as variáveis independentes relacionadas com o conselho de administração e a variável dependente, foi desenvolvido um modelo de regressão linear múltipla para o conselho de administração, de acordo com as hipóteses formuladas, que é apresentado no quadro 7.
Quadro 7 - Resultado da análise multivariada do conselho de administração

<table>
<thead>
<tr>
<th>Coeficientes não padronizados</th>
<th>Coeficientes padronizados</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constante)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Erro Padrão</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>tameCA</td>
<td>-0,19</td>
</tr>
<tr>
<td>mneexec</td>
<td>0,304</td>
</tr>
<tr>
<td>qCA</td>
<td>0,565</td>
</tr>
<tr>
<td>indCA</td>
<td>-0,521</td>
</tr>
<tr>
<td>rCA</td>
<td>-0,002</td>
</tr>
<tr>
<td>ROA</td>
<td>-0,005</td>
</tr>
<tr>
<td>ROE</td>
<td>0,004</td>
</tr>
<tr>
<td>END</td>
<td>0,000</td>
</tr>
<tr>
<td>TAM</td>
<td>0,286</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Conforme se verifica pela análise do quadro 8, para um nível de significância de 10%, as variáveis independência dos membros do conselho de administração, rentabilidade do ativo (ROA) e tamanho da empresa, apresentam-se como fatores determinantes do nível de divulgação sobre instrumentos derivados.


Relativamente às restantes variáveis não é possível comprovar a existência da associação com o índice de divulgação. Por conseguinte, tal como Oliveira (2016), que se não obteve qualquer associação entre o tamanho do conselho de administração e o nível de divulgação de informação, não se validando a hipótese de investigação 1.1. Porém, Fathi (2013), Martins (2014) e Miranda (2014) obtiveram uma associação entre o tamanho do conselho
de administração e o índice de divulgação sobre instrumentos derivados. No que concerne às qualificações dos membros do conselho de administração, os resultados corroboraram os do estudo de Ismail et al. (2011), revelando a inexistência de associação entre as qualificações dos membros do conselho de administração e o índice de divulgação sobre instrumentos derivados, levando a rejeição da hipótese 2.1. À semelhança de Miranda (2014), não obteve qualquer associação com a variável reuniões do conselho de administração e o índice de divulgação sobre instrumentos derivados, não se validando a hipótese 4.1. Porém, estes resultados são contrários aos obtidos por Fathi (2013). Também não foi possível validar a hipótese 5, denotando-se, tal como Ismail et al. (2011), que a não associação entre o número membros não executivos do conselho de administração e o índice de divulgação sobre instrumentos derivados. Corroborando os estudos de Lemos et al. (2009), Mapurunga et al. (2011), Gonçalves (2013) e Oliveira (2016), este estudo evidenciou a inexistência de uma associação entre o nível de endividamento e o nível de divulgação sobre instrumentos derivados, não se validando a hipótese 8. Contrariamente ao que ocorreu nas investigações de Hassan et al. (2006/2007) e Lemos et al. (2011).

5.2.2. Conselho de fiscalização

Para verificar a relação entre as variáveis independentes relacionadas com o conselho de fiscalização e a variável dependente, foi desenvolvido um modelo de regressão linear múltipla para o conselho de fiscalização, de acordo com as hipóteses formuladas (ver quadro 8).

<table>
<thead>
<tr>
<th>Coeficientes</th>
<th>Coeficientes</th>
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<tbody>
<tr>
<td>não padrionizados</td>
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</tr>
<tr>
<td>B</td>
<td>Erro Padrão</td>
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<tr>
<td>(Constante)</td>
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<td>tamCF</td>
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<td>qCF</td>
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<td>END</td>
<td>.000</td>
</tr>
<tr>
<td>TAM</td>
<td>.252</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Como se verifica no quadro 9, apenas a variável de controlo tamanho da empresa (TAM) se apresenta como fator determinante do nível de divulgação sobre instrumentos derivados, validando a hipótese 6 e revelando que quanto maior for o tamanho da empresa (TAM), maior é o nível de divulgação sobre instrumentos derivados. Relativamente às restantes variáveis, não é possível comprovar a existência de associação com o índice de divulgação, pelo que não foi possível validar as hipóteses 1.2., 2.2., 3.2., 4.2., 7 e 8. Uma vez que não existem estudos associados ao conselho de fiscalização, não é possível efetuar uma comparação com outros autores. Este estudo contribui para a literatura existente em dois aspetos essenciais. Em primeiro lugar, contribui para a perceção das práticas de divulgação sobre instrumentos derivados por parte das empresas portuguesas cotadas em bolsa, concluindo-se que as empresas portuguesas não cumprem com a totalidade dos requisitos de divulgação contidos no normativo aplicável. Por outro lado, trata-se do primeiro estudo em Portugal que relaciona as caraterísticas do conselho de administração e do conselho fiscal com a divulgação de
informação sobre instrumentos derivados, concluindo-se que a percentagem de diretores independentes no conselho de administração tem influência no nível de divulgação apresentado. Estas conclusões poderão ser úteis para as entidades reguladoras e para as entidades responsáveis pelos mecanismos de enforcement.

7. Conclusão, limitações e sugestões para futura investigação

Este estudo teve como finalidade estudar a influência das características do conselho de administração e do conselho fiscal no nível de divulgação de informações sobre instrumentos derivados nas empresas cotadas na Euronext Lisbon, com base numa amostra composta por 37 empresas portuguesas empresas cotadas na Euronext Lisbon, no ano de 2017. A pesquisa foi efetuada através da análise do conteúdo dos Relatórios e Contas das referidas empresas e da utilização de um índice de divulgação de informação sobre instrumentos derivados.

De forma a atingir o objetivo proposto, foi utilizado um modelo de regressão linear múltipla para o conselho de administração e para o conselho de fiscalização, considerando as variáveis identificadas nas hipóteses de investigação previamente formuladas. Os resultados obtidos evidenciam que as entidades com menor número de membros independentes no conselho de administração influenciam no nível de divulgação sobre instrumentos derivados. No que diz respeito às variáveis de controlo, verificámos que o tamanho da entidade influencia o nível de divulgação sobre instrumentos derivados. Também a rentabilidade do ativo influencia o nível de divulgação sobre instrumentos derivados, mas só no modelo de regressão referente ao conselho de administração. Ou seja, quanto menor a rentabilidade do ativo, maior é a divulgação de informação sobre instrumentos derivados.

Este estudo tem um caráter inovador, porque, apesar de existirem estudos sobre os fatores de divulgação sobre instrumentos derivados, não existe nenhum estudo que analise isoladamente a influência do conselho de fiscalização no nível de divulgação. Também contribuiu para uma melhor compreensão da relação entre a divulgação de informação sobre instrumentos derivados e as características do modelo de governo das sociedades em Portugal.

Apesar dos seus contributos, este estudo apresenta como limitações a amostra reduzida e limitada a entidades cotadas em bolsa e o período de análise, que diz respeito a apenas um período contabilístico, bem como o facto de não ser possível distinguir os itens não divulgados de itens não aplicáveis. Assim, sugere-se, para futura investigação, o alargamento da amostra, contemplando entidades não cotadas em mercado regulamentado, e abrangendo entidades sujeitas ao Sistema de Normalização Contabilística. Sugere-se, ainda, a inclusão de outros mecanismos de governo das sociedades como, por exemplo, a auditoria. Para além disso, sugere-se o alargamento do período de análise, que permitiria retirar conclusões sobre a evolução no nível de divulgação apresentado. A análise da informação divulgada para o período de 2018 e seguintes permitiria ainda retirar conclusões sobre o impacto da adoção da IFRS 9 na divulgação de informação sobre instrumentos derivados.

Referências


ROYAL SILK FACTORY: THE ACCOUNTING SYSTEM OF THE LARGEST POMBALINE INDUSTRIAL COMPANY (1757)
Cecília Duarte 1; Miguel Gonçalves 2; Cristina Gonçalves Góis 3

Abstract
Purpose: This study aims to explore the accounting system of the largest Pombaline industrial company – the Silk Factory Company. In this sense, it is intended to ascertain whether this company followed what was stipulated by Luca Pacioli (1446/7-1517) in *De Computis et Scripturis* (1494; Venice), the first text ever printed about double–entry bookkeeping. The exhibition also intends that more and more students of business sciences are interested in the history of accounting, exemplifying research that can be carried out in this area of knowledge.

Methodology: To satisfy the proposal, the research followed a qualitative approach through the use of unpublished archive data and secondary sources of investigation. This study expands Portuguese accounting knowledge through the unprecedented presentation of one of the organisms that deserved the attention of the Marquis of Pombal during the second half of the 18th century.

Originality: This is an important and significant contribution to accounting history, as it is the first presentation to show the accounting model implemented in the Royal Silk Factory in 1757.

Findings: The main result to retain from this contribution is that Silk Factory Company used the accounting system suggested by Luca Pacioli, which included double–entry bookkeeping, like the other Pombaline institutions, which is consistent with the role played by the Marquis of Pombal in the dissemination of double–entry bookkeeping in Portugal.

Keywords: Royal silk factory; Double-entry bookkeeping; Marquis of Pombal; Luca Pacioli.

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3 Polytechnic Institute of Coimbra, Institute of Accounting and Administration of Coimbra (ISCAC), Coimbra Business School.
COMPLIANCE WITH DL89/17 RELATED TO MANDATORY NON-FINANCIAL REPORTING: EVIDENCE FROM COMPANIES LISTED ON THE PORTUGUESE STOCK EXCHANGE

Lénia Pereira¹, Kátia Lemos², Sónia Monteiro³, Verónica Ribeiro⁴

Abstract

Purpose: The Directive 2014/95 EU, 22 October 2014, on disclosure of non-financial information, marks the beginning of a new stage in reporting of companies in the European Union (EU). This directive was transposed to Portugal through the Decree-Law No. 89/2017, of 28th July. This legislation establishes that large public interest companies, with more than 500 employees, must present annually, and since the 2017 financial year, a non-financial statement, included in the management report or presented in a separate report. The aim of this paper to analyse the publication of non-financial information by Portuguese listed companies, seeking to assess the level of compliance with the DL 89/17.

Methodology: Content analysis of the management reports, accounts and sustainability reports, relative to the 2017 period. To assess the level of compliance with the Portuguese diploma, we have developed a disclosure index, built on mandatory disclosure requirements provided for in DL No. 89/2017.

Originality: This paper contributes to European research in the field of non-financial reporting by providing empirical evidence in our country, Portugal, where existing studies are still scarce.

Findings: We have found the following types of non-financial reporting: the use of own/separate report (in 37.5% of the sample) or the inclusion of information in the report and accounts (in 62.5% of the sample), with the majority presenting the information in a specific chapter. Regarding the compliance with DL 89/2017, we have concluded that the level of regulatory compliance is quite high, since the average disclosure index is around 0.875. The least disclosed items were the fight against corruption and bribery attempts, bodies diversity policies and human rights.

Practical implications: The results obtained may contribute to the accounting regulatory bodies, with regard to potential enforcement mechanisms, in case of non-compliance with the diploma. They can also serve as a learning process for unlisted companies, or other types of companies not covered by the diploma, who are interested in implementing non-financial reporting practices.

Keywords: Non-financial information; Mandatory disclosure; Directive 2014/95/EU; Decree-law No. 89/2017

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1. Introdução

Estudos realizados ao longo de mais de uma década concluem que há um número cada vez maior de empresas a publicar relatórios específicos (relatório ambiental/ responsabilidade social /relatório de sustentabilidade), com informações de caráter não financeiro, de forma a complementar as informações impostas pela regulamentação contabilística ao nível do relato financeiro. De facto, o mero relato financeiro anual deixou de ser encarado como uma ferramenta de divulgação capaz de satisfazer as novas exigências dos stakeholders. As distintas partes interessadas, que precisavam conceber expectativas relativamente ao futuro das organizações, têm vindo a solicitar dados concretos sobre fatores externos (tais como, políticos, ambientais e sociais), gestão de risco, modelos de negócios e de gestão, entre outros, que possibilitem uma tomada de decisão devidamente fundamentada (PWC, 2013).

O relato não financeiro tem caminhado desde uma base voluntária para uma prática padronizada e obrigatória (Bedenik & Barišić, 2019). De facto, nos últimos anos, países como a Índia, Brasil, China, Dinamarca, África do Sul e Malásia tornaram obrigatória a divulgação de informação não financeira sobre responsabilidade social (Boodoo, 2016; Hoffmann et al., 2018). O mesmo cenário é atualmente vivido no seio da União Europeia (UE), por força da Diretiva 2014/95/UE, de 22 de outubro de 2014, relativa à divulgação de informações não financeiras, marcando o início de uma nova etapa no “reporting” das empresas da UE.

Esta diretiva foi transposta para Portugal, através do DL nº 89/2017, sendo de aplicação obrigatória no exercício económico de 2017, para as entidades de interesse público, com o número médio de trabalhadores superior a 500. Em Portugal estas entidades englobam as empresas cotadas em bolsa, seguradoras, bancos, fundos de investimento, sociedades de capital de risco e empresas públicas. Aquele diploma representa uma mudança de paradigma ao nível do relato, pelo que se torna aliciente perceber de que forma foi interiorizado pelas empresas portuguesas e como tem decorrido a sua aplicação prática. Assim, o objetivo geral deste trabalho consiste em estudar as práticas de relato não financeiro adotadas pelas empresas cotadas em bolsa em Portugal, procurando aferir qual o grau de cumprimento do disposto no DL 89/17.

Face ao exposto, após esta introdução, o artigo está dividido em 4 pontos. No primeiro ponto apresentamos o enquadramento legal do relato não financeiro, focando-nos na diretiva europeia e na legislação portuguesa. No segundo ponto apresentamos uma breve revisão dos estudos empíricos existentes sobre o tema. O terceiro ponto respeita ao desenho da investigação, nomeadamente a apresentação da amostra e metodologia utilizada. De seguida, é efetuada uma análise e discussão dos resultados. Este artigo termina apresentando as principais conclusões e limitações do estudo, apontando também algumas sugestões para investigação futura.

2. Enquadramento legal do relato não financeiro

2.1. A diretiva europeia sobre relato não financeiro

A nível europeu, o primeiro esforço de regulamentação contabilística da informação não financeira surge com a Recomendação da Comissão Europeia, de 30 de maio de 2001, respeitante ao reconhecimento, à valorimetria e à prestação de informações sobre questões ambientais nas contas anuais e no relatório de gestão das sociedades. Entre outros aspetos, esta recomendação visava passar a exigir a divulgação de informação de carácter social nas contas anuais das sociedades europeias abrangidas pelas IV e VII diretivas comunitárias, em particular no relatório de gestão. Posteriormente, o tema do relato não financeiro foi introduzido pela Diretiva 2003/51/CE do Parlamento Europeu e do Conselho, de 18 de junho de 2003 (conhecida por Diretiva de Modernização contabilística), nomeadamente com o seu artigo 46º, onde vem...

Todavia, o mesmo art.º 46º da Diretiva de modernização acrescentava que os Estados-Membros poderiam isentar as sociedades de menor dimensão da obrigação de prestação de informações não financeiras no relatório anual. Assim, segundo Kinderman (2015), a medida introduzida pela Diretiva de Modernização contabilística teve um efeito insignificante sobre a quantidade e qualidade dos relatórios não financeiros produzidos, pelo facto de não abranger todas as entidades. No entanto, após a crise económica, no contexto da Estratégia Europa 2020 e, mais especificamente, na Estratégia da UE para a Responsabilidade Social Empresarial (2011-2014), reconhece-se que a divulgação de informação não financeira é um elemento chave na prestação de contas (accountability) por parte das empresas e para a geração de um clima de confiança. Encarar a responsabilidade social numa perspetiva estratégica era cada vez mais importante para a competitividade das empresas, podendo tecer relações de confiança duradouras com os trabalhadores, os consumidores e os cidadãos.

Era, pois, importante que a responsabilidade social abrangesse preocupações sobre direitos humanos, práticas laborais e de emprego (como como formação, igualdade entre homens e mulheres, saúde e bem-estar dos trabalhadores), questões ambientais (biodiversidade, alterações climáticas, utilização eficiente dos recursos, avaliação do ciclo de vida e prevenção da poluição) e a luta contra o suborno e a corrupção. Deste modo, logo no início de 2013, a Comissão Europeia (CE) emitiu dois relatórios sobre a "Responsabilidade social das empresas: comportamento responsável e transparente das empresas e crescimento sustentável" e a "Responsabilidade social das empresas: promoção dos interesses da sociedade e via para uma retoma sustentável e inclusiva". Estes relatórios asseguram que a crise económica mundial resultou de erros fundamentais no que respeita à transparência e à responsabilidade, bem como de uma visão de curto prazo. Assim, a Comissão reconhece a importância de divulgar informações sobre a sustentabilidade, devendo basear-se em frameworks geralmente aceites, como os da Global Reporting Initiative (GRI) - sobre relatórios de sustentabilidade - ou do International Integrated Reporting Council (IIRC) - relativo ao relato integrado. Salienta, no entanto, que qualquer eventual solução de divulgação deve comportar encargos administrativos, sobretudo para as pequenas e médias empresas (PME), uma vez que representam mais de 90% do tecido empresarial europeu. Considera, pois, que um sistema de divulgação baseado na obrigação de "cumpir ou explicar" constitui um instrumento útil.

É neste contexto que ainda durante o ano de 2013, o Parlamento Europeu emite a Diretiva 2013/34/UE, de 26 de junho, relativa às demonstrações financeiras anuais, às demonstrações financeiras consolidadas e aos relatórios conexos de certas formas de empresas. Apesar de ainda não prever nenhum documento específico para a informação não financeira, menciona que as informações do relatório de gestão não deverão circunscrever-se aos aspetos financeiros da atividade da empresa, incluindo uma análise dos aspetos ambientais e sociais da atividade da empresa, necessários para se compreender o desenvolvimento, o desempenho ou a situação da empresa.

Aqui começa um caminho de regulação, que deixa novamente em aberto iliar as PME da obrigação de prestação de informações não financeiras, consoante o enquadramento de cada Estado-membro. Neste contexto, dá-se início a uma série de debates e negociações entre os Estados-membros, ouvindo a versão de cada um, de forma a criar uma regulação em matéria de relato não financeiro.

Findas as negociações, em 2014 é publicada a Diretiva 2014/95/UE, de 22 de outubro, sobre o relato de informação não financeira, que marca o início de uma nova etapa no
reporting das empresas da UE. A diretiva aplica-se às grandes empresas que sejam entidades de interesse público e que tenham mais de 500 trabalhadores, dando a possibilidade de as divulgações poderem ser feitas a nível do grupo, e não obrigatoriamente por cada filial integrada no grupo. No entanto, a direção da empresa-mãe deve garantir uma orientação estratégica da empresa e um controlo eficaz da gestão, pois o grupo é considerado como um todo, e responsável por qualquer impacto adverso causado pelas suas subsidiárias, mesmo que não funcione como um grupo integrado (Sorensen & Szabó, 2016).

A diretiva estabelece que as empresas devem criar uma demonstração não financeira, a incluir no relatório de gestão já existente, ou criar uma nova demonstração para o efeito, que contenha informações relativas pelo menos a questões ambientais, sociais e relacionadas com os trabalhadores, ao respeito pelos direitos humanos, ao combate à corrupção e a tentativas de suborno. Essa demonstração não financeira deverá incluir uma descrição das políticas, dos resultados e dos riscos associados e já registados. As empresas deverão ainda divulgar a política de diversificação em relação aos órgãos de administração, de direção e de supervisão, em termos de idade, sexo, habilitações ou antecedentes profissionais. Caso não tenha sido planeada nenhuma política de diversidade, não são obrigadas à sua criação, mas deverão incluir uma explicação clara para esse facto.

No sentido de disponibilizar uma metodologia para aplicação da diretiva, a CE (2017) publicou um documento com orientações sobre a comunicação de informação não financeira. O objetivo do documento é fornecer orientações equilibradas e flexíveis sobre o relato de informações não financeiras, por forma a ajudar as empresas a divulgar informações pertinentes, de modo coerente e sistemático. O conteúdo do relatório não financeiro deve ser coerente com os restantes elementos do relatório de gestão e sistemático ao longo do tempo, permitindo aos utilizadores compreender e comparar as mudanças, bem como ter por referência fiável as informações prospetivas.

A Diretiva 2014/95/UE teve de ser transposta para a legislação dos vários Estados-membros da UE até ao final de 2016, para entrar em vigor em 2017. Neste contexto, importa fazer referência ao estudo de Jeffery et al. (2017) que efetuaram uma comparação entre o Reino Unido, Alemanha, França e Itália. Este estudo comparativo apresenta informações pertinentes no que diz respeito às tendências aplicadas em cada país, como por exemplo, quais as empresas abarcadas, o que divulgam e como, como determinam a materialidade da informação, as bases dos relatórios, as penalizações de incumprimento e a verificação externa. Também Aureli et al. (2018) analisaram a transposição da diretiva no Reino Unido, França e Itália. Portugal e Reino Unido foram dos países que menos alterações introduziram, aquando da transposição, seguindo uma abordagem quase literal da diretiva. Itália foi além dos requisitos, efetuando um ajuste à sua realidade, e França fez uma intervenção mais intrusiva, adicionando requisitos e alargando o seu âmbito de aplicação. Elaborou ainda uma lista de indicadores para as empresas seguirem, totalizando 42 Indicadores para empresas cotadas e 39 para empresas não cotadas. Aureli et al. (2018) concluíram que as diferenças entre países não foram significativas uma vez que seguiram o alinhamento previsto na diretiva. E que apesar de abraçarem a possibilidade de omitir informações, desde que acompanhadas da sua devida explicação, indicam que as informações materialmente relevantes têm sempre de ser divulgadas.

Acqua et al. (2017), por sua vez, apresentam-nos os seguintes dados, no que respeita à transposição da diretiva:

- 95% dos países europeus tornaram as regras mais abrangentes em relação às características das empresas. Como por exemplo: Alemanha, Chipre, Croácia, Dinamarca, França, Irlanda, Luxemburgo e Suécia.
- 36% destes países incluíram a necessidade de as informações serem auditadas por terceiros, como por exemplo a Bulgária, o Chipre, a Dinamarca, a França, a Itália, a Letónia, o Reino Unido e a Roménia.
- 86% dos países estabeleceram sanções para as empresas que não cumprirem o relatório de informações não financeiras.

A tabela 1 apresenta uma análise comparativa da forma foi transposta a diretiva em diferentes Estados-membros, apresentando também a perspetiva portuguesa (que será objeto de análise no ponto seguinte). Esta comparação é importante uma vez que, enquanto um Estado-membro pode simplesmente optar por um processo de normalização e passivamente transpor a diretiva para o seu próprio sistema jurídico nacional, outro Estado-membro pode alterar o texto original da diretiva, adaptando às particularidades do seu contexto/ambiente interno.

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<tr>
<th>Tabela 1 - Transposição da Diretiva 2014/95/EU: análise comparativa entre Estados-membros</th>
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<td><strong>Antes</strong></td>
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<td><strong>Entidades sujeitas</strong></td>
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<td><strong>Onde é divulgada a informação</strong></td>
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<td><strong>Penalizações</strong></td>
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<td><strong>Auditoria Externa</strong></td>
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Fonte: Jeffery et al. (2017), adaptado

2.2. O relato não financeiro em Portugal
Em Portugal, e no sentido de acolher a Recomendação da Comissão Europeia de 30 de maio de 200, foi aprovada em 2006 a Diretriz Contabilística (DC) nº 29 - Matérias Ambientais. Aquando da entrada em vigor do Sistema de Normalização Contabilística (SNC), a DC nº 29 foi revogada, dando lugar à Norma Contabilística e de Relato Financeiro (NCRF) n.º 26 - Matérias Ambientais, cujo conteúdo não se afasta, de forma
substancial, da DC n.º 29. Assim, desde há vários anos que o normativo português estabelece um conjunto de divulgações a efetuar sobre matérias ambientais, quer no Relatório de Gestão, quer no Anexo. Recentemente, foi ampliado o tipo de informação não financeira a divulgar pelas empresas, não se limitando a informação meramente ambiental. Assim, o Decreto-Lei nº 89/2017, de 28 de julho, veio transpor a diretiva 2014/95/UE para o ordenamento jurídico português, procedendo à alteração dos artigos 65.º, 451.º e 528.º do Código das Sociedades Comerciais (CSC) e ao aditamento dos artigos 66.º-B e 508.º-G, bem como à alteração do artigo 245.º-A do Código dos Valores Mobiliários (CVM). O diploma cria duas obrigações de apresentação de informação não financeira: uma relacionada com aspectos ambientais, sociais e laborais, e outra centrada nas políticas de diversidade dos membros dos órgãos superiores das empresas.

O diploma estabelece que as grandes empresas e as empresas-mãe de um grande grupo, que tenham o estatuto legal de entidades de interesse público\(^1\) e que tenham em média mais de 500 trabalhadores, devem apresentar anualmente, a partir do exercício de 2017, uma demonstração não financeira, incluída no relatório de gestão ou apresentada num relatório separado.

As informações solicitadas nesta demonstração não financeira incluem uma compreensão da evolução, do desempenho, da posição e do impacto das suas atividades, referentes no mínimo a questões ambiental, social e laboral, assim como as medidas destinadas aos trabalhadores, respeito pelos direitos humanos, igualdade de género e combate à corrupção e suborno.

De facto, o artigo 66º-B do CSC, aditado com aquele diploma, prevê que as empresas devam incluir:

a) Uma breve descrição do modelo empresarial da empresa;

b) Uma descrição das políticas seguidas pela empresa em relação a essas questões, incluindo os processos de diligência devida aplicados;

c) Os resultados dessas políticas;

d) Os principais riscos associados a essas questões, ligados às atividades da empresa, incluindo, se relevante e proporcionado, as suas relações empresariais, os seus produtos ou serviços suscetíveis de ter impactos negativos nesses domínios e a forma como esses riscos são geridos pela empresa;

e) Indicadores-chave de desempenho relevantes para a sua atividade específica."

Caso a empresa não divulgue algum destes itens, deve apresentar uma justificação clara e fundamentada. Deve incluir ainda uma referência cruzada com aos montantes inscritos nas demonstrações financeiras anuais e suas explicações adicionais, de forma a poder fazer uma interpretação quantitativa e qualitativa e melhorar a qualidade do relatório.

O ponto-chave será a materialidade da informação, identificar a forma de medir se a informação é relevante e apropriada, através de uma análise qualitativa e não quantitativa, tendo sempre presente os destinatários da mesma. Pode efetuar-se uma análise de conteúdos, decorrente de questionários e reuniões com os stakeholders ou o teste da materialidade da GRI, sendo que este é um dos métodos mais utilizados, quer em Portugal, quer resto do mundo (BCSD, 2016).

A legislação portuguesa seguiu as orientações da diretiva, deixando ainda alguns indicadores aconselhados nas diversas áreas, nomeadamente em:

---

\(^1\) São entidades de interesse público, as assim qualificadas pelo artigo 3.º do Regime Jurídico de Supervisão de Auditoria, aprovado nos termos do artigo 2º da Lei n.º 148/2015, de 9 de setembro. São grandes empresas aquelas que excedam pelo menos dois dos três limites definidos no n.º 3 do artigo 9º, apurados nos termos do artigo 9º-A, ambos do DL nº 158/2009, de 13 de julho, com a redação dada pelo DL nº 98/2015, de 2 de junho.
Questões ambientais: impactos atuais e previsionais das atividades das empresas, no ambiente, na saúde, na segurança, na utilização da água e na poluição atmosférica;

Questões sociais e relativas a trabalhadores: igualdade entre mulheres e homens e não discriminação, aplicação das principais convenções da organização internacional do trabalho, condições de trabalho, diálogo social, respeito pelos direitos dos trabalhadores, respeito pelos direitos sindicais, saúde e segurança no trabalho, diálogo com as comunidades locais, e/ou as ações realizadas com vista a assegurar a proteção e o desenvolvimento dessas comunidades, medidas adotadas no âmbito da promoção da conciliação entre a vida profissional, pessoal e familiar dos trabalhadores, bem como o exercício dos direitos de proteção na parentalidade;

Direitos humanos: informações relativas à prevenção da violação dos direitos humanos;

Combate à corrupção e ao suborno: instrumentos utilizados no combate à corrupção e as tentativas de suborno;

Descrição da política de diversidade que é aplicada relativamente aos seus órgãos de administração e de fiscalização, nomeadamente em termos de idade, sexo, habilitações e antecedentes profissionais (apenas exigida aos emitentes de ações admitidas a negociação em mercado regulamentado de um estado-membro da UE, que sejam grandes empresas)" (DL nº 89/2017).

Conforme referido, além deste DL, foram alterados e aditados alguns artigos ao CSC, introduzindo a obrigação legal de elaborar a demonstração não financeira ou o relatório separado com essa informação, no prazo de três meses a contar da data de encerramento de cada exercício económico ou cinco meses, no caso de contas consolidadas. Devem ainda divulgar as informações não financeiras no sítio público da internet da empresa, ou publicado junto com o relatório de gestão, num prazo não superior a seis meses da data de balanço.

Os modelos que as entidades devem basear-se para elaborar esta demonstração não financeira estão descritos no próprio DL, que sugere que as empresas podem recorrer a sistemas nacionais, da UE ou internacionais, devendo nesse caso ser especificado o sistema utilizado. Faz referência ao Sistema Comunitário de Ecogestão e Auditoria, ou a sistemas internacionais, como o Pacto Global das Nações Unidas, às diretrizes da Organização para a Cooperação e o Desenvolvimento Económicos para as empresas multinacionais, a norma ISO 26000 Social Responsibility da Organização Internacional de Normalização, à Iniciativa da Global Reporting Initiative (GRI) sobre a elaboração de relatórios de sustentabilidade ou outros quadros internacionais reconhecidos (tais como o do “Integrated Reporting”) e às orientações metodológicas de relato elaboradas pela Comissão Europeia.

Inclui ainda a indicação para o Revisor Oficial de Contas atestar se o relatório de gestão anual da empresa inclui a demonstração não financeira ou se a mesma foi apresentada num relatório separado. No entanto, estas medidas têm apenas carácter de verificação se a mesma existe, uma vez que os revisores não têm qualquer competência para emitir parecer sobre a qualidade, relevância e pertinência da informação divulgada (art.º 451.º do CSC).

Existe uma coima prevista de 50€ a 1500€ para o gerente ou administrador das sociedades que não cumpram o prazo estabelecido ou não submetam as informações não financeiras em nenhum dos relatórios (art.º 428.º do CSC).

3. Revisão de estudos empíricos

Procuramos, neste ponto, fazer uma breve análise dos estudos que procuram analisar o impacto da aplicação da diretiva, terminando com uma análise dos estudos existentes em Portugal neste domínio.

Na Polónia, Lament (2018) estudou os princípios aplicáveis aos relatórios de sustentabilidade à luz da diretiva e avaliou a qualidade da informação apresentada em
21 instituições financeiras no mercado polaco. Constatou que todas as empresas analisadas elaboraram os seus relatórios de acordo com as diretrizes da GRI; que apenas desde 2015 existe verificação externa aos relatórios e que o volume dos relatórios varia entre 25 e 146 páginas. Apesar de não ser obrigatório este fator da verificação externa, torna-se importante na medida em que impede a omissão de dados sensíveis.

Já Matuszak e Rózanska (2017), com uma amostra mais ampla de 150 empresas polacas cotadas (cerca de 50% de toda a população abrangida pela Diretiva, segundo o Ministério das Finanças polaco), efetuaram uma análise de conteúdo pelas cinco categorias - meio ambiente, práticas trabalhistas, direitos humanos, envolvimento da comunidade e anticorrupção – usando uma escala de quatro pontos: 0 representa nenhuma informação, 1 informação reduzida, 2 informação geral, 3 informação detalhada e 4 informação muito detalhada. Na maioria dos casos, as divulgações das empresas não estavam em conformidade com as novas exigências, colocando pouca ênfase nos relatórios sobre direitos humanos e anticorrupção.

Caputo et al. (2017) elaboraram um estudo com 168 empresas italianas cotadas, a fim de analisar o nível de informação não financeira, avaliando o gap de informação existente e os ajustamentos necessário face à nova diretiva. Utilizaram a metodologia em que a pontuação variava entre 0 e 2, em que 0 indica ausência de divulgação, 1 indica divulgação incompleta, e 2 indica divulgação total. Aquando da transposição da diretiva, a legislação italiana não adotou a norma comunitária de forma fiel, incluindo modificações e adições à diretiva. As principais diferenças detetadas entre a legislação em vigor em Itália e a diretiva prendem-se com o grau de pormenor exigido na comunicação, o mecanismo para impor sanções às entidades que não cumpram e um esquema de certificação voluntária para aquelas entidades que não são abrangidas pela legislação italiana, mas procuram melhorar a sua reputação. Os resultados mostram que, apesar da diretiva, mantém-se uma lacuna de informação, uma vez que as divulgações voluntárias apresentam uma qualidade superior. Destaca-se também a experiência como um fator determinante, colocando as empresas principiante no tema em desvantagem sobre as que já apresentavam preocupações não financeiras.

Em Espanha, Acqua et al. (2017), inquiriram 36 empresas cotadas em bolsa. Em geral, quase todas as empresas consideraram que o diploma espanhol que transpõs a diretiva, o Real Decreto-lei nº18/2017, não teve um impacto significativo, uma vez que durante o ano de 2015 já 6.300 empresas publicavam relatórios globais de sustentabilidade. Um dado relevante é que 81% das empresas contratam o mesmo auditor, tanto para o relato financeiro como não financeiro. E quanto aos modelos apresentados, cerca 43% das empresas optaram por um modelo de comunicação de informações não financeiras com base num relatório específico de RSE/sustentabilidade e 37% optam por um relatório integrado. As normas mais utilizadas são a GRI e a do Pacto Mundial. Ainda no contexto espanhol, destacamos o estudo de Alvarez et al. (2018), que analisaram o impacto do diploma espanhol acima referido nas empresas do Ibex 35. Concluíram que as empresas que apresentam um relatório separado apresentam maior maturidade na informação não financeira divulgada. A maioria das empresas faz referência aos frameworks GRI e IIRC. Mais de 40% das empresas fazem a verificação externa da informação não financeira divulgada.

No que respeita a estudos comparativos, destacamos os de Caputo et al. (2018) e Manes-Rossi et al. (2018). Caputo et al. (2018) desenvolveram um trabalho com foco na avaliação da qualidade da informação não financeira no Reino Unido e Itália. Para tal, analisaram 343 grandes empresas cotadas, 134 italianas e 209 britânicas. A metodologia que escolheram foi criar uma pontuação, em que 0 indica ausência de divulgação, 1 indica divulgação incompleta e 2 indica divulgação total. A análise de conteúdo teve como base itens específicos, como o modelo de negócio, a política e resultados, os riscos de sustentabilidade, os indicadores chave de desempenho e a diversidade, aplicados em relação aos órgãos administrativos. Os resultados mostram que o Reino Unido tem melhor pontuação em todos os critérios, isto é, as empresas...
com mais funcionários tendem a incluir mais e mais precisas informações não financeiras e diversidade em seus relatórios anuais. O score das empresas italianas é negativo, constatando que as empresas proativas não terão benefícios significativos com a aplicação da diretiva. Nesta perspetiva, a diretiva parece representar uma restrição mais do que uma oportunidade para grandes empresas cotadas.

Quanto ao caso português, é de destacar o estudo de Lourenço (2017), que analisou a divulgação de informações não financeiras em presas italianas, constatando que as empresas proativas não terão benefícios significativos com a aplicação da diretiva. Nesta perspetiva, a diretiva parece representar uma restrição mais do que uma oportunidade para grandes empresas cotadas.

Mais recentemente, destacamos o estudo de Ribeiro et al. (2019), cujo principal objetivo é o de analisar como as entidades cotadas em Portugal, divulgam a informação não financeira no primeiro ano em que se tornou obrigatório, à luz da nova redação do CSC. Procederam a uma análise ao conteúdo dos relatórios e contas, dos relatórios de sustentabilidade ou outros documentos com informação não financeira, das 35 empresas cotadas na Euronext Lisbon, que constituem a amostra do estudo. Os resultados permitiram concluir que, das 35 empresas, 16 optam por incluir as informações não financeiras no relatório de gestão, 1 elaborou um relatório separado, e as 18 restantes incluiram as informações em ambos os formatos.

Para medir o nível de divulgação criaram um índice de divulgação com 7 itens: modelo empresarial, questões relativas ao governo societário, matérias ambientais, matérias sociais, matérias relativas a trabalhadores, igualdade e não discriminação, respeito pelos direitos humanos e combate à corrupção e tentativas de suborno. Observaram que os valores do índice de divulgação situam-se entre os 20% (mínimo) e os 88% (máximo), sendo o seu valor médio de 51%.

Face ao exposto, podemos concluir que a análise de conteúdo das contas anuais é a técnica predominante nos estudos acima referidos e privilegia-se, como amostra, as empresas cotadas. Ao nível dos resultados, é notória a influência do normativo comunitário sobre o aumento e melhoria da informação não financeira divulgada pelas empresas.

De um modo geral, a nível europeu, a grande parte dos estudos realizados sobre o tema conclui que a diretiva sobre relato não financeiro preenche a lacuna regulamentar existente, esperando que contribua para melhorar a comparabilidade e transparência dos relatórios.

4. Desenho da investigação

Tendo por base o exposto na primeira parte deste artigo, importa estudar a realidade portuguesa no que respeita ao relato não financeiro, sobretudo após a transposição da Diretiva 2014/95/UE, através do DL n.º 89/2017.

Foi exatamente em 2017, que as entidades de interesse público, com o número médio de trabalhadores superior a 500, passaram a ser obrigadas a divulgar informação não financeira em Portugal. Neste sentido, o principal objetivo deste trabalho consiste em estudar as práticas de relato não financeiro adotadas pelas empresas cotadas em bolsa em Portugal, procurando averiguar qual o grau de cumprimento com o disposto no DL 89/2017

4.1. Amostra

No âmbito deste estudo iremos incluir as entidades cotadas na bolsa de valores portuguesa, que se enquadraram nos critérios cumulativos exigidos pelo DL n.º 89/2017, ou seja, que tenham estatuto legal de entidade de interesse público e uma média de mais de 500 trabalhadores.
Após consulta ao site da *Euronext Lisbon*¹, efetuada em 16 de novembro de 2018, verificamos que havia 47 empresas cotadas. Procedeu-se à recolha dos relatórios e contas, relatórios de sustentabilidade, relatórios integrados ou outro tipo de relatório, divulgados pelas empresas relativas ao período de 2017, que corresponde ao primeiro período de obrigatoriedade de adoção do DL n.º 89/2017. Estes documentos foram recolhidos nos sites de internet de cada uma das empresas. Depois de uma breve pesquisa pelos seus relatórios de gestão, constatámos que cerca de 10 empresas não cumpriam o requisito mínimo dos 500 trabalhadores, pelo que apenas 32 empresas cumpriam os requisitos necessários para a análise, sendo estas as que constituem a nossa amostra. Na tabela 2, é caracterizada a amostra, em função do tamanho, tipo de auditor e atividade de internacionalização.

### Tabela 2- Caracterização da amostra

<table>
<thead>
<tr>
<th>Tamanho (total do ativo)</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Até 1 bilhão de euros</td>
<td>16</td>
<td>50</td>
</tr>
<tr>
<td>&gt;1 bilhão e &lt; 10 bilhões de euros</td>
<td>11</td>
<td>34,38</td>
</tr>
<tr>
<td>&gt;10 bilhões de euros</td>
<td>5</td>
<td>15,63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tipo de auditor</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big4</td>
<td>4</td>
<td>12,5</td>
</tr>
<tr>
<td>Não Big4</td>
<td>28</td>
<td>87,5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Atividade de internacionalização</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multinacionais</td>
<td>22</td>
<td>68,75</td>
</tr>
<tr>
<td>Empresas nacionais</td>
<td>10</td>
<td>31,25</td>
</tr>
</tbody>
</table>

*Fonte: Elaboração dos autores.*

A tabela 1 permite-nos verificar que metade das empresas possuem um total de ativo inferior a 1 bilhão de euros, sendo que apenas 5 empresas possuem mais de 10 bilhões de euros de ativos. A maioria das empresas da amostra (87,5%) é auditada por uma Big4. No que respeita à atividade de internacionalização das empresas, a amostra divide-se com 22 empresas multinacionais (68,75%) e 10 empresas nacionais (31,25%). Na tabela 3 podemos ver como é constituída a amostra, enquadrando-a por setor.

### Tabela 3- Caracterização da amostra por setor

<table>
<thead>
<tr>
<th>Setor</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bancos</td>
<td>2</td>
<td>6,25</td>
</tr>
<tr>
<td>Bens Consumo</td>
<td>3</td>
<td>9,38</td>
</tr>
<tr>
<td>Indústria</td>
<td>9</td>
<td>28,13</td>
</tr>
<tr>
<td>Saúde</td>
<td>1</td>
<td>3,13</td>
</tr>
<tr>
<td>Serviços Consumo</td>
<td>9</td>
<td>28,13</td>
</tr>
<tr>
<td>Comunicações</td>
<td>4</td>
<td>12,50</td>
</tr>
<tr>
<td>Energia, Gás e Petróleo</td>
<td>4</td>
<td>12,50</td>
</tr>
</tbody>
</table>

*Fonte: Elaboração dos autores.*

Quando efetuamos uma análise aos setores de atividade, podemos verificar que a Indústria e os Serviços de Consumo são os mais representativos na amostra, com 28,13% cada, o que significa mais de metade da amostra juntos.

#### 3.2. Metodologia

Os relatórios de informação não financeira emitidos pelas empresas foram objeto de uma análise de conteúdo, de forma a analisar o impacto e aplicabilidade do normativo em Portugal. Em primeiro lugar, procurámos estudar as práticas de relato não financeiro adotadas, avaliando se as empresas cotadas em bolsa efetuam o seu relato não financeiro mediante a inclusão de toda a informação (financeira, não financeira e de gestão) num

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relatório único ou se dividem entre o relatório e contas (para a informação financeira) e o relatório de gestão (com a informação não financeira e de gestão).

No que respeita ao grau de cumprimento da Diretiva 2014/95/EU, os estudos de Lourenço (2017) e Caputo et al. (2017), no contexto português e italiano, respectivamente, adotaram como metodologia a análise de conteúdo combinada com a análise score. No nosso estudo, procurámos avaliar o grau de cumprimento do diploma português, utilizando um índice de divulgação, à semelhança de outros estudos que se debruçam sobre o grau de cumprimento de determinado normativo contabilístico.

Este índice de divulgação foi construído tendo por base um conjunto de 8 itens de informação, correspondentes a informação obrigatória pelo DL n.º 89/2017 (artº 66º-B do CSC) e as orientações sobre a comunicação de informações não financeiras da Comissão Europeia, conforme tabela abaixo.

### Tabela 4- Itens de divulgação

<table>
<thead>
<tr>
<th>Itens de Divulgação</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compreensão da evolução da empresa (Modelo Empresarial e riscos associados);</td>
</tr>
<tr>
<td>2. Posição da empresa (Políticas e diligências devidas);</td>
</tr>
<tr>
<td>3. Desempenho da empresa (Resultados/Indicadores-Chave de Desempenho).</td>
</tr>
<tr>
<td>4. Impacto das suas atividades em questões ambientais;</td>
</tr>
<tr>
<td>5. Impacto das suas atividades em questões sociais e relativas aos trabalhadores, igualdade entre mulheres e homens e não discriminação;</td>
</tr>
<tr>
<td>6. Impacto das suas atividades em questões de direitos humanos;</td>
</tr>
<tr>
<td>7. Impacto das suas atividades em questões de combate à corrupção e tentativas de suborno;</td>
</tr>
<tr>
<td>8. Descrição da política de diversidade que aplicam relativamente aos seus órgãos de administração e de fiscalização.</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

O índice assenta numa escala dicotómica para identificar se determinado item exigido é ou não divulgado, tendo por base a análise de conteúdo dos documentos obtidos, respeitantes ao período de 2017. Assim, o valor do Índice é o resultado da divisão da pontuação total obtida por cada empresa, pelo número máximo dos pontos atribuídos (8), conforme descrito na tabela 5 abaixo:

### Tabela 5- Fórmula para cálculo do índice de Divulgação

\[
IND_j = \frac{\sum_{i=1}^{n} i_n}{i}
\]

IND<sub>j</sub> = Índice de Divulgação de informação não financeira da empresa, com valor 1, se a empresa divulga informação sobre o elemento, e valor 0, se a empresa não divulga informação sobre o elemento. Número máximo de itens (8).

Fonte: Elaboração dos autores.

Este índice apresenta duas características principais:

- A variável é dicotómica: quando o item é divulgado atribui-se a pontuação de 1, caso contrário, a ausência de informação será sinalizada com 0;
- Não ponderado: o resultado é alcançado através de uma soma não ponderada, pressupondo que cada item têm a mesma relevância para a entidade;

Deste modo, o índice varia entre 0 e 1, sendo que 1 significa que a empresa divulga sobre a totalidade dos itens.

5. Análise e discussão dos resultados

Neste ponto é efetuada uma análise e discussão aos resultados obtidos no estudo realizado, começando por uma caraterização do relato não financeiro apresentado pelas
empresas que compõem a amostra e passando, posteriormente, a uma análise aos valores do índice de divulgação apresentado.

5.1. Caracterização do relato não financeiro

a) Tipo de Relatório

Visto o tema principal ser o relatório não financeiro, começamos por uma análise ao tipo de relatório utilizado pelas empresas, e sua forma de divulgação, conforme podemos observar no gráfico 1 abaixo.

![Gráfico 7- Tipo de relatório de informação não financeira](image)

Fonte: Elaboração dos autores.

É de observar que apenas 38% das empresas (12) optaram por criar um relatório próprio, separado do relatório e contas, habitualmente designado de “Relatório de Sustentabilidade”. Das 20 empresas que incluem a informação não financeira no relatório e contas, cerca de 16 dedicam um capítulo próprio, ao contrário das outras 4 empresas que deixam a informação dispersa pelos relatório e contas.

Quando a informação é incluída no relatório e contas (62% dos casos), podemos encontrar um capítulo específico para a informação não financeira, exigida pelo DL nº 89/2017, designado de “demonstração não financeira”, “informação não financeira” ou também informação de “sustentabilidade”. Importa referir que nenhuma empresa apresenta relatório integrado.

No que respeita à dimensão do relatório, podemos observar na figura 1 que o número médio de páginas é superior quando o relatório é individualizado, devido a um maior enquadramento e contextualização da empresa. Quando a informação é incluída no relatório e contas, a média do número de páginas é substancialmente inferior.

![Figura 1 - Nº médio de páginas por tipo de relatório de informação não financeira](image)

Fonte: Elaboração dos autores.

Como verificado anteriormente, na tabela 1, sabemos que 87,5% das empresas da amostra são auditadas por uma Big4. De referir também que o número médio de páginas nos relatórios não financeiros verificados pelas Big4 é de 55 páginas, sendo em média 28 páginas nos relatórios verificados por auditoras não Big4, ou seja, a média de
páginas quase que duplica nos relatórios não financeiros auditados pelas Big4 (como podemos observar na figura 2).

Figura 2 - Nº médio de páginas consoante o tipo de auditor

Fonte: Elaboração dos autores.

b) Framework de referência
No que respeita ao framework de referência que as empresas seguiram para criar o seu relatório não financeiro, utilizamos a GRI como base, uma vez que 53,13% da amostra o referiu. Tal é sobretudo mais visível nas empresas com atividades multinacionais, onde cerca de 55% dessas empresas fazem referência ao GRI nos seus relatórios não financeiros, como podemos observar no gráfico 2 seguinte.

Gráfico 8- Framework de referência utilizados pelas empresas

Fonte: Elaboração dos autores.

Importa referir que se encontra uma diferença bastante grande no número de páginas, quando o relatório é baseado nas orientações da GRI. A média de páginas nos relatórios baseados na estrutura GRI é de 80 páginas, sendo a média de 20 páginas quando não existe referência ao GRI.
O mesmo se reflete quando comparada a internacionalização da empresa, uma vez que as empresas nacionais apresentam uma média de páginas de relatório não financeiro de 34 páginas. E a nível das empresas multinacionais o valor é quase o dobro, a rondar as 60 páginas.

c) Tipo de informação não financeira divulgada
O gráfico 3 abaixo sintetiza o número de empresas que apresenta informação sobre cada um dos itens em análise (que integram o índice de divulgação, a analisar posteriormente), conforme previsto no DL 89/2017.
Gráfico 9 – Nº de empresas que divulgam sobre os itens de informação

Fonte: Elaboração dos autores.

Pela análise do gráfico 3 podemos constatar que o item da “posição da empresa”, onde as empresas referem as suas políticas e diligências, foi divulgado por todas as empresas incluídas na amostra, uma vez que todas as empresas tiveram pontuação máxima neste item.

Podemos também verificar que o item relativo ao combate à corrupção e tentativas de suborno é o menos divulgado pelas empresas, pois 12 empresas não divulgam sobre este item. De igual forma, os itens relativos aos direitos humanos e a política de diversidade dos órgãos de administração são também dos itens menos divulgados pelas empresas. Estes resultados são contrários aos de Álvarez et al. (2018), que observaram que 77% e 50% das empresas espanholas, cotadas no IBEX 35, reportam, respetivamente, informação sobre os seus procedimentos contra a corrupção e suborno e sobre os procedimentos para prevenir vulnerabilidades dos direitos humanos.

4.2. Índice de divulgação de informação não financeira

Para medir o grau de cumprimento do DL 89/2917, utilizamos um índice de divulgação, construído com base nos 8 itens de informação não financeira acima referidos. Após a recolha e tratamento dos dados, podemos observar na tabela seguinte, que o índice de divulgação varia entre 0,5 (valor mínimo obtido) e 1 (valor máximo obtido), com média de 0,88 e desvio-padrão de 0,15. Consideramos, assim, que o grau de cumprimento do DL 89/2017 é bastante elevado, com uma divulgação média de 7 itens em 8 possíveis.

<table>
<thead>
<tr>
<th>Tabela 6- Medidas estatísticas do índice de divulgação</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Índice Divulgação</strong></td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

A tabela 7 abaixo permite-nos observar que cerca de 43,8% das empresas (14 empresas) obtiveram a pontuação máxima (Índice =1), nomeadamente a Altri, SGPS, o Banco BPI, a Cofina, SGPS, a Corticeira Amorim, os CTT Correios Portugal, a EDP Renováveis, a EDP, Estoril Sol N, a Mota Engil, a Semapa, a Sonae, a SonaeCom, SGPS, a Teixeira Duarte e a VAA Vista Alegre.

A empresa com pior pontuação foi a Reditus, SGPS, que deixou cerca de 4 itens por divulgar no seu relatório não financeiro, nomeadamente a compreensão da evolução da empresa, direitos humanos, combate à corrupção e tentativas de suborno, e a política de diversidade de órgãos de administração e fiscalização. Podemos ainda observar que o índice não apresenta valores inferiores a 0,5, ou seja o número mínimo de itens divulgados é de 4.
Passamos agora a associar o índice divulgação com as algumas variáveis que caracterizam a nossa amostra.

a) Tamanho

A tabela 8 permite-nos observar o grau de cumprimento do diploma, tendo em conta o tamanho da empresa (medido pelo total do ativo).

### Tabela 8- Relação entre o tamanho das empresas e o índice de divulgação

<table>
<thead>
<tr>
<th>Índice de Divulgação</th>
<th>Total do Ativo (euros)</th>
<th>Até 1 Bilhão</th>
<th>De 1 a 10 Bilhões</th>
<th>Mais de 10 Bilhões</th>
<th>Totais</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N  %</td>
<td>N  %</td>
<td>N  %</td>
<td>N  %</td>
<td></td>
</tr>
<tr>
<td>0,5</td>
<td>1  3,13%</td>
<td>1  3,13%</td>
<td>1  3,13%</td>
<td>1  3,13%</td>
<td>1  3,13%</td>
</tr>
<tr>
<td>0,625</td>
<td>3  9,38%</td>
<td>1  3,13%</td>
<td>4  12,50%</td>
<td>3  9,38%</td>
<td>4  12,50%</td>
</tr>
<tr>
<td>0,75</td>
<td>3  9,38%</td>
<td>3  9,38%</td>
<td>3  9,38%</td>
<td>3  9,38%</td>
<td>3  9,38%</td>
</tr>
<tr>
<td>0,875</td>
<td>5  15,63%</td>
<td>2  6,25%</td>
<td>3  9,38%</td>
<td>1  31,25%</td>
<td>1  31,25%</td>
</tr>
<tr>
<td></td>
<td>4  12,50%</td>
<td>7  21,88%</td>
<td>3  9,38%</td>
<td>1  43,75%</td>
<td>4  43,75%</td>
</tr>
<tr>
<td>Total Geral</td>
<td>1  50,00%</td>
<td>11 34,38%</td>
<td>3  15,63%</td>
<td>3  100,00%</td>
<td>3  100,00%</td>
</tr>
</tbody>
</table>

Fonte: Elaboração dos autores.

Pela análise do quadro observamos que 46,89% das empresas da amostra com ativo superior a 1 bilhão de euros apresentam uma pontuação máxima para o índice de divulgação ou apenas têm um item em falta. A empresa que apresenta um pior resultado no índice de divulgação de informações não financeiras situa-se nas empresas com menor dimensão (com um ativo inferior a 1 bilhão de euros).

Podemos, assim, concluir que, em média, empresas com maiores valores do ativo tendem a apresentar um melhor grau de cumprimento do DL 89/2019 relativo a divulgações não financeiras. Os nossos resultados vão de encontro à literatura empírica prévia (Caputo et al., 2017; Buitendag et al.,2017; Caputo et al., 2018; Romão et al., 2018 e Ribeiro et al., 2019), no que diz respeito ao tamanho da empresa enquanto fator que influencia o nível de divulgação.

b) Endividamento

Na tabela 9, o rácio de endividamento foi dividido em quatro escalões, relacionando-os com os resultados obtidos no índice de divulgação.
Como podemos observar na tabela 9, não existe uma relação linear entre o rácio do endividamento e o resultado do índice de divulgação, uma vez que podemos observar que a empresa que apresenta o nível de divulgação mais baixo apresenta rácio de endividamento superior a 3; enquanto que uma empresa com um rácio de endividamento negativo apresenta um elevado índice de divulgação (0,75). A literatura não tem sido consensual quanto aos resultados obidos na variável endividamento, pelo que os nossos resultados parecem seguir a mesma orientação.

c) Tipo de auditor
Procuramos na tabela 10, cruzar os resultados obtidos no índice de divulgação com o tipo de auditor.

Quanto ao tipo de auditor, os resultados da análise descritiva não são muito conclusivos, uma vez que a maioria das empresas da amostra (87,5%) é auditada por uma Big4. Todavia, podemos observar que duas empresas que apresentam os menores índices de divulgação são auditadas por empresas não Big4, não obstante haver também duas empresas não auditadas pelas Big4 que apresentam o valor máximo do índice.

Na análise de conteúdo aos relatórios não financeiros observamos ainda que cerca de nove empresas incluem no relatório de auditoria um comentário ao tipo de conteúdo não financeiro divulgado pelas empresas, todos efetuados por Big4. As restantes empresas limitaram-se a mencionar que a informação não financeira existe, tal como exigido no DL n°89/2017. Quando o auditor comenta o relatório não financeiro, os mesmos a tendem apresentar um maior número de páginas e melhor grau de cumprimento à legislação.

d) Atividade de Internacionalização
Na tabela 11 procuramos analisar os valores do índice de divulgação em função da atividade de internacionalização das empresas.
Podemos observar que as empresas multinacionais apresentam melhores resultados, sendo que 18 empresas (correspondente a cerca de 82% das empresas multinacionais) apresentam índices de valor de igual ou superior 0,875, ou seja, divulgam a totalidade dos itens analisados ou têm apenas um item em falta. No entanto, a empresa com pior índice de divulgação também é multinacional.

e) Setor

No que respeita aos valores do índice em função do tipo de setor, na tabela 12 começamos por separar a indústria dos restantes setores, uma vez que a literatura defendem que é um setor com regulação bastante apertada no âmbito ambiental, o que prevê que estas empresas estejam melhores preparadas para o relato dessas preocupações.

Apesar das empresas do setor da indústria apresentarem uma média de 0,9 do índice de divulgação, como apenas representam 28% da amostra, não é suficiente para demonstrar que as empresas industriais apresentam um maior grau de cumprimento das divulgações não financeiras.

6. Conclusão

Com o objetivo de estudar o relato não financeiro efetudado pelas empresas cotadas em bolsa em Portugal, em cumprimento do DL nº 89/2017, efetuámos uma análise ao conteúdo dos seus relatórios de 2017, de forma a construir um índice de divulgação, tendo por base 8 itens de informação requerido pelo diploma.

Começámos por identificar onde se encontrava localizada a informação não financeira, tendo encontrado três modalidades de relato: o uso de relatório próprio/separado (em 12 empresas, i.e, 37,5% da amostra) e a inclusão de informação no relatório e contas (nas restantes 20 empresas, i.e, 62,5% da amostra). Considerando que, destas últimas, a maioria (16 empresas) apresentam a informação num capítulo específico e as restantes (4) dispersaram as informações por vários capítulos.

Quanto ao número de páginas destinadas à informação não financeira, os seus valores variam entre 2 e 171 páginas, com uma média de 52 páginas. Cerca de 56,25% dos relatórios não financeiros têm entre 20 e 100 páginas.
Concluímos que o grau de cumprimento do DL 89/2017 é bastante elevado, uma vez que a média de divulgações não financeiras ronda os 0,875, o que significa que, em média, as empresas deixam apenas um dos itens por divulgar. Podemos também observar que os itens menos divulgados foram o combate à corrupção, tentativas de suborno, política de diversidade dos órgãos e direitos humanos.

Os resultados do índice de divulgação concentram-se em quatro ou mais itens divulgados, uma vez que nenhuma empresa divulga menos de metade do exigido pelo DL. Um dado bastante positivo é que 14 empresas (cerca de 44% da amostra), obtiveram pontuação máxima no índice. Tal demonstra uma preocupação por parte das empresas em matérias não financeiras.

Quando relacionamos individualmente o índice de divulgação com algumas características das empresas, observamos as limitações da nossa amostra, uma vez que apenas foram consideradas 32 empresas e com características bastante homogêneas. Aspectos como o tipo de auditor e a atividade de internacionalização seguem um padrão de escolha, considerado normal, uma vez que são todas cotadas em bolsa. Quanto ao setor de atividade, a amostra acabou por ter poucas empresas na indústria, cerca de 28%, o que influenciou negativamente a utilização da variável setor.

Como conclusão geral, podemos afirmar que os resultados foram satisfatórios e comprovam o impacto do normativo no relato das empresas que, cada vez mais, têm outras preocupações além das financeiras.

Este estudo pretende contribuir para a investigação internacional em matéria de relato não financeiro, fornecendo evidência empírica no nosso país, Portugal, onde os estudos existentes são ainda escassos. Os resultados obtidos poderão ser um contributo para os organismos reguladores da contabilidade, no que respeita a potenciais mecanismos de "enforcement", em caso de incumprimento do diploma. Podem igualmente servir como um processo de aprendizagem para empresas não cotadas, ou outro tipo de empresas não abrangidas pelo diploma, que estejam interessadas em implementar práticas de relato não financeiro. De facto, pode ser interessante explorara a vantagem das empresas não cotadas em publicar relatórios não financeiros, que não têm, ainda, caráter obrigatório.

A nossa análise centrou-se no período económico de 2017, primeiro ano de aplicação obrigatória do DL 89/2017, pelo que pretendemos, no futuro, efetuar um estudo longitudinal que permita avaliar a evolução na divulgação de informação não financeira, nomeadamente no que respeita ao modelo de framework usado. Por outro lado, seria interessante desenvolver um estudo combinando várias técnicas de investigação, nomeadamente a técnica de análise de conteúdo das contas anuais e a realização de questionários e entrevistas pessoais, com o objetivo de investigar as razões que motivam a divulgação de informação não financeira.

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ACCOUNTING, TAX, CONTROL AND COMMUNICATION ASPECTS OF INVENTORIES: THE PERCEPTION OF PORTUGUESE CERTIFIED ACCOUNTANTS

Ricardo Gonçalves ¹; Liliana Pereira ²; Sónia Monteiro ³

Abstract

Purpose: This paper aims to understand how professional accountants are using the accounting and taxation standards on inventories. It tries to acknowledge the motivations and practices that are being taken in the initial and subsequent measurement of the inventories, as well as the accountant’s perception regarding the impact of the obligation of permanent inventory system and the inventories’ communication to Tax Authority. Therefore, this study was developed in distinct perspectives: accounting, taxation, control and communication. Our main goal is the study of inventories: in the accountant perspective (having the Accounting and Financial Reporting Standard 18 as a basis); in the tax point of view (such as the Personal and Corporate Income Tax); in terms of mechanisms provided by the preparers of the financial statements in order to accomplish the inventories control (through the Permanent Inventory System); and, finally, in the inventories communication perspective, this is, the relation between the passive subject and the Tax Authority.

Methodology: Analyses of several questionnaire inquiries addressed to Portuguese certified accountants, of which 172 were taken into account.

Originality: This paper contributes to ongoing national debate and research concerning inventories accounting and taxation, by providing empirical evidence in our country, Portugal, where existing studies are still scarce.

Findings: Concerning the initial inventories measurement, 90.1% of the respondents do not capitalize interest in the production costs of inventories. Regarding to the subsequent measurement of the inventories, we observed that only 25% of the respondents recognize impairment losses in inventories. Within this group, 11.6% said they had already been checked and corrected by the Tax Authority, due to the realizable value used. From those respondents who did not recognize impairment losses in inventories (75% of the sample), 15.5% do not recognize impairment losses in the inventories, because it is not allowed for tax purposes. On the other hand, 19.4%, replied not to recognize impairment losses in the inventories, because they lack enough knowledge on how to calculate the loss. Concerning the communication and control of the inventories, we have noticed that only 11.6% of the respondentes considered that the implementation of Permanent Inventory System had a significant impact. In the majority of the cases (77, 3%) the obligation to communicate the products valuation (extended for 2021) has not motivated companies to adopt Permanent Inventory System.

Keywords: Inventories; Impairment losses; Permanent inventory system; Tax authority certified accountants.

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MAJOR INFLUENCE FACTORS OF THE PORTUGUESE LOCAL GOVERNMENTS OVERINDEBTENESS (2011 TO 2017)
Carla Martinho 1; Paula Santos 2

Abstract
Purpose: The public finances sustainability is understood as the ability to finance all commitments, assumed or to be assumed, ensuring intergenerational equity. The literature identifies the indebtedness as one of the main problems of local governments, emphasizing the interest in studying its implications for their financial sustainability. Therefore, given the importance of indebtedness for the financial sustainability of local governments, the present investigation proposes to study the major factors that influence the overindebtedness of Portuguese local governments in the period from 2011 to 2017.

Originality: The paper studies overindebtedness by using different variables, namely budgetary ones, given the importance of budget accounting in the Portuguese local governments.

Methodology: The study is based on a quantitative investigation of the 308 Portuguese local governments. The data were collected from official sources, such as the Directorate General of Local Authorities, the National Association of Portuguese Municipalities and the PORDATA database. The analysis was based on the variables’ descriptive analysis and on the multiple linear regression models with panel data.

Findings: The study allows to conclude that the indebtedness is directly correlated with the relation between commitments and revenues, i.e., the local governments that have commitments higher than charged revenues (namely in what concerns ‘effective revenues’ which do not consider loans) are more likely to be overindebted. Also, there is a strong evidence that the current revenues and the average payment term are major factors of overindebtedness.

Practical implications: Given the sustainability problems that Portuguese local governments have been struggling with for decades and in face of the current crisis, it is essential to know what influences overindebtedness in order to enable local political players to implement measures towards financial sustainability.

Keywords: Overindebtedness; Financial sustainability; Portuguese local governments; Determinants.

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THE COMPETITIVENESS OF SMALL AND MEDIUM ENTERPRISES AND THE PORTUGUESE TAX SYSTEM
Liliana Pereira ¹; Lurdes Silva ²; António Fernandes ³;

Abstract
Purpose: The Portuguese business world is essentially made up of Small and Medium Enterprises (SME) which, due to their importance in creating and maintaining jobs and their consistency throughout economic crises, should have a more favorable and simplified tax regime, as provided for Article 86 of the Constitution of the Portuguese Republic. This treatment should not be seen as an exception, but as part of a tax system that aims to provide a specific framework for this segment of taxpayers, with a tax treatment that is different from that of large companies, which contains simple rules that, through estimated earnings, simplify the tax process. calculating your taxes and reduce your compliance costs. This work seeks to analyze the concept and framework of competitiveness and the way in which the Portuguese Tax System contemplates measures that can positively affect the competitiveness of SME. In more specific terms, the work presents an analysis of the main tax measures foreseen in the area of income taxation, within the scope of the Corporate Income Tax Code, of the Personal Income Tax Code (thinking of small entrepreneurs in an individual name) and the Investment Tax Code, and in relation to the taxation of Consumption (in Value Added Tax).

Methodology: Considering the theme under analysis and taking into account the defined objectives, we opted for a qualitative investigation, using for this purpose several studies in order to present the literature review on: (1) the concept and framework of competitiveness in general and in particular on the competitiveness of SME in Portugal (2) the tax measures provided for in the context of income taxation and consumption taxation in Portugal, which aim mainly at strengthening the competitiveness of SME. This literature review is the starting point for a second phase of quantitative research.

Originality: Existing studies focus essentially on the theme of competitiveness in terms of its concept and framework, from a national and international perspective. Although many of these studies identify the characteristics of a tax system and a country’s fiscal policy as factors that influence competitiveness, there are no studies in Portugal that analyze the tax measures that have been adopted specifically for SME and how these measures can contribute to greater competitiveness of this group of companies. Thus, the study we present reveals its originality due to the fact that it makes this specific analysis contributing to the national debate on the topic.

Findings: In Portugal, SME represent around 99% of the business sector and employ 79% of the Portuguese active population, being the source that most faithfully represents the Portuguese economy and society. In recent years, there has been a particular attention on the part of the State in the definition of tax measures designed and implemented specifically for SME, in terms of the creation of simplified income taxation regimes, rate reductions, tax benefits concerned to investment, capitalization and employment, special regimes for consumption taxation.

Keywords: Competitiveness; Fiscal policy; Tax benefits; Small and medium-sized enterprises

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WHAT EFFECT DOES PUBLIC AND PRIVATE CAPITAL HAVE ON INCOME INEQUALITY? THE CASE OF THE LATIN AMERICA AND CARIBBEAN REGION

Renato Santiago ¹; José Alberto Fuinhas ²; António Cardoso Marques ³; Matheus Koengkan⁴

Abstract

Purpose: The main purpose of this study is to investigate the effects that the Latin America and Caribbean (LAC) capital stock (public and private) had on the income inequality levels of 18 countries from this region, over a time span ranging from 1995 to 2017.

Methodology: To achieve the goals of this investigation, the autoregressive distributed lag (ARDL) model in the form of an unrestricted error correction model (UECM) was used to decompose the effects of the variables into their short-run and long-run components. In our analysis, we have constructed three models, one with the total capital stock, one with the public capital stock, and one with the private capital stock. In our estimation, we have also corrected the models for the presence of outliers.

Originality: The originality of this study can be linked with the fact that it uses a methodology which is barely used in the previous literature on this theme, as well as data which was recently released and it is still very unexplored - the public and private capital stock data provided by the International Monetary Fund (IMF, 2017). Moreover, we should also refer that the relationship that we addressed in this study has had very little attention from researchers in most recent decades, which, in the case of the LAC region, can be problematic, given that their identified “infrastructure gap” can be a booster for the region’s inequality levels.

Findings: The results from all of our models are unanimous, pointing for the existence of an enhancing effect from the capital stock (public and private) on the income inequality of these countries in the short-run, suggesting that the investments are being made in the already richer/wealthiest areas. In the long-run, the effects of capital stock (public and private) on income inequality seem to vanish, probably due to the depreciation effect which is combined with the lack of maintenance of the exiting capital.

Practical implications: Overall, the outcomes from this study indicate that these countries governments should improve/change the management and the selection criteria of their physical capital investments in order to reduce their income gap.

References:

Key Words: Income inequality; Public capital stock; Private capital stock.

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THE IMPACT OF UNEMPLOYMENT AND INCOME IN DELINQUENCY RATE AND DEFAULT IN THE USA
Joana Mateus 1; José Alberto Fuinhas 2; Zélia Serrasqueiro 3

Abstract

Purpose: This investigation focuses on the study of the impact of unemployment and income in delinquency rate and default in the United States of America.

Methodology: To perform the analysis, we use auto loans, credit cards, mortgages, and student loans in the USA. It was used a panel data for District of Columbia and the 50 states of the USA, and annual data from 2003 to 2018 was chosen. To study delinquency and default will be made two models with different variables. To make the econometric analysis is used a probit model and will be compared with a linear model for each type of credit.

Originality: The principal innovation of this study is the introduction of the variable spread of unemployment to study the effect of unemployment on delinquency rates in these loans.

Findings: In auto loans models the unemployment rate, the spread of unemployment and median household income increase the auto loan delinquency rate in both models. In the credit card models, the unemployment rate and the spread of unemployment increase the credit card delinquency rate in both models and the median household income decrease the credit card delinquency rate in both models too. In the mortgage models, the unemployment rate and the spread of unemployment increase the mortgage delinquency rate, while median household income decrease the mortgage delinquency rate in both models. In student loan models the unemployment rate and median household income decrease the student loan delinquency rate in the first model and the spread of unemployment and median household income increase the student loan delinquency rate in the second model. The unemployment rate, the spread of unemployment and median household income affect the delinquency rate and default of all credits studied.

Practical implications: From the results found, it is possible to observe that the increase in unemployment or the decrease in income will probably increase the delinquency rate and the default of credits. The increase in the delinquency rate and the default may have consequences for the US economy and consequently in the rest of the world economies, so policy makers should take measures to control unemployment and income, to prevent delinquency from increasing.

Keywords: Auto loan default; Credit card default; Mortgage default; Student loan default; Delinquency rate.

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THE MEASUREMENT OF PUBLIC GOODS: THE CASE OF MUNICIPALITIES IN THE PORTO METROPOLITAN AREA

Susana Catarino Rua

Abstract

**Purpose:** In an era when equity accounting plays an important role in providing information for decision-making by public entities, the recognition and measurement of public goods (BDP) has become essential in the correct measurement of public assets. Thus, given this need to measure BDP, this work has the following objectives: first, to study what the Portuguese public accounting standards refer to regarding the measurement of this type of assets; and, secondly, to analyse the criteria applied by the municipalities in the Porto metropolitan area in the measurement of their BDP.

**Methodology:** In the development of this work, qualitative (in the theoretical framework) and quantitative (in the analysis of case study results) methodologies were followed.

**Originality:** As it is a type of goods whose measurement is very controversial and about which there is still no consensus, we can consider that this work is an original and current topic, still under investigation from the scientific point of view. In addition, the actuality and originality of the work can also be justified by the fact that it also studies the provisions of a standard (SNC-AP, 2015) that has only recently started to be applied.

**Findings:** The measurement of BDP, as goods belonging to public entities and which are used for purposes of public utility, has raised some controversies, as their historical cost is often unknown (or nonexistent), it is necessary to use alternative criteria to cost, as is the case of fair value. The POCAL (1999) allows the application of the evaluation value and the equity value, or even the zero value, to this type of goods, if the cost criterion does not apply. The current SNC-AP (2015) goes further, by explicitly allowing the application of fair value, in exceptional situations (in initial recognition), or as an alternative to the cost criterion (in subsequent measurement). From the study carried out on the municipalities in the Porto metropolitan area, we found that historical cost is the measurement criterion applied in a general way by all municipalities, especially in the acquisition cost modality. Regarding the fair value, it also already plays an important role in measuring the BDP of the sample municipalities, being applied by 82% of these municipalities, with emphasis on their evaluation value modality, applied by 71% of these municipalities, in situations of unknown historical cost or of assets obtained free of charge. Therefore, despite the importance that historical cost still holds, fair value has already become an essential criterion in measuring the BDP of the analyzed municipalities.

**Limitations:** The limitations were felt at the case study level, since the financial statements attachments do not always explicitly define the measurement criteria applied, or are not even available, being necessary to use, in these cases, information alternative sources.

**Keywords:** Public goods; Measurement; Municipalities; Porto.

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THE IMPACT OF FOREIGN DIRECT INVESTMENT IN EMISSIONS REDUCTION TARGETS: EVIDENCE FROM HIGH- AND MIDDLE- INCOME COUNTRIES
António Cardoso Marques 1; Rafaela Caetano 2

Abstract

Objective: The main objective of this paper is to understand the effect of globalization on the environment, specifically through the consideration of the impacts of foreign direct investment in host countries. Also, this paper wants to investigate the transference of polluting industries across countries, considering that this transference happens mainly between countries with different development and income levels.

Methodology: The Autoregressive Distributed Lag (ARDL) model was used focusing on 21 countries, for a period ranging from 2001 to 2017. The countries are divided into their income levels to better understand the transference of polluting industries across countries with different development and income levels, as previously stated. This methodology has the advantage of disaggregate the short- and long-run impacts, which could help to explore the features of host countries, mainly technology absorptive capacity that could change the impact of FDI on the environment.

Novelty: The novelty is the consideration of some characteristics of the host countries, as their innovation, efficiency, and regulation levels. Also, the methodology, even that was commonly used in the literature, helps to better understand the technology absorptive capacity of host countries. The results from this paper reveal fortify the use of a methodology that can disaggregate impacts into the short- and the long-run. The source country will evaluate some features of a country before providing foreign direct investment. If the main objective of the source country is to transfer their technology and knowledge, it will evaluate the innovation and efficiency skills of the host country. Adversely, a country that wants to reallocate their polluting industries to avoid environmental compliance costs will check if the environmental stringency is lower in the host country. This paper explores the relevance of these variables both to help in reducing emissions or increases environmental degradation, but it also assesses their dynamic linkages, once it can influence the impact of FDI on the environment.

Results: Regulatory measures appear ineffective in reducing emissions, something which deserves a lively debate. The pollution haven hypothesis is supported, meaning that polluting industries are being transferred among countries, harming the environment. The impacts of FDI and trade on the environment in middle-income countries are highly influenced by their regulatory measures, and their technology absorptive capacity, as well. Policymakers of middle-income countries have useful guidance in this paper to rethink their regulatory structure.

Keywords: Foreign direct investment; Carbon dioxide emissions; Pollution haven hypothesis; Regulation; Energy-efficiency

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THE RATIONING PRINCIPLES EVALUATE BY ANGOLAN PHYSICIAN AND NURSES
Micaela Pinho 1; Ana Pinto Borges 2

Abstract
Purpose: Microallocation decisions are a necessary evil in a context of increasing scarcity of medical resources. This study explores and compares the views of two groups of Angolan health professionals - physicians and nurses, concerning patient’s prioritization decisions and the rationing criteria that should support their decisions.

Methodology: A self-administered questionnaire was used to collect data from a sample of 110 healthcare professionals (54 physicians and 56 nurses). Respondents faced two hypothetical rationing scenarios comprising four patients (differentiated by personal and health characteristics). The first scenario represents a context of absolute healthcare resource scarcity and respondents were asked to select only one patient to treat and to explain their choice. The second scenario represents a context of relative healthcare resource scarcity - which allow treating all the patients but not at the same time, and respondents were asked to rank the four patients by order of attendance. A mixed-method approach was performed. A qualitative approach was performed through content analysis to categorize the written justifications and identify the rationing criteria supported by respondents. A quantitative approach was performed through non-parametric tests to explore differences in patient’s prioritization decisions between physicians and nurses and logistic regressions were used to: (i) control for respondent socio demographies’ characteristics, health status and health-related habits and (ii) explore associations between the rationing criteria mentioned by the respondent and the choices of the patient to treat in first place.

Originality: With this research we contribute for the analysis of the ethical problem of bedside rationing decisions in developing countries, a topic that in these counties need research.

Findings: The results demonstrate that both groups share similar views concerning patients’ prioritization. Moreover, physicians and nurses seem to support the same ethical values. In a context of absolute scarcity of medical resources, the efficiency criteria (maximizing health outcomes) was the most supported by both groups of health professionals followed by severity of illness, intergenerational equity and lottery.

Practical implications: Our results suggest that health policies that promote efficiency in the allocation of resources may be well accepted by health professionals those who ultimately are responsible for making healthcare allocation decisions.

Research limitations: The sample is not representative of the study population. However, it allows us to withdraw a trend of responses.

Keywords: Rationing principles; Angolan physician and nurses; Prioritization decisions; Allocation of resources.

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THE ECONOMIC DETERMINANTS THAT INFLUENCE THE INTERNATIONAL PILGRIMAGES TO THE SHRINE OF FATIMA: A PANEL ANALYSIS
Matheus Belucio 1; José Alberto Fuinhas 2; Carlos Vieira 3

Abstract
Objective: The objective of this article is to identify the impact of economic determinants on the number of pilgrims from the Shrine of Fatima. In this way, it will be possible to know the influence of the economic situation of the country of origin on its pilgrim population.

Data and methodology: To meet the proposed objective, a panel with 29 countries in the world was established. The variables selected for this study are the number of pilgrims (information provided by the Fatima Shrine). The International Monetary Fund was the database used to obtain the Real Effective Exchange Rate, based on the Consumer Price Index. Gross Domestic Product per capita (GDPpc), the number of international departments, and the unemployment rate provided by the World Bank. The statistical information includes annual data from 2008 to 2017. Through several diagnostic tests, we discovered the nature of the variables and the ARDL econometric model is the recommended one for estimation, the estimator was Driscoll & Kraay (1998) was used.

Originality: As far as we know, this is the first time that an analysis of a panel has been used to verify the influence of the countries' economic situation and the phenomenon of pilgrimages. For a long time, little was investigated in the economics of religion. Current management practices allow the sanctuaries to have more information about who visits them and can even distinguish the number of pilgrims from religious tourists.

Results: The results obtained with international departures have a positive effect on the number of pilgrims, while unemployment has a negative effect. The results still show the increase the GDPpc effects positively over time. Finally, an exchange rate tends to be significant over time. Corroborate with Belucio & Fuinhas (2019) that also detected the influence of the exchange rate on the Portuguese Marian phenomenon.

Practical implications: The results presented here show those responsible for tourism in Portugal and develop measures aimed at tourists, considering the economic variables of the pilgrims' country of origin. For example, choose not to invest in marketing resources in countries whose unemployment rate increase has been selected. It is preferable to invest in countries with a higher GDPpc. The instability shown by the participants must be a detrimental factor in the pilgrimage decision, these being more cases for the investment decision.

Limitations: In the future, more robust results will be obtained when the time horizon and the number of countries that make up the data panel increases.

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References


**Keywords:** Religious tourism; Pilgrimage; Economic determinants; Shrine of Fatima; Panel analysis.

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ECONOMY AND TOURISM: ANALYSIS OF THE PORTUGUESE SCENARIO
Matheus Belucio 1; Victor Magalhães Machado 2; José Alberto Fuinhas 3

Abstract
Objective: The economy of tourism is the area of economic sciences responsible for studying the demands related to the phenomenon of tourism. To contribute to the Portuguese tourism literature, the general objective of this study was defined as the analysis of the behavior of Portuguese tourism and its relationship with economic growth.

Data: The statistical data presented in this study come from three international and reliable databases, namely, World Bank, PORDATA and World Travel & Tourism Council. A model was defined where the dependent variable is the number of international tourists. As independent variables (those that explain the number of international arrivals in Portugal): (i) economic growth, (ii) domestic consumption of tourism, (iii) the exchange rate, and (iv) CO2 emissions.

Method: The objective of this investigation was verified through the estimation of a linear regression obtained with the use of the program Eviews10+.

Originality: This is a time series study that contemplates the maximum number of years (with data available for all series), including the period of the Subprime economic crisis. It allows a better understanding and presents unprecedented variables (in the same model). Finally, it captures the impacts caused by economic factors in Portugal's tourism.

Results: The results show the impact of economic growth, domestic tourism consumption, the exchange rate and CO2 emissions on tourism growth in Portugal.

Practical implications: The effects analyzed in the context of Portuguese tourism can be important for the choice and determination of economic policies. In addition, to assisting in the better allocation of resources and optimizing efforts to maintain the optimum results of the country's tourism sector.

Limitations: It should be borne in mind that reliable platforms with statistical information are reduced, and for this reason, the time horizon was as long as possible within the variables studied.

Keywords: Economy of tourism; Portuguese tourism; International arrivals; Economic growth; Economic impact.

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THE EFFECT OF MERGER ANNOUNCEMENT ON BIDDER RETURN IN APEC MEMBER COUNTRIES USING EVENT STUDY METHOD

Renaldi Antoni Hamonangan¹; Dwi Nastiti Danarsari ²

Abstract
Purpose: This study aims to examines whether the announcement of a merger as a good signal that can generate abnormal return to stock prices. Previous studies have found two different evidence; that merger announcement generated abnormal return; and there is also literature that finds merger announcements do not generated abnormal return.

Methodology: This study used 115 companies from Asia Pasific Economic Cooperation member countries as the samples that announced merger in the period 2014-2018. Using event study method, it is obtained that merger announcement did not generate abnormal return on bidder stock prices.

Findings: This study finds that the announcement of a merger did not generate abnormal return on the bidder stock prices in period 2014-2018. The abnormal return adjust several days after the merger announcement due to information leakage before the merger announcement was announced.

Originality/value: This study aims to investigate the reaction of investors in APEC member countries to the merger announcement and to test the relevance of previous study that merger announcement as a good signal can generate abnormal return.

Practical implications: Merger and acquisition announcement as a signal are important information for investors to have the opportunity to earn abnormal return. The result of this study implies that abnormal return on stock prices do not adjust quickly right after the announcement.

Research limitations: The samples are public companies from APEC member countries between 2014 and 2018 that announced a merger and the data used is only historical stock prices.

Keywords: Merger; Event study; Abnormal return; APEC

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1. Introduction

Merger is a merger of two or more companies into one company that still exists, where the target company merges with the acquirer (Damodaran, 2012). A reason a company merge is to increase the value of the company. Recorded at Thomson Reuters Eikon, 48,597 companies merged during the last five years between 2014 and 2018. The phenomenon of a merger is an interesting matter for bidder companies in order to increase the value of the company. With this merger phenomenon, bidders expect the synergies created after the merger. With the synergy created later, it is expected that the share prices of bidder companies traded on the capital market will increase.

The synergy that will create from the merger activity provides information to investors to make decisions regarding its portfolio. So the company merger announcement information will be reflected in the company’s stock price. Random walk theory explained that the past stock price could not use to predict the future (Fama, 1965). However, it is expected that the merger announcement as good information will be reflected in an increase in the stock price of the bidder in the capital market.

The efficient market hypothesis theory defines that the more complete and relevant information, the more efficient the market is. In the merger phenomenon, it is expected that the market form will be semi-strong because the semi-strong market can create the impact of the merger announcement in the form of abnormal return. So with the announcement of the merger, it is expected to create an abnormal return on the bidder’s stock price.

This research is conducted to investigate the investor reaction to the announcement of the merger, which reflected in the movements of the bidder’s stock prices after announcing the merger, especially investors in APEC member countries. The information on investor reaction can be used by potential investors as a reference when it is the right time to invest capital in the companies that announce a merger.

APEC (Asia-Pacific Economic Cooperation) is a forum consisting of countries in Asia-Pacific. This forum has the primary goal to support sustainable economic growth and prosperity in the Asia-Pacific region. The purpose of APEC is to motivate this research to be carried out. This research was conducted to find out whether APEC member country investors reacted positively to information about corporate actions between countries, which was published in the form of a merger announcement.

Event study can be used to test the information content of an announcement and can also be used to test market efficiency (Brown & Warner, 1980). A good market reaction is indicated by the increase in company stock price that announces a merger. A good reaction to an increase in stock prices can be calculated using abnormal returns to determine differences in stock prices before and after the merger.

The results of this study provide some knowledge about the announcement of a merger as a signal that is good or bad information for investors. This study also provides information about the price movements of bidder companies’ stock. These result can be used for investors to take action, whether investing in a company that announces a merger is the right decision or not.

The remainder of this paper is organized as follows. Section 2 discusses a brief review of literatures related to merger and event study. Next, Section 3 covers the research methodology, which includes data and samples, as well as research methods. Then, Section 4 presents the results and continued with the discussions in Section 5. Finally, Section 6 concludes the paper.

2. Literature review

2.1 Merger

Merger is a combination of two or more companies in the assets and liabilities of the target firm is absorbed by the acquirer company, where the only exist company is the acquirer (Sherman & Milledge, 2011). The main purpose of the merger is to grow and
get the synergies between two or more companies. There is one of the decision companies merged is that mergers obviously can affect the value of the company, but merger also affect the relative value of stocks and bonds (Hassan & Ghauri, 2014).

2.2 Signaling Theory
Company’s announcements give a signal to investors about the company's financial statements as a projection of the company's future situation, and also corporate actions such as merger announcements, dividend payment announcements that can trigger investor reactions (Ross, 2020). Merger announcement is an important information for investors to have the opportunity to earn an abnormal return. Giving a signal is done by the manager to reduce information asymmetry. Asymmetric information occurs when one of the parties conducting a transaction has more information than the other party (Brigham & Daves, 2019).

2.3 Efficient Market Hypothesis
According to Fama (1970), the capital market is efficient if the stock price reflects all the available information. There are three types of efficient market hypothesis form (1) weak form, (2) semi-strong form, and (3) strong form. In a weak form, the market is fully reflected through past information from stock prices. In a semi-strong form, the stock prices fully reflect all published information, such as information contained in financial statements. In strong form, the stock prices fully reflect all available information, including confidential information. There is a method that can be used to test the efficient market hypothesis called event study method.

2.4 Event Study
Event study methodology is one of the most used analytical tools in financial research. This tools used to observe the stock price movements in the capital market and to find out whether there is abnormal return obtained by acquirer companies on stock price as a result of a particular event (Peterson, 2019). Damodaran (2012) also states that event study design to calculate market reactions to excess return around certain information announcement events. There a model for event study found by Brown & Warner (1985) to calculate the expected return and to find the abnormal return caused by a particular event.

In general, research on the announcement of a merger to find out its impact on the bidder’s stock price has been carried out. Those studies also use the event study method to see the impact of announcements as an event. Research has been conducted by Amewu & Alagidede (2018) to prove whether mergers and acquisitions produce value for acquirer shareholders in Africa in 2002-2015. The study provides evidence of positive abnormal returns earned by shareholders of acquirers upon mergers and acquisitions (M&A) announcements on African markets. The results of the study also provide the results of information leakage during the six days before the announcement. Then, another study was conducted by Rani et al. (2013) to examines the short-run abnormal return on the acquirer stock price in 2003-2008. The study found evidence that shareholders of Indian acquirer companies involved in mergers and acquisitions experienced statistically significant positive returns on the day of the announcement as well as statistically CAR on the multi-day event window. A recent study conducted by Shah & Arora (2014) to examine the impact of the announcement of the merger in the May 2003 to September 2003 period found that the merger announcement did not generate abnormal return.

3. Data and Methodology

3.1 Data
This study used merger announcement data involving bidder companies in APEC member countries between 2014 and 2018 collected from Thomson Reuters
Datastream. The selection of the research period is based on the availability and data novelty. The APEC member countries' samples are based on the organization's purpose that aim to prosper their members that attracting investors to invest in prospective merger companies that will develop. The data stream records that there were 20 APEC member countries that merged: Australia, Brunei Darussalam, Canada, Chile, China, Hong Kong, Indonesia, Japan, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, Singapore, Republic of Korea, Chinese Taipei, Thailand, and Vietnam. Samples are selected based on several criteria: (1) bidder and target companies are listed companies, (2) at the time of data collection, companies are not recorded go private or delisted, (3) there is a clear announcement date, and (4) there are a complete historical stock prices during the observation period. The final samples obtained contained 115 companies (see Table 1).

3.2 Methodology
This study aims to investigate whether the announcement of a merger in the companies of APEC member countries has a positive AR effect on the stock prices of bidder companies. This study uses an event study approach introduced by Brown (1985) to investigate AR generated by the merger announcement. According to Seiler (2003), there are eight steps to this method (1) identification event date, (2) definition of the event window, (3) definition of the estimation period, (4) selection of samples, (5) calculation of actual return, (6) calculation of ARs, (7) calculation of CARs and (8) determination of the statistical significance of ARs and CARs.

The observation period used is 221 days, with 180 days of the estimation period [-200, -20], and the event window is 41 days [-20, +20]. Determination of the observation period and event window is based on the obtained data is more accurate, and the analysis of AR movements on stock prices can be seen longer based on the 41-day event window. The selected samples are the company that has clear historical stock prices during the observation period.

Event study method introduced by Brown (1985) is used to calculate ARs and CARs. There are three models for calculating AR (1) mean adjusted return, (2) market-adjusted return, and (3) OLS (Ordinary Least Square) market model. This study used the OLS market model to calculate abnormal returns because this model uses α as a parameter of a company's performance against the market and β as the parameter of a company's stock price on market risk.

Abnormal return is the actual return value is greater than the expected return, to obtain the expected return values calculation is required for α and β value using the OLS market model from the estimation period [-200, -20]. To calculate the expected return of the values α and β obtained, we calculate using the market index prices. This expected return value will be used to calculate the abnormal return value in the event window [-20, +20].

\[
AR_{i,t} = R_{i,t} - (\hat{\alpha} + \hat{\beta} \cdot R_{m,t})
\]  

(1)

After α and β values are obtained for each sample, then the value is used into Equation (1) to get the expected return value. After the expected return value is obtained, then the AR value is calculated by subtracting the actual return value from the expected return. This calculation is done in the event window [-20, +20].

\[
AAR = \sum_{t=1}^{n} AR_{i,t} = 1\sum_{t=1}^{n} AR_{i,t}
\]

(2)

The AR value for each company has been obtained after calculating using Equation (1),
because the sample of companies studied is more than one, then the AAR calculation is performed by using Equation (2) to get the average AR for each window for 41 days of the event window.

\[ CAR_{t,t} = \sum_{t=w1}^{t=w1} AR_{t,t} \]  \hspace{1cm} (3)

CAR calculation is done to get the cumulative value of AR during the event window, it can be seen cumulatively moving AR during the event window. The value of CAR is obtained using Equation (3).

\[ CAAR = \sum_{t=w2}^{t=w1} AAR_{n,t} \]  \hspace{1cm} (4)

CAAR also calculates the average AR because more than one sample is used. CAAR calculation is performed to determine the movement of the average cumulative AR value during the event window using Equation (4).

After the AAR and CAAR values are obtained, a statistical calculation is performed to find out the significance values of the AAR and CAAR obtained for each day during the event window. This statistical significance calculation is carried out with the aim of testing whether the obtained AAR and CAAR have significant positive values so that the hypothesis to test whether there is AAR and CAAR around the announcement can be tested. Statistical testing is done by using Equation (9), equation (5-8) is an explanation how Equation (9) is obtained.

4. Results

The samples we obtained from the 20 APEC member countries between 2014 and 2018 were 468 companies drawn from Thomson Reuters datastream. Using the criteria that were mentioned before, we obtained a final sample of 115 companies. Table 1 provides
the countries of the bidder companies and the number of target companies. The decrease in the number of samples is caused by many sample companies that have privatized or delisted from the stock exchange, and their historical prices have data gaps or not complete.

4.1 Hypotheses
Companies that announce merger announcements give signals to investors, to make decision on investments in companies that announce mergers. A theory state that companies merge with purpose of growing and getting synergies between the companies, with this good purpose it is expected that bidders stock prices will increase because of the synergies that will obtained. This study examines whether there are AR before and after the merger announcement to determine the movement of AAR and CAAR before the announcement until after the announcement:
H1. The announcement of the merger generate greater AAR after the announcement compared to before the announcement.
H2. The announcement of the merger generate greater CAAR after the announcement compared to before the announcement.

4.1. Descriptive Statistic
Table 2 shows descriptive statistics of AAR values before and after the announcement. From 115 companies it is obtained mean value 0.00038 before the announcement and mean value -0.00057 after the announcement. The minimum and maximum AAR values before the announcement are -0.00290 and 0.00447. The minimum and maximum AAR values after the announcement are -0.00471 and 0.00757. The table clearly shows that the mean before the announcement is greater than after the announcement. The table also shows that the minimum and maximum values after the announcement are greater than after the announcement. The minimum and maximum AAR after the announcement is inversely proportional to the mean AAR after the announcement, this indicates something that will be discussed in the discussion section.

4.2. Significance Average Abnormal Return Obtained
Table 3 shows a significant AR on the event window. From the 41 days event window, a significant AAR was obtained during the 8 days before the announcement and 5 days after the announcement was indicated by the symbol (*) with the significance value of each according to the Note that was given. The table clearly shows that AAR is significantly more prior to than after the announcement. The table also shows that there are positive AARs at T-6, T-5, T-3, T-1. Then at T0, that is the day of announcement there is no significant positive AAR, significant positive AAR is found at T+1, then at T+2 to T+7 there is no significant positive AAR. At T+8, T+10, T+15, and T+16, there is a significant positive AAR. There was a significant positive AAR a few days before the announcement; there was no significant positive AAR at the time of the announcement; and a significant positive AAR is found at T+1 after that there are no significant positive AAR until H+7, and a significant positive AAR is found after H+7 indicates a leakage of information, this will be discussed further in Section 4.4.

4.3. AAR and CAAR Before and After Announcement
Table 4 shows AAR and Table 5 shows CAAR before and after the announcement which is the result of the hypothesis test contained in Section 4.1. The mean values of AAR before and after the announcement are 0.000281 and -0.000495. The mean value before the announcement is greater than after the announcement, so the t-Stat value is not greater than t-Critical which means do not reject H1, so the announcement of the merger does not generate AAR. And for the mean value of CAAR before and after the announcement are -0.001218 and -0.000426. The t-Stat value is not greater than the t-Critical which means do not reject H2, so the merger announcement does not generate CAAR. The cause of the merger announcement did not generate AAR is that before the
announcement there was significant positive AAR, so after the announcement there was a correction where there was no AAR. And there was no CAAR after the announcement due to AAR correction so that no cumulative from the AAR fell after the announcement.

4.4. Leakage Information Before Announcement
Table 6 shows the leak of information before the merger announcement was announced, so that before the announcement there was AAR and after the announcement the AAR was corrected which resulted in no AAR. In Table 6 the left side of the AAR can be seen in red color indicating that several days before the announcement there was an AAR and on the day of the announcement marked by no significance in yellow. Then in T+1, there is a significant AAR in green color that comes from the reaction of investors who still believe in the signal for the announcement of the merger even though the AAR had occurred several days before the announcement. However, after T+1 to T+7 there is no significant AAR in yellow color which confirms the leak of information which results in the stock price being over value so that there is no AAR. And then after the stock price has decreased for several days, at T+8, T+10, T+15, and T+16 generates a significant positive AAR that is in green color. This is an adjustment of the price corrected due to information leakage.

Table 6 on the right side shows that there is a significant positive CAAR a few days before the announcement until several days after the announcement. Significantly positive CAAR prior to the announcement was the result of the day of information leakage which caused cumulative AAR to be significantly positive. And a significant positive CAAR after the announcement is a positive cumulative AAR remainder caused by a leak. This can be seen in T-6 to T+1 the CAAR value has increased marked by red color in the CAAR value, then in T+2 to T+15 the CAAR value has decreased due to the correction due to leakage which is marked with a yellow color CAAR value. After decreasing the CAAR value due to the correction of the AAR value that was over value before the announcement, at T+16 there was a significant positive CAAR that occurred due to the adjustment of the stock price that was already at its supposed price, which before the announcement of the stock price was overvalue.

4.5. CAAR Movement Before and After Announcement
Graph 1 shows the movement of AAR and CAAR during the 41 days event window. The graph will be more focused to be used to see CAAR movements. CAAR movements obtained before and after the announcement can give an illustration of the merger announcement as a signal. At the time before the announcement marked with (1) is an increase in CAAR value which moves higher the value up to T+1 announcement. After the CAAR value has increased from before the announcement was announced, then on H+2 to T+14 the CAAR value has decreased due to the correction in the stock price which is considered to be overvalued, indicated by (2). After experiencing a correction to the fair price, an increase in CAAR value is indicated by (3), where the CAAR value starts to adjust with the merger announcement signal so that at T+14 to T+16 the CAAR value increases. After adjusting the increase in CAAR value due to the announcement signal, then the CAAR value has again decreased marked by (4). With an increase in CAAR value adjustment due to the announcement signal and closing the event window for 41 days with a decrease in CAAR value it can be concluded that the signal from the merger announcement is a very short term investment because the signal only reacts to the increase in CAAR value for several days and after that the CAAR value back down.

5. Discussions
Merger is a merger of several companies into one company that exists, where when a company announces a merger announcement it creates a signal given to investors (Ross, 2020). Merger announcement is a good signal because the purpose of the merger is to grow the company and create synergy. The announcement of a merger can also
reflected the financial strength of a bidder company, because to do a merger requires a strong corporate financial strength. This study examines the reaction of investors in countries that are members of APEC because the forum has the goal of welfare of its member countries. With this forum, trade intensity among member countries occurred so that the purpose of the forum was reached, so that this research was conducted to examine the reaction of investors to companies incorporated in APEC members in announcing the announcement of a merger as a good signal. Event Study methodology (Brown & Warner, 1985) used to examine the effect of an event on AR obtained, where the merger announcement is an event that is examined because it gives a good signal. Amewu & Alagidede (2018) in the 2002-2015 study period, the merger announcement resulted in AR. Rani et al. (2013) Shah & Arora (2014) in the period May 2013 - September 2013, the announcement of a merger did not produce AR. In this study found similar results to more recent studies, that the announcement of a merger did not produce AR. Previous research by Amewu & Alagidede (2018) in the 2002-2015 study period, the merger announcement resulted in positive AR. Rani et al. (2013) examined in the period 2003-2008, merger behavior resulted in positive AR. Two studies with longer research periods found merger announcements generate positive AR. While research with a more recent period by Shah & Arora (2014) in the period May 2013 to September 2013, the announcement of a merger did not produce positive AR. In this study found similar results to more recent studies, that the announcement of a merger did not generate positive AR.

This research was conducted to determine the effect of the merger announcement signal on abnormal return. There are 2 hypotheses tested, namely H1 to find out whether the merger announcement generated AAR, and H2 to find out whether the announcement of the merger produced CAAR. By using the event study method, the AAR and CAAR values for 41 days of the event window presented in Table 2 are descriptive statistics. In Section 4.1, it has been explained about the results of descriptive statistics, this section will discuss the mean value before the announcement is greater than after the announcement of the minimum value and the maximum after the announcement is greater than after the announcement. The minimum and maximum AAR after the announcement is inversely proportional to the mean AAR after the announcement. Where the maximum AAR and the largest minimum AAR are after the announcement, and the positive mean is before the announcement. This indicates there is a leak of information where the positive AAR is present before the announcement and after the announcement of the mean AAR is negative, in this situation the investor has reacted before the announcement and after the announcement the investor has not reacted again (Tsung-Ming & Hoshino, 2000). For the largest maximum and minimum values after the announcement, the maximum value is obtained because there is an AAR due to the announcement signal and the largest minimum value is obtained after the announcement due to information leakage before the announcement that causes a deep correction to the AAR.

Table 3 shows a positive AAR for 41 days of the event window, for 41 days event window there were 8 days of significant AAR positive before the announcement and 5 days of a significant positive AAR before the announcement. A positive value in a semi-strong market will try to adjust to the right price level (Simões et al., 2012). As discussed in Section 4.2 a few days before the announcement there is already a significant positive AAR and after the announcement there are at T+1, T+8, T+10, T+15, and T+16. Where at T+2 to T+7 there is no positive significant AAR, which is the impact of a significant positive AAR correction before the announcement. T+8, T+10, T+15, and T+16 have a significant positive AAR which is an adjustment of the announcement signal due to correction due to information leakage before the announcement.

Table 4 shows the results of the H1 test, and Table 5 shows the results of the H2 test. Section 4.3 has discussed the results obtained from the H1 and H2 tests, where H1 is not rejected, which means the announcement of a merger does not produce AAR and H2 is not rejected, which means the announcement of a merger does not produce CAAR.
H1 is related to H2 where when the H1 test does not produce AAR after the announcement, then the results have an impact on CAAR on H2 resulting that there is also no CAAR after the announcement. There is no AAR after the announcement because before the announcement there is already AAR where this causes when the announcement of the stock price has overpriced, so after the announcement there is no AAR. As previously explained, prices that are over-priced or under-priced will try to adjust to the right price level (Simões et al., 2012). The absence of AAR after the announcement gives the effect that there is no CAAR after the announcement. To investigate this further, Table 6 and Graph 1 will explain in more detail.

Section 4.4 explains that there is information leakage before the merger announcement is shown in Table 6 in the AAR section, where there is a significant positive AAR before the announcement marked in red color. Because before the announcement there was a significant positive AAR, causing a few days after the announcement there was no significant positive AAR which was a correction of the price of the stock that was overprice. After several days of correction, then the significant positive AAR starts to adjust when the price is normal as indicated by the green color. For T+1 the green color is a reaction to the announcement of the merger, but because the price has overpriced then after that there is no significant positive AAR. To make it easier to understand what was mentioned earlier, Table 6 in the red color CAAR section is a leak of information before the announcement which is marked by an increase in the value of CAAR to T+1. The increase in CAAR value caused by information leakage caused a few days after the announcement of CAAR not to increase in value but rather a decrease in CAAR value due to correction of overvalued stock prices indicated in yellow. CAAR values adjust with the merger announcement on H+16 which is shown in green color, this happens because the stock price has returned to normal so that the stock price returns to adjust the announcement signal.

Graph 1 is the value obtained and is also the movement of AAR and CAAR for 41 days period. The graph focuses to explain the CAAR movement, where the CAAR movement provides information for investors to invest in a merger announcement which is a signal. The symbol (1) is the movement of the CAAR value that increases before the announcement marked by a green line moving upward. symbol (1) indicates a leak of information, which is confirmed by symbol (2) which is a CAAR value decreased due to an increase in CAAR value before the announcement so that after the announcement the CAAR value has decreased indicated by the red line that moves downward. After experiencing a correction with a decrease in the CAAR value, then the CAAR value increases again due to the adjustment of the announcement signal which only reacts a few days after the announcement marked with symbol (3) with a green line moving upward. Then the 41-day event window closes with a decrease in CAAR value marked by symbol (4), which provides information that the merger signal is only for short-term investments. This graph provides information that the merger announcement has the effect of increasing the value of CAAR if there is no information leakage. If there is information leakage, the CAAR value will adjust only a few days after the announcement is announced.

This study also conducted a robustness check using the same model and data. By using 115 sample companies and 41 days of event windows, checks are carried out for each year from 2014-2018. After checking, it was found that for each year the merger announcement did not produce AAR. The results found are no different from the results of 5 years from 2014-2018.

6. Conclusions

In conclusions, this study shows that merger announcements do not generate AAR and CAAR for bidder companies. Significant AAR and CAAR positive should be found when the announcement was released, if AAR and CAAR significant positive were found before the event date then there was an indication of information leakage (Fama, 1970).
Leakage of information prior to the announcement of the merger that resulted in AAR and an increase in CAAR indicated by Graph 1 with symbol (1), so that after the merger announcement there was no AAR due to the correction of stock prices that had overprice and CAAR decline indicated by symbol (2). A few days after the announcement of the merger was announced, there was an AAR and an increase in the CAAR value indicated by the symbol (3) due to the adjustment of the announcement signal before the announcement had reacted. To close the 41-day event window, symbol (4) shows that there is no AAR and CAAR value reduction, which means the announcement of a merger as a signal only lasts a short term. Information leakage causes the announcement of a merger to not have the effect of AAR, but despite the leakage of information the AAR and CAAR will continue to adjust several days after the announcement when the stock price has returned to its normal price (Simões et al., 2012).

This study provides several implications for the reference of investors who invest in merger announcement signals and the development of academic knowledge regarding merger announcements in generating abnormal returns. This research found merger announcement is a good signal for investors to get abnormal returns. In this study, even though there was a leak of information before the announcement, a few days later there would still be an abnormal abnormal return due to the merger announcement signal. This study was also carried out to check the relevance of previous research, and it was found that studies that had long concluded the announcement of a merger resulted in AR, while this study and several studies that were classified as having concluded the merger announcement did not generate AR. This research information can be used by investors as a reference to invest in merger announcement signals, but the results of this study provide information that data leakage occurred before the announcement, which then occurred due to the announcement signal adjustment a few days after the announcement. This concludes that despite the adjustment of AAR, it is not known when AAR will adjust so as to increase the risk for investment and also considering that the merger signal is only short term, it would be better not to invest the merger announcement signal.

There is research limitation in this study, which is researching companies from APEC member countries in the 2014-2018 period. The data used in this study only uses historical stock prices, not using data from financial statements. In making conclusions can not associate economic factors, monetary policy, exchange rates, etc. This study only examined abnormal returns obtained from the announcement of the merger as a signal.

References


### Appendix

**Table 1 – List of Samples**

<table>
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<tr>
<th>No.</th>
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<tr>
<td>3</td>
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<td>4</td>
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<tr>
<td>5</td>
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</tr>
<tr>
<td>6</td>
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<td>10</td>
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<td>10</td>
</tr>
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<td>8</td>
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<tr>
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Source: Collected and Processed by Author

**Table 2 – Descriptive Statistic**

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<th>Maximum</th>
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505
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<td>5.6951299</td>
<td>***</td>
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<td>3.5732550</td>
<td>***</td>
</tr>
<tr>
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<td>0.0038871</td>
<td>10.1669528</td>
<td>***</td>
</tr>
<tr>
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<td>***</td>
</tr>
<tr>
<td>-6</td>
<td>0.0015829</td>
<td>4.1400644</td>
<td>***</td>
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<td>-5</td>
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</tr>
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<td>***</td>
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<td>***</td>
</tr>
<tr>
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<td>0.0010796</td>
<td>2.8238840</td>
<td>***</td>
</tr>
<tr>
<td>15</td>
<td>0.0016361</td>
<td>4.2793634</td>
<td>***</td>
</tr>
<tr>
<td>16</td>
<td>0.0075693</td>
<td>19.7978699</td>
<td>***</td>
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</tbody>
</table>

**Note:** The significant for α = 10%, with \( t_\alpha = 1.286 \) is marked by * The significant for α = 5%, with \( t_\alpha = 1.653 \) is marked by ** The significant for α = 1%, with \( t_\alpha = 2.347 \) is marked by ***

Source: Collected and Processed by Author

<table>
<thead>
<tr>
<th>AAR</th>
<th>N</th>
<th>Mean</th>
<th>t Stat</th>
<th>t Critical</th>
</tr>
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Source: Collected and Processed by Author

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<thead>
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<th>CAAR</th>
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<th>Mean</th>
<th>t Stat</th>
<th>t Critical</th>
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</thead>
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<td>-</td>
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<td>Announcement</td>
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<td></td>
</tr>
<tr>
<td>After Announcement</td>
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Source: Collected and Processed by Author
Table 6 – AAR and CAAR Around Announcement Date

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<td>Average t-stat</td>
<td>Sig</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>-19</td>
<td>0.0021774</td>
<td>5.6951299 ***</td>
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<td>-15</td>
<td>0.0013662</td>
<td>3.5732550 ***</td>
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<td>-14</td>
<td>0.0038871</td>
<td>10.1669528 ***</td>
</tr>
<tr>
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<td>0.0023591</td>
<td>6.1704358 ***</td>
</tr>
<tr>
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<td>0.0015829</td>
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<td>0.0075693</td>
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</tr>
</tbody>
</table>

Note: The significant for α = 10%, with tα = 1.286 is marked by * The significant for α = 5%, with tα = 1.653 is marked by ** The significant for α = 1%, with tα = 2.347 is marked by ***

Source: Collected and Processed by Author

Graph 1 – CAAR Before and After Announcement

Source: Collected and Processed by Author
FAST BRAINSTORM TECHNIQUES WITH MODERN BOARD GAME ADAPTATIONS FOR DAILY USES IN BUSINESS AND PROJECT MANAGING
Micael Sousa ¹

Abstract

Purpose: Provide a framework for the use of modern board games as tools for fast brainstorming activities that can be easy to do and useful for small business and project managers, considering the serious games approach.

Methodology: Identification of the main brainstorm requirements, challenges, and opportunities to identify new opportunities for improvement. Departing from a game-based approach, according to the serious games' methods with adapted board games, to establish and promote engaging alternative brainstorming dynamics. Testing the previous approaches with business owners and expert employees of small businesses and projects during a business lesson.

Findings: Modern board games can be used to foster brainstorming meetings with participants that never met before, focusing on concrete business and project objectives. The experiment related to the case study provided some preliminary data, revealing the potential to generate ideas and relevant comments in a fun way, according to the results of the inquiries and the observations of the facilitator.

Originality/value: Use of modern board game designs and serious games to provide fast and flexible tools for brainstorming techniques accessible to all, using existing resources.

Practical implications: The paper presents tools for small business and project managers, but also to anyone that needs to do fast brainstorms while keeping high levels of motivation and engagement. It describes an example of how to adapt and use accessible and existing games to create new game-based serious dynamics for business and project activities.

Research limitations: The proposed game solutions may not fit all users’ profiles, which may oblige to a broader game knowledge and availability, just like the ability of the facilitators to choose and adapt games during the dynamics. Understanding agents’ motivations and knowing what to adapt in each game is important to achieve engagement and efficiency, although it is difficult to do in practice. Producing new playable dynamics, with more users, different games, and developing data collection techniques could produce stronger evidence to which games, mechanics, and experiences work the best in real situations of brainstorming.

Keywords: Board games; Serious games; Brainstorm; Sustainability.

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1. Introduction

Small businesses and projects need to find their proper processes to innovate (Gudmundson et al., 2003), fostering the potential of their collaborators. These companies may have trouble developing new ideas due to their lack of resources and small structures. To overcome these limitations, a small business must improve the collaboration between its human resources even harder (Sahut & Peris-Ortiz, 2014). Sometimes the traditional brainstorming techniques may not be adequate due to the lack of time and number of collaborators to engage in those dynamics (De Jong, J. P., & Vermeule, 2006). Following the serious games approach can be a way to foster group interaction for ideation process aiming for innovation, benefiting from the intrinsic motivation of this game-based approach (Kloster, 2013; Pink, 2011; McGonigal, 2011; Michael & Cheng, 2006), even in small groups without introducing new participants. But creating new games is expensive and a long process (Castronova & Knowles, 2015), therefore it can be inviable for small businesses, projects, or even for training sessions in small schools and training centers. Using and adapting existing games promises to be a more sustainable and practical solution.

Departing from the brainstorm theory and practice should be possible to explore existing games, as a way to avoid the allocation of costly resources to an ideation process. Businesses and projects need to be innovative if they what to compete in the market, so they must find alternatives, and games seem a promising path. We are living in an age of new board games, called modern board games (Sousa & Bernardo, 2019). These games, due to their characteristics, are accessible and should be able to be applied and adapted to fulfill the serious objectives of stimulating creativity and a structured debate oriented to idea development.

This paper relates to the experience that occurred during a “business lesson” organized by the D. Dinis Business School in Leiria. In this session with a sequence of adapted modern board games was tested with participants that did not know each other previously. Participants worked for small businesses and projects and were all directly involved in the leadership of those processes. The session occurred for 1.5 hours, from 17h30 to 19h00, during a working day.

The testing session proved to be viable, without any special preparations, for participants to participate and engage in a fast brainstorming session that was useful for their businesses and working activities. The low game habits and experience of the participants in these methods did not condition the success of the experiment. Participants felt that the session was engaging, and these game approaches could be useful to us in daily activities. These perceptions and the game results open a new path for the use of simple game adaptations to deliver serious objectives to small businesses and projects, even when there are low resources available to conduct other types of brainstorming and idea generation processes. It proved that participants from different backgrounds could help each other’s to address their own private business needs.

2. Literature review

This literature review consists of two parts: the literature review for brainstorming and analog games, mostly board games, as serious games.

2.1. An introduction to Brainstorming
2.1.1. Defining brainstorming
Brainstorming is relevant as a set of techniques (Haddou et al., 2014) commonly implemented to produce creative solutions to many different problems (Isaksen, 1998). Through these techniques is expected that the participants in a brainstorming group dynamic should fully and equally be involved in the discussion, following predetermined rules (Clayphan et al., 2013).
The origin of brainstorming can be tracked to Osborn (1957) leading work, which defined brainstorming as a practical technique to promote group conferences where the participants try to find solutions for specific problems by producing spontaneous ideas. The importance of individual participation in the group dynamic, and the intention to enforce the spontaneous idea generation, was enriched by the introduction of the divergent phase (Kunifuji et al., 2007), based in the ideas of divergent thinking by Torrace (1966) and divergent production by Guilford (1967). Departing from this influences Kunifugi et al. (2007) define the rules for brainstorming as:

- Produce a large number of ideas regardless of their quality.
- Avoid the judgment of ideas in terms of good and bad.
- Unusual ideas should be welcomed.
- Adapting and modifying previously suggested ideas is encouraged.

Brainstorming, according to previous rules, only function if the participants work as a group and as partners and co-authors of the idea generation process, without losing the focus in the problem solving that generated the need for the brainstorming in the first place (Kunifuji et al., 2007). From the previously stated rules, Kunifugi (2004) propose a four-step model that can help establish a brainstorming method focusing on decision-making for practical solution definition:

- Divergent thinking.
- Convergent thinking.
- Idea crystallisation.
- Idea verification.

Although the brainstorming processes consider positive the production of as many ideas as possible because it offers the best probability to generate the pursuit idea (Diehl & Stroebe, 1991). This also, inevitably, generates a high ratio of bad or inappropriate ideas for the purpose at stake, aggravated when there are no mechanisms to select the best ideas (Goldenberg, Lehmman & Mazursky, 2001; March, 2006; Rietzschel et al., 2006). These difficulties, identified by Lichfield (2008), demand new solutions to solve the productivity losses in real practices because brainstorming is commonly used worldwide in many fields of development and problem-solving.

2.1.2. Considering productivity losses in brainstorming

It can be assumed that there is a common understanding that brainstorming in groups can produce more ideas than working alone (Brown & Paulus, 1996; Paulus et al., 1993). But empirical data reveals that the productivity of brainstorming done in groups can be half of the productivity done by individuals’ working alone (Mullen, Johnson & Salas, 1991). According to Diehl & Abakoumkin (1992), some individuals working in groups may suffer from “free-riding” when others perform better. The evaluation apprehension effect may also negatively affect participants that outperform (Camacho & Paulus, 1995; Mullen et al., 1991), felling they cannot add anything and became deliberately unproductive. Problems in organizing communication may also be related to the production deficit, mostly because of the simultaneous communication interferences between participants or when the flow breaks due to continuous interruptions from cross talks (Brown & Paulus, 1996). When people are interrupted, they may forget ideas or break flows that would lead to idea generation (Diehl & Stroebe, 1991; Nijstad et al., 2002). The traditional turn-based participation can also restrain productivity as people may forget their ideas between turns (Ritter & Mostert, 2018). The productivity block, as stated by Stroebe & Diehl (1994), happens when personal ideas are very different from the other participants, which may inhibit disruptive participants’ ideas development. The natural reaction to be close and fit to other participants’ rate of ideas and contributions can generate two unwanted effects. It can lead to producing irrelevant ideas from low-rate contributors that want to match the group
average or to make high-rate contributors reduce their productivity also to fit the group dynamic (Brown & Paulus, 1996). The tendency to productivity losses over time, due to the cognitive fixation (Smith, 1995) may occur in some groups. It can happen when the brainstorming tends for fast convergences of ideas. The absence of disruptive participants or the lack of dynamics that foster the creative boosts may affect the motivation of the group members, reducing the productivity and demoralized the confidence in the brainstorming technique itself for these participants. Besides the efforts to reduce the productivity losses, it is natural that as the number of ideas decreases as the brainstormers interactively converge. And it should be stated that deep ideas could take more time to explore in order to reach a desirable solution (Brown et al., 1998).

Authors like de Buisonje et al. (2017) focus on the specific problem that can result from the selection of creative ideas, why and how they are selected through idea generation process, after de processes of divergent and convergent thinking. Considering this is important mostly because this dimension was not approached earlier. Heltberg & Dahl (2019) approached the influence of divergent and convergent dynamics in the military, concluding that the use of precise discourses, concepts, and information supports can limit the emergence of divergent thinking in established groups. Therefore, it restrains creativity, which is something that may occur in small groups of people like small business collaborators. But these restrictions and freedom degrees can change the paradigm of brainstorming itself and should be tested in practice to get better results. Despite this, a balance is imperative because communication could become chaotic and interrupt the flow of the processes (Brown & Paulus, 1996). Consequently, the facilitator role is important to manage this balance. Following and breaking paradigms can be beneficial to unleash creativity (Toruga, 2018), which can be conflicting with the notion of positive effects of restrictions (Heltberg & Dahl, 2019).

2.1.3. Going beyond the productivity losses in brainstorming

The exposure to the ideas of others tends to have a positive influence on brainstorming productivity. This interaction may unfold ideas that isolated participants could never think and could not interactively develop (Brown et al., 1998). Although the disruptive members are essential to innovation and idea generation, the groups tend to ignore deviant members and focus on the dominant ideas of the conforming members (Kruglanski & Webster, 1991). Brown et al. (1998) argue that the influence brainstormers have on each other depends on the degree of attention they are spending to understand the proposed ideas. The illusion of productivity can be for itself a relevant product of brainstorming (Mullen et al., 1991; Paulus & Brown, 2003). It can be useful to build motivation and augmenting resilience for a team to face future challenges, which is something collaborative planners have learned in practice (Innes & Booher, 2018). Gilson & Shalley (2004) argue that sharing goals during teamwork is associated with creative engagement. These motivations can also relate to the feedback received during the idea generation processes (Litchfield, 2008), although the brainstorming rules try to avoid judging in the early stages of idea generation. Tierney and Farmer (2004) highlight that managing expectations for participants about the process of brainstorming can help to achieve success. Going beyond the discussion of what is more productive, working in groups, or individually, they argue that it depends on the context and the techniques used in the group dynamic. Regardless of the brainstorming format, the bias or heuristics that contribute to avoid exploring better ideas should be removed (Kerr & Tindale, 2004).

Defining the quality of idea generation is difficult (Rietzschel et al., 2006). Brainstorming rules could be questioned (Tierney & Farmer, 2004), transforming them not in mandatory rulesets but guidelines with some degree of flexibilization. These rulesets can be a
basepoint to address the management theorists’ approach to foster organizational creativity (Ford, 1996; Glynn, 1966).

From the perspective of cognitive stimulation, the association to unique and new ideas may enhance both the storage and retrieval of ideas though the interaction among participants (Coskun & Yimaz, 2009). Providing some memory instructions to the process of brainstorming is enhance attention and improve short memory storage, resulting in better performance for brainstorming in general, but much better for writing brainstorming (Coskun & Yimaz, 2009).

Achieving goals operate through the cognitive process, helping to sustain attention to the effort put in the idea development based on knowledge (Locke et al., 2000), which opens a path to the use of accessory tools to the brainstorming processes. But the rule that obliges participants not to comment on the ideas can inviable the comprehensibility of the ideas to other participants (Coskun et al., 2000). Lichfield (2008) has no doubt that goals increase performance because the sustain attention and the efforts spent. Although these goals, to be effective, must be both challenging and accompanied by the commitment and feedback in the idea development and implementation (Locke et al., 1990). Following Csikszentmihalyi & Csikszentmihalyi’s (1992) flow theory, the goals must be established also according to the skills of the participants and making them gradual to achieve even better results in engaging ways to the group elements. Klein et al. (1999) highlight that difficult goals can undermine the commitment to produce ideas. Providing a specific quantity goal to a brainstorming process can increase the quality of the ideas both in a group or in an individual idea creation processes (Paulus & Dzindolet, 1993), and that multiple goals do not necessarily hurt their performance (Lichfield, 2008).

Brown & Paulus (1996) consider that oral outputs lead to better performance than written output because participants can speak faster than writing ideas. The authors recommend also to take breaks in the brainstorming activities to achieve more productivity and switching from written to oral after the breaks. The writing production usually does not provide enough mental time to wander off or criticize the ideas (Coskun & Yilmaz, 2009). To increase productivity, the biased effect resulting from the interaction and the inability to each participant store information from other participants affects the production of the group (Brown & Paulus, 1996), which results in a need to test new approaches, new tools, and solutions. Using some method to record the ideas can be a technique to avoid forgetting ideas during turn-based methods but also providing freedom in these rules when some new idea or developing of an existing idea is emerging (Ritter & Mostert, 2018).

As the collaborative planning research field showed, mostly considering highly complex problems, that putting people together and expect them to can work collaboratively in groups to produce collective solutions is not enough (Innes & Booher, 2018). Like in brainstorming processes, some rules need to be followed (Kunifiuji et al., 2007). The collaborative group dynamic demands a facilitator to conduct the meetings (Forester, 1999) and to foster the participants to achieve goals with success (Hayne, 1999; Schwarz, 1994). This recommendation was suggested in a similar way by Haddou et al. (2014), incorporating the facilitator role in brainstorming sessions. The facilitator should help to manage the human dynamic in a brainstorming group, trying to help participants achieve the objectives (den Hengst & Adkins, 2007), and in some way, trying to avoid the productivity losses (Haddou et al., 2007) stated before, such as “free-riding” (Oxley et al., 1996). The lack of stimulation affects the rate of idea generation (Coskun & Yimaz, 2009), and the facilitator can help in this matter.

The effect of positive mood and self-affirmation of the participants during participative sessions of idea generation, where brainstorming can be included, induces the selection of more creative ideas (de Buisonje et al., 2017). McPolin (2018) considers that restriction loves specific constraints, to be contained timeboxes, timely facilitation, competition, and profiting from recovery “the children that survived in the adult”.

Ritter & Mostert (2018) also recommend developing in group ideas what were firstly created individually, which is something that can be done in a process that has the
freedom for individual idea generation and them a collaborative work in the idea development.

2.2. Modern Board Games

2.2.1. Games for brainstorming processes
Considering games as testing arenas where players engage in conflicts to achieve goals, respecting predefined rules, where they can receive feedback (Salen & Zimmerman, 2004) helps to implement and can avoid some of the restriction and production problems previously identified in brainstorming. Games should be able to provide focus, motivation, feedback, and behave according to established rules. This game approach seems easy, but the biggest challenge is finding the right game to do this. Kunifuji et al. (2007) suggest the usage of “creative techniques” such as puzzles, group dynamics, and random word generation, even role-playing. But they seem to ignore proper games in the suggestions.

While researching game solutions to enhance the brainstorming, examples like the Gamestorm book (Gray et al., 2010) appear. This publication provides examples of how to use games to foster brainstorming processes. However, these games can be seen more like dynamics than games by themselves. These games would not be played for the fun of it in a ludic perspective. In the literature, we can find some other works related to digital games for brainstorming, related to public participation with children (Khaled, R., & Vasalou, 2014) or even to develop other games (Kultima et al., 2008). Indirectly, McPolin (2018) highlights the need to free our “inner child” during the creative process, and de Buisonje et al. (2017) recommends creating positive and enjoyable environments to create and choose ideas.

Despite some publications, there is a lack of research about other types of games and even less considering them in applications to the business innovation field of research and brainstorming dynamics (Sousa & Bernardo, 2019). Although we should acknowledge the work of Hugos (2012) focused on the use of game mechanics to innovate in business practices and the business model development through games from Gudiksen (2015).

Following the serious games approach, where the fun of the games must be guaranteed respecting the serious objectives (Dorner, 2018; Michael & Cheng, 2006; Winn, 2009), this paper proposes a game-based framework departing from modern board games, tweaked and combined to foster brainstorming sessions. The objective is to provide simple game solutions, that can be flexible, cheap, and easily adapted for use in small businesses.

This approach will try to follow the previous literature review recommendations. The game approach aims to develop a flexible dynamic, able to include timid participants, divergent thinkers, expressing their ideas. The games also intend to combine the different knowledge bases of all the participants, through oral, writing, and drawing expression. By introducing the principles of motivation through games, with their ruled bounded systems, to make participants more attentive to each other ideas. The effectiveness of a brainstorming team, with participants from different backgrounds and that never met before, should be possible.

2.2.2. Why modern board games?
Modern Board games can be considered the same as hobby board games (Sousa & Bernardo, 2019). They came from the influence of simulation games used by the military before the use of computer technologies. During the last 50 years, many hobby games flourished. Wargames, role-playing games, and more recently, Eurogames emerged (Donovan, 2017). Eurogames, through their elegant mechanics, controlled complexity, and playing time, provided deterministic models that could simulate many different contexts in fun ways to adults (Woods, 2012).
These analog games proved to provide different experiences from other gaming approaches, like the ones digital platforms provide. Analog games are more collaborative because players need to work together just to make the game function even in competitive games (Zagal, Rick & Hsi, 2006). The materiality of the game, as their chores associated with the functionality of the game system, provide fun and engaging experiences to players (Xu et al., 2011). The components and the human socialization that emerge through these games fascinate players, providing unique face-to-face experiences (Rogerson, Gibbs & Smith, 2016). On the other hand, these games are more transparent in their systems and mechanics (Zagal, Rick & Hsi, 2006) providing tools to invite even unskilled players to game dynamics. Due to their analog dimension, made with pieces of plastic, woods, and cardboard, they can be easily adapted if the mechanics and systems are understood (Gastronova & Knowles, 2015). They can be adapted, reusing existing games and materials, although these games need to have some facilitator that helps the game to unfold (Sato & de Haan, 2016), which is something also important to guarantee in a brainstorming process, to help participant solve problems and develop their ideas (McPolin, 2018).

3. Data and Method

3.1. Implementing the experience
The session occurred during a “business lesson” offered by D. Dinis Business School of Leiria. The participants could join these lessons for free. The name of the lesson was “Using board games in business innovation activities”. There were 7 participants (n=7) from many different backgrounds, but they all have high education and worked in small businesses as managers or expert technicians. Male participants were in the majority (n=4). The session had a duration of 1 and a half hours and happened on the 5th of June of 2019, from 17h30 to 19h00.

3.1. From Games to Experiences
A selection of several modern board games was made to establish a brainstorming alternative session, following the Design, Play, Experience from Winn (2009). The design of the selected games, with some adaptations, should be played in a sequence to provide experiences to the players, to achieve the pretended referred goals. In this case, the goals were to address something each participant though could bring innovation to their business, project, or company.

The chosen games were **Dixit Odyssey** (Roubira, 2011), **Telestrations** (AVL, 2009), and **Ikonikus** (Palau, 2013). These are simple games rated below 1.2 in the complexity classification from Board Game Geek (BGG) (www.boardgamegeek.com), which varies from 1 to 5. Although these games can be considered party games (Sousa & Bernardo, 2019), they use mechanics that relate to Eurogames (Woods, 2009), making the game performance depending from the players' skills, using storytelling and drawing, and card choosing as the main game mechanics (Engelstein & Shalev, 2019). The description of the games is presented in Table 1.
Table 1 – Selected games and their characteristics

<table>
<thead>
<tr>
<th>Game</th>
<th>Description</th>
<th>Duration</th>
<th>Number of players</th>
<th>Complexity</th>
<th>Mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dixit Odyssey</td>
<td>A narrator chooses a card that represents a statement and other players try to guess the right card after all players add their own cards in secret to the pile of cards.</td>
<td>30</td>
<td>3 to 12</td>
<td>1.20</td>
<td>Storytelling and card choosing</td>
</tr>
<tr>
<td>Telestrations</td>
<td>Players use their notebooks to write a word and in sequence, players add words and draw to each new page, after passing the notebooks to other players and seeing only the last page.</td>
<td>30</td>
<td>4 to 8</td>
<td>1.09</td>
<td>Drawing and writing</td>
</tr>
<tr>
<td>Ikonikus</td>
<td>Players use cards with icons to express comments about the feelings the active player should express in a given situation.</td>
<td>15</td>
<td>2 to 8</td>
<td>1.20</td>
<td>Storytelling and card choosing</td>
</tr>
</tbody>
</table>

Source: Board Game Geek (BGG) (www.boardgamegeek.com).

Although the three games are simple and fast, the main reasons to modify the games were to establish the brainstorming process through the games and implement a serious game dynamic. These modifications are expressed in Table 2.
Table 2 – Selected games and their characteristics

<table>
<thead>
<tr>
<th>Game</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dixit Odyssey</td>
<td>The facilitator spread the <em>Dixit</em> cards in a table, ten per player. Then the facilitator, without giving more explanations not to influence players, asks the player to pick a card of their choice. After all the players picked a card each player should do a brief presentation based on the card they picked, using the surrealistic drawing as a support for the storytelling. Scoring was ignored.</td>
</tr>
<tr>
<td>Telestrations</td>
<td>Each player gets a notebook and writes something they think is innovative. Then the game plays, as usual, passing the notebooks in a sequence to other players, alternating draw and words, just by seeing the last page. In the end, each player must do a pitch presenting the sequence they obtained. The scoring was done as an example of providing each player with the opportunity to vote for the best draw and best guessing words in their notebook done by other players.</td>
</tr>
<tr>
<td>Ikonikus</td>
<td>The active player (the narrator) shares and idea to get comments. Each other plays a card from their hand (always with 5 cards) related to the comment they what to give. In turn order, each player shares their comment. After listening to all the contributions, the active player chooses one of the played cards to signal the best comment. Free comments should be allowed after choosing. In the end, the player with the most picked cards wins the game.</td>
</tr>
</tbody>
</table>

Source: own source

After the “ice-breaking” the disruptive and convergence phases, a small debriefing conducted by the facilitator happen, where players could comment on the dynamic. These steps generate small breaks integrated with the game dynamic with the three games. This process (see Figure 1) was continuously managed by the facilitator.

**Figure 1 – Game session flow and objectives**

- **“Ice-breaking” (Dixit)**
  - Establish communication among players;
  - Create a common background for the next steps;
  - Share personal information in a controlled way;
  - Stimulate creativity to talk about themselves and enter the flow;

- **Disruptive idea generation (Telestrations)**
  - Free expression of ideas and interpretations without direct interference;
  - Explore the expression through words and draws;
  - Create a collaborative product in each notebook;
  - Train the pitching during the notebook presentation;

- **Convergence and feedback (Ikonikus)**
  - Focus in the idea or subject each participant want to explore;
  - The step phase: sharing ideas, receiving comments, open debate;
  - Improves the attention because players want to give the best comment and can use previous statements to build their comments;
  - Collaborative and competitive dynamic;

Source: Own source.

The proposed game session tried to foster the imagination of the participants through gameplay. The surrealistic images of the *Dixit* cards, through the storytelling mechanic,
should help to share personal information. From the interpretation of the draws and written ideas in *Telestrations*, ideas should emerge, being fully explored next through the icon cards that help to frame comments in *Ikonikus*.

Due to time and rules constrains, controlled by the facilitator, players need to keep it simple. The interactivity of the gameplay should maintain the attention of the participants for the serious objectives at stake while keeping their motivation high through the feeling of accomplishment that may relate to the illusion of productivity. Game components and mechanics also help to provide memory instructions to participants.

The proposed game sequence also tries to reduce the productivity losses, as stated before, providing rules and objectives to idea generation. The “icebreaker” with the *Dixit* cards intends to relax players, sharing something personal but controlled by themselves. The breaks between games should help to generate rhythm to the process, also reinforcing the shifting between oral, writing, and drawing idea creation. Playing in turn order should provide a balance for matching in both ways, and the small free debriefing, conducted by the facilitator after each game, may provide the necessary space for participants that need to continue to produce and develop the issues addressed during gameplay.

In *Telestrations*, because players only can see the previous words or draw it helps to avoid productivity block and allow to integrate the most divergent participants in the flow of the notebook passing. The rules of play provide a clear framework to guide players and account for their involvement and performance. In *Ikonikus* the rules of turn order by which the oral idea-sharing and comment occur respect the basis of brainstorming rules that forbid interruptions during statements while providing a bidirectional flow between the players’ ideas and comments. This generates controlled feedback, respecting the individuality of the players' opinions. But provide some flexibility due to the interventions of the facilitator.

The indirect collaboration in *Telestrations* and *Ikonikus*, although providing also scoring for those players that value competition, provides co-creation in idea generation and problem-solving. This complementariness of the three games should address most of the players’ profiles (Fullerton, 2014), at least in a fast way.

3.1. Data gathering

Data gathering was conducted though a pre-test and a post-test, following Mayer et al. (2014) framework that recommends measuring the players’ game experiences before the games, the expectations, the flow of gameplay, and the perceived final game results. For data gathering, the observations of the session facilitator were also considered. The pre-test and the post-test included questions to be answered through a Likert scale from 1 to 5 and some “yes” or “no” questions. The pre-test measured the participants' gaming habits, their knowledge about modern board games, and their perception of serious uses of games. The post-test measured the enjoyment of the games, the surprise effect, the complexity felt during gameplay, and the ability to achieve objectives through the played games, just as the participants’ perception about the potential uses of analog games in other activities and their advantages when compared to digital games. These inquires can be seen in more detail in Sousa (2020).

The facilitator also recorded in the session dynamics in a report, highlighting players behaviour, the interactions, the need for intervein during the game, and the game results.

4. Results

4.1. Information from the inquiries

The inquiries showed that the game habits of the participants were low. Only 2 participants played every day, 2 played monthly and 3 less than one time each month. Only one of the participants knew some modern board games. The majority (4 participants) never participated in a session of training or learning using games.
Departing from a Likert scale (from 1 to 5) the perception of participants before and after the sessions were recorded in the pre-tests and post-tests. The average ($\mu$) perception about the utility to use games for serious objectives improved from $\mu=3.71$, with a standard deviation (SD) of 0.88, to $\mu=4.14$ with SD=0.64. Participants found the games to be of medium complexity ($\mu=2.29$ with SD=0.74), that the games fulfill the objectives to discuss and generate innovative ideas to their businesses and activities ($\mu=4.57$ with SD=0.49). They admitted to being surprised with the dynamic and results ($\mu=4.29$ with SD=0.45), that these analog games could be applied to other activities or purposes ($\mu=4.29$ with SD=0.45) and that analog games can perform better than digital games in this cases of application ($\mu=4.29$ with SD=0.45).

4.2. Qualitative information

As stated before, a game needs to provide feedback to players and to account for the goal achievement. Through the analysis of the gameplay in each game done by the facilitator, some relevant information can be added. Even the timidest players managed to present themselves efficiently through the storytelling enhanced by the Dixit cards, based on their choices. During the Telestrations game, most of the players stick to the object description because most of the innovations were objects, like new tools for their business activities. Through Ikonikus gameplay the more creative ideas started to emerge. Each player shared one idea orally, in a much more complex way than the ones expressed through writing and drawing in Telestrations. Ideas like changing the mindset of their business were stated, implementing collaborative processes and continuous learning among collaborators was shared. Younger participants shared doubts and elderly players commented on their past experiences, which was well accepted by participants due to the rules of playing by turns and in the established sequence (see Table 2). The mood of the participants rose as the game dynamics occurred. Some smiles emerged during the presentation with Dixit cards, and lots of laughs burst during the presentation of the notebooks from Telestrations. The mood became serious during Ikonikus because players were engaged and trying their best to pay attention to the statements to add relevant comments though the use of their cards.

5. Discussion

It should be stated that this experience had a small group of participants, it is the first step for further developments. Nonetheless, by choosing to use modern board games, usually played with no more than 6 to 8 players (Woods, 2009), this number seems adequate to a first test. These number of participants is coherent with the context of small business and the brainstorming practical group sessions. Although the proposed process is different from the traditional brainstorming implementations, the essence of the rules where respected, and the sequence of disruptive and convergence occurred through the three games (Kunifuji et al., 2007). The objectives were considered pertinent because each participant defined their own, although benefiting from the collective game dynamic as a whole. It should not be forgotten that the game habits among participants were not high and there was a lack of experience with game-based training sessions. The perception of complexity and novelty may have been affected by those preconditions. In the post-test inquiries, no negative writing reviews as comments were recorded. There were two very positive feedbacks wrote by the participants, saying they had enjoyed the session a lot and that it was important for them as an alternative way to discuss some important issues. Although all the participants had different backgrounds, the proposed game approach may not be able to engage with all future participants' profiles. This should be tested with more brainstorming gaming groups.
6. Conclusions

The participants felt the objectives were accomplished, implementing a fast brainstorming process with participants that never met before while being able to create empathy through the games and focusing on their objectives. The results from the game-based brainstorming manifested mainly in the last game, where each participant received precious feedback to address their ideas or doubts. The game sequences incorporated the literature review to overcome the production losses during brainstorming activities. Through playing the selected games, participants were always involved in the dynamics, as an active player or listening and being attentive to other players' performance to improve their own performance as players. This guarantees the need for focus and to be attentive to the process (Krulanski & Webster, 1991; Locke et al., 2000) while introducing breaks between games (Brown & Paulus, 1996).

The flow of the activity was guaranteed by the rules of play of each game, providing a time and space for the participation of everyone (Clayphan et al., 2013). This dynamics regulated the communication and provided multiple forms of communication to work with (Brown & Paulus, 1996; Diehl & Stroebe, 1991; Nijstad et al., 2002) and avoided the "free-riding effect" (Diehl & Abakoumkin, 1992; Oxley et al., 1996) because the games could only unfold if everyone participated actively. The role of the facilitator during the games provided the flexibility to profit from emerging ideas (Hellberg & Dahl, 2019) that could happen during gameplay even when violating some of the formal rules, in some cases, turn-order itself (Ritter & Mostert, 2018). The facilitator's intervention allowed to adapt, in real-time, the rules of play to the players' skills (Locke et al., 1990). Despite this flexibility, the facilitator conducted the games according to the session objectives (Haddou et al., 2014; Hayne, 1999; den Hengst & Adkins, 2007; Schwarz, 1994).

The session started with a personal presentation of each participant with Dixit cards, followed by the collective interpretation of a personal idea (Telestrations) and ended in a collective interactive oral idea development that can be considered a brainstorming (Ikonikus). This followed Ritter & Mostert (2018) recommendations to depart from personal to collective idea generation dynamics.

The productivity blocks (Stroebe & Diehl, 1994) were avoided by the games, because they provided cards (Dixit, Ikonikus) and spaces for free interpretations with information restrictions, as suggested by McPolin (2018) (Telestrations and Ikonikus), to help new ideas to emerge. The introduction of the elements for personal interpretation induced some uncertainty that helped innovation (Hellberg & Dahl (2019) while generating disruptive and convergent dynamics (Kunifui et al., 2007; Stroebe & Diehl, 1994), and made possible memories and other cognitive activations (Coskun & Yimaz, 2009). The game elements and components also helped to avoid some initial idea fixation (Smith, 1995), going beyond some heuristics due to the need to interpret and respond to constant novelty provided by the games (Kerr & Tindale, 2004). Game components gave a way to record information during players' turns when new ideas could emergent even when there was not their turn to play (de Buisonje et al., 2017).

The evaluation apprehension (Camacho & Paulus, 1995; Mullen et al. 1991) was avoided because the evaluation only happened in the third game (Ikonikus). This promoted positive feedback (Litchfield, 2008) to comment on the original idea shared to get feedback in Ikonikus. The possibility to comment on the idea helped participants understanding the statement of the active player (Coskun et al., 2000). Players should be polite and emphatic while providing valuable content because they wanted their comments to be the selected ones to score. At this time players had established empathic connections through the previous games. The process of debating, providing feedback by the players in Ikonikus established a way to collaboratively choose the best inputs according to the active player needs, overcoming some of the difficulties of choosing the most suitable idea (Goldenberg, Lehmann & Mazursky, 2001; March, 2006; Rietzschel et al., 2006).
The mood in the session became increasingly light and positive as the games unfold. As de Buisonje et al. (2017) discovered, these positive environments provide more creative ideas. It was in the last game that the outputs were more creative and valuable to participants, as stated in the final debriefing with the facilitator. It was in the last game that the motivational effects of teamwork emerged in a clearer way (Gilson & Shalley, 2004). The game design elements and their dynamics promoted fast idea generation, fostering the sensation of increasing productivity, which may improve motivation (Mullen et al., 1991; Paulus & Brown, 2003). The motivation rose as the players started to see their personal goals being addressed (Klein et al., 1999) in the last game (Ikonikus). In this game of Ikonikus through oral interactions, players felt more comfortable expressing their ideas.

The selected games proved to be easily played by the participants, although their perception of complexity was higher than the one from BGG databases. This should never be ignored by facilitators when constructing the game sessions, adapting, and exploring the game mechanics to the serious objectives, because high complexity can generate anxiety and frustration in the players (Sousa, 2020). Storytelling and card choosing game mechanics seem to be powerful when implemented in the adequate game ruleset.

This case study exemplifies how to use pre-existing games as a tool to generate ideas creation and debate, maintaining motivation, which is something small businesses can benefit from. Even in a business where there are not enough participants to establish these dynamics, it was proved that participants from different backgrounds could enter sessions with other participants from different businesses, benefiting from the interactions while focusing on their private agendas.

Profiting from using existing games can be a sustainable option, especially modern board games because they have high replicable value during continuous plays. Their components can easily be replaced or added to be adaptive to any situation. Modern board games through these approaches became inspiring tools to use in broad fields of activity, in businesses and projects, and anywhere people can get together to generate innovative ideas.

7. Limitations

One of the most evident limitations of this test was the reduced number of participants. More testing with a higher number of participants should be done. The participants reacted well to the games, but it is uncertain that all profiles of possible participants, especially the ones that avoid game-based activities could profit from these approaches. The participants all attended freely and, in a company, business, or project all should participate, not only the ones that think this is interesting. Splitting activities in a company between those who like games and those who do not ca be a problem in small companies and projects with their limited resources. The ones that dislike games, or dislike these kinds of games, could jeopardize the effectivity and the serious goals.

The physical dimension of these games can bring some limitations to their use, although the test was done with small and cheap games. This forces to transport and move the games from activity to activity but can be overcome with appropriate planning. Although these games can be inexpensive tools, if correctly modified and used with the needed facilitation, they require expert knowledge. Participants that what to replicate these game-based brainstorming approaches need to invest time in the games, in the learning process of playing, explaining the games, and conduct sessions oriented to the serious objectives.

8. Future investigations

Future research should focus on more testing, in real applications to businesses and projects. Testing also with association and networking regular activities attended by
small business owners and expert employers should be a profitable way to test the approach. Developing the guidelines for facilitating this process and conduct the debriefing should be useful. The techniques of data gathering, going beyond the inquiries should be developed also. Filming the gameplay could be a way to help the facilitator to do the debriefing process. Testing more games for specific objectives should provide game-based frameworks related to direct applications, other than brainstorming. Even the brainstorming approaches can be approached by many different games, considering the number of participants the available time and opportunity to work in a repetitive way. This would reduce the costs of learning from scratch these game approaches for someone with no experience at all in this subject.

References


EVALUATION OF RISK MANAGEMENT IMPLEMENTATION ON PT ABC ACTIVITY
Firdaus Nikmatullah Akbar 1; Robert Porhas Tobing 2

Abstract
Purpose: The purpose of this study is to evaluate risk management implementation on the PT ABC activity.

Methodology: The research was done by using assessment of the level of maturity of risk management implementation, evaluation of the risk management policy, and evaluation of the implementation of risk management.

Findings: Based on the analysis of the evaluation of risk management activities, the authors testing the maturity level of the risk management process which concludes that PT ABC's maturity level is in the “Aware” position which shows that the approach in implementing risk management has not been done comprehensively/enterprise risk management. Management has not identified and analysis the overall risks that can be experienced by PT ABC. Management only identifies and analysis risks from the company's business activities. Management has not formally determined the company's risk appetite although policy of risk management regarding risk appetite have been established.

Originality/value: the expectation that the evaluation results of the risk management implementation can improve the risk management activities.

Practical implications: Could be alternative inputs for companies to improve the implementation of risk management process in regards with approach of enterprise risk management (ERM).

Research limitations: The scope of the evaluation of the risk management activity in this study has not reviewed the implementation of risk management to the level of operational activities / business lines in detail.

Keywords: Risk; Risk management; Audit internal.

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MODERATING EFFECT OF RECRUITMENT MESSAGES ON INTENTION TO APPLY
Kristienus Phillip Hutasoit ¹; Putri Mega Desiana ²

Abstract
**Purpose:** Many studies shown that public service motivation has been a primary factor for anyone who joins the public sector organization, but is it the same factor for Indonesian millennials to join? While there is much study of public service motivation in the past and their effect on job pursuit in the public sector, there is very little empirical research on the moderating factor and millennials as its subject. This study aimed to examine the influence of public service motivation on the intention to apply candidates with recruitment messages as moderating variable and millennials as the research subject.

**Methodology:** Data gathered by using a self-administered questionnaire with item questions of public service motivation, recruitment messages, and intention to apply. Respondents asked to rate the question refer to their agreement/disagreement using a six-point Likert scale (1= "strongly disagree" and 6= "strongly agree"). Since the population is unknown, this study uses nonprobability sampling with a snowball and purposive sampling method to collect the sample data. By using a screening question, there is a process to filter the respondents at the beginning of the questionnaire. Descriptive statistics and factor analysis used for describing and validating the data taken.

**Originality:** This paper contributes to the public sector motivation study and the important effect on recruitment messages to give effect to potential employee candidate intentions. So far, there is very little research about public sector motivation and recruitment messages, especially in Indonesia. This paper also contributes to the study of the generation's differences in recruitment and workplace.

**Findings:** Recruitment message is giving a significant effect on the millennial intention to apply to public sector organizations. While public sector motivation is very known as a factor that made the candidate's intentions to apply, the same thing also applied to millennials. Recruitment messages, on the other hand, significantly increasing the effect of the candidate's intentions to apply to public sector organizations.

**Practical implications:** The result gives some insight for employers in public sector organizations and government that the right recruitment message could bring an impact in recruiting the best talent, and millennials that applied to public sector organizations also have a high level of public sector motivation.

**Research limitations:** The number of sample sizes, sample location, and the duration of data taken is limited, so the result might not apply to another region and times.

**Keywords:** Public service motivation; Intention to apply; Recruitment message; Millennial.

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1. Introduction

State Civil Servants or Civil Servants in Indonesia are currently undergoing a reasonably dynamic change in some matters highlighted by the public. One that is presently under attention is how the state civil apparatus's attitude in moving the capital to the new location, what steps will be taken by the employees if the institution where they work transferred from the current Jakarta city. Another thing that is no less important is how the President of the Republic of Indonesia selects young people to participate in the cabinet and plays a vital role in Indonesia's development. This shows that the government of the Republic of Indonesia considers the importance of the new generation in its contribution to the sustainability of government. In involving the millennial generation to participate in the development, it needs to be seen from the millennial side who wants to join the government and how the intention to apply to the public sector influenced by many factors that can determine their final decision.

Several previous studies indicate that lately, there has been a human resource crisis in public and government organizations, which raises important questions in public administration (Lee & Wilkins, 2011). One question that often arises is why those who are the best and the brightest are more interested in working in the private sector than the public or government sectors. (Asseburg & Homberg, 2018). Some evidence suggests that employees choose their work between the public and private sectors based on extrinsic or intrinsic rewards offered (Erlanger, Epp, Cahill, & Haines, 1996; Lee & Wilkins, 2011; Wright, 2001).

In many previous studies, public service motivation has a significant influence on an individual's decision to join the public and government sectors. (Perry & Wise, 1990). Public sector motivation itself can be interpreted as "the tendency of individuals to respond to calls and opportunities to help others and bring good to the social environment" (Perry & Wise, 1990). PSM theory is vital because it can comprehensively explain why individuals choose jobs in the public sector and how organizations can motivate their employees to give an excellent performance (Brewer, Selden, & Facer, 2000). Perry and Wise (1990) suggest three propositions where; individuals with significant PSM levels will tend to want to join public organizations, PSM has a positive relationship with results such as performance and organizational commitment, and individuals with high PSM are not too dependent on monetary rewards.

In seeing individual decisions to join the public and government sectors, organizations need to provide information about job openings that will later be filled by job seekers. Job information or recruitment messages can also affect a person's decision to choose a job and the organization to be submitted. Previous research shows that the content of information about employment has an impact on candidates to determine their employment choices (Wille & Derous, 2017). Moreover, when the rapid development of technology is now job information can be easily searched for and disseminated from the available channels. Recruitment messages are closely related to the intention to apply to job seekers.

Job seekers might apply to public organizations because they feel a match between the values of their individuals with these public organizations. Organizations will tend to hire those who are very compatible with the organization's value. The mechanism is a supplementary fit suitable for job applicants (Cable & Edwards, 2004). This study looks at the effect of PSM on an intention to apply to public sector organizations, specifically including moderation variables, namely recruitment messages. Although research on PSM and intention to apply has done quite a lot before, there has not been much explanation about the effect of recruitment messages delivered on job information. From the background described, it can be concluded that the phenomena to be explored in this study are; whether public service motivation is the reason for the millennial generation in Indonesia to apply to public sector organizations and whether information on recruitment can increase one's intention to apply to public sector organizations.

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2. Literature review

2.1 Public Service Motivation

In recent decades, research on public service motivation (PSM) has increased tremendously. Researchers and theorists always give and add new concepts, measurements, and understanding of PSM, but only a few reduce. As a result of the popularity of this topic, it is difficult to provide a clear PSM concept, and this not only happened to PSM but also to other issues that were quite well known. Theories in PSM that are most widely used by subsequent researchers are from the research of Perry and Wise (1990). Perry and Wise define PSM as individual tendencies in responding to motivations based on public institutions and organizations. In its implications for the individual's behavior, the higher the PSM in a person's individual, the more likely he will join a public organization. PSM can also be interpreted as a motivation for individuals to make meaningful public services (Brewer & Selden, 1998; Ritz, Brewer, Neumann, 2016).

The term "service motivation" is often used without any clear meaning, but several definitions are available. Pearce (1983) states that service motivation leads to 3 types of rewards, "the opportunity to reach deeper into the organization," "the opportunity to make a real contribution," and "identification with the mission of the organization." Also, research conducted by Ben-Dor (2008) indicates that service motivation consists of "attitude (e.g., satisfaction with service), intention (desire to devote more time and energy, desire to continue to serve) and behavior." In other words, service motivation can be defined based on attitudes, intentions, and specific behaviors that result from them. In general, PSM can describe as motivation that arises in individuals to carry out activities, and public services that are social, meaningful, selfless, not concerned with the rewards received, and carried out in individual communities, countries, or humanity (Rainey & Steinbauer, 1999; Francois, 2000; Houston, 2006; Scott & Pandey, 2005; Taylor, 2007; Ritz, 2009; Ritz, Brewer, Neumann, 2016).

Perry and Wise (1990) mention that individuals with large PSM will tend to join public organizations. They get this proposition by seeing that when individuals join organizations and organizations choose, based on organizational values that existed before. This shows that people are more interested in specific organizations; they tend to feel more compatible with the organization where they work (Schneider, Goldstein, & Smith, 1995). Based on this logic, the PSM level for employees who work in the public sector is higher than that of the private sector. Research conducted by Knoke and Wright-Isak (1982) also provides the same opinion why individuals join into specific organizations. Individuals will selectively choose and join organizations because they respond to particular expectations about the organization. If this is applied to PSM, it follows what was proposed by Perry and Wise (1990) that individuals with high levels of PSM will be attracted to organizations that offer opportunities to perform services on the job. In one study conducted by Vandenabeele (2008), it was found that although PSM increased interest in government work, individuals with higher PSM would be more interested in organizations with higher levels of public service. In other words, individuals with high PSM can see that work in specific public sector organizations is more attractive than in other public sectors and may be due to the importance of the organization's mission, practice, and even its reputation (Ritz, Brewer, Neumann, 2016).

Three motivations can be identified in PSM (Perry & Wise, 1990); rational, norm-based, and affective. Motivational rational based on maximizing individual abilities, norm-based comes from the desire for the common good and the public interest, and affective is a motivation that comes from human emotions. This research states that PSM is more likely to be associated with motive normative originating from the desire to serve the public interest and the common good.

2.2 Recruitment Message

With the changes in the demographics of the existing workforce, the recruitment process of employees is essential for public sector organizations. The quality of services...
highlighted by public organizations depends on the quality of the organization's human resources. Rynes (1991) mentions that recruitment involves all activities, practices, and decisions taken by organizations that affect the number or types of individuals interested and willing to propose or accept jobs for available positions. Recruitment activities can also be defined as all actions taken by the human resources department with the main task of recruiting prospective workers (Breaugh, 1992), such as posting job vacancies in several places and providing information about opening job positions in organizations. In the initial stages of the recruitment process, job seekers may have very little information about job openings that are open as well as recruiting organizations. Therefore, to increase information and interests and influence the intentions of applicants, the organization sends recruitment messages through various networks such as campus hiring or holding job fairs in the academic environment. Several studies have shown that recruitment activities affect attitudes, behavior, including intention to apply and job selection for job seekers. One study also mentioned that “specific recruitment practices can have a significant and positive effect on both job selection and negative. (Rynes, Heneman, & Schwab, 1980; Taylor & Bergman, 1987; Rynes, Bertz, & Gerhart, 1991; Barber; 1998; Boswell, Roehling, LePine, & Moynihan, 2003). Although prospective applicants only pay attention to information selectively and superficially, the information conveyed to potential applicants can reduce uncertainty about the organization and type of work (Cacioppo & Petty, 1984). Therefore, the message delivered in the recruitment process helps to shape the applicant's initial attitude, which will later be difficult to change (Breaugh, 2013).

This research focuses on recruitment messages delivered in job advertisements and job information. Although some recruitment methods are starting to be considered necessary, written job information is still considered a comprehensive and useful tool for attracting job applicants (Baum & Kabst, 2014; Born & Taris, 2010). Recruitment messages are a combination of information that reflects organizational attributes, values, culture, and job characteristics (Baum & Kabst, 2014). The primary purpose of including such information in recruitment messages is to attract job applicants' attention to job openings and make the organization more familiar. Generally, organizational specifications such as communication and ways of working are described in messages and are included with organizational culture and values.

Some research shows that advertising or job information is a recruitment activity that provides relatively simple information between job applicants and organizations (Baum & Kabst, 2014; Collins, 2007), presents the right and appropriate amount of information, and presents it in an easily understood form can increase the number of applicants. There is strong evidence that presenting designed job information and good word-formation has a significant effect on candidates applying for jobs (Fruhen, Weis, & Flin, 2016; Wille & Derous, 2017). Recruitment information that displays a positive message about the organization that is recruiting can also increase the intention to apply job applicants to a job (Roberson, Collins, & Oreg, 2005; Wille & Derous, 2017).

Some job information can indeed be different both in terms of content and the language used. Previous research shows that job and organizational attributes are the most important and relevant for potential applicants when considering job openings (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005). Essential attributes include the goals, targets, and values of the organization conveyed in the message. Wright and Pandey (2011) state that the level of organizational interest is their ability to recruit.

In theory, recruitment can be a persuasive process by organizations to try to influence prospective applicants. It is necessary to have the required strategies in terms of organizational communication so that this process can be better understood (Yukl & Falbe, 1990). Some communication strategies that need to be understood in delivering this recruitment message are rational persuasion and inspirational appeal. Rational persuasion occurs when someone uses logical arguments and factual evidence to prove that individual request or submission is possible and is most likely to be achieved. In their use of job information, organizations use rational persuasion to convince job seekers that the work they want is a tool for their success and career goals.
Meanwhile, inspirational appeal occurs when someone makes a proposal or request that increases enthusiasm by referring to individual values or increasing confidence that they can do it. In the context of the recruitment process, this strategy aims to provoke responses from job seekers who feel their normative beliefs and values are in the job information they are interested in (Yukl & Falbe, 1990). Some of these communication strategies have different impacts on the intention to apply for job applicants.

2.3 **Intention to Apply**

Studies show several factors that determine intentions in recruitment by job applicants and the selection process tends to focus on three types of intentions (Cable & Judge, 1994, Porter et al., 2004, Robertson et al., 2005) namely:

1. Intentions to apply to a job vacancy,
2. Intentions to pursue a job,
3. Intentions to accept a job.

Intention to apply becomes a reliable indicator that predicts individual behavior in the recruitment stage (Barber & Roehling, 1993), and it is crucial to understand the applicant's employment choices. Some psychologists also show that intention can predict actions to be carried out, as stated in the theory of actions (Albarracin, Johnson, Fishbein, & Muellerleile, 2001). In terms of recruitment, the intention to apply becomes a reliable indicator that can predict what job applicants will take action.

In the development of research, intention to apply is closely related to two other essential things that are often done in research: job choice and organizational attraction. Study job choice focuses on understanding the process, followed by job applicants who produce decisions to apply for work (Gatewood, Gowan, & Lautenschlager, 1993). The importance of the recruitment process in the study of job choice leads to research conducted focusing on individual job applicants (Pounder & Merril, 2001). It also shows the importance of the recruitment process in job choice motivates studies that aim to understand better what appeals to job applicants (Chapman et al., 2005). Understanding and explaining the decisions made by applicants in the stage attraction and understanding the factors that determine intention to apply can make a significant contribution to studies' job choice. Understanding the organization can also increase the intention to apply and provide options and essential steps for the organization (Gomes & Neves, 2011).

The other two intentions, namely, job pursuit and job acceptance, also provide an overview of the recruitment process's results. Job pursuit intention is defined as “the intention to pursue a job or effort to remain in the applicant pool.” In contrast, job acceptance intention is “the likelihood that an applicant will accept a job offer if there is a future offer” (Chapman et al., 2005). Although job pursuit intention and job acceptance intention are no less important, this study will focus more on the recruitment process level, which is the intention to apply.

The organization plays a vital role in the recruitment process to understand the behavior of prospective employees who are attracted to the work being opened. Thus, the recruitment process is the way the organization equates representation with opportunities offered in the organization. Recruitment is designed to meet the needs of human resources in the organization (Barber, 1998). The purpose of the recruitment process is to get potential prospective employees by needs. In conveying the recruitment message needed a communication strategy through vacancy advertisements, campus recruitment, and other strategies that can be done. The strategy made by the organization should be adjusted with work-related information such as job requirements, job specifications, to complete the entire recruitment process. This recruitment strategy then forms the intention to apply to prospective job applicants. Thus, the intention to apply is mentioned as an outcome of the recruitment strategy chosen by the organization to meet the needs of the organization.
2.4 **Millennials Generation**

With the development of the business and world of human resource management, regeneration will occur over time and bring new generations by the times. Mannheim (1970) studied the first generation and mentioned that generation is a social construction consisting of a group of people who have the same age and historical experience. Mannheim states that individuals who belong to one generation have the same birth year within 20 years and exist in the same social and historical dimensions. This definition of generation was later developed by Ryder (1965), who stated that generation is an aggregate of individuals who experience various events in the same period. In its development, each generation makes a difference. Researchers in this field divide generations by different labels but outline the same meaning (Strauss & Howe, 1991). These different labels can arise from the similarity of birth years, age, location, and events that arise in a group and have a significant influence on their growth (Kupperschmidt, 2000).

Before the millennial generation became the subject of conversation, there was generation X, which, according to some studies, was born in the 1960s to 1980s. This generation has an innate characteristic of the previous generation, the baby boomers. Baby boomers were born in the range of 1946 to 1960 were at that time, there was the end of a war in several countries—referred to as baby boomers because at that time there was a surge in baby birth rates that were very high (Bencsik, Horvath-Csikos, & Juhasz, 2016).

As the previous generation declined, namely the baby boom generation, several studies have shown that millennial generation is rising (Bencsik, Horvath-Csikos, & Juhasz, 2016). The term millennial was coined first by William Strauss and Neil in a book called Millennials Rising: The Next Great Generation (2000). Strauss and Howe coined the term millennial in 1987 when children born in 1982 entered pre-school age, and at that time, the media called them a group that joined the new millennium when they graduated from high school in 2000. If we look at Generation Theory by Mannheim (1970), Millennials are those born from 1980 to 2000. Millennials are also referred to by the media as Generation Y, and to this day, the term continues to be used. The mention of the term millennials generation also differs in each study of researchers. Some terms that describe millennial generation are Digital Generation, Nexters, and NetGen (Tapscott, 1998; Zemke et al., 2000; Oblinger, Oblinger & Lippincott, 2005). However, in many studies, this generation is called the Millennial Generation / Y Generation / Millennial.

3. **Data and Method**

![Figure 1. Research model](source: Own elaboration)

This study has 3 (three) variables, as described in the model above. These three variables are public service motivation as independent variables, recruitment messages as moderation variables, and intention to apply as dependent variables. Then of these four variables will have a hypothesis to be tested in this study, namely:

H1: Public service motivation has a significant effect on the intention to apply to the public
sector.
H2: Public service motivation has a significant effect on the intention to apply to the public sector, moderated by recruitment messages.

This study uses quantitative methods and can be classified into applied research; that is, the information generated from this research can be used in daily life. Quantitative research methods are research methods that examine populations or samples that have been selected; the sampling technique used is nonprobability sampling with the purposive sampling method. This method is used because the total population is unknown, and the sample chosen must fit the research objective criteria (Cooper & Schindler, 2014). The data and information collected are related to the research objective, which is to understand public service motivation, recruitment messages, intention to apply, and the effect of each variable.

This research uses primary and secondary data. Primary data collection is done by distributing questionnaires to the sample. The questionnaire is a self-administer in which the author will not help the respondent fill out the questionnaire. Secondary data is data taken from previous research. Secondary data can help in identifying and describing the results of primary data—secondary data collected from journals, books, and previous research.

Two sampling techniques used are probability sampling and nonprobability sampling. Probability sampling, all populations are given the same opportunity to be selected as sample members. In contrast, in nonprobability sampling techniques, all populations are not given the equal opportunity to be selected.

In this study, the sampling technique used was nonprobability sampling by purposive sampling and snowball. Purposive sampling is a way to determine samples with specific criteria, while snowball is the selection of samples based on references from previous samples with specific criteria in common (Cooper & Schindler, 2014).

Sample
In this study, data collection was carried out by distributing online questionnaires in the form of google forms and office forms through social media and communication channels. The questionnaire consists of screening questions to ensure that the respondent answers according to the target respondent. From the questionnaire link distributed, a total of 221 responses were collected. The questionnaire was then selected based on a consistent consistency test and obtained as many as five responses could not be used so that only 216 responses could be tested. This response will be processed and analyzed to test the hypothesis using structural equation modeling (SEM).

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N = 216 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>119 (55.1%)</td>
</tr>
<tr>
<td>Female</td>
<td>97 (44.9%)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>20-30 years old</td>
<td>195 (90.3%)</td>
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<tr>
<td>31-40 years old</td>
<td>21 (9.7%)</td>
</tr>
<tr>
<td>Education</td>
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</tr>
<tr>
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<td>50 (23.1%)</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>153 (70.8%)</td>
</tr>
<tr>
<td>Graduate</td>
<td>13 (6.0%)</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

Measures
For independent variables, public service motivation will be adapted from Asseburg, Homberg, and Vogel (2018) research with 16 (sixteen) question items consisting of 4 (four) dimensions. For the moderation variable, recruitment messages were adapted
from the research of Yen, Murmann, and Murmann (2011) with 5 (five) question items. The dependent variable was the intention to apply adapted from the research of Taylor and Bergman (1987) and Aiman-Smith, Bauer, and Cable (2001), where there were 3 question items. All questions are filled with answers 1 = strongly disagree to 6 = strongly agree.

4. Result

Model measurement or confirmatory factor analysis is performed to determine the compatibility of the data with the model, and test the validity and reliability. By eliminating some observable variables or indicators from the insignificant model, the next step taken is to analyze the structural model.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dimension</th>
<th>Indicator</th>
<th>Standardized loading</th>
<th>Cronbach alpha</th>
<th>Average variance expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public service motivation</td>
<td>APS</td>
<td>APS1</td>
<td>0.70</td>
<td>0.84</td>
<td>0.57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>APS2</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>APS3</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>APS4</td>
<td>0.83</td>
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<td></td>
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<tr>
<td>CPI</td>
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<td>0.86</td>
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<tr>
<td></td>
<td></td>
<td>CPI2</td>
<td>0.90</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>CPI3</td>
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<tr>
<td></td>
<td></td>
<td>CPI4</td>
<td>0.68</td>
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<tr>
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<tr>
<td></td>
<td></td>
<td>COM2</td>
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<td></td>
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<td>COM3</td>
<td>0.71</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>COM4</td>
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<td></td>
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<td>SS2</td>
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<tr>
<td></td>
<td></td>
<td>SS3</td>
<td>0.91</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SS4</td>
<td>0.58</td>
<td></td>
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<tr>
<td>Recruitment message</td>
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<td>RM1</td>
<td>0.77</td>
<td>0.83</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RM2</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RM3</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RM4</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RM5</td>
<td>0.54</td>
<td></td>
<td></td>
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<tr>
<td>Intention to apply</td>
<td></td>
<td>IA1</td>
<td>0.88</td>
<td>0.95</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IA2</td>
<td>0.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IA3</td>
<td>0.90</td>
<td></td>
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</tr>
</tbody>
</table>

Source: Own elaboration.

The structural model analysis evaluates some coefficients or parameters that show a causal relationship or the effect of latent variables on other latent variables. Analysis of the structural model of this study consists of:

a) Fit test for the overall model

The fit test for the overall model aims to check the accuracy of the model. This study uses two measures of goodness of fit to see the suitability of the model, namely: absolute fit measures and incremental fit measures.
Table 3. The goodness of fit measures

<table>
<thead>
<tr>
<th>The Goodness of Fit Measures</th>
<th>Value</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute Fit Measure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI)</td>
<td>0.92</td>
<td>Marginal fit</td>
</tr>
<tr>
<td>Root Mean Square Residual (RMR)</td>
<td>0.070</td>
<td>Marginal fit</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>0.075</td>
<td>Good fit</td>
</tr>
<tr>
<td>Tucker-Lewis Index or Non-Normed Fit Index (TLI or NNFI)</td>
<td>0.95</td>
<td>Good fit</td>
</tr>
<tr>
<td>Normed Fit Index (NFI)</td>
<td>0.93</td>
<td>Good fit</td>
</tr>
<tr>
<td>Adjusted Goodness of Fit Index (AGFI)</td>
<td>0.87</td>
<td>Marginal fit</td>
</tr>
<tr>
<td>Relative Fit Index (RFI)</td>
<td>0.91</td>
<td>Good fit</td>
</tr>
<tr>
<td>Incremental Fit Index (IFI)</td>
<td>0.96</td>
<td>Good fit</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>0.96</td>
<td>Good fit</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

Based on the analysis, it is known that the value of goodness of fit shows a good and marginal match. It can be concluded that the overall fit of the model is suitable by using a combination of various measures of goodness of fit in the structural model.

b) Analysis of causal relationships

Analysis of causal relationships is done by t-value analysis. T-value is used to see the effect between latent variables in the structural model. Variables have a significant impact on other variables if the t-value ≥ 1.96 or ≤ -1.96. This study uses a t-value ≥ 1.96 because the hypothesis wants to show a positive relationship between variables.

Table 4. T-value

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Estimation</th>
<th>T-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>0.25</td>
<td>2.28</td>
</tr>
<tr>
<td>H2</td>
<td>0.15</td>
<td>2.03</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

Test results show that the t-value of both hypotheses is between ≥ 1.96 and ≤ -1.96. This t-value indicates that both hypotheses were accepted. H1, with a t-value of 2.28, indicates that the hypothesis is accepted that public service motivation has a significant effect on the intention to apply individuals to the public sector. H2, with a t-value of 2.03, shows that the hypothesis is accepted that public service motivation has a significant effect on the intention to apply individuals that are moderated by the recruitment message.

5. Discussion

Public sector motivation has many proven reasons for someone to apply for a job in the public sector. However, there has not been much situation that shows whether recruitment information can affect interaction (moderation) on its effect on the intention to apply. This study aims to see whether recruitment information can increase the level of individuals’ intention in applying for jobs in the public sector. The test results obtained indicate that the recruitment message does have a significant influence in moderating the effect of public sector motivation on the intention to apply in the public sector. In the results of filling out the recruitment message section, the questionnaire showed
that the first indicator regarding the clarity of the delivery of recruitment information was considered very important by 83% of respondents. These results indicate that recruitment messages that are delivered clearly and explicitly can generate greater interest from prospective applicants. In line with theory, recruitment can be a persuasive process by organizations to try to influence prospective applicants, and it is necessary to have the strategies needed in terms of organizational communication so that this process can be better understood. In the recruitment process, this strategy aims to provoke responses from job seekers who feel their normative beliefs and values are in the job information they are interested in (Yukl & Falbe, 1990). Recruitment messages as one of the processes in recruitment activities can be vital in the strategy chosen to increase the response of job seekers. Various factors can influence the effectiveness of recruitment messages in influencing someone's intention to apply for a job. In this study focuses on how to deliver messages in recruitment information consisting of work and organizational attributes, but many things can affect a person's decision to enter applications such as; organizational reputation, external perceptions of the organization, job specifications, to factors of the applicants themselves such as language skills and understanding of information. In recruitment activities, recruitment messages are the initial stages in attracting prospective applicants to try to apply for a job. A high level of interest gives the organization more choice to select potential employees. Recruitment messages do not necessarily become a determining tool in the recruitment process because many other recruitment methods can attract applicants' interests, such as campus hiring or job fairs. This study proves again that public service motivation has a significant influence on the intention to apply individuals to public sector work. These results contribute to previous research, where PSM has a significant impact on individuals applying to the public sector. As with previous studies, PSM is often used as an independent variable, but very rarely as a dependent variable. This is due to the lack of knowledge or research on how PSM can be developed and what builds it and why the level of community participation varies. There is little research that shows how PSM can develop (Wright and Grant, 2010). There need to be further studies on how public service motivation is developed and its relationship with individuals. Respondents in this study are those who are in the millennial category who are looking for work. The number of millennials in the workforce is increasing every year, while some research shows that it is not easy to recruit millennials to the public sector. Increasingly, the number of millennials who want to work in the public sector shows a declining number (Viechnicki, 2015). Studies show that there is a possibility of inter-generational conflict in the workplace caused by several things, namely, the use of technology, ways of communicating, and orientation to change (Irhamahayati, Hubeis, Hermawan, & Djohar, 2018). Millennials are very adept at technology, adapt quickly to change, and have their communication style. Very different from the previous generation. Is this factor that might make it difficult for public sector organizations to recruit millennials? When associated with rewards, public sector motivation is related to intrinsic reward, prioritizing internal satisfaction rather than rewards such as salary and bonuses. Does the millennial generation prioritize intrinsic reward motivation, or are there other specific constructs of public service motivation that cause them to be interested in applying to the public sector? There need to be further studies on millennial generation motivation, specifically in public sector motivation. This study provides new insights for managers in public sector organizations to increase their recruitment activities. With the recruitment message, it can increase the interest of prospective applicants in job vacancies. The choice of a suitable strategy in recruitment will increase the effectiveness of recruitment itself, especially with the increasing number of the millennial generation in the world of work.

6. Conclusions

Recruitment messages have a significant influence on the recruitment process, both in
the public and private sectors. This study’s results reinforce previous research with the support that public sector motivation also has a significant influence on the intention to apply individuals to the public sector. This study provides insight into the effectiveness of recruitment messages in attracting potential prospective employees to join the public sector.

The implication for human resource managers is to be able to build the recruitment process better and develop human resources in the public sector.

This study has a limitation that respondents who fill out the questionnaire, most are only focused on one region and may not necessarily be able to represent the characteristics of the same population in other areas that are still in the same country. This study only looks at one recruitment process, where recruitment activities and sources consist of several types, such as campus hiring, job fairs, and others.

References


THE ROLE OF RELATIONSHIP MARKETING IN HOTELS LOCATED IN THE TOURIST REGION OF CENTRAL PORTUGAL: THE MANAGERS PERSPECTIVES
Sandra Filipe 1; Adriana Marques 2

Abstract
Objectives: This research aims to explore the concerns and attitudes of hotel managers with respect to relationship marketing. Two research questions are proposed: (i) what is the importance given to relationship marketing by managers hotels in the formulation and implementation of marketing strategy? (ii) what type of strategies and tools are used by hotel managers in order to optimize customer loyalty?

Methodology: In order to answer the proposed research questions, a qualitative methodology was applied by means of nine depth interviews with hotel managers, located in the tourist region of central Portugal, that were further analysed through a thematic content analysis. Data collection was carried out between March and October 2019.

Originality: Tourism in centre of Portugal has been experiencing an exponential growth, with the hotel units being one of its key sectors. However, there is great competition among hotels in this region of Portugal and their managers should establish an effective designed relationship marketing strategy for engage and retain tourists. It is widely accepted in marketing literature that relationship marketing aims to attract, develop and maintain customer relationships (Berry & Parasuraman, 1991; Berry, 1995), and it is a valuable for enterprises (Ravald & Grönroos, 1996). Particularly in the tourism sector, consumers as tourists are often not motivated to repeat tourist destinations (Prebensen, et al., 2012), nor the hotel where they will be staying. Some academics highlight customer satisfaction and image as antecedents of customer loyalty in hotel industry (Kandampully & Suhartanto, 2000), and the role of destination image on tourist loyalty (Zhang, et al. 2014). Therefore, hotel managers must make efforts to correspond and exceed expectations of consumers through the principles advocated by relationship marketing, but there are no known studies on is topic applied in the context of the Portuguese hotel industry.

Results: Although, results point to the fact that that relationship marketing is not yet a central focus on the hotels strategy, the participants of the study refer that they frequently use the following tools in order to optimize the tourist satisfaction and loyalty: to improve the quality of the service provided; to give attention to guests taking into account their complaints and/or suggestions; to be attentive to client needs and desires; to match and exceed client expectations; to establish personalized and personal contact with guests. Additionally, some of them create client cards, specific offers, vouchers and programs to add value for their customers.

Practical implications: The results obtained allow for the development of a conceptualization proposal of relationship marketing model for maximize his efficacy in hotels sector. Additionally, this study has relevant contributions for hotel managers, since it provides indications on how to apply or readjust their strategies of relationship marketing.

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Limitations: Due to the fact that a convenience sample was used, the results cannot be generalized for the population of Portuguese hotels. The application of similar approaches to larger sample representative of the Portuguese hotels is recommended, in order to validate the obtained results.

Keywords: Customer loyalty; Customer satisfaction; Hotels; Managers perspectives; Relationship marketing; Strategy marketing.

References:
STORYTELLERS: BRIDGING EMPATHY VS SYMPATHY WITH CULTURAL TOURISTS
Andreia Pereira ¹; Carla Silva ²; Cláudia Seabra ³

Abstract

Purpose: Experience is an interpretation of reality, reflected in thoughts and emotions. These emotional and cognitive factors as well as the inherent personality define a good or bad experience. In tourism, experience is a complex event, with several idiosyncrasies associated. They establish a bond between tourist and the place visited. In order to promote the top destination’s attractions and valuable tourism experience, storytelling is used to approach tourists, and engage them in informal exchange of knowledge and co-creation of experiences. This study aims to contribute to the research main topic regarding the development of empathy/sympathy, considering the tourist’s responses to storytelling experiences in cultural destinations.

Methodology: For this analysis, the Escalas & Stern (2003) scale was adapted to tourism and used in order to verify which factors positively impact this relationship and how they influence the tourist experience. The study considered 329 valid surveys conducted in Portuguese cultural destinations.

Originality: Tourism literature, focused on the binomial between sympathy vs empathy, is still quite scarce. The research focus on these two elements regarding the storytelling dynamics. The use of storytelling in other markets has powerful mechanism for value creation of products and services (Mora & Moscarola, 2010). The analysis of storytelling in tourism is fundamental not only for the competitiveness of the destinations but above all for the understanding of the tourism experience itself (Moscardo, 2010). Their content and the way they are told, are fundamental factors to establish a close connection with the listeners. These, if they report to what is told, will feel closer and more attentive to the narrator and the transmitted message (Gordon, Waitt, Cooper, & Butler, 2018).

Findings: Factorial analysis confirms the existence of two dimensions of emotional response: sympathy (cognitive) and empathy (affective). The results conclude that cultural tourists value storytelling experiences, and feel sympathetic responses and empathetic responses to the stories told in those places. The discussion centers on the study findings and implications for cultural tourism, and management strategies.

Research Limitations: First limitation refers to the empirical work. A larger sample with a greater sample of tourists could possibly lead to a better empirical outcome.

References

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**Keywords**: Storytelling; Empathy; Sympathy; Tourism experience; Cultural tourism.

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SEASONAL BEHAVIOUR OF THE TOURIST DEMAND: THE CASE OF MINHO
António Lopes Almeida 1; Elisabeth Kastenholz 2

Abstract
Purpose: This research paper focuses on seasonal variation in the pleasure-tourist market through a seasonal consumer behaviour perspective. Seasonal preferences and decisions regarding tourist consumption are discussed, based on a literature review on tourist consumption, leisure behaviour and seasonality. From this debate, the most important explanatory factors for seasonal tourist behaviour arose and were integrated into a model, grounded on the non-hierarchical theory of leisure constraints applied to the study of seasonality. Within this formalization, the seasonal consumption behaviour is the result of seasonal consumption preferences and decisions, influenced by a group of factors that are closely related to the natural, institutional, psychosocial causes of seasonality, identified in literature and confirmed by the empirical study.

Methodology: The data (N=942) had been collected through a large-scale survey of leisure tourists visiting the Minho region (northwest of Portugal), containing sociodemographic information, data about tourist behaviour on holidays, their motivations and destination perceptions, and the evaluation of those aspects that particularly influence seasonal consumption behaviour. The study results were analysed through different perspectives, with particular emphasis on tourist demand structure and the inherent seasonal pattern. The hypotheses of the model were tested through bi-varied statistical analysis, more specifically, regression and ordinal regression models.

Originality: The paper aims at contributing to the discussion of how to cope with seasonal tourist market demand, considering particularly the role of the seasonal behavioural determinants at the Minho region. The new model, built on an original theoretical approach, highlights in particular psychosocial determinants as relevant explanatory factors and reinforces the interest of a more comprehensive study of seasonality.

Findings: The results reveal the model’s overall validity and particularly the statistically significant effects of the behaviour determinants of seasonal behaviour at the Minho region. Moreover, relevant conclusions about the influence of explanatory factors regarding seasonal preferences and decisions were derived.

Practical implications: The research conclusions suggest some management orientations towards mitigating seasonality at the destination. The influence of psychosocial factors for seasonal consumption behaviour, particularly with regards to preferences was proven. Assuming greater effectiveness in transforming behaviour by changing preferences, diminishing the influence of the psychosocial determinants seems to be a potentially successful course of action. Operationally, the implementation of measures that influence tourists from an intrinsic psychological point of view, making them aware of distinct behaviour benefits, would be worthwhile. One of the lines of action may include marketing communication efforts aimed at raising awareness of the benefits associated with shared vacation and off-peak season consumption.

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Keywords: Seasonality; Destination management; Behavioural determinants of seasonality; Leisure constraints/inhibitors and facilitators; Ordinal regression.
WOMEN IN THE LEAD OF WINE TOURISM MANAGEMENT
Andreia Pereira 1; Maria Lúcia Pato 2; Cristina Barroso 3; Elisabeth Kastenholz 4

Abstract

Purpose: This study aims to characterize female roles in wine tourism ventures, an extremely competitive market context. This study thus intends to profile and characterize women’s particular approaches in wine tourism management.

Methodology: This exploratory research uses a qualitative approach, with in-depth, semi-structured interviews, directed to women in leading management positions, specifically in wine tourism enterprises located in the Dão Wine Region, in Portugal’s Central Region.

Originality: Wine tourism is not only a growing niche product, but also a means to prevent the desertification of peripheral rural areas and for the promotion of Portuguese heritage and culture (Novais & Antunes, 2009), while stimulating local economies (Kastenholz & Carneiro, 2018). Women are an indispensable resource for the rural economy, especially in the field of agriculture and wine production. Entrepreneurial women are described as being more flexible with greater multitasking capacity (Benedetto & Corinto, 2015), with a deeper concern about sustainability (Chiappe & Butler Flora, 1998; Goldberger, 2011) and deeper involvement with local communities (Goldberger, 2011). Previous research in business management also demonstrates gender differences in organizational strategy and leadership (Hallinger, Dongyu, & Wang, 2016). However, little is yet known on the entrepreneurial role and management dynamics typical of women in leadership position in wine tourism businesses.

Findings: The discussion focuses on women’s role in wine production and wine tourism, as well as their specific management and planning strategies. Preliminary results indicate specificities in women’s entrepreneurial profile and management style. Given the female presence in wine tourism and wine business, in the studied region, women’s role seems quite relevant for innovative tourism and wine businesses regarding medium and long-term planning, sustainable development, and community involvement.

References

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**Keywords:** Wine tourism, Wine tourism management, Gender studies, Human resources, Management style

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THE IMPORTANCE OF SUSTAINABILITY ISSUES AT EVENTS
AND THE INTENTION TO RETURN
Catarina Nadais 1; Elvira Vieira 2; Ana Pinto Borges 3

Abstract

Objectives: This study aims to analyze the perceptions of visitors at the event “Serralves em Festa!” with regard to the event's contribution to the promotion of environmental practices, namely sustainable development and environmental protection and the respective impact in their intention to return to the event in the next editions.

Methodology: a public study of this event was carried out, using surveys (n = 1141) to assess the perceptions of visitors, as well as their intention to return in the next editions. Nonparametric tests were applied allowing the public description in relation to the evaluation of the event's contribution, followed by a logit model performed in order to characterize the public who wants to return to the next editions.

Originality: Nowadays, sustainability is one of the social issues that has been gaining more attention, including from event organizers. This study analyzes the behavior of consumers regarding the perception of the concerns shown by the organization of the event and the intention to participate again in the future. This investigation aims to analyze the importance of the perception of sustainable actions and the future return of the participants to the event.

Findings: From a sample of 1.141 visitors, the data show evidences that the practices of the event and the relationship with the environment are highlighted by the event's contribution to environmental protection and enhancement and also sustainable development. The results of the econometric model indicate that the variables inside sociodemographic categories (e.g. gender, age, marital status, education work and nationality), the contribution of the event for a sustainable development, and the protection and environmental enhancement display levels of significance and influence regarding the intention to return.

Practical implications: The data collected and analysed provide very relevant information for the organization of the event. By knowing the profile of the participants, the perceptions they have about environmental practices and the importance they attach to them, the organization can adapt their environmental actions, and the communication of the event.

Research Limitations: In this study, the sustainability and environmental protection practices carried out by the event were not identified. This limitation could be evaluated in a future investigation using information from forthcoming editions.

Keywords: Sustainable development; Intention to return; Cultural event; Tourism; Environmental protection.

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THE IMPACT OF COVID-19 ON THE TOURISM INDUSTRY: THE CASE OF SMES IN NORTHERN PORTUGAL
Jéssica Ferreira ¹; Bruno Sousa ²

Abstract

Purpose: The global tourism industry may also suffer some damage in the face of natural disasters or unexpected events, to which these situations have the potential to affect tourism flows considerably. There are several theoretical arguments on how natural disasters and unexpected events can influence tourist destination options. Although in some cases a positive effect is estimated, in general the impacts are negative, resulting in reduced tourist arrivals after an event. Understanding the relationship between events, disasters and tourism is useful for destination managers who make critical decisions regarding recovery, reconstruction and marketing.

Methodology: In this context, we consider pertinent the study of the impacts caused by Covid-19 in the tourism industry, analysing the SMEs in the region most affected by the pandemic, the north of the country. As far as methodology is concerned, this research will analyse how Covid-19 has affected companies' finances and what solutions have been taken by them to get around this damage. As such, most SMEs in the tourism industry in the northern region will be surveyed through online surveys, properly structured for businesses.

Originality: This theme, besides being current, contributes to the knowledge about the economic situation of tourism SMEs in Northern Portugal, one of the most affected areas. After the financial wear and tear and the lack of profit of tourism companies it is important to understand how the survival of the tourism economy will be from now on.

Findings: Through this research it is our objective to understand the impacts of Covid-19 on tourism SMEs, understanding how companies are behaving in the face of the crisis and, through the results obtained, showing the reality of the tourism market in a rebirth situation.

Practical implications: This study contributed to the discussion and a better understanding of the analysis of the impacts of Covid-19 on SMEs in Portugal, focusing on the tourism market in the northern region. This research reinforces the role of the economy for the survival of enterprises, as well as the consequences of the lack of tourism demand for the market.

Limitations: One of the major limitations of this research will be the lack of knowledge regarding the active durability of this pandemic, compromising the number of companies in existence now, which may cease to exist later. However, this research is ultimately relevant to the understanding of the SMEs that existed and, due to the consequences of Covid-19, have eventually given up their duties.

Keywords: Covid-19; Tourism SME's; Economy; Negative impacts.

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THE IMPACTS OF EUROPEAN COMMUNITY FUNDS ON THE TOURISM DEVELOPMENT
Carlos Lopes ¹; Vânia Costa ²

Abstract

Purpose: The main objective of this study is to analyse the economic and financial situation of the tourism sector in the North of Portugal (NUT II), relating its competitiveness and innovation to growth indicators, through a comparative analysis of companies active between 2006 and 2016. This analysis was developed based on the Simplified Business Information (IES) of the Iberian Balance Sheet System (SABI).

Methodology: The analysis and treatment of the economic and financial indicators for 11,611 active companies was carried out. In addition, it was intended to investigate in particular the companies located in the region financed by the Innovation Incentive System allocated to the field of competitiveness and innovation within the scope of the National Strategic Reference Framework (NSRF), through the application of an analysis methodology against factual.

Findings: We can conclude that there is a direct relationship between the nine indicators analysed (VN, ROA, GVA, PAT, LQD, AF, SOLV, END and EBE), and the vast majority of indicators showed negative growth rates above 35%, not presenting any competitive, innovative or productive advantage for companies. We also prove the existence of a direct cause-effect relationship between the receipt of the incentive and the competitiveness factors, namely, there is a positive relationship in productive terms, on the other hand there is also a negative relationship in financial terms.

Originality/value: The developmental impact of this study aims to answer the following questions:
What is the impact of Innovation Incentive System on companies?
Has it allowed companies to create competitiveness?
Has it contributed to the increase in the internal value of companies?
Has it made it possible to achieve innovative and productive efficiency?
This study has an added value because it is present in a sample of 11,611 active companies.

Keywords: Community structural and cohesion funds; Tourism sector; Competitiveness factors; Innovation and performance; Northern region of Portugal.

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AUTHENTICITY AS AN ANTECEDENT OF BRAND IMAGE IN A POSITIVE EMOTIONAL CONSUMER RELATIONSHIP: THE CASE OF CRAFT BEER BRAND
Paula Rodrigues 1; Ana Pinto Borges 2; Carlos Martins 3; Miguel Guerreiro 4

Abstract:
Purpose: The brand authenticity is a determinant factor of brand image perception and a success factor for brands when their consumers shows a strong brand relationship and being determinant for a greater level of brand satisfaction. This research has two objectives: (1) understanding the importance of brand authenticity in the brand image perception of craft beers and (2) verified if exist a reinforced in the emotional relation of the consumer with the craft beers brands because the consumer brand image perception.

Methodology: The conceptual model proposed use the concept of brand authenticity of Bruhn, Schoenmüller, Schäfer and Heinrich (2012) how considers that brand authenticity has four dimensions – continuity, originality, reliability and naturalness. To this end, information was collected from final consumers about different craft beer brands to test the assumptions underlying the conceptual model proposed. 166 surveys were collected and the model was estimated using structural equation modeling (SEM).

Findings: The results obtained confirm that brand authenticity is a strong antecedent of brand image of craft beers and that the brand image affects both brand satisfaction and brand love, which allows to confirm the importance of both, brand authenticity and brand image in the building a strong consumer relationship with craft beer brands.

Originality: This research contributed to the theory by studying the importance of the brand authenticity in building a strong emotional relationship with craft beer consumers that goes beyond brand satisfaction.

References

Keywords: Brand authenticity; Brand image; Brand satisfaction; Brand love.

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ANALYSIS OF THE INTERNAL AUDIT OF PUBLIC IN THE DISTRICT OF BRAGA
Sara Serra ¹; João Neves ²; José Teixeira ³

Purpose: This paper aims to verify the existence of an internal audit department in limited companies (S.A.) in the district of Braga, as well as its characteristics. It is also intended to assess the contribution of the audit to the company, mainly the management processes of the organizations.

Methodology: A questionnaire survey was used, created from scratch based on the literature review. The questionnaire was sent through the Survey Monkey platform to all limited companies in the District of Braga, totaling 429. Sixty-six responses were obtained, making a response rate of 15.38%. Data were processed using the Statistical Packages for the Social Sciences (SPSS) software, using descriptive statistics and Pearson's correlation.

Originality: This is a current and little-explored topic, the study being innovative, not only due to the questionnaire it presents but also due to the sample studied.

Findings: Corroborating the literature review, the study revealed that internal audit helps organizations' management processes. The contribution of internal audit is evident in all areas of the company, mostly concerning the control and application of resources. However, only 33.3% of limited companies in the district of Braga have internal audit, and their implementation, in the majority, less than ten years ago. Even so, 50% of this companies reported allocating two workers to the internal audit department, and 45.5% reported having monthly meetings. The existence of an internal audit department is higher in the transport sector (100%), construction (50%), and services (43%). It was also found that all companies with more than 250 million in revenue have an internal audit, which highlights the importance of this audit for management.

Practical implications: The results obtained highlight the importance of internal audit for management, alerting organizations to the need to have this type of audit. In academic terms, this study may open the door to other investigations that may arise in this area of knowledge.

Research limitations: The limitation is related to the sample size, although it is considered that it allows drawing relevant conclusions Analysis of the internal audit of public limited companies in the district of Braga.

Keywords: Internal audit; Financial statements; Management; Top management.

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SAFETY AND HYGIENE AT WORKPLACE AS A LEVER FOR INTERNAL MARKETING: A STUDY APPLIED TO CLINICAL ANALYSIS LABORATORIES
Bruno Sousa 1; Joana Pereira 2

Abstract
Objective: To understand the role that safety and hygiene at workplace plays in internal marketing applied to clinical analysis laboratories and how important it is for satisfaction and loyalty in human resources perspective. Hygiene and safety conditions in the workplace may be a strong incentive for motivation and the ability to retain employees in the business context.

Methodology: The present study will include document analysis and exploratory (semi-structured) interviews with some clinical analysis laboratories (four clinical analysis laboratories in North of Portugal). In a second phase, it will be intended to focus group with human resources.

Originality: The management of internal marketing provides several advantages for the motivation and long term relationship with employees in clinical analysis laboratories, stimulating best practices and improving the quality of service provided.

Results: The preliminary results demonstrate that there is a direct relationship between hygiene and safety care in the workplace and the behavioural intentions of human resources (i.e. employees). Good hygiene and work safety practices play a decisive role in quality internal marketing. The neglect of hygiene and safety practices in the workplace, in specific business contexts, tends to promote abandonment of the workplace.

Practical implications: From an interdisciplinary perspective, this study presents inputs in the area of marketing (internal marketing), human resources and quality of service provided.

Limitations: This is a preliminary research with an exploitative and developing nature. Future steps will yield new results and empirically test several hypothesis with a quantitative approach.

Key words: Clinical analysis; Internal marketing; Safety and hygiene; Human resources.

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THE VALUE SOURCES OF RELATIONSHIP MARKETING IN HOTELS: A STUDY ON CUSTOMERS PERCEPTIONS
Sandra Filipe 1; Adriana Marques 2

Abstract
Objectives: This article intends to conduct an exploratory study on the factors that influence customer choice and loyalty with respect to hotels located in the tourist region of central Portugal. Two research objectives are proposed: (i) to identify the most influential factors that customers appreciate in their experiences in these hotels (ii) to analyze the positives and negatives consequences of customer experiences regarding these hotels.

Methodology: In order to achieve the proposed objectives, a qualitative methodology was applied by means of a thematic content analysis on Portuguese comments about their tourism experiences. The sample comprised a total of 2110 comments posted in TripAdvisor in relation to 211 hotels (10 selected comments for hotel) located in the tourist region of central Portugal.

Originality: The concept of relationship marketing states the importance of building long-term between partners (e.g., Morgan and Hunt, 1994), and a positive effect of relationship marketing orientation on business performance in the hotel industry is point out (Sin et. al, 2006). Academic literature highlights as the main antecedents of tourist loyalty the following: customer satisfaction, quality of the service provided, customer perceived value, image of the hotel, tourist experience, among others (e.g., Boora & Singh, 2011; Gursoy, Chen, & Chi, 2014; Mechinda, Serirat, & Gulid, 2009). According to Prebensen et al., (2012), tourists visit a destination to satisfy their needs and desires. Chen et al., (2013), argued that the more the attributes of the destination meet the desires, expectations and individual values, the tourist will become more involved with the destination. Thus, it is relevant to know in depth the opinion of customers and analyze how these different factors may have an influence in their relationship and potential loyalty to the hotel. There are no known studies on is topic applied in the context of the Portuguese hotel industry, and this research aims to fill this gap.

Results: Results point to the fact that the influential factors that customers appreciate in their experiences in these hotels are the quality of the service provided, past experiences, the price, satisfaction, the fact that hotel exceeding their expectations. The three main consequences of positive customer experiences regarding these hotels are loyalty, the positive word-of-mouth and the repeated choice intention. Inversely, a negative word-of-mouth and not return intention are point out by customers as consequences of bad experiences.

Practical implications: With the results obtained in this study, it is possible to identify the factors most relevant among Portuguese customers experiences in hotels located in the tourist region of central Portugal. Thus, they pointed out the negative and positive aspects of the hotels, what encourages them to recommend them, as well as to return a second time, or inversely, not to return. It is possible concluded that relationship marketing and loyalty programs brings numerous advantages for the hotel units, but also for customers, which is a great challenge for managers. In this way, this research is a stimulating contribution for hotel managers, given that guest feedback is crucial to understand their expectations and delineated the best marketing decisions in the future.

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Limitations: Due to the fact that a convenience sample was used, the results cannot be generalized for the Portuguese population. The application of similar approaches to larger samples representative of the Portuguese population and quantitative approaches are recommended, in order to validate the obtained results.

References

Keywords: Customer experiences; Customer loyalty; Customer satisfaction; Hotels; relationship marketing.
THE MEDIATION EFFECT OF THE CSR IMAGE BETWEEN THE CONSUMER’S PERCEPTION OF BRAND GLOBALNESS AND BRAND AUTHENTICITY AND PURCHASE INTENTION

Paula Rodrigues ¹

Purpose: Most literature acknowledges the impact of CSR image in buying behaviour. Inspired by this context and by the existing literature, the authors developed a model to test the mediated effect of CSR image between the consumer perception of globalness and brand authenticity in the purchase intention. Two global coffee brands were used in this research: Nespresso and Starbucks.

Methodology: A questionnaire was designed, a quantitative methodology was followed and a confirmatory factor analysis was conducted in the scales used to measure the constructs and the hypotheses were tested using structural equation modelling (SEM). A set of validated scales drawn from the academic literature were used.

Findings: The model and their constructs were considered robust and the results are rather intriguing and very encouraging to the development of research in this area.

Keywords: Corporate social responsibility image; Perceived brand globalness; Consumer-Brand related authenticity.

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IMPORTANCE OF EMPLOYER BRANDING FOR THE SUCCESS OF THE CORPORATE BRAND IN THE SME CONTEXT
José Luis Santos ¹; Victor Tavares ²

Abstract

Purpose: The purpose of this paper is to present the results of a research on the importance of Employer Branding (EB) for corporate brand success in the context of small and medium businesses (SME), from the perspective of the employees compared to the founders, considering a set of stable variables. This is an ongoing process through which company employees want to understand “who” and “what” is behind the brand's value proposition.

Methodology: A qualitative methodology was used based on interviews with open questions in an exploratory case study, to gather as much information as possible and without constraints. This was properly supported by a literature review, from published works, academic works, as well as papers on employer branding. This approach is part of the scientific paradigm of realism, also known as critical realism, and is therefore an appropriate method in marketing and management research.

Findings: The findings of this research demonstrate that EB seems not to be contributing for a successful corporate brand in the SME context. For that purpose, a medium-and long-term marketing and communication plan is needed, particularly regarding a brand plan, duly defined and implemented. The mere market/sector leadership cannot be viewed as a source in the long run for SME. If no one believes or bets on brand equity appreciation, EB won’t certainly be potentiated. In this way, there is a risk that this type of organizations would become weak entities with no sense of belonging.

Originality/value: Because there is a lack of applied scientific research on this topic in the context of SME, the aim was to understand EB from a specific case study, enabling the acquisition of knowledge on how this concept works and is applied (or not) in practice.

Practical implications: This research aimed at contributing to a better strategic alignment of EB, from the institutional level to the operational level, passing through the intermediate level, in SME. It appears that the managers/administrators/directors in SME don’t have a holistic perspective of the brand. It also emphasizes the great importance of employees in building the brand in this particular context.

Research limitations: This investigation needed a deeper market analysis, namely of direct competitors. It was not possible to obtain enough information to carry out a more reliable analysis. It would be very interesting to understand what led some collaborators to leave the studied company and move to its direct competitors, as well as to realize what makes others leave the competitors or return to the company.

Keywords: Brand management; Case study; Employer branding; SME.

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THE INFLUENCE OF PRE/IN/POST FLIGHT SERVICE EXPERIENCE TOWARDS CUSTOMER SATISFACTION AND BEHAVIORAL INTENTION OF ECONOMY CLASS PASSENGER FROM FULL SERVICE AIRLINE IN INDONESIA

Dwight Marchel Kastanja 1; Nurdin Sobari 2

Abstract

Purpose: Full service airline is one type of existing flight services. Full service airline services usually tend to emphasize good quality service at each point of customer service. Due to the increasingly fierce competition in the world of full service airline services, a view of good service quality is needed so airlines can improve their services effectively and efficiently. The purpose of this study is to determine whether there is a positive and significant relationship between pre-flight, in-flight and also post-flight services towards customer satisfaction and behavioral intention.

Methodology: Data collection in this study using a questionnaire with convenience sampling method. There are total of 220 respondents spread throughout Indonesia. The questionnaire uses a 5 point Likert scale and asks 44 questions to define 12 latent variables. Then the results of the data will be analyzed using the structural equation modeling methodology by LISREL 8.8 software.

Findings: The findings in this study indicate that there are positive and significant effect of service quality on pre-flight, in-flight and post-flight touchpoints towards customer satisfaction and behavioral intention.

Originality/value: This research examines the relationship between service quality and customer satisfaction and behavioral intention specifically for full service airlines in Indonesia. Characteristics of the sample are also different from the previous studies, in which this research focuses on respondents who use private funds or personal expense when using flight services.

Practical implications: Considering the results of this study, full service airlines can improve the quality of their service at touchpoints which will affect customer satisfaction.

Research limitations: The number of samples and characteristics in this study are still limited to only 220 respondents and those who use private funds in their travels. The scope of this research is also still limited to airlines in Indonesia.

Keywords: Structural equation modelling; Pre-flight services; In-flight services; Post-flight services; Airline industry; Service quality.

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1. Introduction

The aviation industry is an industry that continues to develop in all parts of the world. The development of the aviation industry has also increased rapidly in Indonesia. Indonesia's strategic geographical position and also in the form of an archipelago has an impact on the increasing needs of its people to be able to move from one place to another or from one island to another effectively and efficiently, so that the presence of the aviation industry will greatly help solve this problem.

In accordance with comparative data on the number of passengers conducting flights on domestic routes in 2017 and 2018 published by the Directorate General of Civil Aviation, the Ministry of Transportation, it can be seen that the number of passengers traveling in domestic region using airlines has increased significantly. The percentage increase in the number of passengers taking domestic trips reached 40.28%, which was contributed by routes in major cities such as Jakarta, Bali, Surabaya and Yogyakarta.

As an airline that prioritizes excellent service to all of its customers, Full service airlines also always pays attention to every detail of its services, especially for premium services intended for their premium market. Various services starting from pre-flight, in-flight, to post-flight services become one of the important services to be considered by airlines, starting from check-in services, food services, in-flight entertainment, compartment conditions to services from flight attendants on duty and baggage handling for later can give a good impression for customers.

This paper presents the structural equation model as a method to see the influence of pre/in/post flight service experience towards the customer satisfaction and behavioral intention. By seeing the gap and having the result, airline company can have effective basic information about services needed by passengers and also can make an improvement and at the end of the day they can maximizing their potential revenue.

The paper proceeds as follows. In section 2, literature review related to this research is explored. Then, the data and methodology is presented in section 3. Result is studied in section 4. In section 5 will be discussion and the final section 6 concludes the paper.

2. Literature review

Hand in hand to complete this research, will be used several previous studies as well as theories that are considered capable of assisting the writer in further analyzing the results of this research later.

2.1. Pre-flight Employee Service Experience

Several studies have shown that personnel are a key factor in shaping customer satisfaction in the aviation industry (eg, Akamavi et al., 2015; Loureiro & Fialho, 2016 in Koklic et.al, 2017). Airlines employees need to understand and identify the desires of passengers to improve their satisfaction through the services provided (Ekinci, Dawes, & Massey, 2008 in Koklic et.al, 2017). Therefore, this research will examine the relationship of Pre-flight Employee service variables with Customer Satisfaction.

H1: Pre-flight Employee Service Experience has a significant and positive effect on Customer Satisfaction

2.2. Pre-flight Process Service Experience

Many studies have shown that the quality of service perceived by passengers positively influences airline passengers' satisfaction and loyalty (Nadiri, Hussain, Ekiz, & Erdogan, 2008; Park et al., 2006; Saha & Theingi, 2009 in Sajadi, 2016), but still little research empirically investigates the direct or indirect effects that are felt from the quality of pre-flight services and during the flight that is felt on the satisfaction and loyalty of aircraft passengers. Therefore, this research will examine the relationship of Pre-flight Process Service Experience variables with Customer Satisfaction.

H2: Pre-flight Process Service Experience has a significant and positive effect on Customer Satisfaction

2.3. In-flight Food Service Experience
The According to previous research, food quality is identified in terms of the elements of the food itself (taste, freshness, and health) and external (presentation style), which leads to the formation of an impression about food service (Hyun, 2010; Johns & Pine, 2002). Meanwhile, in previous studies it was stated that the positive and significant effects of related experiences and experiences captured by the senses on customer satisfaction have been determined (Lee et.al, 2010 in Araci, 2017). Therefore, this research will examine the relationship between In-flight Food Service Experience variables and Customer Satisfaction.

**H3: In-flight Food Service Experience has a significant and positive effect on Customer Satisfaction**

### 2.4. In-flight Entertainment Experience

In-flight entertainment services play an important role in enhancing the passenger experience that can be enjoyed through consistently enhanced innovation and adjustments to the entertainment system during air travel (Gilbert & Wong, 2003). This research will examine the relationship between In-flight Entertainment Experience variables and Customer Satisfaction.

**H4: In-flight Entertainment Experience has a significant and positive effect on Customer Satisfaction**

### 2.5. In-flight Physical Environment Experience

In the aviation industry, cabin facilities are the most important component of the physical environment involving attributes such as seat comfort, lighting, temperature, air quality, and cleanliness (Aksoy, Atilgan, & Akinci, 2003 in Kim et.al, 2016). Empirical studies have shown that the quality of cabin facilities such as comfort, space, and legroom can influence the perception of the quality of passenger services for airlines (Chen & Chang, 2005; Park et al., 2004 in Kim et.al, 2016). A number of studies have shown airline market share dependency, revenue, positive word of mouth, and customer retention on consumer perceptions of service quality, and also afterwards on customer satisfaction and loyalty (for example, Anderson, Fornell, & Lehmann, 1994; Forgas, Moliner, Sánchez, & Palau, 2010 in Koklic 2017). Therefore, this research will examine the relationship between the variable In-flight Physical Environment Experience with Customer Satisfaction.

**H5: In-flight Physical Environment Experience has a significant and positive effect on Customer Satisfaction**

### 2.6. Flight Attendant's Performance Experience

Cabin crew performance can be explained in several dimensions, including knowledge, courtesy, airline cabin crew's willingness to help passengers, and fast and correct service delivery (Brady & Cronin Jr., 2001; Chen, 2008 in Kim et.al, 2016). Empirical studies have examined the relationship between frontline staff performance and the formation of impressions from passengers, such as satisfaction, perceived quality, and value (Chen, 2008; Nameghi & Ariffin, 2013; Tajeddini, 2010 in Kim et.al, 2016). Chen (2008) in Kim et.al, (2016) shows that the quality of service delivered by cabin crew can be very important in influencing the value of passenger perceptions about their flight service experience. Therefore, this research will examine the relationship between the variable Flight Attendant's Performance Experience with Customer Satisfaction.

**H6: Flight Attendant's Performance Experience has a significant and positive influence on Customer Satisfaction**

### 2.7. Flight Attendant’s Appearance Experience

Unlike cabin crew performance, which includes intangible features such as knowledge, courtesy, and employee service oriented attitudes (Brady & Cronin, 2001; Chen, 2008 in Kim et.al, 2016), physical appearance is characterized by cabin crew face features and clothing worn (Chen & Chang, 2005; Magnini, Baker, & Karande, 2013 in Kim et.al, 2016). In the context of the aviation industry, research has shown that the neat appearance of front-line employees plays an important role in directing the quality of airline services (Park et al., 2004 in Kim et.al, 2016). So that in this study will be examined
regarding the relationship between variables Flight Attendant’s Appearance with Customer Satisfaction.

**H7**: Flight Attendant’s Appearance Experience has a significant and positive and positive impact on Customer Satisfaction

### 2.8. Post-flight Process Service Experience

After sales service is a means to uncover additional customer needs and a strategic driver for customer retention. (Oliver, 1997 in Namukasa, 2013) shows that highly satisfied customers are far more likely to remain loyal to the company than those who are only satisfied. Next in this study will be examined regarding the relationship of the variable Post-Flight Process Service Experience with Customer Satisfaction.

**H8**: The Post-Flight Process Service Experience has a significant and positive effect on Customer Satisfaction

### 2.9. Post-flight Employee Service Experience

Several studies have shown that personnel are a key factor in shaping customer satisfaction in the aviation industry (eg, Akamavi et al., 2015; Loureiro & Fialho, 2016). Airlines employees need to understand and identify the desires of passengers to improve their satisfaction through the services provided (Ekinci, Dawes, & Massey, 2008). This research will examine the relationship of Post-Flight Employee Service Experience variables with Customer Satisfaction.

**H9**: Post-flight Employee Service Experience has a significant and positive effect on Customer Satisfaction

### 2.10. Intention to Repurchase

In a study conducted by Liu and Jang (2009) in Araci (2017), in the context of the food and beverage business in China, it was stated that there is a positive effect of sense experience, which represents the five senses, on repurchases and from the mouth to mouth. In addition, previous research shows that the more consumers are satisfied with a company, the more likely they are to buy back from that company (eg, Stathopoulou & Balabanis, 2016; Walsh & Bartikowski, 2013). Therefore, this research will examine the relationship between Customer Satisfaction and Intention to Repurchase variables.

**H10**: Customer Satisfaction has a significant and positive influence on Intention to Repurchase

### 2.11. Intention to Recommend

Customer satisfaction leads to positive references and recommendations for the company (Su et al., 2016). On the other hand, some authors find a negative relationship, that is, dissatisfied customers are involved more in word of mouth interactions (eg, Hart, Heskett, & Sasser, 1989 in Koklic, 2017). Therefore, this research will examine the relationship between Customer Satisfaction and Intention to Recommend variables.

**H11**: Customer Satisfaction has a significant and positive influence on Intention to Recommend

### 3. Data and Method

This research is a development of two previous studies. The first previous research was entitled "First-Class In-flight Services and Advertising Effectiveness: Antecedents of Customer-Centric Innovation and Brand Loyalty in the United States (US) Airline Industry" (Kim et.al, 2016), while the second previous research was entitled "An Investigation of Customer Satisfaction with Low-cost and Full-service Airline Companies" (Koklic, Kinney & Vegelj 2017). The object of this research is one of the full-service airline in Indonesia and the research model that will be used is as follows:
There are twelve variables and eleven hypotheses tested in this study and there are two types of data used in this study. The first data is primary data obtained from distributing questionnaires directly to respondents. The questionnaire distributed was self-administered questionnaire where the respondent would not be assisted by the author in filling out the questionnaire. This study involved 220 respondents who had several specific criteria. Participants must be male or female in the age range of 18-50 years and have been flying with this airline in the past one year. The respondents also have to use economy class compartments with flight duration under 3 hours. As a final criterion, respondents are required to use personal budget in making the journey. Before the questionnaire is distributed to respondents who meet the criteria, a face validity process or commonly known as a wording test was previously carried out. This test is useful for revising the wording of the questionnaire before it is distributed. Then after face validity, the questionnaire was distributed to 40 initial respondents to check the validity and reliability of each question. SPSS is a tool used to test the validity and reliability, using the KMO value and also Cronbach alpha as a parameter. After that, the final valid and reliable questionnaire was distributed to all respondents through an online mechanism. After all the data from the respondents have been collected, it will be tested using the structural equation modeling (SEM) method using the LISREL 8.8 application to determine the effect between variables.

4. Results

The first step taken is to do the confirmatory factor analysis, namely by checking several indicators including SLF, t-value, CR and VE. After testing the validity and reliability, the results are obtained that all indicators are valid and reliable according to the guidelines that the SLF value is above 0.50; t-value above 1.64; CR values above 0.70; and VE values above 0.50 as shown by table 1.
Table 1 – Confirmatory Factor Analysis

<table>
<thead>
<tr>
<th>Question</th>
<th>SLF</th>
<th>T-Value</th>
<th>CR</th>
<th>VE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>0.76</td>
<td>12.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>0.79</td>
<td>13.55</td>
<td>0.81</td>
<td>0.58</td>
</tr>
<tr>
<td>A3</td>
<td>0.74</td>
<td>12.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>0.75</td>
<td>12.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>0.77</td>
<td>12.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B3</td>
<td>0.79</td>
<td>13.53</td>
<td>0.85</td>
<td>0.59</td>
</tr>
<tr>
<td>B4</td>
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<td>12.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1</td>
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<td>14.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
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<td>1.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>0.78</td>
<td>13.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>0.77</td>
<td>13.22</td>
<td>0.89</td>
<td>0.55</td>
</tr>
<tr>
<td>C5</td>
<td>0.71</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>C6</td>
<td>0.67</td>
<td>10.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C7</td>
<td>0.75</td>
<td>12.61</td>
<td></td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>D2</td>
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<td>13.06</td>
<td>0.81</td>
<td>0.59</td>
</tr>
<tr>
<td>D3</td>
<td>0.72</td>
<td>11.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1</td>
<td>0.77</td>
<td>12.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E2</td>
<td>0.73</td>
<td>11.89</td>
<td></td>
<td></td>
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<tr>
<td>E3</td>
<td>0.72</td>
<td>11.76</td>
<td>0.85</td>
<td>0.58</td>
</tr>
<tr>
<td>E4</td>
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<tr>
<td>F1</td>
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<td>10.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
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<td>11.81</td>
<td></td>
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<tr>
<td>F4</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>F5</td>
<td>0.69</td>
<td>10.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1</td>
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<td>10.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2</td>
<td>0.78</td>
<td>12.92</td>
<td>0.74</td>
<td>0.50</td>
</tr>
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<td>G3</td>
<td>0.66</td>
<td>10.45</td>
<td></td>
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<tr>
<td>H1</td>
<td>0.67</td>
<td>10.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2</td>
<td>0.75</td>
<td>12.4</td>
<td>0.76</td>
<td>0.51</td>
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<tr>
<td>H3</td>
<td>0.72</td>
<td>11.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I1</td>
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<td></td>
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<tr>
<td>I2</td>
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<td>0.75</td>
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<tr>
<td>I3</td>
<td>0.75</td>
<td>11.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J1</td>
<td>0.72</td>
<td>12.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2</td>
<td>0.73</td>
<td>12.94</td>
<td>0.97</td>
<td>0.80</td>
</tr>
<tr>
<td>J3</td>
<td>0.73</td>
<td>13.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K1</td>
<td>0.73</td>
<td>12.09</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>0.62</td>
<td>9.89</td>
<td>0.73</td>
<td>0.50</td>
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<td>0.7</td>
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<td></td>
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<td>0.73</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>L2</td>
<td>0.72</td>
<td>11.79</td>
<td>0.77</td>
<td>0.53</td>
</tr>
<tr>
<td>L3</td>
<td>0.73</td>
<td>11.89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data processed by Lisrel 8.8

Next, the structural model testing is carried out. In testing the structural model fit will be done through an assessment of 3 parts, including the absolute fit measures, the incremental fit measures, and the parsimonious fit measures. The following is a measurement of goodness of fit that has been done:
Furthermore, hypothesis testing is obtained by looking at the t-value in the measurement of structural models, a relationship is said to have a positive effect if it has a t-value above 1.64. The following figure is the result of the t-value measurement for the structural model:

In accordance with the above test results it can be said that all hypotheses submitted in this study were accepted and the table below is a summary of the overall results of the hypothesis test:

### Table 4 – Hypothesis Testing Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Value</th>
<th>t-value</th>
<th>Judgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>A to J</td>
<td>0.30</td>
<td>6.68</td>
<td>H1 Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>B to J</td>
<td>0.20</td>
<td>6.09</td>
<td>H2 Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>C to J</td>
<td>0.18</td>
<td>4.86</td>
<td>H3 Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>D to J</td>
<td>0.23</td>
<td>8.54</td>
<td>H4 Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>E to J</td>
<td>0.22</td>
<td>8.79</td>
<td>H5 Accepted</td>
</tr>
<tr>
<td>H6</td>
<td>F to J</td>
<td>0.19</td>
<td>7.59</td>
<td>H6 Accepted</td>
</tr>
<tr>
<td>H7</td>
<td>G to J</td>
<td>0.25</td>
<td>7.47</td>
<td>H7 Accepted</td>
</tr>
<tr>
<td>H8</td>
<td>H to J</td>
<td>0.30</td>
<td>8.15</td>
<td>H8 Accepted</td>
</tr>
<tr>
<td>H9</td>
<td>I to J</td>
<td>0.21</td>
<td>8.05</td>
<td>H9 Accepted</td>
</tr>
<tr>
<td>H10</td>
<td>J to K</td>
<td>0.36</td>
<td>5.26</td>
<td>H10 Accepted</td>
</tr>
<tr>
<td>H11</td>
<td>K to L</td>
<td>0.38</td>
<td>5.66</td>
<td>H11 Accepted</td>
</tr>
</tbody>
</table>

Source: Data processed by Lisrel 8.8

5. **Discussion**

5.1. **Pre-Flight**

All the pre-flight service variables are accepted in this research. When reviewing in terms of loading factor, the biggest one is the A2 indicator with a value of 0.79 and A1 with a value of 0.77, which means that the skills of trained check-in and boarding gate officers and their ability to be sensitive towards the passenger needs will greatly affect and become an important factor in customer satisfaction. The results of this study are consistent with previous studies in which several studies show that personnel are a key factor in shaping customer satisfaction in the aviation industry (eg, Akamavi et al., 2015; Loureiro & Fialho, 2016 in Koklic et.al, 2017).

When reviewing in terms of loading factor, the biggest loading factor is on the B3 indicator with a value of 0.79 and B2 with a value of 0.77 which means that the availability of essential information at check-in and efficient boarding process will be very influence and become an important factor in customer satisfaction. In addition, the results of this
study are also directly proportional to the results of the study proposed by Sajadi (2016) which states that service quality obtained in the pre-flight process has a direct and positive effect on customer satisfaction.

5.2. In-Flight

All variables representing the In-flight service experience were accepted in this study. If a review is made in terms of loading factor for the In-Flight Food Service Experience variable, the biggest loading factor is the C1 indicator with a value of 0.81 and C3 with a value of 0.78, which means good food and the availability of various food choices and drinks will greatly affect and become an important factor in customer satisfaction. Previous research has shown that in-flight service affects perceptions of service quality and satisfaction in market segments of the economy and business class (An & Noh, 2009; Chen, 2008; Nameghi & Ariffin, 2013; Park, 2007; Park et al, 2011 in Kim et al, 2016) so the results of this study can be stated directly proportional to the results from previous studies that food service during the flight will positively affect customer satisfaction.

If it is reviewed in terms of loading factor for the In-Flight Entertainment Service Experience variable, the biggest loading factor is on indicator D1 with a value of 0.79, which means various choices of entertainment will greatly affect and become an important factor in customer satisfaction. Previous research has shown that in-flight service affects perceptions of service quality and satisfaction in market segments of the economy and business class (An & Noh, 2009; Chen, 2008; Nameghi & Ariffin, 2013; Park, 2007; Park et al, 2011 in Kim et al, 2016) so the results of this study can be stated directly proportional to the results of previous studies that entertainment services during the flight will positively affect customer satisfaction.

If a review is carried out in terms of loading factor for the In-Flight Physical Environment Experience variable, the biggest factor loading is the E4 indicator with a value of 0.83 which means that the air temperature during the flight will greatly affect and become an important factor in customer satisfaction. Previous research has shown that in-flight service affects perceptions of service quality and satisfaction in market segments of the economy and business class (An & Noh, 2009; Chen, 2008; Nameghi & Ariffin, 2013; Park, 2007; Park et al, 2011 in Kim et al, 2016) so that the results of this study can be stated directly proportional to the results of previous studies that the cabin conditions that are on the plane will have a positive effect on customer satisfaction.

If a review is made in terms of loading factor for the Flight Attendant's Performance Experience variable, the biggest loading factor is the F3 indicator with a value of 0.73 which means the ability of the cabin crew to attract the attention of passengers when delivering their services will greatly influence and become an important factor in customer satisfaction. This study provides support for previous research findings that show that the behavior of front-line employees or in this case is associated with cabin crew play an important role in differentiating air travel experiences (Appiah-Adu et al., 2000; Chen, 2008; Hartline & Jones, 1996; Nameghi & Ariffin, 2013 in Kim et al, 2016) from competitors.

If a review is made in terms of loading factor for the Flight Attendant's Appearance Experience variable, the biggest loading factor is the G2 indicator with a value of 0.78, which means the ability of cabin crew to look physically attractive when delivering their services will greatly influence and become an important factor in customer satisfaction level. This finding strengthens research examining the effect of frontline employee performance or in this case being associated as cabin crew in service delivery (Chen & Chang, 2005; Magnini et al., 2013; Park et al., 2004; in Kim et al, 2016).

5.3. Post-Flight

All the hypotheses for post-flight variables are accepted in this research. If a review is carried out in terms of loading factor for the Post-Flight Process Service Experience variable, the biggest loading factor is the H2 indicator with a value of 0.74 which means that the airline’s ability to handle baggage efficiently will greatly affect and become an important factor in customer satisfaction level. The results of this study can also be said
to be directly proportional to the findings submitted by Namukasa (2013) which stated that the service quality of the process at the Post-Flight stage has a positive and significant effect on airline passenger satisfaction. When reviewing in terms of loading factor for the Post-Flight Employee Service Experience variable, the biggest loading factor is indicators I1 and I3 with a value of 0.75, which means that the availability of trained and willing employees to assist passengers will be very influence and become an important factor in the level of customer satisfaction. The results of this study also support the idea that airlines that aim to have quality services and also invest in the education of their employees tend to have more satisfied customers (Bari et al., 2001; Leong et al., 2015 in Koklic et al., 2017).

5.4. Behavioral Intention

When reviewing in terms of factor loading for the Customer Satisfaction variable, it is known that those 3 loading factors has the same value, namely a value of 0.76, which means that satisfaction fromGaruda Indonesia airline customers, ownership of a more positive attitude to the airline and price A ticket that makes sense when compared to the services offered will greatly affect and be an important factor in the level of intention to repurchase and also for intention to recommend. This finding also corroborates previous research related to customer satisfaction being an indicator of repeat purchases (recommendations) by word of mouth (recommend) (eg, Curras-Perez & Sanchez-Garcia, 2016; Nadiri et al., 2008; Walsh & Bartkowski, 2013 in Koklic et al., 2017).

After learning more about the results of this study, then we can further understand that all elements of the experience felt by passengers will greatly affect customer satisfaction which indirectly also influences customer loyalty. When viewed from this study, it can be concluded that airline companies that take positioning as a full-service airline must really pay attention to the human touch of their ground officers, the smooth post-flight process, especially when handling baggage, to the physical appearance of the cabin crew on duty.

6. Conclusions

The conclusion of this research is that all aspects ranging from Pre-Flight, In-Flight to Post-Flight have a positive influence on customer satisfaction. Therefore, as the management of a full-service airlines company must really pay attention to every element that is in each stage, guarantee the quality of its services and also ensure that customers can feel the quality of service that has been prepared in accordance with the blueprint as part of their experience. In addition, the company must also ensure that customer satisfaction can continue to be maintained and improved, given that according to the results of this study customer satisfaction positively influences the behavioral intention of the customer (in this case intention to repurchase and also intention to recommend). The hope is that if the company can maintain or improve the quality of service that is felt directly by customers, then the company can get more long-term benefits. Furthermore, it is recommended for future research to be able to involve larger respondents and be able to broaden the scope of the research. This can be started by comparing with competitors, analyzing respondents with different criteria (eg. respondents whose travel costs are borne by the agency or analyzing the trip of volunteers with international routes that take more than 3 hours to fly), so that they can add additional variables deemed relevant to the latest conditions. In other hand, we suggest the future researcher to consider about using moderating variables such as travel companion and also purpose of travel.

References


THE EFFECT OF PERCEPTION AND ATTITUDE OF E-SERVICE QUALITY AND SALES PROMOTION TOWARD PURCHASE INTENTION ON DIGITAL CAR INSURANCE

Gabby Evitho ¹; Nurdin Sobari ²;

Abstract

Purpose: The purpose of this study is to identify the significant factors that drive purchase intention on digital car insurance in Indonesia. The research aims to test the perception and attitude of e-service quality and sales promotion can encourage favourable purchase intention on digital car insurance in Indonesia.

Methodology: This research used descriptive research using structured questionnaires with a 5-point Likert scale to collect data with convenience sampling technique. The data were collected from a sample of 216 people who did not have digital insurance in Indonesia and analysed using the structural equation modelling technique.

Findings: The results show that the dimensions of e-service quality (efficiency, privacy, contact) positively influence the perception of digital car insurance but the others dimension (fulfilment and availability) do not have positive effect. Monetary perception also positively builds perception but does not have a direct impact on purchase intention. The results also confirm that respondent’s perception on digital car insurance have positive impact on the attitude and also their attitude drives favourable purchase intention on digital car insurance.

Originality/value: Despite the intensive use of the Internet in service delivery, little attention has been paid so far to assessing the impact on digital car Insurance in Indonesia. Also there is a lack of research of car insurance industry in specific. So this study examined what significant factors that encourage purchase intention of digital car insurance.

Practical implications: This study will provide insights for car insurance companies to know the desired experience in the digital touchpoints and what marketing techniques are suitable for driving purchase intention.

Research limitations: This research limited to analyse car insurance category in Indonesia.

Keywords: E-Service quality; Sales promotion; Perception; Attitude; Purchase intention, Insurance technology.

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1. Introduction

Digitalization has developed rapidly so there has been shifting in form of information transfer from traditional to digital. Its disruptive nature makes all industries to move towards the digital services in order to survive, one of them is the financial sector, where the new era emerges when consumers can access financial services anywhere and anytime using digital services. In a study conducted by EY in the Global Fintech Adoption Index 2019 report, insurance had global recognition (Bull et al., 2019). Meanwhile in Indonesia, The Financial Services Authority (FSA) stated that in 2017, insurance literacy was as low as 15.76%, while in 2013 it was 17.84%, resulting in a decrease of 2.12%. The usage rate in 2017 was 12.08%, rose from 2013 which reached 11.81%. Based on these data it can be translated that out of 100 people, there are 16 people who aware of insurance products and 12 people who have insurance policies (OJK, 2017).

To overcome that issue, reporting from FSA, the government worked with financial institutions to set a target by the end of 2019 to encourage public inclusion in the financial services sector by 75% (OJK, 2017). OJK has also given permission for the insurance industry to utilize digital access (Social, 2020). This is an opportunity for insurance company, because based on the growth of internet users in Indonesia, the rate always goes up, rose from 56% (2019) to 64% (2020).

In the insurance industry, the most significant consumer interactions will be digital in 2020 (Stoeckli et al., 2018). In this study we use car insurance among insurance categories, because based on the data from OJK, car insurance has the highest number and have used utilized Insurance Technology concept (OJK, 2016).

In the increasingly sophisticated technology and high consumer demand, competitive prices and good services are not enough, but consumer want an impressive consumer experience when interacting with the services provided (Heineke & Davis, 2007). We need three resources to create consumer experience, those are people, product/service offering, and process. Supported by technology, insurance companies offer seamless digitalized services (Taechamaneestit, 2012). Electronic service (e-service) is the integration of business processes, policies, procedures, tools, technology, and human efforts to facilitate consumer services assisted by the internet. In the previous research, the customers’ attitude towards the website positively affect the intention to use the website (Moez, 2017).

Another way to attract more consumers and increase the competitiveness of online retailers is by offering an online sales promotion. Unexpected promotions are kind of luck and can reduce the feelings of guilt associated with product purchases (Mohammad Reza Faryabi, Kousar Sadeghzadeh, 2012). This study presents the structural equation model as a method to describe the influence of e-service quality dimensions and sales promotion affect the perception, attitude, and purchase intention on digital car insurance. Using this model, car insurance companies can determine which variables that affect significantly positive to purchase intention. By having the result, insurance companies can have basic information to promote effective marketing program and designing e-services.

The paper proceeds as follows. In section 2, literature review related to this research is explored. Then, the methodology is presented in section 3. Data and result is studied in section 4. The final section 5 concludes the paper.

2. Literature review

2.1 The Role of Technology in Consumer Behaviour
Customer behaviour in purchases decision is influenced by three factors, cultural factors, social factors, and personal factors. The personal factors which influenced by the role of technology are lifestyle and values. A person's lifestyle is influenced by limited money and time, to overcome that issues companies providing goods or services at low prices.
Whereas time constraints will be overcome with easier ways of accessing goods or services by utilizing digital access (Kotler, P. & Keller, 2012).

2.1.1 E-Service Quality
E-service quality defines as the ability of a website to facilitate efficient and effective shopping, purchasing, and delivery activities. The dimension for measuring electronic services are E-S-QUAL (e-core service quality), which consists of (Zeithaml et al, 2005; Moez, 2017):

a. Efficiency: Ease and speed of access and use of the site.
b. Fulfilment: The extent to which the site’s promises regarding the delivery of orders and the availability of service are fulfilled.
c. Availability of the system: The technical functioning of the site
d. Privacy: The extent to which the site is safe and protects the client’s information.
e. Contact: Availability of assistance by telephone or online representative. Provide email addresses, telephone and fax numbers, and other communication channels such as direct assistance and chat rooms related to contact dimensions.

Service quality is defined as a meaningful perception of service quality on the customer’s assessment of the service (Ushantha et al., 2014).

H1 : Efficiency positively influences the perception of digital car insurance.
H2 : Availability positively influences the perception of digital car insurance.
H3 : Fulfilment positively influences the perception of digital car insurance.
H4 : Privacy positively influences the perception of digital car insurance.
H5 : Contact positively influences the perception of digital car insurance.

2.2. Technology Increases Consumer Value
Customer value is the value that results from one's experience and interaction with a product or service (Hsiao et al., 2016). Perceived value not only influences consumption decisions but also influences others behavioural outcomes such as customer satisfaction, intentions of use, and loyalty (Yang & Peterson, 2004). Values are generally divided into benefits (utilitarian) and pleasure (hedonic) (Hsiao et al., 2016).

2.2.1. Sales Promotion
Sales promotion is tool of marketing to increase customer value in achieving short business goals, sales promotion has a direct influence on the volume of business sales and influence consumer purchase intention and motivate them towards faster and larger purchases (Rehman et al., 2017). Sales promotion in monetary promotion type is influenced by utilitarian benefits consisting of monetary savings, quality, and convenience (Kivetz & Zheng, 2017). In previous study, they found a positive relationship between high price discounts making a perception of better quality (Lee & Chen-Yu, 2018).

H6 : Monetary promotion positively influences the perception of digital car insurance.

2.3. Perception
Perception can be defined as the process by which individuals choose, arrange, and interpret the input of their senses to give meaning and order to the brands around them. According to the business dictionary, customer perception can be defined as customer impression, awareness about the company or its offer. Future purchase intention is influenced by the perception of the quality of any product or brand (Sultan et al., 2019).

2.3.1. Perceived Quality
Perceived quality in service is the result of an evaluation process where customers
compare expectations with the results received (Ushantha et al., 2014). In the cognitive-affective model, researchers define perceived quality as a cognitive response to something that affects product purchases. In the field of marketing, perceived quality construct is recognized as the main factor that supports purchase intention. Perceived quality is also an added value for customers in the purchasing process to distinguish a company from other competitors (Asshidin et al., 2016). Perceived quality can be defined as a customer's evaluation of a product or service that affects its attitude towards the product and purchase intention. Researchers report that the higher perceived quality affects the higher attitude (Jung & Seock, 2016).

H7 : Perception positively influences the attitude of digital car insurance.

2.4. Attitude

Attitude is the tendency of learning to behave consistently to like or not an object. Another characteristic of attitude is its tendency to last long or be consistent. Attitude consists of three components, cognitive which describes the knowledge, beliefs or thoughts of an individual about an object such as beliefs about a particular brand. Affective component is the emotional feeling of an individual towards an object, for example the level of customer's liking or dislike for a particular brand that was previously evaluated for that object. Behavioural component (behaviour) describes an individual's reaction to an object as often as customers buy a particular brand (Schiffman, Leon G and Kanuk, 2012). There are positive relationship between attitude towards brands and their intention to buy (Moez, 2017).

H8 : Attitude positively influences purchase intention of digital car insurance.

2.5. Purchase Intention

Purchase intention is a psychological activity that arises because of feelings (affective) and thoughts (cognitive) about the desired goods or services. Purchase intention can be interpreted as a favourable attitude towards an object that makes individuals try to get the object by paying for it with money or with sacrifice (Schiffman, Leon G and Kanuk, 2012). Purchase intention is the probability of a consumer buying a product/service. It is likely that consumers will buy a product/service because consumers perceive the product/service to be attractive so that it will cause buying interest (Chiu et al., 2014). Price savings have a positive effect on purchase intention (Crespo-Almendros & Del Barrio-García, 2016). Discounts are a common marketing strategy to attract customers by adding value, which will encourage customers to buy the product being promoted (Lee & Chen-Yu, 2018).

H9 : Monetary promotion positively influences purchase intention of digital car insurance.

2.6. Services

Services are economic activities proposed by one party to another. The activities are usually time-based, in the form of an activity (performances) that gives the desired results to customers, objects, and other assets. Customers will get value or access in the form of physical, labour, or data by giving money, time, and effort in exchange. The nature of the process can be seen (tangible) and cannot be seen (intangible). There are four service categories (Wirtz & Lovelock, 2016); people processing, possessions processing, mental stimulus processing, and information processing. In this study, digital car insurance is included in information processing category because of its intangible assets.

3. Data and Method

3.1. Methodology

This study wants to investigate how perception and attitude of e-service quality (efficiency, availability, fulfilment, privacy, and contact) and sales promotion (monetary
promotion) influence purchase intention on digital car insurance. This research was conducted based on a previous research model “Electronic Services Co-Creation Experience, Telecommunications Sector in Tunisia as an Example” (Moez, 2017). This study also adds other variables, such as perception that affects attitude. Perception of perceived quality has a positive relationship with attitude. Experience felt by the customer towards service quality strengthens his attitude towards the product concerned (Nam et al., 2017). This study also adds sales promotion as a variable that affects perception (Lee & Chen-Yu, 2018). Figure 1 shows the research model of this study.

3.2. Data Collection
The sample category of this study is car owners who have internet access and have visited any digital car insurance website, but they do not have digital car insurance yet. The sampling technique is convenience sampling, which is a non-probability sampling technique where samples were obtained based on convenience, respondents were chosen because of their existence at the time and place where the researcher was conducting research.

We use a questionnaire survey as a method of data collection. To measure the variables of our model, we used Likert type with five points from (1) strongly disagree to (5) strongly agree and pre-tested with minimum 30 respondents. The operational variables of questionnaire shown in Table 1.
Table 1 – The Operational Variables

<table>
<thead>
<tr>
<th>No</th>
<th>Source</th>
<th>Variable</th>
<th>Code</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Ghosh, 2018)</td>
<td>Efficiency</td>
<td>EFF1</td>
<td>It is easy to find what I want on the site</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>EFF2</td>
<td>The website enables me to complete the transaction very quickly</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>EFF3</td>
<td>The information on the website is well organized</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>EFF4</td>
<td>The pages on the website load fast</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>EFF5</td>
<td>The website is simple to use</td>
</tr>
<tr>
<td>6</td>
<td>(Ghosh, 2018)</td>
<td>Fulfillment</td>
<td>FUL1</td>
<td>The website delivers order as promised</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>FUL2</td>
<td>The website has truthful offerings</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>FUL3</td>
<td>The website makes exact promises about the quality of its products</td>
</tr>
<tr>
<td>9</td>
<td>(Ghosh, 2018)</td>
<td>Availability</td>
<td>AVA1</td>
<td>The website is always available for business</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td>AVA2</td>
<td>The website does not crash</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>AVA3</td>
<td>The website pages do not freeze when I enter information of my order</td>
</tr>
<tr>
<td>12</td>
<td>(Ghosh, 2018)</td>
<td>Privacy</td>
<td>PRI1</td>
<td>The website does not share my personal information with others</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>PRI2</td>
<td>The website protects all the information about my web-shopping behavior</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td>PRI3</td>
<td>The website protects information about my credit/debit card</td>
</tr>
<tr>
<td>15</td>
<td>(Shafiee &amp; Bazargan, 2018)</td>
<td>Contact</td>
<td>CON1</td>
<td>There is online customer service (chatbot)</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td>CON2</td>
<td>There's helping future by human not system</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td>CON3</td>
<td>There is number that can be contacted</td>
</tr>
<tr>
<td>18</td>
<td>(Antunes, 2018)</td>
<td>Monetary Promotion</td>
<td>MON1</td>
<td>I really save money</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td>MON2</td>
<td>I feel that I am getting a good deal</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td>MON3</td>
<td>I really spend less</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td>MON4</td>
<td>I can have a higher-quality product at the same price</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td>MON5</td>
<td>I can afford a better than usual product</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td></td>
<td>MON6</td>
<td>I can upgrade to a better brand</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
<td>MON7</td>
<td>Sales promotion remind me that I need the product</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td>MON8</td>
<td>Sales promotion make my life easy</td>
</tr>
<tr>
<td>26</td>
<td>(Lee &amp; Chen-Yu, 2018)</td>
<td>Perception</td>
<td>PER1</td>
<td>Digital car insurance has good quality</td>
</tr>
<tr>
<td>27</td>
<td></td>
<td></td>
<td>PER2</td>
<td>Digital car insurance is reliable</td>
</tr>
<tr>
<td>28</td>
<td></td>
<td></td>
<td>PER3</td>
<td>Digital car insurance is valuable</td>
</tr>
<tr>
<td>29</td>
<td>(Carlson &amp; O’Cass, 2010)</td>
<td>Attitude</td>
<td>ATT1</td>
<td>Digital Car Insurance has a good website</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td>ATT2</td>
<td>My perception of digital car insurance is good</td>
</tr>
<tr>
<td>31</td>
<td></td>
<td></td>
<td>ATT3</td>
<td>I have positive attitude with digital car insurance</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td></td>
<td>ATT4</td>
<td>I like car insurance with digital concept (InsurTech)</td>
</tr>
<tr>
<td>33</td>
<td>(Peng et al., 2019)</td>
<td>Purchase Intention</td>
<td>PI1</td>
<td>If I were to buy car insurance, I would consider buying form website/apps (online)</td>
</tr>
<tr>
<td>34</td>
<td></td>
<td></td>
<td>PI2</td>
<td>The likelihood of my purchasing the digital car insurance is high</td>
</tr>
<tr>
<td>35</td>
<td></td>
<td></td>
<td>PI3</td>
<td>My willingness to buy the digital car insurance is high</td>
</tr>
</tbody>
</table>

Source: Analysis by the author (2020)

3.3. Data Analysis
Structural Equation Model (SEM) is a method for estimating a series of interdependent relationships between variables in a model (Malhotra et al., 2016). In testing the SEM model, we use Goodness of Fit (GOF) to see how well the specified model matches the
observed data or the sample obtained. In order to get GOF result, we use three measures to assess the model, those are absolute fit measures, incremental fit measures, and parsimonious fit measures (Wijanto, 2015).

4. Results

4.1. Sample Characteristics
A total of 216 usable responses were obtained after removing a total of 170 invalid responses. The respondents’ ages ranged from 15 to 24 years (12%) and from 25 to 54 years (88%). The respondents were about men (56%) and women (44%). The majority of profession were private employee (81%). The education level of respondents were bachelor degree (75%), followed by magister (13%), diploma (7%), and high school (4%). The economic status stated in spending numbers, the majority of respondents were spend about IDR 5 million to IDR 10 million (40%), followed by IDR 1 million to IDR 5 million (29%), IDR 10 million to IDR 15 million (16%), above IDR 15 million (13%), and less than DIR 1 million (2%).

4.2. Validity and Reliability Measures
In validity and reliability measurement, we calculate this analysis using LISREL software version 8.80. Validity measurement is needed to be able to see the level of accuracy of each indicator or the extent to which each indicator can explain a variable. The indicator can be said to be valid if it has a standardized loading factor (SLF) > 0.5.
Reliability measurement is needed to be able to see the consistency of a measurement. Reliability measurement is obtained by the calculation of Construct Reliability (CR) and Variance Extracted (VE) components where CR is said to be reliable if it has a value greater than 0.70 (CR ≥ 0.70) and VE can be called reliable if it has a value greater than of 0.50 (VE ≥ 0.50).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>SLF</th>
<th>T-Value</th>
<th>Notes</th>
<th>SLF 2</th>
<th>E</th>
<th>CR</th>
<th>VE</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>EFF1</td>
<td>0.77</td>
<td>12.57</td>
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<td>0.26</td>
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</table>

Source: Analysis by the author (2020)

4.3. Structural Model and Hypothesis Testing Result
Table 3 shows this model is satisfactory. Even though the Standardize Root Mean Square Residual (SRMR) is greater than 0.05 (marginal fit), Goodness of Fit Index (GFI) is less than 0.90 (poor fit), and Adjusted Goodness of Fit Index (AGFI) is less than 0.90 (poor fit), the majority of absolute fit measures, incremental fit measures, and parsimonious fit measures have good fit value.
Table 3 – The Fitting Quality of the Structural Model

<table>
<thead>
<tr>
<th>Category</th>
<th>Index</th>
<th>Acceptance Level</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
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<tr>
<td>Absolute Fit</td>
<td>Chi-Square</td>
<td>P-value ≤ 0.05</td>
<td>0</td>
<td>good fit</td>
</tr>
<tr>
<td></td>
<td>RMSEA</td>
<td>RMSEA ≤ 0.08</td>
<td>0.071</td>
<td>good fit</td>
</tr>
<tr>
<td></td>
<td>RMR</td>
<td>RMR ≤ 0.05</td>
<td>0.042</td>
<td>good fit</td>
</tr>
<tr>
<td></td>
<td>Standardize</td>
<td>SRMR ≤ 0.05</td>
<td>0.057</td>
<td>marginal fit</td>
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<tr>
<td>Incremental Fit</td>
<td>GFI</td>
<td>GFI ≥ 0.90</td>
<td>0.78</td>
<td>poor fit</td>
</tr>
<tr>
<td></td>
<td>AGFI</td>
<td>AGFI ≥ 0.90</td>
<td>0.74</td>
<td>poor fit</td>
</tr>
<tr>
<td></td>
<td>CFI</td>
<td>CFI ≥ 0.90</td>
<td>0.97</td>
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</tr>
<tr>
<td></td>
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<td>good fit</td>
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<tr>
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<td>NNFI/TLI</td>
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<tr>
<td></td>
<td>RFI</td>
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<td>good fit</td>
</tr>
<tr>
<td></td>
<td>IFI</td>
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<td>0.97</td>
<td>good fit</td>
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<td>Parsimonious Fit</td>
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<td>Chisq/df &lt; 3.0</td>
<td>2.15</td>
<td>good fit</td>
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</table>

Source: Analysis by the author (2020)

Hypothesis testing is obtained by the t-value in the structural model measurement, if the t-value is greater than 1.96, then the relationship has a positive effect. Figure 2 shows the results of the adjustment of the global structural model used to test our research hypotheses.

Figure 2 – Hypothesis Testing

The results indicate that only three of the five dimensions of e-service quality significantly affect the perception towards digital car insurance. More specifically, the efficiency (β = 0.35, t-value = 2.6), privacy (β = 0.16, t-value = 2.34), Contact (β = 0.26, t-value = 2.79). So the H1, H4, and H5 are accepted. Meanwhile the rest of dimensions, fulfilment (β = -0.07, t-value = -0.77) and availability (β = 0.02, t-value = 0.17) don’t have positive effect because of the t-values is less than 1.96, so it concludes H2 and H3 are not accepted.

The results show that monetary promotion affect the perception towards digital car insurance (β = 0.29, t-value = 3.78), thus supporting H6. Similarly, the results confirm the positive link between perception and attitude towards digital car insurance (β = 0.97, t-value = 11.53), thus supporting H7. The results also show the positive impact from attitude to purchase intention (β = 0.81, t-value = 8.84), thus supporting H8. The monetary promotion has positive affect to the perception of perceived quality digital
car insurance (H6) but it doesn’t have direct positive affect to purchase intention ($\beta = -0.04$, t-value = -0.56), thus H9 is not accepted.

5. Discussion

The first highlight of the research is not all the dimensions of e-service quality have positive affect of perception toward perceived quality on digital car insurance.

a. Efficiency positively influences the perceived quality of digital car insurance. The biggest loading factor on the EFF variable (0.77), there are EFF1 (It is easy to find what I want on the site) and EFF5 (The website is simple to use) indicators. This is consistent with the previous research which is website must be user friendly so that customers can use when they want to do the transaction. Information categories, product recommendations, and information can be found easily for customers to find when needed, this includes the efficiency dimension of a website (T. Singh et al., 2016). However, if seen from the average value of EFF1 answers which have a mean value of 4.17 and EFF5 which has a mean value of 3.98, it indicates that respondents agree that the website/application currently provides convenience for user needs, but respondents have not fully agreed that website/apps of digital car insurance is user friendly.

b. Fulfilment does not affect the perceived quality of digital car insurance. In the fulfilment variable, the indicator is whether the website/application provides services according to the offer. This hypothesis is rejected because in the purchase intention stage, fulfilment cannot be measured or felt by the user at the beginning. They must at least do the transaction to feel the feeling of fulfilment. In line with previous study, this dimension is more relevant to post sales issues, where customers already shop and want to receive what was expected before (Blut, 2016).

c. Availability does not affect the perceived quality of digital car insurance. In the availability variable, the indicator is whether the website/application always functions properly. There may be no effect because disruptions to the website/application may occur not only from the company side, but also there are many personal factors such as provider, internet network, and user location. This proves that availability variable may not be as important as the others, due to differences in speed from system to other systems affected by the internet network (T. Singh et al., 2016).

d. Privacy positively influences the perceived quality of digital car insurance. Overall all indicators of privacy variable have big loading factors value, such as PRI1 (0.82), PRI2 (0.96), and PRI3 (0.83). The website/application guarantee confidentiality of personal information with other parties (PRI1), data transaction (PRI2), and information of payment (PRI3), those are important factors in shaping positive perceptions of digital car insurance. All indicators on the PRI variable are in line with the concept of safekeeping personal information on the internet which is a significant issue related to privacy (Ayo et al., 2016). However, if seen from the average PRI1, PRI2, and PRI3 that have mean value above 3 but below 4, it indicates that the respondent has not fully agreed that the current digital car insurance website/application are able to guarantee the confidentiality of personal data transactions and data payment.

Contact positively influences the perceived quality of digital car insurance. The biggest loading factor in contact variable is CON2 (0.79). Assistance features handled by humans instead of the system is an important factor in shaping positive perception of digital car insurance. This is in line with the advantages of live chat that gives customers a guarantee, compared to interactions with the system (Blut, 2016). The average value of contact variable is greater than 4, that means respondents agree that the current website/application of digital car insurance provides online customer service (chat bot) and assistance handled humans are not a system.

Monetary promotion positively influences the perceived quality of digital car insurance. The biggest loading factor of this variable are MON4 (0.85) and MON5 (0.83). Those are respondents can get better quality (MON4) and respondents can afford to buy products with sales promotion (MON5). This is consistent with the research of Huang et al. (2014).
and Rungrakulchai (2013), they found a positive relationship between price discount makes perception of better quality (Lee & Chen-Yu, 2018). However, if seen from the mean value of all indicators of the MON variable which has a mean value above 3 but below 4, it indicates that the respondent has not fully agreed that the current website/application for digital car insurance provides sales promotion.

e. Respondents’ perception of perceived quality positively influences their attitude towards digital car insurance. The biggest loading factor of perception value is PER2 (0.91). Digital concept of car insurance (PER2) is an important factor in forming a positive attitude towards digital vehicle insurance. In line with previous research, the greater the perception of the quality of services offered by the site to customers, the better their attitude towards these commercial websites (Moez, 2017), also the higher perceived quality affects the high attitude (Jung & Seock, 2016). The mean value of perception variable is greater than 4, this indicates that the respondent agrees that the car insurance with digital concept is interesting.

f. Respondents’ attitude positively influences the purchase intention of digital car insurance. All indicator in attitude variable have big loading factor values, such as ATT1 (0.80), ATT2 (0.89), ATT3 (0.85), and ATT4 (0.88). Respondents considered that the website/apps of car insurance with a digital concept was good (ATT1), their perception was good of digital car insurance (ATT2), their attitude was positive towards digital car insurance (ATT3), and they like digital car insurance (ATT4). All four are important factors in driving purchase intention. Respondents considered that This is consistent with the basic principle, the better the attitude and subjective norm, the higher intention to change behaviour (Ahmadi Danyali, 2018). The mean value of attitude variable is greater than 4, it indicates that the respondent agreed that car insurance with digital concept is good, their perceptions and attitudes become positive towards car insurance, and they like digital car insurance.

g. Monetary promotion does not directly affect purchase intention towards digital car insurance. This happens probably because the discount from the normal price creates a negative effect on perceived quality (Lee & Chen-Yu, 2018).

h. In the purchase intention variable, the variable with the biggest factor loading is PI2 (0.91), which is the possibility of buying digital car insurance is high. Indicator PI1 (0.78) with an average mean value of 4.01 states that the average respondent agrees if the will buying car insurance, they will buy from website/application.

6. Conclusions

6.1. Managerial Implications
Overall e-service quality has positively influences perceived quality of digital car insurance, the results indicate that only three of the five dimensions of e-service quality significantly affect the perception towards digital car insurance. That doesn't mean fulfillment and availability is not important, but compared with others dimension (efficiency, privacy, contact), they are least important. The results of e-service quality provide insights for insurance companies that user friendly website, the assurance of keeping personal information, and presence of human assistance are significantly influence perceived quality.

Monetary promotion has two different sides related to purchase intention. The relationship will be positive if the customer has the experience and spend time to understand because insurance is a product that is closely related to safety, meanwhile if it's given directly to purchase intention stage, monetary promotion will impact on the low perceived quality. Insurance companies may re-evaluate the use of price promotions compared to giving discounts, companies can provide more benefits or valuable services.

6.2. Limitations and Future Research
There are some limitations of this study. This research ignore the conditions where the
respondent already has any car insurance. This could lead to different expectation for the one who never has any type of insurance and the one who has already although it’s not the digital one.

Future research may be interesting to re-examine the study with a larger sample size to provide more representative results. Then, future research may add screening questions on the questionnaire to ask whether they are already have any type of car insurance products to deepen the analysis. The last future research can develop the model to next stage, repurchase intention. This research model can be used for others insurance companies or financial services companies in retail business (B2C).

References


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ANALYZING ANTECEDENT OF REPURCHASE INTENTIONS IN MARKETPLACE USING ONLINE TRUST-MECHANISMS: AN EMPIRICAL STUDY OF CONSUMER TRUST ON TOKOPEDIA

Verdy Septian Nugraha¹; Aswin Hadisumarto²

Abstract

Purpose: This study describes and extends the current literature about customer online-trust mechanisms as the antecedent of customer’s repurchase intentions in the marketplace environment.

Methodology: The research collects survey data from 749 Tokopedia customers in Indonesia to test the proposed research model. Empirical studies conducted using SEM-PLS approach.

Findings: This study found that both party, marketplace and e-seller have their path on forming repurchase intention. However, the findings indicate that, for Indonesian customers, the marketplace, such as Tokopedia, has a critical role in forming any online transaction than an e-seller who has a low significant effect. It is mean that there is no interchangeable relationship between the role of the marketplace as third parties and e-seller informing customer repeat purchase.

Originality/value: The research aims to explain customer behavior in the online marketplace environment in forming a trust to e-seller and marketplace using a sample from Indonesian customer and Tokopedia marketplace, which have a different business model with previous research. The aim is to confirm and explore the propersness of the trust-mechanism model.

Practical implications: Our results can help the manager to select which marketplace feature can be maintained and developed to improve customer trust base on the dimension and usefulness that customers perceived.

Research limitations: Categorizing the sample whose have a lot of experience and first-timer customer is needed to expand the variety of results base on their prior experience. Also, the model can be used to explain the trust-mechanism in a different type of e-commerce, such as apply to studies social commerce.

Keywords: Trust mechanism; Online shopping; E-Marketing; Repurchase intention; E-Marketplace.

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1. Introduction

With over 171.17 million internet users, compared to 6.1% of users who do online shopping, Indonesia offers high potential for online retail marketplaces to grow. In this situation, marketplaces compete with each other to reach a high number of market share from these potential internet users. In such a competitive environment, marketplace and e-seller are facing critical issues to remain profitable by retaining their repeat customer. Retaining repeat customers will incur lower marketing costs and will help both the electronic marketplace and electronic sellers improve their business (Vides, 2014). Moreover, repeat customers will be useful for both parties to spread their positive shopping experiences to their friends, helping them promote their business (Liu & Tang, 2018).

However, retaining customers in marketplaces is inherently challenging because of the competitive environment and uncertainty factor faced by the customer. Based on APJII Survey Report (2019), 18.8% of respondents more likely prefer to conduct offline shopping because they can see and get their products or services directly. According to Martin et al. (2015), customers hardly trust the e-sellers and do repurchase from the same e-seller because they are facing a lack of control over the product they try to buy. To reduce uncertainty and to stimulate trust, marketplaces have implemented various transaction systems, including providing feedback systems, reviews and rating page, and escrow services to attract first-time customers and retain old ones. This research tries to explain the role of online trust affects repurchase intention using the three-factor of trust mechanism simultaneously and aims to procreate a guide for the marketplace and seller to retain their customers and persuade the new one in the marketplace environment.

The paper is divided as follows. In part 2, the literature related to this research. Then follow by methodology and research design. Data and results are studied in section 4. The final part if this section is conclusions and managerial implications.

2. Literature Review

2.1 Trust concept in e-commerce marketing

Trust is confidence in other parties. Trust also can be defined in terms of ability, integrity, and benevolence (McKnight et al., 2002). Ability is related to the capability and competencies of a trustee in specific contexts. Integrity concerns trustees following moral and ethical principles that are considered acceptable by the trustor. Benevolence concerns the extent to which the trustee has good faith towards the trustor. The perception of these elements will influence the trustor to have trust in the trustee. In an e-commerce environment, we can classify trust into three categories: First, interpersonal trust is trust between the customer and those who provide and provide online transaction services. Second, institutional trust is trust between the customer and the website system that provides online services. Third, dispositional trust is trust between the customer and other parties, either in the form of customers or service providers (McKnight & Chervany, 2014).

Trust can be defined when we confidence that transaction partners will act in good faith and in the right way (Hong & Cho, 2011). In online shopping, trust positively related to customer participation and the action of purchase in e-commerce (Hoffman et al., 1999). By growing customer trust in the e-sellers can overcome the risk problems that exist in customer perceptions and increase customer purchase and repurchase intentions to use marketplaces. The study of trust in e-commerce involves trust between two parties in the transactions process, namely e-sellers in the marketplace platform and marketplace as a platform that provides facilities (Pavlou & Gefen, 2004). Customers can trust in e-sellers when they confidence that e-sellers can act honest and consistent in service offerings (Fang et al., 2014). It will influence their purchase intentions and eliminate customer concerns about risks when doing online transactions. Trust in marketplaces is
the conviction of the consumer that marketplaces have established and applied fair policy, maintain their competence and reliability of their system, and function with integrity (Pavlou & Gefen, 2004). The trusted marketplace also should provide a safe, excellent service environment and deals effectively with malicious sellers (Pavlou & Gefen, 2004). Therefore, trust in marketplaces can assure customers that doing a transaction with unknown e-sellers, they will be free from transaction risks. Trust in e-sellers and marketplaces are factors that influence customer shopping behavior in the context of marketplaces (Hong & Cho, 2011).

2.2 Trust-mechanisms in the marketplace
When conducting online transactions, customers do not have the opportunity to be able to touch the product directly. The efforts to mitigate risks and uncertainties have been developed, for example, designed websites properly, provide online feedback systems, create online forums, guarantee third parties, or involves particular insurance (Liu & Tang, 2018). These efforts intended to provide various information about the seller, products, and transaction processes. Based on these various information, there are three categories of online trust-mechanisms based on its source to improve customer trust and how the process of forming customer perceptions and feelings towards e-sellers and marketplaces.

The first source is the role of the electronic seller, who provides any information to customers on their homepage about their profile information, products, and terms of their service (Daignault et al., 2002; Kim et al., 2011). This source will be called seller-base mechanisms (SBM), which refer to the seller’s store web page that provide information about a product, company profiles, and service statements. The role of this source is to guide customers to understand what sellers are trying to inform and diminish confusion about the products and services offered (Chen et al., 2017).

The next source is the rating and feedback system as information, generated by experienced-customers who share their experiences in the marketplace platform after performing purchase (Daignault et al., 2002; Kim et al., 2011). This information influences the behavior of potential customers through experience-based mechanisms (EBM), which refer to informal and external information about products and seller service quality base on other customers experienced. Examples of this mechanism include online ratings, textual reviews, feedback about the product, and e-seller—also, reputation values and the presence of virtual communities. EBM enhances customer knowledge by allowing the previous customer to provide information and recommendation (Park et al., 2014). A system that accumulates product-related feedback and seller reputation utilizes the ability of two-way communication between customers and sellers that will form a word-of-mouth network (Ma et al., 2014). These systems will assist customers when gathering information about the product, helping customer concerns about the risk of the transaction process, and stimulated customer trust in e-sellers (Ba & Pavlou, 2002).

The last source is the presence of a third-party institution, which provides and maintains the security of the transaction and do independent verification about the quality of e-sellers (Daignault et al., 2002; Kim et al., 2011). Third-party institution refers to the structure of the impersonal system that influences customer behavior through institutional-based mechanisms (IBM)(Pavlou & Gefen, 2004). Customer behavior will be influenced by a system that mitigates the potential risk of each transaction and providing a proper environment through institution guarantees, such as insurance, escrow system, privacy protection, and perfect marketplace platform (Fang et al., 2014). This mechanism creates guarantees system, regulations, and standards operational to protect customer’s interests when doing transactions (Fang et al., 2014; Kim et al., 2011).
3. Data and Method

This study is conclusive research in order to test some hypotheses and check the relationships between variables. The research used primary data collected using a self-administrated online questionnaire. Data were collected from respondents from all over Indonesia, aged above 18 years old, and who had used and did transactions in Tokopedia in the last six months since they received the questionnaires. The sampling technique used was a nonprobability sampling technique, with the minimum number of respondents being 195 respondents refer to Hair et al. (2013) rule of thumbs. There was a total of 39 indicators from 6 variables that were used in this study. All indicators were measured on a 7–point Likert scale (1 = strongly disagree; 7 = strongly agree). The measurements were derived from a previous study by Liu & Tang (2018). All variables were reliable (Cronbach alpha of more than 0.6), and all indicators valid showed factor loading more than 0.5, so it could be used for further analysis. Data processing was carried out using the SmartPLS data processing program with Structural Equation Modeling (SEM) technique.

![Figure 1 - Research Model](source: Processed by Author)

From Figure 1, the proposed model shows the hypothesis presented as follows:

Hypothesis 1a. The perceived usefulness of seller-base-mechanisms (PUSBM) has a positive effect on forming customer trust in the e-seller.

Hypothesis 1b. The perceived usefulness of seller-base-mechanisms (PUSBM) has a positive effect on forming customer trust in the marketplace.

Hypothesis 2. The perceived usefulness of experience-based-mechanisms (PUEBM) has a positive effect on forming customer trust in the e-seller.

Hypothesis 3. The perceived usefulness of institutional-based-mechanisms (PUIBM) has a positive effect on forming customer trust in the marketplace.

Hypothesis 4. The relation between trust in the e-seller and repurchase intentions negatively moderates by trust in the marketplace.
4. Results

Table 7 - Validity and Reliability Test

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Factor Loading</th>
<th>Cr α</th>
<th>Composite Reliability</th>
<th>AVE</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived usefulness of Experience-Based Mechanism (PUEBM)</td>
<td>PUEBM1</td>
<td>0.805</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUEBM2</td>
<td>0.810</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUEBM3</td>
<td>0.773</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUEBM4</td>
<td>0.832</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUEBM5</td>
<td>0.827</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUEBM6</td>
<td>0.907</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived usefulness of Institution-Based Mechanism (PUIBM)</td>
<td>PUIBM1</td>
<td>0.668</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUIBM2</td>
<td>0.660</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUIBM3</td>
<td>0.656</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUIBM4</td>
<td>0.801</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUIBM5</td>
<td>0.693</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUIBM6</td>
<td>0.848</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUIBM7</td>
<td>0.682</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUIBM8</td>
<td>0.706</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived usefulness of Seller-Based Mechanism (PUSBM)</td>
<td>PUSBM1</td>
<td>0.711</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUSBM2</td>
<td>0.709</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUSBM3</td>
<td>0.637</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUSBM4</td>
<td>0.762</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUSBM5</td>
<td>0.750</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PUSBM6</td>
<td>0.718</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust in the marketplace (TrustM)</td>
<td>TRUSTM1</td>
<td>0.682</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTM2</td>
<td>0.785</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTM3</td>
<td>0.802</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTM4</td>
<td>0.788</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTM5</td>
<td>0.859</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTM6</td>
<td>0.799</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust in the e-seller (TrustS)</td>
<td>TRUSTS1</td>
<td>0.651</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTS2</td>
<td>0.763</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTS3</td>
<td>0.799</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTS4</td>
<td>0.843</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTS5</td>
<td>0.799</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTS6</td>
<td>0.815</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRUSTS7</td>
<td>0.833</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repurchase intentions (Repurchase)</td>
<td>Repurchase1</td>
<td>0.770</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repurchase2</td>
<td>0.560</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repurchase3</td>
<td>0.720</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repurchase4</td>
<td>0.737</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repurchase5</td>
<td>0.797</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repurchase6</td>
<td>0.763</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Collected and Processed by Author

This research was initiated with a pilot test for 36 people. A pilot test was conducted to find out whether the questionnaire was feasible to be distributed to the actual respondents. The aim was to minimize the possibility of problems in data collection, such as understanding the questionnaire well and that there are no questions that have multiple interpretations.

The number of valid questionnaires in the data collection process was 749 questionnaires. The majority of respondent gender is males with 95%. As for the majority of the respondent age is 21-30 years old, with 62%. The majority of respondent income from the range of Rp.1.000.000 – Rp.4.999.999 with 45%. Most of the respondent's jobs are students with 42%. For residence, most of the respondent lives in Jakarta, Bogor,
Depok, Tanggerang, and Bekasi (Jabodetabek) with 33%. 47% of the respondent also have used Tokopedia for online shopping more than 25 times. From the output data, Table 1 presents the validity and reliability result. Cronbach's α for each variable surpass 0.70, suggesting good reliability. The average variance extracted (AVE) score for every construct meet the recommended level 0.50 (Table 1). For factor loadings, most of the item's score is above the recommended value 0.70, with some consideration for an item below 0.70, which still can be included if deleting the item would decrease the AVE score (Hair et al., 2013). Therefore, all factor loading for each item in the research can be mentioned as valid.

Table 8 – Results of Structural Model – Research and Hypothesis

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>T-value</th>
<th>P-value</th>
<th>Path Coefficient (β)</th>
<th>Conclusion</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>H01a = The perceived usefulness of seller-base-mechanisms has a positive effect on forming customer trust in the e-seller.</td>
<td>11.748</td>
<td>0.000</td>
<td>0.526</td>
<td>T-values indicate that the hypothesis is accepted</td>
<td>Significant and positive</td>
</tr>
<tr>
<td>H01b = The perceived usefulness of seller-base-mechanisms has a positive effect on forming customer trust in the marketplace.</td>
<td>6.536</td>
<td>0.000</td>
<td>0.276</td>
<td>T-values indicate that the hypothesis is accepted</td>
<td>Significant and positive</td>
</tr>
<tr>
<td>H02 = The perceived usefulness of experience-based-mechanisms has a positive effect on forming customer trust in the e-seller.</td>
<td>4.649</td>
<td>0.000</td>
<td>0.583</td>
<td>T-values indicate that the hypothesis is accepted</td>
<td>Significant and positive</td>
</tr>
<tr>
<td>H03 = The perceived usefulness of institutional-based-mechanisms has a positive effect on forming customer trust in the marketplace.</td>
<td>13.870</td>
<td>0.000</td>
<td>0.211</td>
<td>T-values indicate that the hypothesis is accepted</td>
<td>Significant and positive</td>
</tr>
<tr>
<td>H04 = The relation between trust in the e-seller and repurchase intentions negatively moderates by trust in the marketplace.</td>
<td>0.788</td>
<td>0.210</td>
<td>-0.030</td>
<td>T-values indicate that the hypothesis is rejected</td>
<td>Not Significant and negative</td>
</tr>
</tbody>
</table>

trust in the marketplace affects repurchase intentions. * | 12.911 | 0.000 | 0.590 | T-values indicate that the relationship has a significant and positive effect. |

Trust in e-seller affects repurchase intentions. * | 2.295 | 0.000 | 0.105 | T-values indicate that the relationship has a significant and positive effect. |

Notes: (*) Two-tailed Test (>1.96)

Source: Data Collected and Processed by Author

For the structural model, this study conducts a standard bootstrap resampling procedure when analyzing the model. As shown in Table 2, H1a, which explains PUSBM has a positive influence on customer trust in the e-seller and H1b, which state PUSBM has a positive influence on customer trust in the marketplace was supported. It indicates customer perceives the seller base mechanism has proven useful and stimulates trust to both marketplace and electronic seller as a service provider. H2, which states that
PUEBM has a positive effect on forming customer trust in the e-seller, also has significant impact and positive influence. It means that trust in the e-seller increases when PUEBM increases. Next hypothesis, H3, which states that PUIBM has a positive effect on forming customer trust in the marketplace, was also supported by the results. The final hypothesis, H4, states the interaction between repurchase intentions and customer trust in e-seller negatively moderates by trust in the marketplace was not supported by the results; rejecting customer repurchase intentions can be generated by the presence of electronic seller only. By looking at each main effect, trust in the marketplaces has a more significant effect on stimulating repurchase intentions, which indicates that marketplaces have a direct impact on repurchase intentions. This concludes that for this research sample, trust in the marketplaces has more critical force than trust in the e-seller, and the relationship to stimulate repurchase intention is mainly formed by trust in the marketplaces. Thus, H4 was rejected.

Table 3 – Results of Structural Model – $R^2$ Output

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repurchase Intentions (Repurchase)</td>
<td>0.460</td>
</tr>
<tr>
<td>Trust in the e-marketplace (Trust_M)</td>
<td>0.590</td>
</tr>
<tr>
<td>Trust in the e-seller (Trust_S)</td>
<td>0.441</td>
</tr>
</tbody>
</table>

Source: Data Collected and Processed by Author

As shown in Table 3, the proposed research model explains 46.0 percent of the variation ($R^2$) of repurchase intention, 59 percent of trust in the e-marketplace, and 44.1 percent of trust in the e-seller. The construct of trust in the e-marketplace has two exogenous constructs (perceived usefulness of institutional-base-mechanisms and perceived usefulness of seller-base-mechanisms), and trust in the e-seller also has two exogenous constructs (perceived usefulness of seller-base-mechanisms and perceived usefulness of experience-base-mechanisms). To evaluate the effect size, refer to $f^2$ of each exogenous variable that can be divided into three classification sizes. There are 0.02, 0.15, or 0.35, which represent a weak, medium, or strong effect at the structural level (Henseler et al., 2009). The results show that perceived usefulness of institutional-base-mechanisms and perceived usefulness of seller-base-mechanisms value are 0.589 and 0.132, which indicates that PUIBM has a strong effect on trust in the e-marketplace while PUSBM has a moderate effect. For trust in the e-seller, the exogenous variable is the perceived usefulness of seller-base-mechanisms has a strong effect (effect size $f^2 = 0.350$). In contrast, the perceived usefulness of experience-base-mechanisms has a weak effect (effect size $f^2 = 0.056$) to trust in the e-seller.

To estimate the predictive relevance of the research model, $Q^2$ also being estimated. Henseler et al. (2009) suggest that the model can be stated as having predictive relevance if the score of $Q^2$ of the endogenous variable is higher than 0. The $Q^2$ for trust in the e-marketplace, trust in the e-seller and repurchase Intentions are 0.223, 0.333 and 0.333, respectively, indicating that the proposed research model has predictive relevance.

5. Discussion

The research model had explanatory power in explaining trust-mechanism that influences a customer repurchase intention. The results have different findings with previous literature that find trust in the e-seller has a dominant role in stimulating customer repurchase intentions (Liu & Tang, 2018). By looking at each independent variable effect, PUIBM that represents the feature that Tokopedia offer in their platform, perceived by the customer to be useful than PUSBM in forming a trust to the marketplace. Its means that feature such as escrow service, privacy protection, payment system and insurance in marketplace Tokopedia has performed well in serving their customer needs for the online transaction. In contrast, PUSBM has a lower effect
compare to PUIBM because it is generated from how well the e-seller utilizes the features (seller-base mechanism) that Tokopedia offers to them, for their service offering to customers. This seller-base mechanism represents features such as e-seller store homepage, product image and video layout, and also the performance of e-seller in providing their product and service information to the customer using the description panel. PUSBM can be translated to trust in the e-marketplace because the customer will perceive that the e-seller performed better by utilizing an e-seller's feature, which provided and maintained by Tokopedia as a marketplace platform. The results of the hypothesis are in harmony with previous studies that tested similar hypotheses by Kim & Ahn (2007), which indicate that institutional-base mechanism has a substantial effect in forming a trust to e-marketplace than seller-base mechanism.

The result of PUSBM was also confirmed by Liu & Tang (2018), which generates a similar result that explains when the customer perceives the seller-base mechanism to be useful, it will affect the increase of trust to e-marketplace and trust to e-seller simultaneously. In another aspect, the influence of PUSBM has a higher effect on trust in the e-seller because the e-seller is controlling the quality of this seller-base mechanism directly. Fang et al. (2014) also revealed that the quality of e-seller in utilizing their store homepage and providing information in the e-marketplace platform to the customer would give a strong effect to form a trust to e-seller. Refer to these results, e-seller in Tokopedia marketplace must find a strategy to attract customer by themselves using every feature that Tokopedia offer. One possible explanation for this case because Tokopedia also acts as an aggregator that also could collect the same e-seller who sell the same products, so e-seller cannot rely upon their business entirely to Tokopedia in forming repurchase intention.

The last independent variable is PUEBM which represent the usefulness of feature such as feedback, review, and rating system of product and seller in Tokopedia marketplace. The experience-base mechanism has a significant effect in forming a trust to e-seller, which can be concluded that the mechanism of online rating and feedback systems in Tokopedia has been beneficial for the customer. This review and rating system has helped the customer to assess whether the e-seller can complete the transaction or not, how the product fits the description described, the reliability of the seller's service, or how the seller communicates with the customer. In a research conducted by Park et al. (2014), who researches the effect of online consumer reviews on consumer purchasing intention, revealed that rating and reviews function could be used strategically by e-seller as a communication channel that leads to purchase intention. The research by Park et al. (2014) proved that the experience-base mechanism could be perceived as useful when it can produce relevant and persuasive reviews generated by other customers in e-marketplace Tokopedia. According to the research output, the result of PUEBM is significant lower compare to PUSBM in forming a trust to e-seller. One possible explanation is the quality of online reviews in Tokopedia is still insufficient in giving a more detailed format that providing user-oriented information to improve consumer's understanding of a product or e-seller performance. The review often only simple comment that does not provide any detailed information. Tokopedia and e-seller should strategically improve this feature by stimulating the involvement of customers to create better reviews by offering rewards or incentives for customers who are giving better and more detailed reviews of product and service information.

This research also showed that a trustworthy marketplace has directly influence repurchase intentions and did not find a significant effect that trust in the marketplace negatively moderates the relationship between trust in the e-seller and repurchase intentions. It indicates that Indonesian customers depend on the marketplace when doing online transactions. Moreover, they perceive that marketplace is more trustworthy than an e-seller. In this case, the role of the marketplace becomes more trustworthy and contingent because of its overall business model and featured service. Tokopedia as a marketplace deeply involved in transactions mechanism and provided featured services that exclusive to Tokopedia and their partners such as digital wallet, bills payment, and
financial technology that could improve customer trust in Tokopedia as a marketplace. Tokopedia functions also act like a department store that involving official merchants from many brands in their retail environment. Due to this business model, customers can easily trust in the marketplace than e-seller because they provide legitimate merchants. The finding is different from research conducted by Liu & Tang (2018) in e-Bay, which, e-seller play a more prominent role because the marketplace does not involve directly in the process of the online transaction. It can be concluded that the flexibility and degree of involvement of the marketplace play a significant role in forming repurchase intentions. The moderation effect of trust in the marketplace on the relationship between trust in the e-seller and repurchase intentions has a negative value, but not significant. A possible explanation for this result is because there is a need to redefine the experience of the customer when conducting online shopping. Because of the more experienced customer, they tend to see the marketplace as a common thing, which not gives a benefit or advantage to them. An experienced customer has a set of skills that allows them to judge which e-seller can be trusted to conduct any transaction. Research conducted by Kim & Ahn (2007) also mentions the same result, which confirms that the more experienced consumers are, the more they focus on e-sellers. The research indicates that customers have been able to make better judgments in assessing which e-sellers are trustworthy and they can predict the behavior of the e-sellers themselves. In this situation, the e-marketplace existence will be perceived as irrelevant to experienced customers, and they need to develop a more efficient transaction system and giving more advantages or benefits to customers to keep using their platform. By looking at the finding of this research, the actual case for Indonesian customers still does not have judgments in assessing which e-sellers because the hypothesis proved not supported by data. Perhaps, it should be an improvement for future research to distinguish the experienced customer in the next research to provide a more accurate result.

Eventually, trust in the marketplace can be concluded has a vital role in examining customer repurchase intention because Indonesian customers more likely will look to Tokopedia as a marketplace before doing online transactions. So, to maintain customer repurchase intention, Tokopedia should maintain an institutional feature to keep customer trust and keep using their e-marketplace platform. Besides that, low relation between trust in the e-seller on stimulating repurchase intention indicates that the company also should pay more attention to guide and provide an e-seller with better features and services to improve customer trust on e-seller. Trust in the e-seller could be built by creating a better seller home page so they can provide better and more precise information about their products and services. For example, make their store homepage more interactive, efficient and attractive. The role of e-sellers in the marketplace environment still crucial because they are frontline with a strong bargaining position in creating repeat purchases in the Tokopedia marketplaces. Tokopedia should make a balanced decision when improving trust-mechanisms so that it could benefit both Tokopedia and e-seller. Moreover, Tokopedia could provide a feature such as the social media environment in its platform to improve customer relationships with e-sellers, so they have a better communication channel and promotion.

Furthermore, the results of this study strengthen many previous studies in the context of trust mechanism in an e-commerce environment. Based on these results, we can see that trust in the marketplace and electronic seller has a significant influence on forming customer repurchase intentions. The model could help both parties to maintain their sales and reduce their marketing cost in the future by focusing their effort on the mechanism that could stimulate customers to conduct repeat purchases.

6. Conclusions, Implications and Future research

In this study, the results showed that repurchase intention could be stimulated by customer trust in the marketplace and the e-seller. Both parties have been proven to have a significant effect on repurchase intention, and each of them has a path to
influence customer behavior. This shows that the higher trust, the higher customer more likely to make repeat purchases. Nevertheless, in terms of doing online shopping, Indonesian customers more likely to see the marketplace first before they conduct any transaction. This indicates that e-seller perceived by the customer to be less trustworthy and need further improvement in their service offering.

Regarding trust in the e-seller, Tokopedia should help improve customer trust in e-seller in order to attract more e-seller as the primary business partner to sell their product in Tokopedia. They should pay more attention to help e-seller improve their business to generate more customers using the Tokopedia platform. By helping e-seller, Tokopedia also could use them to promote their exclusive product. The e-seller act as frontline means that better service from them could also invite more customer and potential user to use Tokopedia as the primary business partner. Moreover, depending on this trust-mechanism model, Tokopedia can adjust its focus when developing its marketplace based on the three mechanisms to increase the perceived usefulness in the marketplace environment in order to form trust and repurchase intention among potential customers.

6.1 Research implications
These three types of online trust-mechanisms are developed base on previous studies, which only examined each mechanism individually. The result of this research reveals there is no intertwining relationship between trust in the e-marketplace and trust in the e-seller. The result supports the research by Hong & Cho (2011) and Kim & Ahn (2007), who found trust in the e-marketplace has a significant effect on trust in the e-seller and forming repurchase behavior. The result of this research highlight the complex nature of trust in the e-marketplace environment. The complexity could be caused by the role and business strategy of e-marketplace itself, e-seller performance, and also the experience of customers, which differ from one and another. These results highlight that all types of trust-mechanisms play essential roles in the marketplace environment and have different effects on two types of trust. By evaluating these trust-mechanisms, e-seller and e-marketplace can adjust the focus to increase the perceived usefulness of these mechanisms so customers could become more satisfied, loyal, and intend to conduct repurchase.

6.2 Limitations and future research
The research also has its limitation, where the participant of the survey also has experience in using another type of e-commerce to conduct an online transaction. Such experience could affect customer behavior on forming a trust to other parties when doing online transaction. Indonesia has various types of e-marketplace with different trust-mechanism provided, and this model only conducted to analyze marketplace Tokopedia. In Tokopedia marketplace, repurchase intention could be affected by the type of product or service that provided, which cause to create different perceived of use among customer who often uses Tokopedia for paying a bill and use financial service or purchase product from their retail commerce.

The experience of customers also plays a vital role in the trust-building mechanism. The more experienced customers, the more they know which party that can be trusted, and the presence of e-marketplaces could be not that substantial for that person. This research did not distinguish between experienced and non-experienced customers. Further research could add this to be included in their control variable for better understanding and explanation. The primary data collection is conducted through social media and social messenger applications due to time constraints and environmental situations. This situation makes it impossible to observe the process of the respondent when filling questionnaires directly. Thus, respondents can have an error either accidentally or intentionally.

Further study could use the proposed model to research different kinds of marketplaces business models or a new type of e-commerce, such as social commerce. Social commerce offers very different trust mechanisms that rely more on social features that
covered in the experience-base mechanism. Therefore, the model can be used to analyze how trust-mechanism affects trust and repurchase intention in the social commerce platform.

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References


THE IMPORTANCE OF AN EFFECTIVE TEACHING-LEARNING PROCESS OF ENGLISH AS A SECOND LANGUAGE IN HIGHER EDUCATION COURSES IN PORTUGAL

Catarina Mesquita ¹;

Abstract
Purpose: To show evidence of the importance effective teaching-learning process of English as a second language in higher education in Portuguese Tourism degrees, pointing out possible strategies in this regard.

Methodology: First, the importance of English in the field of tourism in this global world is presented. Second, possible future approaches are suggested concerning the teaching-learning process of English as a foreign language in Tourism degrees, as a way of effectively preparing students for careers in this area.

Originality: This work aims to bring new proposals that lead to a more efficient teaching of English as a foreign language in higher education courses in the field of Tourism, for students to benefit from effectively solid knowledge of this language in their future careers.

Findings: It became evident that nowadays many Portuguese students leave higher education and, later, arrive at the job market with gaps as speakers of English which can compromise job opportunities in the field of Tourism. This work presents specific strategies that can then be followed to improve the dichotomous relationship between the teaching and learning process of English as a foreign language, in the context of Portuguese higher education institutions, with degrees in Tourism areas.

Keywords: English; Tourism; Higher education; Portugal; Careers.

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EFFECT OF EXPECTATION AND SATISFACTION ON THE CONTINUITY OF E-WALLET USE: STUDY CASE GOPAY INDONESIA
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Abstract
Purpose: Indonesia as top three increasing volume number worldwide of digital new user in recent years, digital disruption has pushed the transformation method of payment from cash to cashless. The growth of cashless transactions, as well as the number of players, is becoming a trend, especially with e-wallet. This study aims to understand the factors that influence user intention toward e-wallet providers, with study case Gopay as the highest monthly active user in the market.

Methodology: This study uses the expectation–confirmation model to examine the relationship of customer expectation, perceived enjoyment, perceived ease of use, sales promotion, satisfaction, and repurchase intention of using e-wallet as a type of payment. The data is collected using a convenience sampling technique from 255 Gopay users. Using SEM as a statistic method, we examine the hypothesis and research model.

Findings: We find this study reveals that expectation have positive impact to perceived enjoyment, perceived ease of use and satisfaction. While satisfaction have a positive impact to repurchase intention. Additionally, satisfaction is a mediation variable between expectation and perceived enjoyment toward repurchase intention. And sales promotion is also having positive impact to repurchase intention. However, perceived enjoyment and perceived ease of use have not direct influence repurchase intention.

Originality/value: This study is examined customer expectation toward satisfaction and repurchase intention of e-wallet. As e-wallet is becoming new lifestyle of payment especially in past one year in Indonesia.

Practical implications: The result of this research is beneficial for e-wallet player to know better user behaviour toward repurchase intention. (this section is not mandatory. Use only when applicable) In this section explain why your results are relevant, what changes it brings?

Research limitations: The study is limited focus to analyse Gopay as market leader in term of monthly active user. The number of samples also limited and not yet analysed based on consumer’s volume of transaction.

Keywords: customer expectation, perceived enjoyment, perceived ease of use, expectation–confirmation model, satisfaction, repurchase intention.

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1. Introduction

Indonesia has massive digital growth that has forced the industry transformation to be digital. Including payment system has transformed from cash to card, card to server based. The new way of payment using server based known as e-wallet, growing significantly in past 2 years. Pioneer of e-wallet is T-Cash (known as LinkAja) under telco provider in 2007. However, the number of users is slow, until Gopay join the industry in 2016 and introduce the new payment along with another player like Ovo and Dana in next couple of years.

The player is trying to introduce e-wallet by doing promotion and other marketing strategy. This activity success impact on the rank of monthly active user are fluctuated. While LinkAja is dropping their rank, Ovo and Dana as new player success ranked in second and third position. While Gopay remain in first position for monthly active user.

Due to the tight of the competition, we would like to understand what is the factors that influence user's intention toward e-wallet. Learn from Gopay as the highest monthly active users, we focus the study on Gopay user.

Inspired by the previous studies (Ashfaq et al., 2019; Oghuma et al., 2016; McNeill et al., 2016). We use the expectation-confirmation model (ECM) from Ashfaq et al’s (2019) to examine the influence factor intention toward continuous intention. ECM are using to analysed consumer post expectation and to study relationship with expectation, satisfaction and continuous intention. Sales promotion construct is adding in the model to analyse the impact to satisfaction and continuance intention. Based on previous study McNeill et al. (2016), Sales promotion was moderating variable to satisfaction. Hence, we would like to understand, whether sales promotion have direct impact as construct to satisfaction and continuous intention. Data were analysed, evaluate, and interpret the SEM model, whereas Lisrel was used to test the model. We will examine six variables with eleven hypotheses from the model.

The paper will follow with a literature review in section 2. Then continue in section 3 with data dan method. Then the result of the study will be shown in section 4. Continue with Discussion in section 5 and final section 6 for the conclusion of the paper.

2. Literature Review

Ashfaq et al. (2019) build research model based on ECM that were proposed by Bhattacharjee (2001). The ECM has subsequently been used in various studies of Information Technology (IT) continuance intention and consumers’ repeat purchase decisions. Previous study have analysed factors affecting Repurchase Intention (Wen et al., 2011), digital textbooks (Joo et al., 2017), mobile instant messaging users (Oghuma et al., 2016), e-commerce and consumer repeat purchase intention (Hsu et al., 2015), e-service (Liao et al., 2007), mobile social apps users (Hsiao et al., 2016), and mobile Internet users (Hong, Thong, & Tam, 2006). In these studies, the individual’s intention to continue IT usage is authorized as a direct outcome of three variables: the extent of user’s confirmation of expectations; the post adoption expectations, in the form of perceived usefulness and the user’s level of satisfaction. Bhattacharjee, also, focused on the congruence between individuals’ continued IT usage decisions and consumers’ repeat purchase decisions, and suggested the ECM in the IT literature to explain the idea of customers’ continuance intention. Customer would satisfy and have tendency to use IT if their expectation is accomplished by perceived value in good or service (Bhattacharjee, 2001).

2.1 Expectation

Expectation is a belief that is formed before making a purchase of a product or service (Olson & Dover, 1979). Previous research (Joo et al., 2017) regarding digital environment proves that there is a positive influence of expectation on perceived enjoyment, perceived usefulness, and satisfaction.
Perceived enjoyment is defined as how much activity using a computer is considered pleasant, without considering the consequences of negative implications that can be overcome (Bagozzi et al., 1992). Perceived enjoyment is also defined as the user experience of pleasure, happiness and interest that will be evaluated by customers during the shopping process (Arnold & Reynolds, 2003). In line with research on short messages (Oghuma et al., 2016) also confirms that there is a positive relationship between expectation and perceived enjoyment. Research by Ashfaq et al. (2019) also proves that there is a positive relationship between expectation and perceived enjoyment.

Perceived ease of use is defined as how much confidence in the use of a system is free of effort or must be explainable, easily known, and easy to do (Davis, 1989). Several studies have proven that perceived ease of use is influenced by expectation (Hong et al., 2006). Consumers will experience unpleasant experiences in shopping online if they experience difficulties or require a large effort in using the application or website. Research by Ashfaq et al. (2019) also prove there is a positive relationship between expectation and perceived ease of use.

Expectation is an important factor of satisfaction, this is stated from a variety of previous studies (Boulding et al., 1993; Parasuraman, A., Zeithaml, VA, Berry, 1988) that the importance of satisfaction and suggest to learn about how to meet, fulfill, and managing expectation for satisfaction. Similar research results were found by Hsieh et al. (2011) and Ashfaq et al. (2019), Hsu et al., (2015) and Joo et al., (2017).

Based on the explanation above, the following are the researchers' hypotheses regarding the expectation:

- H1. Expectation has a positive influence on perceived enjoyment.
- H2. Expectation has a positive influence on perceived ease of use.
- H3. Expectation has a positive influence on satisfaction.

2.2 Satisfaction
Research from various disciplines has studied the relationship between expectation, perceived ease of use, perceived enjoyment of satisfaction (Hong et al., 2006; Hsu et al., 2015; Thong et al., 2006). The research proves that there is a positive relationship between perceived enjoyment with satisfaction on digital textbook (Joo et al. (2017), on digital TV (Jung and Chung, 2012), on social media applications (Hsiao et al., 2016), and in a short message (Oghuma et al., 2016). Correspondingly, Ashfaq et al. (2019) research also proved that there was a positive relationship between perceived enjoyment and satisfaction.

Previous research also has proven that there is a significant relationship between perceived ease of use and satisfaction (Hong et al., 2006), and the ease of use, efficiency, privacy and security also significantly influence satisfaction. (Hammoud et al., 2018)

Based on the explanation above, here are the hypotheses that affect satisfaction:

- H4. Perceived enjoyment has a positive effect on satisfaction.
- H5. Perceived ease of use has a positive effect on satisfaction.

Perceived ease of use as an internal factor and perceived enjoyment as a motivational factor, proved to have a strong relationship. Where perceived ease of use directly affects the perceived enjoyment (Igbaria et al., 1995). Based on other studies found that perceived ease of use has a positive effect on perceived enjoyment (Davis, Bagozzi, & Warshaw, 1992).

Based on the relationship between perceived ease of use and perceived enjoyment, the following hypotheses are built:

- H6. Perceived ease of use has a positive relationship with perceived enjoyment.

2.3 Repurchase Intention
Repurchase Intention is a person's judgment regarding the repurchase of products or services from the same company brand taking into account the current situation and
possible circumstances (Hellier et al., 2003). Perceived enjoyment, perceived ease of use, and satisfaction are proven to have a direct and indirect influence on repurchase intention for online shopping (Wen et al., 2011). Research on online shopping also proves that satisfaction is a major construct in increasing repurchase intention and building long-term relationships between companies and customers (Lee, Lee, Lee, & Babin, 2008; Wen et al., 2011). Satisfaction has also been shown to influence directly and indirectly for repurchase intention (Wen et al., 2011). Previous research regarding information technology also showed a significant influence between satisfaction with repurchase intention (Hsiao et al., 2016; Oghuma et al., 2016). Satisfaction is also a trusted and most important predictor of buying behavior such as purchase intention, brand choice, repurchase intention, or sustainability to use (McQuitty et al., 2000; Oliver, 1993). Accordingly, the study of Ashfaq et al in 2019 also proved that there was a positive relationship between satisfaction and repurchase intention.

Perceived enjoyment influences repurchase intention positively (Wen et al., 2011), sustainability using mobile short messages (Oghuma et al., 2016), and the continued use of social media applications (Hsiao et al., 2016). Whereas the perceived ease of use has a relationship to repurchase intention using a smartphone application (Okumus & Bilgihan, 2014) and the sustainability of intentions using mobile internet (Hong et al., 2006). In the study of Ashfaq et al. (2019) also prove there is a positive relationship between perceived ease of use with repurchase intention.

The following hypotheses will be used for constructs that affect repurchase intention:

- **H7.** Satisfaction has a positive effect on repurchase intention.
- **H8.** Perceived enjoyment has a positive effect on repurchase intention.
- **H9.** Perceived ease of use has a positive effect on repurchase intention.

### 2.4 Sales Promotion

The American Marketing Association (2017) states that one of the goals of sales promotions is to stimulate the first purchase and increase consumer demand. Sale promotions in various forms trying to make stimulate that make consumers provide the expected response. This invitation can be done in a limited period of time to arouse consumer intentions, stimulate interest, encourage customers to try products, increase sales or encourage trade (Ehrenberg, ASC; Hammond, Kathy; Goodhardt, 1994) (Ehrenberg et al., 1994; Gilbert and Jackaria, 2002; Ndubisi and Moi, 2005).

Customer satisfaction is known as a factor that has a positive influence on market share. Satisfaction is usually moderated by other factors such as price and perceived value. Transaction utility theory states that consumers provide cognitive judgment on promotional prices after the purchase process. Sales promotion after purchase will provide the intention to repurchase later. Research also shows unexpected promotional product relationships and improves cognitive satisfaction and pleasure processes (McNeill et al., 2014).

Based on the explanation above, the hypotheses built for sales promotion are as follows:

- **H10.** Sales promotion has a positive effect on satisfaction.
- **H11.** Sales promotion has a positive influence on repurchase intention.

### 3. Data and Method

#### 3.1 Sampling and Data Collection

Criteria for respondents for this study were Gopay users. Researchers used screening questions by asking whether respondents made payments using the Gopay application in the past week. If the respondent answers confirming making payments with Gopay in the past week, then the respondent will proceed to the next question. However, if the respondent answers no, then the respondent will not be directed to the closing page. From 270 data collected, 15 respondents answered not using the Gopay application as a payment in the past week. So that the total number of respondents used...
for processing this data is 255. The questionnaire was distributed online through a Google sheet form with 23 scale questions, 4 demographic questions, and 5 question types of gopay users.

3.2 Instruments and Selection
Six constructs are used, which are expectation (EXP), perceived enjoyment (PE), perceived ease of use (PEOU), satisfaction (SAT), Sale Promotion (SP), and repurchase intention (RPI). The questionnaire was developed in Indonesian language, as the study was held in Indonesia. Constructions for EXP, PE, PEOU, SP, and RPI are formed based on a 7-point Likert type scale (range, 1 = strongly disagree to 7 = strongly agree), while the SAT construct is developed based on a 7-point Likert-type scale (range, 1 = very dissatisfied until 7 = very satisfied).

3.3 Data Analysis
The questionnaire items need to validity in accordance with a predetermined theory. Then the questionnaire questions need to be empirically tested against sample respondents before being distributed to the main sample. Furthermore, in addition to the validity test of research instruments in the form of questionnaires also need to be tested for reliability. Are measurements consistent, careful, and accurate. The reliability test aims to determine the consistency of the instrument as a measurement tool, so that the results of a measurement can be trusted. Variables will be tested using the SPSS version 25 application. Measurements will show variable values, mean values (M), and standard deviations (SD). Malhotra states that the validity test can be declared fulfilled if it meets the following conditions (Malhotra, 2010). If KMO (Kaiser-Meyer-Olkin) more than 0.5, significance value is less than 0.05, component matrix more than 0.5 and produces 1 component matrix, communalities more than 0.5, or cumulative percentage of more than 50%

Measurement techniques and structural techniques used to test research models. The model will be tested for suitability using a structural suitability test with the help of the Lisrel application version 8.8. In testing the structural model fit will be done through an assessment of 3 parts, namely the absolute fit measures, the incremental fit measures, and the parsimonious fit measures. Absolute fit measures are measurements to determine the extent to which the model can predict the correlation and covariance matrices. Measures used to analyze absolute fit measures are Chi-Square, Goodness of Fit Index (GFI), Root Mean Square Residual (RMR), and Root Mean Square Error of Approximation (RMSEA). Chi-Square value will get better if the value is smaller, GFI produces a good fit if it has a value less than 0.05, and RMSEA gets a good fit if it has a value below 0.08. Incremental fit measures are measurements by comparing the model used with the basic model (using the assumption that all variables in the model are independent of each other). The measures used for Incremental fit measures are Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Tucker-Lewis Index or Non-Normed Fit Index (NNFI), Relative Fit Index (RFI), and Incremental Fit Index (IFI). The AGFI value can be said to be good fit if it has a value greater than 0.90, if it has a value that is between 0.80 to 0.90 it is called marginal fit. RMR can be said to be good fit if it has a value less than 0.05, and RMSEA gets a good fit if it has a value below 0.08. Incremental fit measures are measurements by comparing the model used with the basic model (using the assumption that all variables in the model are independent of each other). The measures used for Incremental fit measures are Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Tucker-Lewis Index or Non-Normed Fit Index (NNFI), Relative Fit Index (RFI), and Incremental Fit Index (IFI). The AGFI value can be said to be good fit if it has a value greater than 0.90 while if it is between 0.80 to 0.90 it is called marginal fit. CFI can be said to be good fit if it has a value greater than 0.90, if it has a value between 0.80 to 0.90 it is marginal fit. NFI value can be said to be good fit if it has a value greater than 0.90, while an NFI that is between 0.80 to 0.90 is marginal fit. NNFI is said to be good fit if it has a value greater than 0.90, if an NFI that is between 0.80 to 0.90 is marginal fit. RFI can be said to be good fit if it has a value greater than 0.90, if an RFI that is between 0.80 to 0.90 is marginal fit. IFI value can be said to be good fit if it has a value greater than 0.90, if an IFI that is between 0.80 to 0.90 is marginal fit. Parsimonious fit measures are measurements that connect the GOF model with the estimated number of parameters. The measure used for the analysis of parsimonious fit
measures is the Normed Chi-Square obtained from Chi-Square divided by the degree of freedom. Normed Chi-Square has a good fit if it has more values between 1 and 3.

4. Results

4.1 Profile respondent
The gender of respondents has a higher proportion of women, 166 (65%), while male respondents are 89 (35%). Respondents were mostly at the productive age of 92%, consisting of ages 23-30 years at 110 (43%) and 31-45 years at 124 (49%). The type of work of the research respondents was also dominated by private employees, namely 158 (62%), followed by civil servants or BUMN or BUMD as many as 59 (23%). The most recent education of respondents was 162 bachelor’s degrees (64%), followed by Masters (49%). In terms of using Gopay as a means of payment, the average respondent uses Gopay in a week is 4-7 times as many as 112 (44%), then less than 3 times as many as 76 (30%), and above 8 times 67 (26%). The average number of transactions is at most between 50-200 thousand as much as 67%, consisting of 50-100 thousand as many as 110 (43%) and 100-200 thousand as many as 60 (24%).
Most of each indicator has an average value above 5 (agree), except for the Perceived of Use (PEU) has an average of below 6. This means that the average Gopay user fully agrees to each indicator statement.

4.2 Validity, Reliability and Good of Fit Test
Validity test in the analysis on SEM was obtained from the calculation of confirmatory factor analysis using Lisrel 8.80 software. Validity test will provide the results of the calculation of the accuracy of each indicator or the extent to which each indicator can explain a variable. The indicator will be said to be valid if it gets a standardized loading factor (SLF) value above 0.5.
Reliability tests are carried out to analyze the consistency of a measurement. A high reliability value will indicate the indicator has a high consistency to measure the variable. Reliability measurements are carried out through the calculation of construct reliability (CR) and variance extracted (VE) components, where CR is said to be reliable if it has a value greater than 0.70 (CR ≥ 0.70) and VE is declared reliable if it has a value greater than 0.5 (VE ≥ 0.5). The table below is the result of calculating CR and VE for each variable.
In testing the structural model fit will be assessed through three parts, namely the absolute fit measures, the incremental fit measures, and the parsimonious fit measures. Of the three assessments, absolute fit scores good fit for three indices (RMSEA = 0.78), and RMRA = 0.095), marginal fit for two indices (standardize RMR = 0.054 and GFI = 0.84) and poor fit for Chisquare (0.000). While incremental fit gets good fit for five indexes (CFI = 0.98, NFI = .97, NNFI = 0.98, RFI = 0.96, IFI = 0.98) and marginal fit for one index (AGFI = 0.8). Finally, parsimonio fit obtained a good fit for the index (Chisquare/df = 2.54).

4.3 Result
Hypothesis testing is done by analyzing the t-value in the structural model. A relationship between variables is stated to have a positive effect if it has a t-value greater than 1.64. Based on the t-value obtained that seven hypotheses were proven true, while four hypotheses were rejected. Here is a picture of the hypothesis that has been completed with the t-value.
The result study has proven that expectation have positive relationship to perceived enjoyment (t-value = 3.7) and perceived ease of use (t-value = 12.59), perceived Enjoyment (t-value = 11.24) and Expectation (t-value = 7.35) have positive relationship with Satisfaction, and Satisfaction (t-value = 5.22) and sales promotion (t-value = 2.68) have positive relationship with Repurchase Intention. While others five hypothesis is rejected, which are perceived ease of use has positive relationship to Perceived enjoyment (t-value = 0.26) and satisfaction (t-value = 0.19) repurchase intention (t-value = 0.61), and Sales promo has positive relationship to Satisfaction (t-value = 1.6).

5. Discussion

Expectation has a positive effect on perceived of enjoyment, perceived ease of use and satisfaction. This is in line with previous research in digital environment conducted by Joo et al. (2017), Oghuma et al. (2016) and Ashfaq et al. (2019). These researches have proven that there is a positive effect of expectation on perceived enjoyment. The number of loading factor of the three expectation indicators of 0.9 for EXP1, 0.9 for EXP2 and 0.89 for EXP3, are important factors that will affect the perceived enjoyment. While mean of EXP1 are 5.4, EXP2 of 5.4 and EXP3 of 5.5 indicates that the expectations of Gopay’s users have not been fully met by Gopay. Expectation also has a positive effect on perceived ease of use. User’s expectations will influence user’s perception in the ease of using the Gopay application. Based on the high loading factor for the three expectation indicators, this indicator is an important factor that will affect the perceived ease of use. This is in line with previous research conducted by Hong et al. (2006), Liao et al. (2007) and Ashfaq et al. (2018). And expectation also has a positive effect on satisfaction. Number of loading factors of the three expectation indicators are 0.9 for EXP1, 0.9 for EXP2 and 0.89 for EXP3, it can be concluded that these three indicators are important factors that will affect satisfaction. The results of this study are in line with previous studies (Hsieh, Yuan, & Kuo, 2011; Ashfaq et al., 2018). When a customer's expectation is met by a company, then the customer is likely to be satisfied. But it should also be noted that the top two value is still at 50%, there is still room for improvement to increase satisfaction.

Expectations are variables that give an indirect effect on the continuity of consumers to continue to use certain digital payment instruments. Where expectations provide an influence on the continued use of digital payment instruments through mediator variables the level of satisfaction and perceived enjoyment. When consumer expectations are increasingly fulfilled by e-wallet services, it will increase the perceived enjoyment and at the same time increase the level of satisfaction as well, which will increase the
sustainability of consumers to continue to use e-wallet as a digital payment instrument. Expectations were also proven to have a positive effect on perceived ease of use, however perceived ease of use did not have a significant effect on perceived enjoyment, customer satisfaction, and continuance of using Gopay. E-wallet player expected to pay attention to consumer expectations by modifying marketing strategies, design interface or customer experience that is fun and entertaining, so as to increase the level of customer satisfaction. Hence the users will continue to use the e-wallets. Expectations of each consumer can be varied, by utilizing consumer data, e-wallet can be carried out segmentation and marketing approaches to fulfil expectations differently.

Perceived ease of use as an internal factor and perceived enjoyment as a motivational factor were found to have a strong relationship, where perceived ease of use directly affected the perceived enjoyment (Igbaria et al., 1995). Based on other studies found that perceived ease of use has a positive effect on perceived enjoyment (Davis, Bagozzi, & Warshaw, 1992; Teo, Lim, & Lai, 1999). However, this study shows differently, perceived ease of use has no positive effect on satisfaction. Perceived ease of use has no positive effect on satisfaction. While users have given perceived ease of use is the highest number compare to another construct, meaning that users have already satisfy with less effort to use Gopay, and its good value for Gopay. However, ease of use does not impact to satisfaction, due to users thought that ease of use is mandatory factor in using the payment. Even though the level of perceived ease of use is the highest, but it does not impact to satisfaction.

The hedonic factor in this case is perceived enjoyment, the utilitarian factor in this case is perceived ease of use, and psychological / social factors in this case satisfaction have a direct and indirect influence on repurchase intention in online shopping (Wen et al., 2011). The study shows satisfaction has a positive effect on repurchased intention. When viewed from the loading factor of the three satisfaction indicators of 0.92 for SAT1, 0.93 for SAT2, 0.93 for SAT3, 0.9 for SAT4 and 0.68 for SAT5, it can be concluded that a factor of four of the five indicators becomes important factors that will affect repurchase intention. However, if seen from the mean values ranging from 5.3 to 5.6, it indicates that Gopay users do not yet have full satisfaction with Gopay services. The results of this study are in line with previous studies (Hsiao et al., 2016; Oghuma et al., 2016; Ashfaq et al., 2019).

Perceived enjoyment is a consistent predictor of behavior (Childers, Carr, Peck, & Carson, 2001). Perceived enjoyment positively influences repurchase intention (Wen et al., 2011) at the time of ordering, booking intentions or both (Koufaris, Kambil, & LaBarbera, 2001). Perceived enjoyment also affects intentions for sustainability using blogs (Shiau & Luo, 2013), sustainability using short messages (Oghuma et al., 2016), and the continued use of social media applications (Hsiao et al., 2016). Whereas the perceived ease of use has a relationship to intention and sustainability using smartphone applications (Okumus & Bilgihan, 2014) and intention to use mobile internet (Hong et al., 2006). Ashfaq et al's research in 2019 proved that there was a positive relationship between perceived ease of use and repurchase intention. However, this study show relationship between perceived enjoyment and repurchase intention obtains a t-value less than 1.64, which is 0.61 or hypothesis is rejected, so it can be said that perceived enjoyment has no positive effect on repurchase intention. This gives the meaning that Gopay users have not perceived enjoyment variable as a variable that affects the repurchase. The results of this study are in line with research on the secondhand brand which also rejects this hypothesis (Ashfaq et al., 2019).

The relationship between perceived ease of use and repurchased intention obtains a t-value less than 1.64, which is 0.17 or the H9 hypothesis is rejected, so it can be said that perceived ease of use has no positive effect on repurchased intention. If seen from the highest loading factor of the indicator perceived ease of use is PEU three and four 0.86 for PEU3, and 0.88 for PEU4, it can be concluded that these two indicators become important factors that will affect repurchase intention. However, if seen from the mean...
values ranging from 5.2 for both of these indicators indicate that Gopay users do not yet fully find the Gopay application easy to use. The level of customer satisfaction is an important factor in marketing that has a direct influence on the continued use of certain types of e-wallet. The level of customer satisfaction is directly affected by perceived enjoyment and expectations. Then the need for e-wallet owners to know and control the level of customer satisfaction. This can be done by regularly surveying the level of customer satisfaction with e-wallet services. And cera routinely also evaluates based on the results of the survey to be able to improve services in order to improve the level of e-wallet consumer satisfaction. The relationship between sales promotion and satisfaction has a t-value smaller than 1.64, which is equal to 1.6 or the H10 hypothesis is rejected, so it can be said that sales promotion has no positive effect on satisfaction. In addition, previous marketing research found that consumer involvement with products and services was associated with perceived risk, information seeking behavior, brand commitment and loyalty, brand transfer, advertising, and segmentation (Michaelidou and Dibb, 2008). While the level of involvement is related to satisfaction, repurchase intention and increased word of mouth (Josiam et al., 2005). Consumers involved are more enthusiastic, satisfaction, curious, and impulsive when shopping than uninvolved buyers (Park et al., 2006). With the involvement of consumers looking for information on sales promotion is expected to increase satisfaction. The relationship between sales promotion and repurchased intention obtains a t-value greater than 1.64, which is 2.68 or the H11 hypothesis is accepted, so it can be said that sales promotion has a positive effect on repurchased intention. If seen from the highest loading factor of the sales promotion indicator is SLP2 and SLP4 which is 0.82 for SLP 2 and for 0.88 for SLP4, it can be concluded that these two indicators are important factors that will affect repurchase intention. However, if it is seen from the mean values ranging from 5.0 for both of these indicators it indicates that Gopay users have not fully received sales promotion properly. The results of this study are in line with previous studies (Ehrenberg et al., 1994; Gilbert and Jackaria, 2002; Ndubisi and Moi, 2005).

The continued use of certain e-wallets by consumers is directly affected by the level of customer satisfaction and sales promotion. After monitoring and making efforts to increase the level of consumer satisfaction, it is necessary to pay attention to the sales promotion program. Sales promotion itself has a significant positive effect on the sustainability of e-wallet use. Sales promotion strategies need to be carried out routinely, such as offering discounted discounts, user-specific promotions, offers for specific times such as on the week of salary receipt, or on weekends. Things like this can be done to improve the sustainability of consumers using certain types of e-wallet.

6. Conclusions

Based on the results of research and discussion that has been described, this study has conclusions that the expectations of Gopay’s users have positive relationship with satisfaction, perceived enjoyment and perceived ease of use in using the Gopay application as digital payments. Perceived enjoyment of Gopay’s users has a positive relationship to satisfaction but it not has positive affect continue to use Gopay as a payment. Perceived ease of use Gopay as a payment instrument do not have a positive relationship with perceive enjoyment and continue to use Gopay as a payment. Satisfaction of Gopay’s users has a positive relationship to continue using Gopay as payment. While sales promotion does not have positive relationship to satisfaction, but it has a positive effect on consumers' desire to continue to use Gopay as a means of payment.

This research still has limitations in the process and its scope. For this reason, researchers suggest make improvements in the future research. Future research to be able to add other variables, such as factors forming expectation and the effect of advertising. Expectation is a variable that significantly influences the level of customer
satisfaction and subsequently affects the sustainability of consumers to use certain products. So that it is well understood the variables forming expectations and how much influence. Furthermore, advertising also needs to be seen towards the sustainability of the use of certain products by consumers. Because advertising also has an indication to shape consumers' perceptions of products which in turn will shape and influence consumers' perceptions and expectations of certain products. Advertising is also important for the Indonesian market considering that e-wallet players actively carry out advertising activities both online and offline.

It is necessary to examine the influence of demographics and analysis of respondent's segmentation. So that more accurate analysis results are obtained for each segment. As an example of age, education level and income have the potential to influence the expectations and the way each segment reacts to the marketing strategy. So that the research results will be more specific.

This study analyses are based on highest number of users, hence the data applicable for specific brand. Hence, we suggest for the next research, a comprehensive analysis of e-wallet brands can also be added, so that consumers' perceptions of different brands and their behaviour towards the e-wallet can be known. Aside of that, e-wallet users in the Indonesian majority have using more than one e-wallet brand. This can also be a consideration for analysing the behaviour of consumers who have e-wallet more than one brand and their reasons for the brand they use.

References


“TOILET MATTERS!”: QUALITATIVE STUDY ABOUT THE IMPORTANCE OF TOILET IN DECISION MAKING IN THE CONTEXT OF NATURE BASED TOURISM IN INDONESIA

Josephine Pinta Ruth Nevelyn¹; Daniel Tumpal Aruan²;

Abstract

Purpose: This study aims to explore the importance of toilet in decision making from the tourists perspectives in the context of nature based tourism in Indonesia. It tries to solve the gap of understanding related with the phenomena in which generally known that toilet needs to be clean, but in fact, there are still negative feedbacks from tourists about toilets in tourism destination, which is further affecting the decision to revisit a destination. Besides that, it is focusing to the nature based tourism because Indonesia is still developing its tourism destination, especially its nature based tourism.

Methodology: The research was conducted qualitatively by FGD and in depth interviews to several participants that were selected by purposive sampling method. Observation methods are also used in selecting the participants.

Originality/value: Various studies suggest that facilities are important thing to consider in tourism development. However, prior research is still limited specifically discussing toilet as part of the facilities. This research contributes by giving new perspectives on how toilet affects the consumer behavior of the tourists, especially related to the decision to visit or revisit a tourism destination.

Findings: The results of research indicate that there are several factors affecting the consideration of toilet as that important in nature based tourism, like tourists companion, expectation about the toilet and sanitary in the tourism destination, motivation of the tourist either for leisure or adventure, and other factors. In addition, the existence of toilets can also affect consumer behavior in consuming or enjoying the nature-based tourism, like time spent to explore, willingness to pay additional cost for the toilet usage, and other behavior. Moreover, in relation to the decision making process, the research indicates that traumatic factors to the toilet condition from previous experience can prevent a tourist from visiting a natural tourism, not only to revisit the destination but also to take the first visit to a destination.

Practical implications: Practically, in developing tourism destinations, there are so many factors need to be considered, including the toilet as one of the facilities. This research findings can help those parties to understand the ideal toilet from tourist perspective and the tourist behavior in relation to it. These understanding would help those parties in optimizing the tourists’ satisfaction in relation with their experience in the tourism destination.

Keyword: Toilet; Tourism; Nature-Based tourism; Decision making; Tourist behavior: Indonesia.

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ENTREPRENEURSHIP, HAPPINESS AND WORK: A BIBLIOMETRIC ANALYSIS

Maria Isabel Ribeiro ¹; António José Fernandes ²; António Pedro Fernandes ³

Abstract

Purpose: This research aimed to identify the most developed themes in the fields of Entrepreneurship, Happiness and Work.

Methodology: To achieve these objectives, a search was carried out on two databases, namely Scopus and Web of Science (WoS) in May 2020, based on the terms "Entrepreneurship", "Happiness" and "Work". In Scopus database, 14 publications were counted and in WoS database, 25 publications were found, of which 6 were found simultaneously in the Scopus and WoS databases. A bibliometric analysis was developed using the VOSviewer software version 1.6.15 and the co-occurrence technique of “full-counting” terms was used in order to build a map that shows the relation between the different terms and their association in clusters of thematic areas based on 33 publications.

Originality: Since the well-being, involvement, commitment or happiness of workers are themes that have produced a growing interest in research in the field of management, particularly, in the field of human resources (Kolodinsky, Ritchie & Kuna, 2017; Lee, Park & Baker, 2017) this original study was carried out in order to verify findings in the literature such as: the happiness at work enables the attainment of personal and professional goals and contributes to organizational success (Veld & Alfes, 2017); self-employment is highly valued due to the self-determination and autonomy it provides (Benz & Frey, 2008); self-employed individuals have higher levels of job satisfaction but self-employment does not provide a greater satisfaction with life because these workers work more hours and their leisure time is relatively shorter (Zwan, Hessels & Rietveld, 2018).

Findings: Two clusters of terms have been identified. The first cluster relates happiness with being an entrepreneur, employer and independent professionally. And, the second cluster relates self-employment with satisfaction with life.

Practical implications: This study contributes to consolidate the state of art in the fields of entrepreneurship, happiness and work/employment. Also, this study allowed taking into account quantitative studies developed in order to identify the relations between these fields.

References


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**Keywords:** Entrepreneurship, Happiness, Work, Bibliometric, Scopus, Web of Science.

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THE IMPORTANCE OF BASIC PSYCHOLOGICAL NEEDS AND MEDIATING ROLE OF MOTIVATIONS FOR SUBJECTIVE WELL-BEING AMONG TRANSPORTATION GIG-WORKERS
Nova Wijayanti 1; Riani Rachmawati 2

Abstract
Purpose: This study analyzes the effect of Basic psychological needs on Subjective well-being of the transportation workers participating in the Gig-Economy (transport Gig-Workers) by using Intrinsic and extrinsic motivations as mediating variables. The purpose of this study is to understand whether working as a Gig-Worker can help to enhance Gig-Workers Subjective well-being.

Methodology: This study is a quantitative study and used LISREL and SPSS software with Mediation Regression Equations model for data analysis and hypothesis testing. This study analyzes 280 survey data gathered from transportation workers participating in the Gig-Economy in Indonesia. Samples were obtained using purposive sampling.

Findings: Empirical evidence from this study shows that extrinsic motivation fully mediated the positive influence of Basic psychological needs to Subjective well-being among Transport workers participating in the Gig-Economy in Indonesia.

Originality/value: The importance of Basic psychological needs and motivation for Subjective well-being has been mostly studied for the traditional worker. This study focused on Subjective well-being among transport Gig-Workers and whether transport Gig-Workers in Indonesia can enhance their Subjective well-being when joining the Gig-Economy.

Practical Implication: This study expected to help the management of Gig-Economy company operating in the transportation sector to manage its partners or Gig-Workers to achieve greater Subjective well-being considering that Subjective well-being is predictors to see Job Satisfaction and Work Performance that contributes to the firm’s long-term success.

Research limitations: This study is limited by the use of the theory of Self Determination and Motivation that focus on its influence on Gig-Workers Subjective well-being in Indonesia.

Keywords: Gig-Economy; Gig-Workers; Self-Determination theory; Motivation; Subjective well-being.

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1. Introduction

The development of technology is very important for business, and now, technology has caused massive disruption in the business world. One of the results is the change of company's tradition of becoming more flexible called the Gig-Economy. Big picture of Gig-Economy is a change from permanent workers to temporary workers, freelancers, or temporary employees (facilitated workers) facilitated by third parties or on-demand company (Zimmer, 2015). People who work in this term are called “Gig-Workers”, ie people who work provide services "per job" or "per gig". According to Robertson Robertson (2017), Gig-Economy is more suitable for workers who want to exceed their regular money. The Gig-Economy notion is then unsuitable for bicycle couriers, taxi drivers or mobile maintenance workers, and those who are trapped in the work cycle receive low salaries and do not work.

One sector that has a large number of freelancers and is spread throughout Indonesia is the transportation sector, where there are online motorcycle taxi drivers (ojek), online taxis, and also online couriers who work as partners of on-demand company in the field of transportation in Indonesia. The number of partners or taxi drivers, taxis and online couriers in Indonesia is still unknown, but based on data from the Indonesian Ministry of Transportation, the number of Gig-Workers in the online transportation company (on-demand) is around 2 million to 2.5 million people in 2019 (Tempo, 2019).

Research in Indonesia regarding to their motivation to work as a driver or partner of an online transportation company (on-demand company) emphasized that flexibility, social connections, and economic needs are the reasons for these partners to work for one of the on-demand company in Indonesia (Farida, 2019; Hendrastomo et al., 2016). The reasons put forward by the partners are similar to studies related to Gig-Economy in America which found that the motivation of Uber and Lyft partners (on-demand company in transportation) to work as drivers or partners of the two companies Gig is because of the existence of freedom to control work schedules / flexibility and opportunities to make social connections (Rosenblat & Hwang, 2016).

Subjective well-being is a broad concept that includes experiencing emotional levels and pleasant moods, low levels of negative emotions and moods, and high life satisfaction (Diener et al., 2012); it assumes that an important element of a good life is that the person himself likes his life. Related to the Subjective well-being, research about transport Gig-Worker in Indonesia found that the motivation of transport Gig-Worker to work as Gig drivers was not due to the economic needs, but also flexibility and social connections implying that partners from online transportation companies are trying to do things that are meaningful and not just work because of the need for the economy, but also because this type of work is match their needs. Therefore, there are questions about whether these Gig-Worker workers can achieve the Subjective well-being they want when they join as Gig-Workers.

We use Self-Determination Theory as a framework for exploring Subjective well-being between the Gig-Worker and the Gig-Economy firm. We try to understand whether Gig-Workers could reach their Subjective well-being when entering the Gig-Economy a Gig-Worker. And if so, to shed light on the motivational factors that play a role in this particular context. This study can also predict whether Gig-Economy can be applied in the long term in Indonesia, considering that Subjective well-being are predictors to see Job Satisfaction and Work Performance that contributes to the firm's long-term success (Russell, 2008).

The paper proceeds as follows. In section 2, literature review related to this research is explored. Then, the methodology and data is presented in section 3 while results are explained in section 4. Section 5 presents discussion regarding the results and the final section 6 concludes the study.
2. Literature review

2.1. Gig-Economy
Gig-Economy so far is difficult to define, measure, and interpret (CIPD, 2017). Gig-Economy, in general, is a change from permanent workers to temporary workers, freelancers, or temporary workers facilitated by third parties or firms without actually being employed or having a working relationship with the organization (Kuhn, 2016; Zimmer, 2015). This form of work is usually work done on a short-term contract or work that can be done as needed only or on-demand (Kessler, 2014). According to Stanford (2017), several features characterize gig-work, which are: Sourcing and performance of fixed-term tasks (or ‘gigs’), Absence of an employment relationship, and Intermediation by an intermediary platform firm. Gig-Economy is ambiguous, but it mostly includes the use of working through digital platforms.

To date, there have been four types of platforms for Gig-Workers that have been identified, which are: (1)Non-manual high-skill online workers, (2)Non-manual low-skill online workers, (3) Manual driving workers working offline but managed online, (4)Manual service /maintenance/construction workers working offline but managed online (Huws et al., 2016). Considering the conditions mentioned above, the digital workforce platform considered in this study can be classified into two main dimensions of employment (De Groen et al., 2016): skill levels (low skills versus high skills) and how services are met (Physical, local versus Virtual, global)(Jabagi et al., 2019). Transportation sector lies in one of type of platform which is manual driving worker working offline but managed via online.

2.2 Basic psychological needs
Basic psychological needs of humans based on Self-Determination Theory (SDT), which is divided into Need for Competency, means individuals need to feel skilled and be in accordance with the goals, functions, and tasks in social life and the physical world. Need for Autonomy implies the desire of individuals to be able to have as they wish and have psychological freedom when involved in an activity. Moreover, the Need for Relatedness means the desire to be meaningfully connected, close, incurred and understood by others. According to Self-Determination Theory, Satisfaction of these three basic needs will increase Intrinsic motivation and well-being (Deci et al., 2017; Deci & Ryan, 2000; Gagné & Deci, 2005). SDT researchers have regularly hypothesized and consistently found that social settings such as the workplace that support the satisfaction of basic psychological needs facilitate Intrinsic motivation, psychological and physical health, and improved performance, especially in heuristics (Deci & Ryan, 2000; Gagné & Deci, 2005). Thus, the concept of basic needs support emerged as a very important concept to describe conditions in social contexts such as work groups that affect motivation, well-being, and performance. The narrower concept of autonomy support is also often used to describe social contexts, and research shows that basic needs and autonomy support are closely related and have very similar consequences (Fernet et al., 2012)

2.3 Theory of Motivation
Motivation is the drive that drives someone to do something (Deci & Ryan, 2000). Motivation comes from the word "movere" which means "to move." Motivation is divided into two based on the source of origin of motivation, which are Extrinsic motivation and Intrinsic motivation. Extrinsic motivation is an impulse from the outside; usually activities that are not attractive or that are not intrinsically motivating will require Extrinsic motivation. Extrinsic motivation itself is one’s intention to do something done with the exchange of tangible rewards (Gagné & Deci, 2005). Meanwhile, Intrinsic motivation is the urge from within a person to take action taken because the action is interesting or fun to do (Deci & Ryan, 1985b, 2000; Gagné & Deci, 2005; Stone et al., 2008). Ciccarelli & White (2012), also explain Intrinsic motivation as a type of motivation where a person
performs a certain activity because the activity provides an added value or can provide internal satisfaction for that person.

According to Herzberg (1959), here are some factors that can drive Intrinsic motivation: achievement, recognition, responsibility, the work itself, advancement & personal growth. Meanwhile, factors that can affect extrinsic motivation can be seen when individuals try to get positive gifts or consequences, or they try to avoid unintended consequences. Extrinsic motivation usually comes from externally regulated behavior like a strict organizational requirement and peer pressure or control from superiors. If there are no rules from this external party, the individual will not remain involved in the activity and will eventually stop or leave the activity, or will not be able to survive when the task becomes more difficult (Deci & Ryan, 1985a; Gagné & Deci, 2005; Millette & Gagné, 2008). Because obstacles, pressures, and rewards come from external sources, extrinsic motivation will be the opposite of Intrinsic motivation where the impulse for actions comes from within oneself (Deci et al., 1999). Deci & Ryan (2008) found that if individuals are given extrinsic rewards such as money or prizes for an activity that is carried out intrinsically by individuals, then the extrinsic reward will reduce the Intrinsic motivation of individuals in carrying out these activities.

2.4 Subjective Well Being

Subjective well-being (SWB) is defined as 'the cognitive and affective evaluation of a person from his life' (Diener et al., 2012). These evaluations can be both positive and negative which include assessments and feelings about life satisfaction, interests and involvement, affective responses to life events such as joy and sadness, and satisfaction with work relationships, welfare, meaning and purpose of recreation, and other important (Diener, Oishi, & Lucas, 2012; Diener & Ryan, 2008). However, it is important to know that this Subjective well-being is subjective or relative because it appears in one's experience. Subjective well-being can be measured objectively in verbal and non-verbal behaviour, biological attention, and memory (Diener & Ryan, 2008). Individuals who have a high level of satisfaction with their lives, and who experience more considerable positive influence and less negative influence, will be considered to have a high level of Subjective well-being. The positive results of individuals who have a high level of Subjective well-being at work will produce increased performance (work performance and outcomes) and job satisfaction (Russell, 2008). Bakker & Oerlemans (2012) also reported that Subjective well-being will give a positive influence on Work Engagement and Happiness at Work. Organizations that has workers who have a high level of Subjective well-being also report an increase in the level of satisfaction and loyalty from consumers, increased profits, increased productivity and low turnover rates (Harter et al., 2004; Keyes et al., 2000; Russell, 2008).

3. Data and Method

3.1 Overview

This study wants to determine whether extrinsic and Intrinsic motivation will be able to mediate the relationship between Basic psychological needs for Autonomy, Competence, and Relatedness to Subjective well-being of Transport Gig-Worker in Indonesia. We use Self-Determination Theory as a framework for exploring Subjective well-being between the Gig-Worker and the Gig-Economy firm. The aim is to understand whether Transport Gig-Workers in Indonesia can achieve an enhanced Subjective well-being when they joined the Gig-Economy. With this research we hope that a deeper analysis of the effect of Basic psychological needs, Extrinsic motivation, and Intrinsic motivation will be obtained, as well as the influence of this variable on Gig-Workers in Indonesia.

In a study conducted by Deci et al. (2017) it was found that Intrinsic motivation can mediate the relationship between Basic psychological needs and Subjective well-being. Deci & Ryan (2017) also found that Extrinsic motivation is often associated with a
decrease in someone's Intrinsic motivation which then results in ill-being. However, other studies such as Landry et al. (2016) found that the relationship between Extrinsic motivation and Subjective well-being was influenced by the reasons behind the intention to pursue extrinsic rewards. Where people who have Extrinsic motivation because they want to satisfy their needs and not because of economic pressures, Extrinsic motivation can produce Subjective well-being. For this reason, this study will measure both Intrinsic and Extrinsic motivation as mediating variable for the influence of Basic psychological needs to Subjective well-being of Gig-Workers who work in the transportation sector in Indonesia.

Thus, the hypothesis in this research are: (1) Hypothesis 1: Basic psychological needs has a positive and significant relationship to Subjective well-being, (2) Hypothesis 2: Intrinsic motivation mediates the influence of Basic psychological needs on Subjective well-being, (3) Hypothesis 3: Extrinsic motivation mediates the influence of Basic psychological needs on Subjective well-being.

Figure 1 – Conceptual Model Research

3.2 Methods
This study is a quantitative research. Data obtained for the Quantitative approach is numerical data and will be analyzed for the reliability and validity. Reliability was measured with Cronbach’s Alpha. This study will use Construct Validity of the statistical instrument using Factor Analysis i.e Kaiser-Meyer-Olkin (KMO) measure and Barlett’s Test of Sphericity (BTS) for the Pre-Test, and Confirmatory Factor Analysis (CFA) for the main test. Data collection used in this study consisted of primary data and secondary data. Primary data is data obtained directly through respondents. While secondary data is data obtained from sources other than original sources that can be used as data for the conduct of this study.

The unit of analysis in this study is individual Gig-Worker who works in the Gig-Economy firm. However, due to the limitations of research on the number of Gig-Worker populations in Indonesia, this research will use a sample of the population to be the object of research. Technique used in this research is non-probability sampling with purposive sampling technique. In total, 280 complete questionnaires were returned. Research instrument used in this study is questionnaire. The questionnaire uses a Likert scale with 5 measurement scales. We adapted this measurement tool, including the stages of translation into Indonesian. The data is collected through the distribution of
questionnaires in both physical and digital form of questionnaire and the time frame in which the questionnaire was to remain open for 2 weeks.

3.3 Measures

Basic Psychological Need was assessed with 18 (eighteen) items based on the needs of competence, autonomy, and relatedness. Items were adapted from the work-related basic need scales (W-BNS) developed by Van den Broeck et al. (2010). The W-BNS scale has six items for each subscale.

Intrinsic motivation was assessed with 3 (three) items from the Intrinsic motivation subscale of the Motivation at Work Scale (MAWS) motivation instrument developed by Gagné et al. (2010).

Extrinsic motivation was assessed with 3 (three) items from the Extrinsic motivation subscale of the Motivation at Work Scale (MAWS) motivation instrument developed by Gagné et al. (2010).

Subjective Well Being: Subjective well-being was assessed with 5 (five) items from The Satisfaction With Life Scale (SWLS) developed by Diener et al. (1985) with additional 12 (twelve) items from Scale of Positive and Negative Experience (SPANE) developed by Diener et al. (2010).

3.4 Data

This study uses Cronbach’s t alpha as a reliability test of each variable, which are Basic psychological needs, Intrinsic motivation, Extrinsic motivation, and Subjective well-being. Cronbach's alpha coefficient of each variable must be 0.6 or higher so that this research can be accepted. In this study an initial reliability test was conducted on 30 pre-test respondents, then a reliability test was performed on 280 main respondents with Confirmatory Factor Analysis (CFA). Respondent demographic characteristics in this study can be seen in table 1.

<table>
<thead>
<tr>
<th>Details</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>61</td>
<td>22%</td>
</tr>
<tr>
<td>Male</td>
<td>219</td>
<td>78%</td>
</tr>
<tr>
<td>Marital status</td>
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<td></td>
</tr>
<tr>
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<tr>
<td>Married</td>
<td>149</td>
<td>53%</td>
</tr>
<tr>
<td>Divorced/Widowed</td>
<td>7</td>
<td>3%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;20</td>
<td>38</td>
<td>14%</td>
</tr>
<tr>
<td>20 – 25</td>
<td>85</td>
<td>30%</td>
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<tr>
<td>26 – 30</td>
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<td>22%</td>
</tr>
<tr>
<td>31 – 45</td>
<td>85</td>
<td>30%</td>
</tr>
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<td>&gt;51</td>
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<tr>
<td>Education</td>
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<td>Elementary</td>
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<tr>
<td>Middle School (Junior High)</td>
<td>30</td>
<td>11%</td>
</tr>
<tr>
<td>High School (Senior High)</td>
<td>194</td>
<td>69%</td>
</tr>
<tr>
<td>Vocation (Diploma 3)</td>
<td>12</td>
<td>4%</td>
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<tr>
<td>Bachelor (S1)</td>
<td>35</td>
<td>13%</td>
</tr>
<tr>
<td>Income/Month</td>
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<td></td>
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<tr>
<td>IDR &lt;1 M</td>
<td>86</td>
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<tr>
<td>IDR 1-3 M</td>
<td>132</td>
<td>47%</td>
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<tr>
<td>IDR 4-6 M</td>
<td>48</td>
<td>17%</td>
</tr>
<tr>
<td>IDR 7-10 M</td>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>IDR 11 - 15 M</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>IDR &gt;16 M</td>
<td>1</td>
<td>0.35%</td>
</tr>
</tbody>
</table>

Source: Elaborated by the researchers
Based on the results of the study the score of each cronbach alpha variable used is presented in table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dimension</th>
<th>Requirement</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic psychological needs</td>
<td>Autonomy</td>
<td></td>
<td>.600</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
<td></td>
<td>.841</td>
</tr>
<tr>
<td></td>
<td>Relatedness</td>
<td></td>
<td>.839</td>
</tr>
<tr>
<td>Intrinsic motivation</td>
<td></td>
<td>Cronbach’s</td>
<td>.771</td>
</tr>
<tr>
<td></td>
<td>Alpha</td>
<td>≥ 0.6</td>
<td>.762</td>
</tr>
<tr>
<td>Extrinsic motivation</td>
<td>Satisfaction with Life</td>
<td></td>
<td>.685</td>
</tr>
<tr>
<td>Subjective well-being</td>
<td>Positive Affect</td>
<td></td>
<td>.868</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td></td>
<td>.739</td>
</tr>
</tbody>
</table>

Source: Elaborated by the researchers

According to Hair et al. (2010) reliability test can be seen from the score of Cronbach’s Alpha is at least 0.6. In table 2, the Cronbach’s Alpha value of each variable used in the study meets the criteria of the literature used (Cronbach’s Alpha ≥ 0.6), so it can be concluded that this questionnaire is a reliable measurement tool for use in data collection.

4. Results

This study uses the SEM method (structural equation modeling) as the method of analysis. SEM analysis method was chosen because this research model is multivariate and relatively complex, so it cannot use linear regression method. SEM also has advantage in terms of confirming the dimensions of a concept. The construct validity of the model will be seen through the factor loading value where the indicator can be considered valid if the factor loading value is > 0.5. While the reliability test was performed with composite reliability (CR) and variance extracted (VE) values at each construct, where if the value of CR ≥ 0.7 and AVE ≥ 5 Hair et al. (2010), then the model used is reliable.
Table 3 – Composite Reliability & Convergent Validity of Each Variable after drop

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>$\lambda$</th>
<th>$\lambda^2$</th>
<th>$e$</th>
<th>CR</th>
<th>VE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU1</td>
<td>0.71</td>
<td>0.50</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AU4</td>
<td>0.50</td>
<td>0.25</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO1</td>
<td>0.74</td>
<td>0.55</td>
<td>0.45</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>CO2</td>
<td>0.80</td>
<td>0.64</td>
<td>0.36</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>CO3</td>
<td>0.82</td>
<td>0.67</td>
<td>0.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CO4</td>
<td>0.55</td>
<td>0.30</td>
<td>0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RE1</td>
<td>0.59</td>
<td>0.35</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RE3</td>
<td>0.79</td>
<td>0.62</td>
<td>0.38</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>RE5</td>
<td>0.72</td>
<td>0.52</td>
<td>0.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM1</td>
<td>0.67</td>
<td>0.45</td>
<td>0.55</td>
<td>0.89</td>
<td>0.5</td>
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<tr>
<td></td>
<td>EM2</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
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<td></td>
</tr>
<tr>
<td>IM</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>IM1</td>
<td>0.93</td>
<td>0.86</td>
<td>0.14</td>
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<tr>
<td></td>
<td>IM2</td>
<td>0.90</td>
<td>0.81</td>
<td>0.19</td>
<td>0.90</td>
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<tr>
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<td>IM3</td>
<td>0.78</td>
<td>0.61</td>
<td>0.39</td>
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</tr>
<tr>
<td>SWB</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SWL1</td>
<td>0.75</td>
<td>0.56</td>
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<tr>
<td></td>
<td>SWL2</td>
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<tr>
<td></td>
<td>SWL4</td>
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<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP1</td>
<td>0.55</td>
<td>0.30</td>
<td>0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP2</td>
<td>0.68</td>
<td>0.46</td>
<td>0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP3</td>
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<td>0.55</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP4</td>
<td>0.80</td>
<td>0.64</td>
<td>0.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP5</td>
<td>0.76</td>
<td>0.58</td>
<td>0.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP6</td>
<td>0.68</td>
<td>0.46</td>
<td>0.54</td>
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</tr>
<tr>
<td>SN1</td>
<td>0.67</td>
<td>0.45</td>
<td>0.55</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SN2</td>
<td>0.79</td>
<td>0.62</td>
<td>0.38</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>SN3</td>
<td>0.65</td>
<td>0.42</td>
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<td></td>
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<tr>
<td>SN4</td>
<td>0.71</td>
<td>0.50</td>
<td>0.50</td>
<td></td>
<td>0.82</td>
<td>0.5</td>
</tr>
<tr>
<td>SN5</td>
<td>0.52</td>
<td>0.27</td>
<td>0.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SN6</td>
<td>0.59</td>
<td>0.35</td>
<td>0.65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Elaborated by the researchers

The suitability value of the model can be seen from the standardized coefficient and the t-statistic value. The following are overall model estimates based on these two values.
Based on figure 2, The path coefficient of the Intrinsic motivation variable to Subjective well-being is 0.02. The positive direction means that if the Intrinsic motivation increases by 1 unit, the Subjective well-being will increase by 0.02, and vice versa. The path coefficient of the Extrinsic Variable to Subjective well-being is 0.65. The direction is positive meaning that if Extrinsic Variable increases by 1 unit the Subjective well-being will increase by 0.65, and vice versa. The path coefficient of the variable Basic psychological needs to Subjective well-being is 0.08. The direction is positive meaning that if Basic psychological needs increases by 1 unit, the Subjective well-being will increase by 0.08, and vice versa.
Table 4 – Hypothesis Test

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>T-Value</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPN → SWB</td>
<td>1.04</td>
<td>Not Significant</td>
</tr>
<tr>
<td>BPN → IM → SWB</td>
<td>0.18</td>
<td>Not Significant</td>
</tr>
<tr>
<td>BPN → EM → SWB</td>
<td>4.12</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: Elaborated by the researchers

This hypothesis test for mediating variable is done by looking at the value of the sobel test, where the hypothesis will be accepted when the sobel test value > 1.96 (H0 is rejected) while for the sobel test value < 1.96 then the hypothesis is declared rejected (H0 is accepted). The following is the formula of the sobel test

\[ s_{ab} = \sqrt{b^2 s_a^2 + a^2 s_b^2 + s_a^2 s_b^2} \]

Information:
- \( s_{ab} \) = large direct effect standard error
- \( a \) = independent variable path with intervening variables
- \( b \) = intervening variable path with the dependent variable
- \( s_a \) = standard error coefficient \( a \)
- \( s_b \) = standard error coefficient \( b \)

Testing the significance of the indirect effect is needed to calculate the \( t \) value of the coefficient \( ab \) with the formula:

\[ t = \frac{ab}{s_{ab}} \]

Table 5 – Sobel Test Result between BPN-IM-SWB

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Indirect effect</th>
<th>Standard Error</th>
<th>t-values</th>
<th>t-table</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct effect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPN-IM</td>
<td>0.560</td>
<td>0.011</td>
<td>0.066</td>
<td>0.062</td>
</tr>
<tr>
<td>IM-SWB</td>
<td>0.020</td>
<td>0.110</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Elaborated by the researchers

Based on table 5, the mediation test of Basic psychological needs on Subjective well-being through Intrinsic motivation, obtained a \( t \) value of 0.18. Because \( t \) value is 0.18 < \( t \)-table (1.96), it is concluded that H2 is rejected where Intrinsic motivation does not mediate positively between Basic psychological needs against Subjective well-being with a coefficient value of 0.011.

Table 6 – Sobel Test Result between BPN, EM and SWB

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Indirect effect</th>
<th>Standard Error</th>
<th>t-values</th>
<th>t-table</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPN-EM</td>
<td>0.440</td>
<td>0.260</td>
<td>0.069</td>
<td>0.063</td>
</tr>
<tr>
<td>EM-SWB</td>
<td>0.650</td>
<td>0.110</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Elaborated by the researchers

Based on table 6, the mediation test of Basic psychological needs on Subjective well-being through Extrinsic motivation obtained a \( t \) value of 4.126. Because the \( t \)-value of 4.126 > \( t \)-table (1.96), it is concluded that H3 is accepted means that Extrinsic motivation mediates between Basic psychological needs against Subjective well-being with a coefficient value of 0.260.
5. Discussion

In the relationship of Basic psychological needs to Subjective well-being, the t-value was 1.04 and the path coefficient was 0.080. Because the t-value of this relationship is 1.04 and below 1.96 then H1 is rejected, meaning that Basic psychological needs has no significant positive effect on Subjective well-being with a coefficient value of 0.078. By rejecting this hypothesis, it can be concluded that fulfilling Basic psychological needs alone is not enough to make Gig-Workers in the transportation sector achieve its Subjective well-being.

This result is contradictory to previous studies conducted by (Deci et al., 2017; Deci & Ryan, 2008; Gagné & Deci, 2005). Where in the Deci et al. (2017) study, when there is support for basic needs psychology at work, it will produce well-being and also includes Subjective well-being. This result also contradicts research from (Martela & Sheldon, 2019) that fulfillment of Basic psychological needs so far is important for individuals to achieve Subjective well-being.

Although these results contradict previous studies, this study has several potential reasons that answer why Basic psychological needs do not affect the Subjective well-being of the respondents in this study. First, the majority of respondents in this study are those who have an income of Rp.1-3 million per month, amounted to 47% or 132 respondents out of 280 respondents. And those who have income below IDR 1 million per month with a percentage of 31% percent or as many as 86 people, are included as people that live in the poverty line, as Badan Pusat Statistik Indonesia stated that individuals that categorized as poor were those who had incomes below Rp.3,358,360 per month for DKI Jakarta which is the main location for taking respondents in this study, and IDR. 1,990,170 for the whole of Indonesia (Badan Pusat Statistik, 2019.).

In the research of Reyes-García et al., (2016) it was found that absolute income is more important for achieving Subjective well-being individuals at lower income levels than individuals who have higher income levels. It is believed that an increase in income can help the people in the poor category to meet their basic needs. Based on the research of Reyes-García et al., (2016), it can be seen that the main needs of individuals who fall into the low-income category are the basic needs such as clothing, food, and shelter. With that in mind, it makes more sense for Transport Gig-Worker in Indonesia that living in poverty line to reject hypothesis 1 because even when their Basic psychological needs have been fulfilled, they still can't achieve their Subjective well-being if they don't have sufficient income as a basis for meeting their basic needs.

In the mediation test for Basic psychological needs on Subjective well-being through Intrinsic motivation, a t-value of 0.180 was obtained. Because t-value is 0.180 < t-value 1.96, it is concluded that H2 is rejected where Intrinsic motivation does not mediate positively between Basic psychological needs against Subjective well-being with a coefficient value of 0.011.

The result is also contradictory with previous research conducted by Deci et al., (2017) that explained that if individual work supports autonomy, it will increase their Intrinsic motivation to their work and lead to Subjective well-being. With the rejection of this hypothesis it can be concluded that when a Gig-Worker has Intrinsic motivation in doing his work such as enjoying the work done and is happy in doing the work done as stated in the indicators of Intrinsic motivation (IM1 & IM2), it still cannot mediate the relationship between Basic psychological needs with Subjective well-being of Gig-Workers in the transportation sector in Indonesia.

One of possible explanation of this anomaly, is the rewards mechanism provided by the on-demand transportation firm where these Gig-Workers work. It's widely known that this the transportation company only focusing on extrinsic rewards in the form of financial rewards for their Gig-Workers. One example is financial reward in the form of cash that will be obtained by the Gig-Worker if they manage to deliver goods (for the courier) or delivery of the client to destination (for taxi) in an specific amount that specified by each platform (Tempo, 2018). This is in accordance with the theory put forward in Deci et al.,
(2017) that external rewards that are given to individuals who have fulfilled their basic psychological needs will reduce their Intrinsic motivation on such activities. The second reason goes back to the income problem of the Gig-Workers who were respondents in this study. Where approximately half of these respondents are those who are close to the poverty line, so their main needs are related to extrinsic rewards or financial rewards to fulfil their basic needs. Therefore, Gig-Workers cannot obtain Intrinsic motivation when their Extrinsic motivation has not been fulfilled. This also goes back to the continuum of motivation where Intrinsic motivation is formed from internalized Extrinsic motivation. Hence, when Gig-Workers still prioritize extrinsic rewards, then Intrinsic motivation will be difficult to form.

In the mediation test of Basic psychological needs on Subjective well-being through Extrinsic motivation, the t-value was 4.126. Because the value of t-value 4.126 > t table (1.96), it was concluded that H3 is accepted meaning Extrinsic motivation mediates between Basic psychological needs against Subjective well-being with a coefficient value of 0.260. The results of this mediation test are in conflict with previous research conducted by Deci et al., (2017) who explained that Extrinsic motivation is often associated with a decrease in someone's Intrinsic motivation which then results in ill-being. The most probable reason that is sufficient to answer why Extrinsic motivation actually mediates the relationship between basic psychological needs and Subjective well-being in Indonesian transport Gig-Worker is because Indonesia is one of the countries included in lower-middle income according to the classification of state income by the World Bank (World Bank, 2019). Research conducted by Sarracino (2013), found that in low-income countries, income has a positive and significant relationship with individual's Subjective well-being than in high-income countries. Indonesia is included in the lower-middle income countries category which differs only one level from low-income countries, Indonesia was also a low-income country until 2002. With information obtained from the World Bank and Sarrancino (2013), it can be said that income is still a measure of happiness in Indonesia.

This argument is also supported by the results of T-test conducted in this study which were carried out to strengthen the argument that Extrinsic motivation is not only obtained because more than half of the respondents of this study are those who fall into the poor category according to the Badan Pusat Statistik Indonesia. By conducting t-test, this study compares the average answers of two different income categories, namely those who have income of up to IDR 4 million rupiah per month, and those who have income above IDR 4 million per month. Respondents included in the category of poor or in this t-test are those who have income below IDR 4 million rupiahs. For those that included in the ‘poor’ category, in accordance to research that has been conducted by Reyes-Garcia et al., (2016) absolute income are predictors of Subjective well-being. However, the same results were found for those who earn more than IDR 4 million rupiah per month, in the table 7, it was found that the sig value for each variable is > 0.05, which indicates there is no significant difference between the answers of those who have income below 4 million rupiah per month and those who has an income above 4 million rupiah per month or people who are not categorized as low income. Therefore, it can be concluded that in this study, that Gig-Workers in the transportation sector, both those who have sufficient or low income, still include income which is form of Extrinsic motivation as predictor of their Subjective well-being.
Table 7 – T-Test of Respondent by Income

<table>
<thead>
<tr>
<th></th>
<th>IM</th>
<th>EM</th>
<th>SWB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>5996.500</td>
<td>5846.500</td>
<td>6463.000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>29867.500</td>
<td>29717.500</td>
<td>30334.000</td>
</tr>
<tr>
<td>Z</td>
<td>-1.395</td>
<td>-1.643</td>
<td>-0.525</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.163</td>
<td>.100</td>
<td>.599</td>
</tr>
</tbody>
</table>

Source: Elaborated by the researchers

The results of the T-test carried out in this study then support two previous theories such as the study of Landry et al., (2016) that the relationship between Extrinsic motivation and Subjective well-being was influenced by the reasons behind the desire to pursue extrinsic rewards. Where people who have Extrinsic motivation because they want to satisfy their needs and not because of economic pressures, Extrinsic motivation can produce Subjective well-being. This theory support those who already has income above the poverty line, but still put Extrinsic motivation as their predictor of Subjective well-being. The result of the T-test also support Sarracino (2013), that in countries that are included as low-income countries, income is something that has a positive and significant relationship with Subjective well-being.

6. Conclusions

This research shows several conclusions that can be obtained from the role of Intrinsic and Extrinsic motivation in mediating Basic psychological needs and Subjective well-being among transport Gig-Worker in Indonesia. First, the influence Basic psychological needs to Subjective well-being among transport Gig-Worker in Indonesia is not significant. Second, Intrinsic motivation does not mediate the relationship between Basic psychological needs and Subjective well-being among transport Gig-Worker in Indonesia. Finally, Extrinsic motivation is surprisingly mediating the relationship between Basic psychological needs and Subjective well-being among transport Gig-Worker in Indonesia. This shows that for transport Gig-Worker in Indonesia, extrinsic or financial rewards is more important to achieve their subjective-well being.

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https://doi.org/10.1007/978-1-4899-2271-7
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work and workers. In *Industrial and Organizational Psychology*. https://doi.org/10.1017/iop.2015.129
EMPIRICAL STUDY OF THE RELATIONSHIP BETWEEN PERCEIVED ORGANIZATIONAL SUPPORT, WORKPLACE STRESS, PSYCHOLOGICAL STRAIN AND TURNOVER INTENTION AMONG NURSES
Lintang Cahyaningrum 1; Riani Rachmawati 2

Abstract

Purpose: This study analyzes the effect of perceived organizational support on nurse turnover intention levels by using psychological strains and workplace stress as mediating variables.

Methodology: The data analysis and hypothesis testing in this study using LISREL and SPSS software with Mediation Regression Equations model. The sample used in this study was nurses who working in Indonesia. Samples were obtained using random sampling. Total of the samples for this study are 216.

Findings: The results of this study indicate that nurses' turnover intention is mediated by workplace stress and psychological strains, besides that perceived organizational support does not directly has a negative influence on nurses' turnover intention.

Originality/value: In practice the relationship between perceived organizational support and turnover attention has begun to be applied in many sectors, but for this study analyse whether nurses who must always be in contact with patients when high organizational support will be able to contribute to the long-term success of the organization. Considering workplace stress and psychological strains are predictors that also affect nurses' turnover intention.

Practical implications: This research is expected to help the hospital management in managing its human resources, especially nurses for the sustainability of the organization in the long term.

Research limitations: This study is limited by the use of the theory of perceived organizational support, workplace stress, and psychological strains that focus on its influence on nurse turnover intention in regional and private hospitals in Indonesia.

Keywords: Perceived organizational support; Psychological strain; Workplace stress; Turnover intention.

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1. Introduction

Nurse is one of the professions in the form of professional services which is an integral part of health services based on the knowledge and tips of individual, group, or community. American Association of Colleges of Nursing states that the shortage of nursing staff can be caused by several things including demographic changes that cause a significant retirement phase, increasing levels of stress and job overload which will ultimately have an impact on job satisfaction and encourage nurses to leave their profession (turnover). Turnover intention according to Sousa-Poza and Henneberger (2002) is a subjective picture of the possibility that an employee will be out of work within a certain time. This turnover intention has several related factors including fairness among employees, organizational citizenship behavior, and other interventions such as perceived organizational support for employees (Saraih et al 2017). Perceived Organizational Support (POS) correlates with employee turnover intention because organizational relationships with employees are reciprocal relationships; so if employees are given support by the organization in performing their job, they would subsequently perform well. On the other hand, when the organization does not provide adequate support for employees, they would tend to experience lower performance and job satisfaction and higher intention to leave and work stress. According to Elovanio et al (2001), the relationship between perceptions of injustice in organizations could also increase the level of employee psychological strain. Psychological strain could also be caused by conditions of anxiety, depression, and anger due to pressure from work (workplace stress). The main goal of this research is to find the influence of psychological strain and workplace stress as a mediating variable between perceived organizational support and intention to quit among nurses.

2. Literature review

2.1. Perceived Organizational Support

Perceived Organizational Support (POS) is a theory about how much support the organization has for its employees. According to Eisenberger, Huntington, Hutchison, and Sowa (1986) POS is a global belief about the extent to which organizations value employee contributions and care about employee welfare. The emergence of POS in employees is a response to the socio-emotional needs and organizational readiness to increase rewards for employees by the efforts of these employees. Organizations usually show concern for their employees in several ways such as providing long-term employment, valuing their contributions, and offering emotional support to them. Insufficient (perceived) support for the employees could lead to high employees’ turnover intention as well as lower job performance, job satisfaction and organizational commitment. (Loi, Ngo, and Foley, 2006). Rhodes and Eisenberger (2002) suggested that POS is formed by five dimensions. The five dimensions include fairness, supervisor support, job conditions & organizational rewards, and employee characteristics. These dimensions are used in this research.

2.2. Psychological Strain

Strains or stresses are reflections of the physiological, behavioral, and psychological consequences of a pressure received by someone over a long period (Francis and Barling, 2005). Many studies focus on strain research due to physical stress, but according to Billings and Moons (1981) psychological strains have a big influence on employees and could be classified into two categories: depression and anxiety. Zohar (1995) found that psychological strains experienced by nurses in hospitals are usually triggered by the behavior of their supervisor's injustice treatment. This could trigger psychological strains at a certain level depend upon the level of injustice they experience. This unfair treatment could lead to psychological strains which include depression, anxiety, and emotional exhaustion.
The dimensions of psychological strains according to Cole, Berneth, Walter, and Holt (2010) are divided into burnout, depression, and physical disorders. Meanwhile, based on the study of Tait, French, and Hulse (2003) psychological strains can be measured through depressions and self-confidence. Both studies emphasize depressions as a major factor in psychological strains. These depressions are stresses experienced by employees which affect the physical and psychological condition of the employee. This situation is usually triggered by a variety of factors such as the unequal distribution of job descriptions which will affect employees who have a higher workload. The influence of physical stress experienced by employees would also affect the psychological state.

2.3. Workplace Stress
Work-related stress is a stress that is commonly experienced by employees of an organization. This stress could usually occur physically and psychologically. The stress experienced by employees could cause physical and psychological fatigue so that employee performance will decrease (Quick, Quick, Nelson, and Hurrell, 1997). Work-related stress could also have adverse effects such as a decrease in organizational commitment (organizational performance), increase employee sick leave time, increase compensation claims and reduce organizational performance (Jex and Crossley, 2005). Work that exceeds capacity and poor interpersonal relationships is a major source of stress (Michie and Williams, 2003).

High workplace stress in an organization can lead to employee intention to leave, increase employee absenteeism so that organizational efficiency also decreases, decreases work productivity, and causes employees to be more resistant to organizational change (McNeely., 2005). It can be concluded that the higher workplace stress experienced by employees, the higher negative impacts on employees themselves and the organization would occur.

2.4. Turnover Intention
Turnover intention is a process of thinking, planning, and wanting to get out of an employee’s current job and work in another company or move to another job (Lambert, Hogan, Barton., 2001; Mobley, 1977; Richer, Blanchard, & Vallerand, 2002). Turnover intention is a process experienced by employees before he or she leaves the organisation; thus, turnover intention is a very important stage before the turnover finally occurs (Albattat and Som 2013). Turnover intention is also the final step in the decision-making process before employees leave the organization (Hom, Griffeth & Sellaro, 1984; Mobley, 1982; Mowday, Steers, & Porter, 1979; Steers, 1977). Turnover intention could be caused by many factors, personal characteristics, satisfaction with work, other dimensions of work experience, and factors influencing the outside environment (Griffeth, Hom, & Gaertner, 2000). Meyer, Allen,& Smith(1993) grouped the scale of employees’ desires to leave the organization into three scales: (1) how often the employee is thinking of leaving his organization (2) how likely are employees to find a new organization; and (3) whether how large potential employees will leave the organization in the following year.

3. Data and Methods

3.1 Methods
This study has involved nurses who worked in the public and private hospital as the respondents. The total respondents in this study was 216 nurses who work in Indonesia (private and public hospital) for main respondent, according to Sekaran and Bougie (2010) the number of samples for multivariate research should be 10 times the size of the variables used so that respondents in this study already meet the criteria (> 40 samples), and 31 respondent for pre-thesis. Data collection has been done using a 5 point Likert scale (1 = strongly disagree to 5 strongly agree). The indicators used for POS are based on the theory of Eisenberger et al. (1986) which divides it into 7 items which
are (1) organization cares about my welfare (POS1), (2) organization helps me do the work with the best results in accordance with the capacity that I have (POS2), (3) organization does not pay attention to the results of my work (POS3), (4) organization cares about my job satisfaction (POS4), (5) organization cares about my opinion (POS5), (6) organization shows a little concern for me (POS6). Psychological strains are measured based on the research of Caplan et al. (1980) which divides psychological strains into three dimensions, namely anxiety which this following statement (1) I feel nervous when doing my work (PS1), (2) I feel worried when doing my work (PS2). Second dimensions is depression; (1) I feel pressured by my work (PS3), (2) I feel unhappy with my work. The last dimension is irritation (PS4), which this following statement (1) I feel that my work has made my feelings worse (PS5), (2) I feel my co-workers always get more rest than me (PS6), (3) I feel that I have been treated unfairly (PS7).

The literature used for workplace stress is based on research conducted by Murphy (1995) using eight items (I am discouraged about my work (WS1), I feel the things are out of control at work (WS2), I feel overwhelmed by my work (WS3), I feel like giving up on my job (WS4), I feel unable to get out from under my work (WS5), I feel frustrated with my work (WS6), my co-workers are willing to listen to my job related problems (WS7), my co-worker can be relied upon when things get tough at work (WS8)). Whereas turnover intention uses 4 items (how often do you think about quitting your current job (TI1), how likely you are to leave the organization the following year (TI2), how likely you are to find another job (TI3), I will remain in this organization within 5 years (TI4)) based on the research of Mobley, Horner, and Hollingsworth (1978); Jang and George (2012); Chenchen, Kai and Ying (2019).

This study used random sampling within the population method, this method was chosen because the selected sample is nurses who are working in Indonesia. The data collected in this study are primary data. The primary data used is data collected from questionnaires distributed to samples. The nature of this questionnaire is the self-administered questionnaire, which in the filling phase the researcher did not help the respondent lively. The questionnaire was distributed via google form to nurses who worked in Indonesia. The data analysis and hypothesis testing in this study using LISREL and SPSS software with the Mediation Regression Equations model. This study has four variables as illustrated in Figure 1. The four variables are POS as an independent variable, psychological strain, and workplace stress as a mediating variable and turnover intention as the dependent variable. These variables are used as a limitation of the research conducted. Then furthermore these variables have 3 hypotheses which are explained in Figure 1.
In Figures 1, expected relations between variables and other research theories have represented.

H1: Psychological strains mediate the negative effect of perceived organizational support on turnover intention
H2: Perceived Organizational Support has a significant negative effect on turnover intention
H3: Workplace stress mediates the negative effect of perceived organizational support on turnover intention

3.2. Data
Reliability testing is used to measure the consistency and stability of a measuring instrument (Sekaran & Bougie 2010). This study uses Cronbach's coefficient alpha as a reliability test of each variable, namely psychological strain, perceived organizational support, workplace stress, and turnover intention. Cronbach's alpha coefficient of each variable must be 0.6 or higher so that this research can be accepted. In this study an initial reliability and validity test was conducted on 31 pre-test respondents.

The characteristics of pre-test respondents were as follows: 25.8% of men and 74.2% of women. Respondents have an average age in the range of 20-30 years (93.5%) and mostly work in private hospitals (74.2%). The last level of education of the majority of respondents was Bachelor of nursing (74.2%). Table 1 and 2 below show the result of the pre-testing.

<table>
<thead>
<tr>
<th>Table 1 – Cronbach’s Alpha Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>Perceived Organizational Support</td>
</tr>
<tr>
<td>Psychological Strain</td>
</tr>
<tr>
<td>Workplace Stress</td>
</tr>
<tr>
<td>Turnover Intention</td>
</tr>
</tbody>
</table>

Source: The results of SPSS process
Table 2 - Validity Analysis Result

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>POS1</td>
<td>0.853</td>
</tr>
<tr>
<td>2.</td>
<td>POS2</td>
<td>0.932</td>
</tr>
<tr>
<td>3.</td>
<td>POS3</td>
<td>0.751</td>
</tr>
<tr>
<td>4.</td>
<td>POS4</td>
<td>0.845</td>
</tr>
<tr>
<td>5.</td>
<td>POS5</td>
<td>0.648</td>
</tr>
<tr>
<td>6.</td>
<td>POS6</td>
<td>0.786</td>
</tr>
<tr>
<td>7.</td>
<td>PS1</td>
<td>0.647</td>
</tr>
<tr>
<td>8.</td>
<td>PS2</td>
<td>0.668</td>
</tr>
<tr>
<td>9.</td>
<td>PS3</td>
<td>0.868</td>
</tr>
<tr>
<td>10.</td>
<td>PS4</td>
<td>0.827</td>
</tr>
<tr>
<td>11.</td>
<td>PS5</td>
<td>0.878</td>
</tr>
<tr>
<td>12.</td>
<td>PS6</td>
<td>0.566</td>
</tr>
<tr>
<td>13.</td>
<td>PS7</td>
<td>0.746</td>
</tr>
<tr>
<td>14.</td>
<td>WS1</td>
<td>0.837</td>
</tr>
<tr>
<td>15.</td>
<td>WS2</td>
<td>0.912</td>
</tr>
<tr>
<td>16.</td>
<td>WS3</td>
<td>0.868</td>
</tr>
<tr>
<td>17.</td>
<td>WS4</td>
<td>0.601</td>
</tr>
<tr>
<td>18.</td>
<td>WS5</td>
<td>0.854</td>
</tr>
<tr>
<td>19.</td>
<td>WS6</td>
<td>0.837</td>
</tr>
<tr>
<td>20.</td>
<td>TI1</td>
<td>0.834</td>
</tr>
<tr>
<td>21.</td>
<td>TI2</td>
<td>0.758</td>
</tr>
<tr>
<td>22.</td>
<td>TI3</td>
<td>0.885</td>
</tr>
<tr>
<td>23.</td>
<td>TI4</td>
<td>0.635</td>
</tr>
</tbody>
</table>

Source: The results of SPSS process

Based on the results above the questionnaire was declared valid because the value of factor loading > 0.50 (Malhotra, 2010). Respondent demographic characteristics in this main test can be seen in table 3.

Table 3 – Demographic characteristics of respondents

<table>
<thead>
<tr>
<th>Details</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>154</td>
<td>71.296</td>
</tr>
<tr>
<td>Male</td>
<td>62</td>
<td>28.704</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>146</td>
<td>67.593</td>
</tr>
<tr>
<td>Married</td>
<td>70</td>
<td>32.407</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;20</td>
<td>0</td>
<td>0.000</td>
</tr>
<tr>
<td>20 – 25</td>
<td>132</td>
<td>61.111</td>
</tr>
<tr>
<td>26 – 30</td>
<td>58</td>
<td>26.852</td>
</tr>
<tr>
<td>31 – 45</td>
<td>25</td>
<td>11.574</td>
</tr>
<tr>
<td>&gt;51</td>
<td>1</td>
<td>0.463</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocation (Diploma 3)</td>
<td>95</td>
<td>43.981</td>
</tr>
<tr>
<td>Bachelor</td>
<td>120</td>
<td>55.556</td>
</tr>
<tr>
<td>Masters’ Degree</td>
<td>1</td>
<td>0.463</td>
</tr>
<tr>
<td><strong>Workplace</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Hospital</td>
<td>81</td>
<td>37.500</td>
</tr>
<tr>
<td>Private Hospital</td>
<td>135</td>
<td>62.500</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contract/Temporary</td>
<td>135</td>
<td>63.889</td>
</tr>
<tr>
<td>Permanent</td>
<td>78</td>
<td>36.111</td>
</tr>
</tbody>
</table>

Source: The results of Lisrel process

Hair et. al. (2010) states that the reliability test can be seen from the score of Cronbach's Alpha which must exceed 0.6. In table 2, the Cronbach’s Alpha value of each variable
used in the study meets the criteria of the literature used (Cronbach's Alpha > 0.6), so it can be concluded that this questionnaire is a reliable measurement tool for data collection.

4. Results

The test conducted at this stage is a hypothesis test that is used to see the influence between the variables used which consist of perceived organizational support, psychological strains, workplace stress, and turnover intention. These four variables are composed of 23 items divided into 6 items of perceived organizational support and workplace stress, 7 items for psychological strains, and 4 items for turnover intention. The suitability value of the model can be seen from the standardized coefficient and the t-statistic value. The following are overall model estimates based on these two values.

**Figure 2 – Estimated t-values results**

![Diagram showing estimated t-values results](source)

Chi-Square=219.45, df=94, P-value=0.00000, RMSEA=0.075

Source: The results of Lisrel process
Figure 3 – Estimated standardized results

Source: The results of Lisrel process.

Based on figure 3, the POS variable has a path coefficient to workplace stress of 0.54 with a negative direction, which means that if POS increases by 1 unit, the turnover intention will decrease by 0.53 and vice versa. The POS path coefficient for the turnover intention is 0.15 in a negative direction so the same concept applies. It can also be seen that the direction of the path coefficient between POS and psychological strains is negative with a value of 0.48. While the direction of correlations from workplace stress and psychological strains to turnover intention is positive with values of 0.56 and 0.25 respectively, so that if the workplace stress and psychological strain increase by 1 unit the turnover intention will also increase by 0.56 and 0.25 vice versa.

Table 3 – Structural model result

<table>
<thead>
<tr>
<th>Goodness of fit index</th>
<th>Cut-off value</th>
<th>Research Model</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGFI (Adjusted Goodness Fit Index)</td>
<td>≥ 0.90</td>
<td>0.81</td>
<td>Marginal fit</td>
</tr>
<tr>
<td>CFI (Comparative Fit Index)</td>
<td>&gt; 0.90</td>
<td>0.96</td>
<td>Good fit</td>
</tr>
<tr>
<td>GFI (Goodness of Fit)</td>
<td>&gt; 0.90</td>
<td>0.85</td>
<td>Marginal fit</td>
</tr>
<tr>
<td>IFI (Incremental Fit Index)</td>
<td>&gt; 0.90</td>
<td>0.96</td>
<td>Good fit</td>
</tr>
<tr>
<td>NFI (Normed Fit Index)</td>
<td>&gt; 0.90</td>
<td>0.94</td>
<td>Good fit</td>
</tr>
<tr>
<td>RMSEA (Root Mean Square Error of Approximation)</td>
<td>&lt; 0.08</td>
<td>0.079</td>
<td>Good fit</td>
</tr>
</tbody>
</table>

Source: The results of Lisrel process.

Based on table 3 it can be seen that the values of RMSEA, CFI, IFI, and NFI show that the model is in good fit criteria, while the AGFI and GFI values show the marginal fit results wherein the two GOFIs (Goodness of fit index) the value of the results of the model testing is less than 0.90 but still close to 0.90.
Table 4 – Hypothesis Test

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>T-Values</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>POS→PS→TI</td>
<td>3.15</td>
<td>Significant</td>
</tr>
<tr>
<td>POS→TI</td>
<td>1.88</td>
<td>Not Significant</td>
</tr>
<tr>
<td>POS→WS→TI</td>
<td>4.65</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: The results of Lisrel process.

This hypothesis test for mediating variable is done by looking at the value of the Sobel test, where the hypothesis will be accepted when the Sobel test value > 1.96 (H0 is rejected) while for the Sobel test value < 1.96 then the hypothesis is declared rejected (H0 is accepted).

The following is the formula of the Sobel test:

\[ sab = \sqrt{b^2 s_a^2 + a^2 s_b^2 + s_a^2 s_b^2} \]

Information:
- \( sab \) = large direct effect standard error
- \( a \) = independent variable path with intervening variables
- \( b \) = intervening variable path with the dependent variable
- \( s_a \) = standard error coefficient \( a \)
- \( s_b \) = standard error coefficient \( b \)

Testing the significance of the indirect effect is needed to calculate the \( t \) value of the coefficient \( ab \) with the formula:

\[ t = \frac{ab}{sab} \]

Table 4 shows that the \( t \) value of POS with turnover intention is 1.88 in a positive direction. This value is less than 1.96 so it can be concluded that hypothesis 2 where POS has a direct positive effect on turnover intention is rejected.

Table 5 – Sobel Test Result between POS, PS and TI

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Indirect effect</th>
<th>Standard Error</th>
<th>Direct effect</th>
<th>Indirect effect</th>
<th>t-values</th>
<th>t-table</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>a.b</td>
<td>Sa</td>
<td>Sb</td>
<td>Sab</td>
<td>t-values</td>
</tr>
<tr>
<td>POS-PS</td>
<td>-0.480</td>
<td>-0.120</td>
<td>0.076</td>
<td>0.038</td>
<td>-3.148</td>
<td>1.96</td>
</tr>
<tr>
<td>PS-TI</td>
<td>0.250</td>
<td>0.068</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: The results of Lisrel process.

Based on table 5, in the POS mediation test of turnover intention through psychological strains, \( t \) value of 3.148 was obtained. Because of \( t \)-values (3.148) > \( t \)-table (1.96), it is concluded that H1 is accepted meaning that psychological strain mediates negatively between POS against turnover intention with a coefficient value of -0.120.

Table 6 – Sobel Test Result between POS, WS and TI

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Indirect effect</th>
<th>Standard Error</th>
<th>Direct</th>
<th>Indirect effect</th>
<th>t-values</th>
<th>t-table</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>a.b</td>
<td>Sa</td>
<td>Sb</td>
<td>Sab</td>
<td>t-values</td>
</tr>
<tr>
<td>POS-WS</td>
<td>-0.540</td>
<td>-0.302</td>
<td>0.084</td>
<td>0.065</td>
<td>-4.655</td>
<td>1.96</td>
</tr>
<tr>
<td>WS-TI</td>
<td>0.560</td>
<td>0.082</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: The results of Lisrel process.

Based on table 6, in the POS mediation test of turnover intention through workplace stress, a \( t \) value of 4.655 was obtained. Because \( t \) values (4.655) > \( t \) table (1.96), it is concluded that H2 is accepted, meaning that workplace stress mediates between POS and turnover intention with a coefficient value of -0.302.
5. Discussion

This study is aimed to investigate the presumption that nurses leave their organization more often because their workplace did not give them sufficient support that triggers not only physical strain but also psychological strain. Based on that, this study used psychological strains and workplace stress as mediating variables from POS to turnover intention. The direct effect between POS and turnover intention is known to be 1.88 which is less than 1.96 so it can be concluded that POS doesn’t have a direct negative effect on turnover intention, H2 denied. The results of this study are supported by previous research conducted by Buhari, Chen C.Y, and Lee S.T (2020) wherein his research conducted on IT professionals found POS with turnover intention did not have a significant relationship. This is supported by the study Chang et al (2019) found that POS does not have a significant effect on nurse turnover but the professional commitment has a significant negative effect on nurse turnover intention.

Although the direct effect between POS and turnover intention is not significant, the indirect effect between POS and turnover is known to be significant in accordance with the theories of Mackinnon, Fairchild and Fritz (2007) that called this situation as inconsistent mediation, which is at least one mediated effect has a different sign than other mediated or direct effects in a model. Meanwhile, it was found that psychological strains partially mediate POS with turnover intention (Table 5). This shows that H1 was accepted. Rhodes and Eisenberger (2002) state that POS has a role in reducing psychological strains in employees. POS also influences employee attitudes and behavior (Cole, M.S., Bruch, H., and Vogel, B. 2006). This shows that the higher the level of support provided by the organization, the nurses’attitudes and behavior will also improve so that it could generate positive energy that could reduce the psychological strain of the employee. High psychological strains would have a high impact on nurses’ intention to leave the organization (Chiu, C.Y and Cheng, S.Y., 2007). Kuusio, Heponiemi, Sinervo, and Eloavainio (2010) stated that job strain components, high work orders and low job control will cause nurses' psychological strains to increase, causing high nurse turnover intention levels. This mediation shows that if an organization does not support nurses, it will increase the level of a psychological strain of nurses, which in turn will also increase the desire of nurses to leave the organization.

Likewise with workplace stress partially mediating POS with the turnover intention of 0.302 (table 6), thus indicating H3 is accepted. This indicates that the increasingly high level of support provided by the organization, then it shows that the higher level of support provided by the organization, then it shows that the organization cares about the level of comfort of employees with the organization and work, to reduce employee stress at work which would ultimately lower the level of turnover intention. (Stamper and Johlke, 2003). Ahmad and Omar (2013) stated that work stress mediates POS against turnover intention in family companies, where the higher organizational support will further reduce work stress which indirectly would reduce nurse turnover intention.

The presence of this mediating factor indicates that the amount of influence and organizational support felt by nurses would reduce workplace stress and psychological strains which in turn will reduce nurses’ intention to leave the organization. The results show that in addition to workplace stress and psychological strains, it is estimated that other variables could mediate POS against turnover intention because these two variables only mediate partially. Based on Maertz et al (2007) researchers must look beyond organizational attitudes to other mechanisms through which support influences turnover.

According to the Sobel test, the mediation value obtained from the workplace stress is greater than the mediation value through psychological strains, this means that the influence of the workplace stress is higher than the psychological strain on nurses in performing their work. It was found that nurses felt more pressured by the condition of their workplaces where several factors triggered it in the form of colleagues who do not support their work directly or indirectly (emotions), the injustice at work, and the existence
of work that was beyond the nurse's capacity. This situation confirms the research conducted by Murphy (1995). Some of these things also encourage nurses to feel tired from their work so they decide to get out of their work. Whereas psychological strain will have a higher effect if accompanied by physical pressure. However, Zohar (1995) found that psychological strains experienced by nurses in hospitals are usually triggered by the injustice of behavior from their supervisors. This could trigger psychological strains at a certain level under the level of injustice they receive. This unfair treatment can increase psychological strains which include depression, anxiety, and emotional exhaustion.

5.1. Limitations
This study is limited by the use of the theory of perceived organizational support, workplace stress, and psychological strains that focus on its influence on nurse turnover intention in regional and private hospitals. Besides that others, limitations are the availability sampling of the data. The limitations of the sample used can affect the results of this study. The model processing does not distinguish the place of work from the nurse whether in the private or public sector so that it can affect the results obtained, this is in accordance with the research of (Meade, Watson, & Kroustalis, 2007) that believed using single informants to measure variables can cause the potential for common methods variance bias.

5.2. Practical Implications
Given the significant results of the strong workplace stress-turnover intention and psychological strain-turnover intention relationship, Practical implications that can be done by organizations are to focus on dividing the job desks of nurses more effectively and efficiently and to improve organizational performance. This needs to be done because if the organization has to add staff members the organization requires quite high costs and for some organizations, this may not be possible. Thus creating a comfortable and proactive work environment with staff work will be more feasible to minimize turnover intention. This research is expected to help the hospital management in managing its human resources, especially nurses for the sustainability of the organization in the long term.

The finding of this research have implications for future research. First, because of the result of this study revealing that POS has not big influence in turnover intention directly, then for further understanding about POS and turnover intention is needed. Furthermore, because psychological strains and workplace stress only partially mediate the relationship between POS and turnover intention, further research on other mediating variables such as job satisfaction is needed.

6. Conclusions

The findings of the study, several conclusions can be obtained from the role of workplace stress and psychological pressure in mediating POS against turnover intention. First, psychological strain mediates POS negatively towards turnover intentions. Second, stress at work mediates POS negatively on turnover intentions and finally, POS does not have a significant negative effect directly on turnover intentions. Using the Sobel test, it was found that workplaces stress as a mediating variable was greater than the psychological strain. This shows that stress at work has a greater influence on nurses' desire to leave the hospital.

References
American Association of Colleges of Nursing. (2019, April 1). Nursing Shortage. AACN. https://www.aacnnursing.org/News-Information/Fact-Sheets/Nursing-Shortage


636
Abstract

Objectives: To assess the degree of knowledge of individuals trained in the areas of Management and/ or Marketing on the theme of Neuromarketing, its techniques, limitations and potential, as well as the preponderance of their concerns with ethical issues related to the same theme.

Methodologies: Considering the lack of similar research, an online application survey was developed to a sample of 81 respondents to evaluate the research questions, using the convenience sampling technique. The study was complemented with interviews with two renowned professionals in the areas of marketing and Neuromarketing.

Originality: In the absence of, to the best of our knowledge, developed studies that have approached reality in a similar way to the one we decided to approach in this document, it is impossible to achieve comparison, confirmation or denial of works already existing in the literature. Nevertheless, we believe that the result of this project proves to be interesting and enriching for the area of marketing, Neuromarketing and even for science in general.

Results: In this study, it is concluded that the knowledge by the subjects trained in management and/ or marketing on the theme of Neuromarketing is on a weak basis. It is also concluded that ethical concerns are not preponderant for the group in question.

Practical implications: We believe that the result of this project proves to be interesting and enriching for the area of marketing, Neuromarketing and even for science in general.

Research limitations: In the absence of, to the best of our knowledge, developed studies that have approached reality in a similar way to the one we decided to approach in this document, it is impossible to achieve comparison, confirmation or denial of works already existing in the literature.

Keywords: Ethics; Marketing; Neuromarketing; Representations

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DISCLOSURE OF RISK INFORMATION IN NON-FINANCIAL COMPANIES. EMPIRICAL EVIDENCE IN THE PORTUGUESE CAPITAL MARKET
Filipa Pacheco ¹; Kátia Lemos ²

Abstract

Purpose: The events that marked the most recent international financial crisis have highlighted the importance of transparency in financial information, especially with regard to the risks incurred by companies and the strategies adopted to mitigate and manage those risks. Therefore, companies sought solutions to improve their financial reporting and one of those solutions is the disclosure of information to their stakeholders. Thus, the objective of this study is to analyze the disclosure about risks in non-financial entities and to measure the level of disclosure presented.

Methodology: As a research methodology, we used the content analysis of the reports and accounts, for the period of 2017, of non-financial companies, listed on Euronext Lisbon, using a financial risk disclosure index, based on the requirements contained in IFRS 7 - Financial Instruments: Disclosures.

Originality: This paper contributes to ongoing international debate and research concerning risks disclosure, by providing empirical evidence in our country, Portugal, where existing studies are still scarce.

Findings: The results obtained allowed us to conclude that companies present a higher level of disclosure about liquidity and market risks, around 63.75% and 42%, respectively. With regard to the financial risk disclosure index, in general, the level of disclosure was an average of 58.72%, which represents little more than half of the information that is required, still revealing an insufficient level of disclosure comparatively to what would be desirable.

Practical implications: The results obtained may contribute to the accounting regulatory bodies regarding the issuance of risk disclosure standards.

Limitations of the study: The sample used is small in size, so the results obtained cannot be extrapolated to all non-financial companies in Portugal. The analyzed period is limited to just one economic year, which makes it impossible to carry out a longitudinal analysis of the levels of disclosure presented over time by the companies under study.

Keywords: Risks; Disclosure of information; Disclosure index; Non-financial companies.

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THE IMPACTS OF THE TOURISM SECTOR ON THE ECO-EFFICIENCY OF THE LATIN AMERICA AND CARIBBEAN COUNTRIES: A TWO-STAGE DEA APPROACH

Daniela Castilho 1; José Alberto Fuinhas 2; António Cardoso Marques 3

Abstract

Purpose: The main purpose with the accomplishment of this paper is examine the impacts of the tourism sector on the overall eco-efficiency of 22 Latin America and Caribbean countries (namely Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru and, Uruguay) from 1995 to 2016, given that these countries are rising destination - becoming this sector an important driver of their economic activity but probably leading to adverse consequences on the environment.

Methodology: In this study, a two-stage Data Envelopment Analysis (DEA) was applied. In the first stage, a Data Envelopment Analysis methodology was used in order to calculate the LAC countries overall eco-efficiency over time (considering the CO₂ emissions as the input and the economic growth as the output) and that values will represent the dependent variable, used in the second stage. Posteriorly, a Panel Autoregressive Distributed Lag (PARDL) method was applied, since it is capable of producing robust results with small/moderate samples, supports both orders of integration (i.e. I(0) and I(1)) in the same estimation and allow us to analyse the impacts of tourism arrivals, tourism capital investment, and tourism direct contribution to employment on the (previously calculated) overall eco-efficiency, both on short and long-run.

Originality: The originality of this investigation is mainly linked with the use of the previously mentioned methodology: the two-stage Data Envelopment Analysis, since most of the published research evaluates the relationship between tourism and eco-efficiency in LAC countries indirectly (e.g. through causality analysis and using variable as energy consumption or carbon dioxide emissions to represent the eco-efficiency) or only measure the tourism sector eco-efficiency.

Findings: The results of the Data Envelopment Analysis point to an eco-efficiency decrease in the majority of countries during the analysed time-span, with Paraguay and Cuba being the most efficient countries and Cuba the least efficient one. Furthermore, the outcomes of the Panel Autoregressive Distributed Lag indicated that tourism arrivals, electric energy consumption, and trade openness contributed to the decrease of these countries eco-efficiency, both in the short and long-run. Contrariwise, tourism capital investment, tourism direct contribution to employment, and human development index seem to promote eco-efficiency in the long-run.

Practical implications: The Data Envelopment analysis outcomes suggest that governments should develop measures that promote the use of renewable energies in Latin America and Caribbean countries, since it is crucial to heighten this region eco-efficiency. Regarding the Panel Autoregressive Distributed Lag results, suggest that

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policymakers should pay attention to these destinations carrying capacity (e.g. creating limitations in the high seasons) given that, if they ignore this feature, it can produce environmental and climatic shocks to these countries, as well as bringing constraints to their development (both in the short and long-run). Simultaneously, in order to grant their sustainable development, they must continue to encourage investments in sustainable tourism projects and incentive the creation productive employment to all.

**Keywords:** Eco-efficiency; Tourism arrivals; Tourism capital investment; Tourism direct contribution to employment; Two-stage DEA; Latin America and Caribbean countries.
YES, MINISTER: BUSINESSMEN AT THE SERVICE OF THE MARQUIS OF POMBAL IN THE PORTUGUESE BOARD OF TRADE

Cecília Duarte ¹; Miguel Gonçalves ²; Cristina Gonçalves Góis ³

Abstract
Purpose: The aim of this article is to introduce, for the first time in literature, the dates of the investiture and the terms of office of the seven presidents of the Board of Trade, an institution of the Old Portuguese Regime. Created on September 30, 1755 by D. José I and idealized by Sebastião José de Carvalho e Melo (better known as Marquês de Pombal), the Board of Trade constituted itself as the arm of the State responsible for implementing the pombaline strategy of Portuguese economic development.

Methodology: For the realization of the above, the analysis of unpublished documentary sources and articles typically associated with the qualitative research method was privileged (Vieira, Major and Robalo, 2009, p. 140) given that research in accounting history “is an essentially narrative work which seeks to establish and / or describe the facts or the chronology of the events” (Gomes and Rodrigues, 2009, p. 214).

Originality: The study expands the Portuguese accounting knowledge through an unprecedented systematization of the presidents of the Board of Trade contributing to the deepening and diffusion of knowledge of the history of accounting in Portugal. Therefore, using unpublished archive data, the text presents the chronological list of the presidents of the Board of Trade and also identifies their contribution to the history of Portuguese accounting.

Findings: The result of this contribution concerns the fact that all businessmen at the service of Pombal at the Board of Trade knew of the advantages of double-entry accounting and were related to other institutions created by Pombal, such as the Monopoly Companies of Commerce, the School of Commerce and the Royal Treasury.

References

Keywords: Board of trade; Marquis of Pombal; Businessmen; Accounting history; 18th century.

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THE ROLE OF TECHNOLOGIES IN RELATIONSHIP MANAGEMENT AND INTERNAL MARKETING: A PRELIMINARY CONCLUSION

Eduarda Mendes ¹; Bruno Sousa ²; Márcia Gonçalves ³

Abstract

Purpose: The present study aims to understand the impact and the role of technologies in a hospital context, and in the management of relationships from an internal perspective (internal marketing). Based on a case study, the investigation also aims to analyze how internal communication is carried out between employees and between employees and managers.

Methodology: Following a qualitative approach, semi-structured interviews were conducted with five employees of the health institution (two nurses, a lawyer, a data analyst and a computer technician), and a focus group with eight employees also of Braga Hospital (four nurses, a computer technician, an administrative, an operational assistant, and a technical / administrative assistant).

Originality: Relating the notion of health information systems with the concepts of Internal Marketing, Internal Communication and Relationship Management, this study highlights, through a specific case, the way hospitals have tried to follow and adjust to the evolution of society and the rapid technological advance. Through investments at technological level, the goal is to facilitate the work of health professionals and consequently the care provided to patients.

Findings: Both the results of the interviews and the results of the focus group show that a large part of the employees of Braga Hospital is considerably dependent on technology, which is an asset for the development of their daily functions. The hospital unit has made several investments in this regard, standing out before the majority of Portuguese public hospitals. The documentation is practically all computerized, which facilitates the information sought in time and effectiveness. The results also provide some discontent with regard to internal marketing.

Practical implications: This study contributed to the discussion and a better understanding of technology management, internal marketing/communication and its importance in a hospital context, and the reality of Braga Hospital, which can serve as a reference for other hospitals.

Limitations: The present study followed an entirely qualitative approach, and there is a difficulty in generalizing the results obtained, since the sample was non-probabilistic and subject to a certain research context.

Key words: Health Technologies; Internal Communication; Relational Marketing; Internal Marketing.

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THE IMPACT OF SENIOR-MANAGERIAL LEADERSHIP CULTURE ON VALUE CREATION FOR SHAREHOLDERS - A STUDY IN PORTUGAL IN LOCAL AND MULTINATIONAL COMPANIES
Fernando Acabado Romana

Abstract
Purpose: The main objective of this paper is situated on the idea of linkage between the leadership behaviour and company results, taking in consideration the cultural aspects and kind of companies.

Theoretical framework: This study is based on the analysis of three fundamental aspects of company and managerial life: the culture of organizations, the style of leadership and financial performance.

Design/methodology/approach: To do so, it was decided to start methodological analysis of the behaviour of managers and organizations operating in this environment, considering several classifications: multinational companies operating in Portugal and Portuguese companies with a strategy for and in the process of internationalization.

Findings - On this basis the study problem was set at the level of managerial behaviour, bearing in mind that this varies depending on the type of organization in which managers’ work. The problem involves scientific, methodological, and cultural aspects that have already been demonstrated by several authors.

Research, Practical & Social Implications: The study was conducted in 16 companies operating in Portugal. The characteristics of leadership in the multinationals tend towards greater balance between the four roles of each of the corresponding quadrants, while in the national companies it tends to be more internally focused.

Originality/values: We intent to link it with Internal company strategy drivers, considering the investigation ideas for this paper, as the demonstration if some different

Keywords: Culture; Leadership; Management; Value creation.

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THE IMPACT OF CULTURE ON THE SERVICE RECOVERY PROCESS

Maria Antónia Rodrigues 1; Maria João Teixeira 2; Maria Amélia Carvalho 3; Paulo Pinheiro Gonçalves 4

Abstract

Purpose: The purpose of this study is to understand the impact of consumer culture on the service recovery process. More precisely, the study analysis how the cultural dimensions of consumers can influence the perception of justice and satisfaction with service recovery, as well as its effect on loyalty and worth of mouth.

Originality: When a failure occurs, the company's response to the consumer is decisive, because it can restore confidence and strengthen loyalty ties, instead of aggravating dissatisfaction and thus making consumers look for the same service in the competition (Smith, Bolton & Wagner, 1999). Cultural diversity is immense, especially when it comes to fast globalization, and for that, a better understanding of the cultural influence in the service recovery process is necessary (Donthu & Yoo, 1999). However, cultural influence in the service recovery process is a little explored field (Davidow, 2003). In addition to the gap in the literature, the theme suggests that even for companies themselves, it becomes complex to understand what is the most correct way to act in the event of a failure in multicultural contexts. According to Davidow (2003), effective recovery strategies are at fault in the literature, as well as the effects on consumer attitudes after the efficient recovery or not of the service, namely on satisfaction, loyalty and word of mouth.

Methodology: The study follows a quantitative approach and is based on 410 valid responses to a questionnaire survey.

Findings: the results obtained were surprising in the way they suggest an evolution compared to previous results. In previous studies, cultural differences revealed a highly significant effect on the recovery process of the service. Currently, the cultural influence seems to be less important. This can be justified by the acculturation of consumers and the uniformity of behavior, due to the fast globalization of economy, cultural and social context, as well as, the power of new technologies.

Practical and theoretical implications: this study bridged an important gap in the literature, with implications for service management, especially in the effective handling of complaints, in terms of recovery strategies and their impact on important marketing results.

Research limitations: the limitations of this study are mainly related to the type of sampling frame used (convenience sample) that does not allow the generalization of results. Additionally, the study address three cultural dimensions of Hofstede and the recovery processes, whose analysis was based only on the types of service recovery implicit in the perceptions of justice (distributive, procedural and interactional).

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References:

Keywords: Culture; Perception of justice; Service recovery; Loyalty and word of mouth.
THE ROLE OF THE SOCIODEMOGRAPHIC AND EMOTIONAL INTELLIGENCE PROFILE OF TOURISTS IN THE INTENTION TO RETURN TO A DESTINATION

Ana Pinto Borges 1; Elvira Vieira 2; João Lopes 3

Purpose: the objective of the present study is to analyse the tourists' intention to return or revisit the tourism destination "Porto". Unquestionably, the intention to return is a crucial contribution for the development of the destination and for all the companies and organizations that develop their activities in this sector (Chen & Tsai, 2007; Oppermann, 2000; Vareiro et al., 2019).

Methodology: a quantitative methodology was used, through the application of a questionnaire at different tourist attraction locations in the city of Porto, in October 2019. A sample of 886 valid responses was obtained. We used a logit model that explains the intention to return considering the independent variables, the sociodemographic characteristics of the tourists – gender, age, marital status, schooling, work conditions and nationality, the level of importance of the activities in the city (e.g. city touring, visit the historical heritage, monuments, museums, taste the Portuguese food and wine, visit a friend, among others) -, and also the emotional intelligence profile of the tourist (Wong & Law, 2002).

Originality: although the intention to return to a tourist destination is a topic that has been widely studied, until now the emotional profile of the tourist has never been analysed with an explanatory variable.

Findings: concerning the sociodemographic characteristics of the tourist, it was found that gender, age, marital status, the activity in the labor market, and nationality revealed different levels of impact on the intention to return to the city of Porto. The activities carried out in the city, namely visiting friends and family, doing business, shopping, meeting new people, trying out a different experiences also showed statistical significance with a positive effect on the intention to return. In the scope of the constructs of emotional intelligence, we have highlighted people’s own emotions and the perception regarding the emotions of others.

Practical implications: with the sociodemographic and emotional profile of the tourist studied, companies can define new business and communication strategies. With the new business and communication strategies applied, it will be possible for companies to increase their income. Thus, we hope to provide contributions aimed at the growth of this market niche that still needs to be explored.

Research limitations: even considering the significant dimension of the sample, only a specific moment in time was contemplated. Thus, there may be a possibility that the socioeconomic and emotional profile of the tourist may change throughout the year. This limitation can only be overcome with the application of questionnaires at different times of the year.

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References

Keywords: Intention to return; Emotional Intelligence; Tourism; Loyalty.
THE INFLUENCE OF A DESTINATION’S ATTRIBUTES UPON THE TRAVELLER’S EXPERIENCE QUALITY AND INTENTION TO REVISIT: THE CASE OF LABUAN BAJO, INDONESIA

Indriati Permanasari¹; Hapsari Setyowardhani²

Abstract
Purpose: The purpose of this paper is to analyse factors that influenced travellers’ intentions to revisit a destination, in the context of tourism in an emerging market, namely Indonesia. Specifically, this study aims to analyze the relationship between various destination attributes, experience quality, trip satisfaction, and intention to revisit. This study was taking Labuan Bajo, one of Indonesia’s super-priority destinations, as the object analysed.

Methodology: The descriptive quantitative research design was used in this study. A total of 250 responses from domestic tourists who have been to Labuan Bajo were collected through an online self-administered survey, single cross-sectional. The research model explores the relationship by using a structural equation modelling approach. The data were analysed by using SPSS and PLS-SEM.

Findings: The findings revealed that various destination attributes influenced the traveller’s experience quality. Furthermore, some dimensions of the traveller’s experience quality have significant effect on their trip satisfaction, and subsequently, it positively correlates with their intention to revisit the destination.

Originality: This research contributes to extending knowledge on the process of traveller decision making upon whether to revisit a destination by taking an example of Indonesian tourists to Labuan Bajo, Indonesia.

Practical implications: The research findings will contribute to further knowledge on tourism marketing regarding tourist behaviour when visiting a tourist destination, and as reference for the local government and destination managers for making tourism policies and strategic planning.

Research limitations: The research scope was limited to Labuan Bajo, Indonesia, hence the results may not be generalised to other countries.

Keywords: Destination attributes; Experience quality; Trip satisfaction; Intention to revisit; Indonesian tourists; Labuan Bajo.

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1. Introduction

Tourism has long been known for its potential contribution to a country’s economy, including job creation. Therefore, many countries are aiming to develop and grow their tourism industry. Destination attributes have been studied for their role in attracting tourists when selecting a destination (Turner & Reisinger, 1999). They consist of various components in a destination, from physical and natural environments to services and amenities (Lew, 1987). Crouch and Ritchie (1999) studied some destination attributes that were related to destination competitiveness, such as physiography, culture, a mix of activities, special events, superstructure, infrastructure, accessibility, facilitating resources, enterprise, and destination management.

Destination attributes can affect the experience quality of tourists (Moon & Han, 2018). Experience quality is the affective response of tourists to the desired social-psychological benefits (Chen & Chen, 2010). Previous studies have examined experience quality which consists of several dimensions, including hedonics, peace of mind, involvement, and escapism (Moon & Han, 2018; Otto & Ritchie, 1996; Pine, Pine, & Gilmore, 1999).

Experience quality can affect a traveller’s trip satisfaction (Moon & Han, 2018). Therefore, many destinations strive to present good quality experiences for their visitors. In the context of tourism, satisfaction is related to the emotional conditions felt by tourists based on their experiences with a destination (Baker & Crompton, 2000). Travellers who were satisfied with their experiences, have the potential to attract new tourists. Based on the study from Cox, Burgess, Sellitto, & Buultjens (2009), many tourists listened to advice from friends and family before deciding to visit a new destination.

A traveller’s trip satisfaction can affect the intention to revisit a destination (Quintal & Polczynski, 2010). Many destinations carried out strategies to be able to attract tourists to visit a destination more than once (Lehto, O’Leary, & Morrison, 2004). Repeat visitors generally rated as an attractive market segments (Shani, Reichel, & Croes, 2011).

Moon and Han (2018) investigated how traveller’s trip satisfaction and revisiting intention attributed to destination attributes and dimension of experience quality. The study specifically captured Chinese traveller’s perception and took Jeju Island in South Korea as an example.

The present study adapted the research by Moon and Han (2018) with an offering of further knowledge by studying a different population and type of traveller. Previously, Moon and Han (2018) studied the relationship between destination attributes, experience quality, trip satisfaction, and intention to revisit, in the context of international tourists, in particular, Chinese travellers. This research will study domestic tourists to Labuan Bajo in Indonesia.

Indonesia represents emerging countries that place tourism as one of the key sectors. The country’s tourism growth largely contributed to its domestic travel with 303.40 million trips in 2018, an increase of 12 percent compared to 2017 (Badan Pusat Statistik, 2018). Labuan Bajo was selected as a research object because it is one of the four super-priority destinations (Danau Toba, Candi Borobudur, Mandalika, Labuan Bajo) from the “10 New Bali” project that was set by the Indonesian government to replicate the economic effects of Tourism in Bali (Kementerian Pariwisata dan Ekonomi Kreatif, 2019b). It has a good tourism performance with 134% growth across 4 years from 2014-2018 and was positioned to be a premium destination (Kementerian Pariwisata dan Ekonomi Kreatif, 2019a). However, among the 4 super-priority destinations, Labuan Bajo has the least visitor arrivals (Table 1). Thus, further study needs to be explored to improve the destination attractiveness.
This study aims to analyze factors that influenced travellers’ intentions to revisit a destination, in the context of tourism in an emerging market, namely Indonesia. Specifically, the study aims to analyze: 1) the influence of various dimensions of destination attributes on the traveller’s experience quality 2) the effect of the dimensions of experience quality on the traveller’s trip satisfaction, and 3) the effect of the trip satisfaction on the traveller’s intention to revisit a destination.

The findings of this research will contribute to further knowledge on tourism marketing regarding tourist behavior when visiting a tourist destination and as reference for the local government and destination managers for making tourism policies and strategic planning.

2. Literature review

2.1. Labuan Bajo

Labuan Bajo is in the West Manggarai Regency, East Nusa Tenggara (NTT), Indonesia. The destination is the tourists’ gateway to enjoy the beauty of nature and some exotic destinations in the east of Indonesia, such as Komodo National Park, the home of Komodo dragons that was listed as a UNESCO world heritage site, various beaches, and numerous diving and snorkeling sites. Labuan Bajo was chosen as one of the Top Three Best Snorkeling Places in the World (Kementerian Pariwisata dan Ekonomi Kreatif, 2019a). In addition to its nature-based tourism, Labuan Bajo also provides cultural tourism by giving tourists an opportunity to engage with the locals, such as in the Liang Ndara Tourism Village (Kementerian Pariwisata dan Ekonomi Kreatif, 2020). As one of the country’s super-priority destinations, Labuan Bajo was set to be a premium destination (Kementerian Pariwisata dan Ekonomi Kreatif, 2019a). Thus, further knowledge to enhance the destination attractiveness would need to be explored. Figure 1 displays the location of Labuan Bajo.

![Figure 1. Labuan Bajo](source: Wikipedia)

2.2. Destination Attributes

A destination is described as a mixture of tourism products that offer an overall experience to tourists (Buhalis, 2000). A collection of various elements in a destination

<table>
<thead>
<tr>
<th>Year</th>
<th>Destination</th>
<th>International Tourist</th>
<th>Domestic Tourist</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Danau Toba</td>
<td>270,292</td>
<td>14,040,000</td>
</tr>
<tr>
<td></td>
<td>Borobudur Temple</td>
<td>224,473</td>
<td>3,551,326</td>
</tr>
<tr>
<td></td>
<td>Mandalika</td>
<td>1,430,249</td>
<td>2,078,654</td>
</tr>
<tr>
<td></td>
<td>Labuan Bajo</td>
<td>76,612</td>
<td>48,457</td>
</tr>
</tbody>
</table>

Source: (Badan Pusat Statistik, 2019; Databoks, 2019; Nikson, 2018)
that can potentially attract tourists was defined as destination attributes (Lew, 1987). Destination attributes were studied as one of the factors that form a destination image (Ramseook-Munhurrun, Seebaluck, & Naidoo, 2015). Previous studies have listed multiple destination attributes, such as local culture, activities and events, hospitality, infrastructure, destination management, accessibility, quality of service, physiography, superstructure, and quality of shopping (Crouch & Ritchie, 1999; J.-H. Kim, 2014; Moon & Han, 2018), which will be later adopted in this study.

Kim (2014) studied the association between destination attributes and tourists’ memorable experiences. Furthermore, when Cetin and Bilgihan (2016) explored tourists’ experiences in a destination, destination attributes are inseparable. Moon and Han (2018) revealed in their study that destination attributes affect the experience quality of tourists, both positively and negatively.

2.3. Experience Quality
Experience quality was conceptualized as tourists’ affective responses to their desired social–psychological benefits (Chen & Chen, 2010). Furthermore, the study by Chen and Chen (2010) has shown that experience quality has a positive effect on tourists’ perceived value.

Previously, Otto and Ritchie (1996) conducted a study with four dimensions of experience quality, which are hedonics, peace of mind, involvement, and recognition. Pine, Pine, and Gilmore (1999) established four components of experience, which are: entertainment, education, escapism, and aestheticism. This study will adapt the dimensions of experience quality that were used in the study by Moon and Han (2018) that combined the elements from previous studies (Otto & Ritchie, 1996; Pine et al., 1999), which are: hedonics, peace of mind, involvement, and escapism. Hedonics refers to the emotional aspects that the tourists gained from their experiences in a destination, which includes memorableness and fun. Peace of mind describes the physical and psychological state of comfort and relaxation. Involvement represents the involvement of tourists in the tourist decision-making process. Escapism refers to the opportunity for tourists to break away from daily activities (Moon & Han, 2018). The following hypotheses is proposed:

Hypothesis 1: The dimension of destination attributes will influence the dimension of the traveller’s experience quality

H1.1 Local Culture will influence hedonics
H2.1 Activities and Special Event will influence hedonics
H3.1 Local hospitality will influence hedonics
H4.1 Infrastructure will influence hedonics
H5.1 Destination Management will influence hedonics
H6.1 Accessibility will influence hedonics
H7.1 Quality of Service will influence hedonics
H8.1 Physiography will influence hedonics
H9.1 Superstructure will influence hedonics
H110.1 Quality of Shopping will influence hedonics
H1.2 Local Culture will influence peace of mind
H2.2 Activities and Special Event will influence peace of mind
H3.2 Local hospitality will influence peace of mind
H4.2 Infrastructure will influence peace of mind
H5.2 Destination Management will influence peace of mind
H6.2 Accessibility will influence peace of mind
H7.2 Quality of Service will influence peace of mind
H8.2 Physiography will influence peace of mind
H9.2 Superstructure will influence peace of mind
H10.2 Quality of Shopping will influence peace of mind
H1.3 Local Culture will influence involvement
H2.3 Activities and Special Event will influence involvement
H3.3 Local hospital will influence involvement
H4.3 Infrastructure will influence involvement
H5.3 Destination Management will influence involvement
H6.3 Accessibility will influence involvement
H7.3 Quality of Service will influence involvement
H8.3 Physiography will influence involvement
H9.3 Superstructure will influence involvement
H10.3 Quality of Shopping will influence involvement
H1.4 Local Culture will influence escapism
H2.4 Activities and Special Event will influence escapism
H3.4 Local hospitality will influence escapism
H4.4 Infrastructure will influence escapism
H5.4 Destination Management will influence escapism
H6.4 Accessibility will influence escapism
H7.4 Quality of Service will influence escapism
H8.4 Physiography will influence escapism
H9.4 Superstructure will influence escapism
H10.4 Quality of Shopping will influence escapism

2.3. **Trip Satisfaction**

A study by Wu, Li, and Li (2014) shows that experiential quality is one of the antecedents of experiential satisfaction. Additionally, Ekanayake and Gnepalaba (2016) measured the travel experiences from the quality of tourist attractions, service, and infrastructure, in which the study found a positive relationship among these constructs with tourists' satisfactions. Bartikowski and Llosa (2004) studied customer satisfaction that was typically defined as an overall assessment of the performance of a product or service. In a tourism context, satisfaction referred to a tourist's emotional state derived from their experience (Baker & Crompton, 2000). Yoon and Uysal (2005) stated the importance of creating tourist satisfaction to improve and maintain destination competitiveness.

Chen and Chen (2010) furthermore explained that satisfaction has significant direct positive effects on behavioural intentions. Additionally, Eusébio and Vieira (2013) stated the significant influence of satisfaction on the intention to revisit. Therefore, the following hypotheses are proposed:

**Hypothesis 2: The dimension of experience quality will influence traveller's trip satisfaction.**

H2.1 Hedonics will influence trip satisfaction
H2.2 Peace of Mind will influence trip satisfaction
H2.3 Involvement will influence trip satisfaction
H2.4 Escapism will influence trip satisfaction

2.4 **Intention to revisit a destination**

Many destinations aimed to attract tourists to visit a destination more than once (Lehto, O’Leary, & Morrison, 2004). Repeat visitors are considered an attractive segment as it is less costly than acquiring first-time visitors (Shani, Reichel, & Croes, 2011). A study by Quintal and Polczynski (2010) revealed that tourists' satisfaction with the destination's attractiveness, quality, and value positively influenced the intention to revisit. da Costa Mendes, Oom do Valle, Guerreiro, and Silva (2010) have also examined the relationship between tourists' satisfaction with destination loyalty. A. K. Kim and Brown (2012) added that a combination of both the perceived quality of travel experiences and individual characteristics could drive tourists' satisfaction and destination loyalty.

**Hypothesis 3: Trip satisfaction will influence traveller's intention to revisit a destination.**
3. Data and Method

3.1 Research design and data collection
The descriptive quantitative and single cross-sectional research design was used in this study. Primary data were collected through a survey with an online self-administered questionnaire using a five-point Likert type scale. The data was collected from 250 respondents with a judgemental sampling technique.

3.2. Population and sample
The population used for the purpose of this study is Indonesian tourists who have been to Labuan Bajo. The sample used to represent the population is Indonesian tourists, both men and women, who have visited Labuan Bajo in the past one year, have a domicile in the territory of Indonesia and are aged 18 years and over.

3.3. Research model
The research model used in this study (Figure 2) replicated the previous research conducted by Moon and Han (2018), with modifications to the research object and unit analysis.

![Figure 2. Research Model](Source: (Moon & Han, 2018))

3.4 Questionnaire design
The questionnaire consisted of five sections. The first two sections were the introduction and screening questions. The next two sections were the main questions with measurement items that were adapted from previous studies (Moon & Han, 2018). The first one included the measurement items for 10 destination attributes, which are: local culture, activities and special events, local hospitality, infrastructure, destination management, accessibility, quality of service, physiography, superstructure, and quality of shopping. The second one included the measurement items for experience quality, trip satisfaction, and intention to revisit.
The last section was tourists’ demographic information, such as gender, age, educational background, income level, marital status, average monthly routine expenditure, average yearly travelling expenditure, tourism objects visited in Labuan Bajo, the usage of a travel agent, and travel companion. The final questionnaire included a total of 49 items and the format was a five-point Likert type scale, ranging from strongly disagree (1) to strongly agree (5). Table 2 illustrates the operational definitions used in this research.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Culture</td>
<td>Local culture shows whether tourists have the opportunity to experience the way of life and local culture.</td>
<td>• A variety of opportunities to experience the local way of life&lt;br&gt;• Programs to learn about local history&lt;br&gt;• Chance to experience local culture</td>
</tr>
<tr>
<td>Activities and special events</td>
<td>Activities and special events can be influenced by the physical and cultural environment, which includes recreational activities and special events such as sporting events and festivals.</td>
<td>• Different kinds of sports/games/recreational activities in the destination&lt;br&gt;• Activities that I cannot usually participate in mundane lives&lt;br&gt;• Interesting special events in the destination&lt;br&gt;• Festivals and events that I have been interested in</td>
</tr>
<tr>
<td>Local hospitality</td>
<td>Local hospitality refers to the hospitality of the locals</td>
<td>• Friendliness of local people&lt;br&gt;• Local people’s willingness to help me/us&lt;br&gt;• Local people’s willingness to share information about the destination</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Infrastructure shows how organized the facilities and public systems in a destination.</td>
<td>• Uniqueness of designed infrastructure&lt;br&gt;• High quality of infrastructure&lt;br&gt;• Good signage/directions&lt;br&gt;• Good availability of tourism information</td>
</tr>
<tr>
<td>Destination Management</td>
<td>Destination management covers the general conditions of a destination (for example: sanitation, transportation, and safety)</td>
<td>• Traffic in good order&lt;br&gt;• Cleanliness of the destination&lt;br&gt;• Good orderliness in the destination&lt;br&gt;• Safety of the destination</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Accessibility means ease to reach the destination and get around.</td>
<td>• Convenience in accessing the destination&lt;br&gt;• Proper hours to get to the place&lt;br&gt;• Ease of traveling around the destination</td>
</tr>
<tr>
<td>Quality of service</td>
<td>Quality of service is in the form of the overall performance of local workers’ services, which includes politeness and quality.</td>
<td>• Courteousness of service staff&lt;br&gt;• Highly customized service&lt;br&gt;• Impressive service provided by service staff</td>
</tr>
<tr>
<td>Physiography</td>
<td>Physiography is the natural resource at the destination, especially the attraction of scenery and nature reserves that are well protected.</td>
<td>• Appealing natural environments&lt;br&gt;• Well preserved areas&lt;br&gt;• Awe-inspiring landscapes</td>
</tr>
<tr>
<td>Variable</td>
<td>Definition</td>
<td>Indicator</td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
| **Superstructure** | Superstructure refers to the uniqueness of architecture and buildings in a destination. | • Uniqueness of architecture in the destination  
• Interestingness of buildings in the place |
| **Quality of shopping** | Quality of shopping shows the diversity and readiness of quality products for visitors. | • Guaranteed quality of products/services in shopping places  
• Good quality of local products in shopping centers  
• A good variety of products/brands in local shops  
• Availability of the latest style/model in shopping places |
| **Experience Quality** |  | |
| **Hedonics** | Hedonics refers to the emotional aspects of a tourist experience at a destination, which includes something fun and unforgettable. | • that I was doing something I like to do.  
• that I was doing something memorable.  
• that I was having fun. |
| **Peace of mind** | Peace of mind is related to comfortable and relaxed conditions at a destination, both physically and psychologically. | • physically comfortable.  
• relaxed. |
| **Involvement** | Involvement represents the involvement of tourists in the process of creating experiences at the destination by making tourism decisions under their control | • that I was involved in the process.  
• that there was an element of choice in the process.  
• that I had some control over the outcome. |
| **Escapism** | Escapism is related to breaking away from daily activities, actively immersing in activities that are being carried out at the destination, and forgetting everyday problems. | • that I had escaped from everyday life.  
• that I could forget everyday problems. |
| **Trip Satisfaction** | Trip Satisfaction refers to the overall tourist evaluation of the tourist experience at the destination | • My overall evaluation of this destination is positive.  
• My overall assessment on this tour experience is favorable.  
• I am satisfied with this tourism experience |
| **Intention to revisit** | The intention to revisit in this study is related to the behavioral intention of tourists to return to the destination | • I intend to revisit this destination in the future.  
• I will likely come back to this place in the future.  
• I am willing to return to this destination in the future |

Source: processed by the author; Moon and Han (2018)
3.5 Data Analysis
To evaluate the reliability and validity of the questionnaire, a pre-test was conducted with 30 respondents. The measurements were carried out using the Statistical Package for the Social Sciences (SPSS) version 22. PLS-SEM with Smart PLS software version 3.3.2 was used to test the interrelationships among research variables.

4. Results

4.1. Demographic profile
Among the participants, females were 60.4% and males were 39.6%. The majority of the respondents aged 20-29 (49%). In regards to the level of education, the majority of the respondents held a Bachelor degree (57%). 28% of the respondents have a monthly average level of routine expenditure from IDR500.000 - IDR3.000.000 (excluding credit installments) and 80% spent more than IDR8.000.000 for traveling in a year. 60% of the respondents used travel agent service, and 47% chose to travel with friends. Table 3 displays the sample demographic profile information.

<table>
<thead>
<tr>
<th>Table 3 – Demographic Profile</th>
<th>Frequency</th>
<th>Percents</th>
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<td>Gender</td>
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<tr>
<td>18 - 19</td>
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<td>20 – 29</td>
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<td>Average Level of Expenditure for Traveling in a Year (IDR)</td>
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<tr>
<td>Friends and family</td>
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<tr>
<td>Solo and friends</td>
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</tr>
</tbody>
</table>

Note: * excluding house / car / credit card / handphone installments
Source: processed by the author

4.1. Measurement model analysis
All indicators have good internal consistency reliability with a Composite Reliability (CR) value of more than 0.70. For convergent validity, there is one indicator with AVE value less than 0.50 (ACT), but the CR value> 0.70, so it is still acceptable (Fornell & Larcker, 1981). Table 4 displays the summary of the internal consistency reliability and convergent validity results.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Convergent Validity</th>
<th>Internal Consistency Reliability</th>
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<td>LOC3</td>
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<td>Activities and Special Events ACT)</td>
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<td>Destination Management (DMG)</td>
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<td>Quality of Shopping (SHP)</td>
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<td>Hedonics (HED)</td>
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<td>HED1</td>
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<td>Peace of Mind (POM)</td>
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<td>Involvement (INV)</td>
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<td>Trip Satisfaction (TS)</td>
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<td>TS1</td>
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<td>Intention to Revisit (IR)</td>
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Source: processed by the author
The HTMC values were below the threshold 1.00, thus the measurement model has suitable discriminate validity (see Table 5).

### Table 5 – Discriminant Validity

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<thead>
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<th>ACT</th>
<th>DMG</th>
<th>ESC</th>
<th>HED</th>
<th>HOS</th>
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<th>INV</th>
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<th>LOC</th>
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<td>0.757</td>
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<td>0.081</td>
<td>0.329</td>
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<td>0.235</td>
<td>0.243</td>
<td>0.439</td>
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<td>SUP</td>
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<td>0.546</td>
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<td>0.364</td>
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</table>

**Source:** processed by the author

### 4.2. Structural Model Analysis

The $R^2$ values were still in an acceptable range of 0 to 1. Blindfolding procedure was done to analyse the $Q^2$ value with a parameter of value greater than 0. Table 6 shows that the model has predictive relevance.

### Table 6 – $R^2$ and $Q^2$ results

<table>
<thead>
<tr>
<th>Experience Quality</th>
<th>R Square</th>
<th>R Square Adjusted</th>
<th>$Q^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC</td>
<td>0.296</td>
<td>0.267</td>
<td>0.209</td>
</tr>
<tr>
<td>HED</td>
<td>0.463</td>
<td>0.440</td>
<td>0.333</td>
</tr>
<tr>
<td>INV</td>
<td>0.362</td>
<td>0.336</td>
<td>0.221</td>
</tr>
<tr>
<td>POM</td>
<td>0.487</td>
<td>0.465</td>
<td>0.371</td>
</tr>
<tr>
<td>Trip Satisfaction</td>
<td>TS</td>
<td>0.424</td>
<td>0.415</td>
</tr>
<tr>
<td>Intention to Revisit</td>
<td>IR</td>
<td>0.286</td>
<td>0.283</td>
</tr>
</tbody>
</table>

**Source:** processed by the author

Hypothesis analysis is done by looking at the t-value above 1.96 or p-value below 0.05. To do this analysis, the researcher performed procedural bootstrapping on Smart PLS version 3.3.2 with 5000 bootstrap samples, two-tailed, significance level 0.05 (Hair Jr et al., 2016). Table 7 below illustrates the results of the path coefficients and hypothesis tests.
The relationship between the dimensions of destination attributes and the experience quality dimension was analysed. For hedonics, physiography (β: 0.387, p <0.05), activities and special events (β: 0.258, p <0.05), accessibility (β: 0.223, p <0.05), destination management (β: 0.173, p <0.05), local culture (β: -0.134, p <0.05), and infrastructure (β: -0.258, p <0.05) have an influence. For peace of mind, physiography (β: 0.283, p <0.05), activities and special events (β: 0.247, p <0.05), destination management (β: 0.258, p <0.05), have an influence. For hedonics, physiography (β: 0.387, p <0.05), activities and special events (β: 0.258, p <0.05), accessibility (β: 0.223, p <0.05), destination management (β: 0.173, p <0.05), local culture (β: -0.134, p <0.05), and infrastructure (β: -0.258, p <0.05) have an influence. For peace of mind, physiography (β: 0.283, p <0.05), activities and special events (β: 0.247, p <0.05), destination management (β: 0.258, p <0.05), have an influence. For hedonics, physiography (β: 0.387, p <0.05), activities and special events (β: 0.258, p <0.05), accessibility (β: 0.223, p <0.05), destination management (β: 0.173, p <0.05), local culture (β: -0.134, p <0.05), and infrastructure (β: -0.258, p <0.05) have an influence. For peace of mind, physiography (β: 0.283, p <0.05), activities and special events (β: 0.247, p <0.05), destination management (β: 0.258, p <0.05), have an influence. For hedonics, physiography (β: 0.387, p <0.05), activities and special events (β: 0.258, p <0.05), accessibility (β: 0.223, p <0.05), destination management (β: 0.173, p <0.05), local culture (β: -0.134, p <0.05), and infrastructure (β: -0.258, p <0.05) have an influence. For peace of mind, physiography (β: 0.283, p <0.05), activities and special events (β: 0.247, p <0.05), destination management (β: 0.258, p <0.05), have an influence. For hedonics, physiography (β: 0.387, p <0.05), activities and special events (β: 0.258, p <0.05), accessibility (β: 0.223, p <0.05), destination management (β: 0.173, p <0.05), local culture (β: -0.134, p <0.05), and infrastructure (β: -0.258, p <0.05) have an influence. For peace of mind, physiography (β: 0.283, p <0.05), activities and special events (β: 0.247, p <0.05), destination management (β: 0.258, p <0.05), have an influence. For hedonics, physiography (β: 0.387, p <0.05), activities and special events (β: 0.258, p <0.05), accessibility (β: 0.223, p <0.05), destination management (β: 0.173, p <0.05), local culture (β: -0.134, p <0.05), and infrastructure (β: -0.258, p <0.05) have an influence. For peace of mind, physiography (β: 0.283, p <0.05), activities and special events (β: 0.247, p <0.05), destination management (β: 0.258, p <0.05), have an influence. For hedonics, physiography (β: 0.387, p <0.05), activities and special events (β: 0.258, p <0.05), accessibility (β: 0.223, p <0.05), destination management (β: 0.173, p <0.05), local culture (β: -0.134, p <0.05), and infrastructure (β: -0.258, p <0.05) have an influence. For peace of mind, physiography (β: 0.283, p <0.05), activities and special events (β: 0.247, p <0.05), destination management (β: 0.258, p <0.05), have an influence.
management (β: 0.210, p <0.05), accessibility (β: 0.136, p <0.05), and infrastructure (β: -0.218) have an influence. For involvement, activities and special events (β: 0.265, p <0.05), local hospitalities, (β: 0.195, p <0.05), physiographic attributes (β: 0.217, p <0.05), accessibilities (β: 0.207, p <0.05) and infrastructure (β: -0.210, p < 0.05) have an influence. For escapism, activities and special events (β: 0.297, p <0.05), the quality of service attribute (β: 0.228, p <0.05), physiography (β: 0.215, p <0.05), and infrastructure (β: -0.292, p <0.05) have an influence. Thus, H1 is partially supported. This inline with previous research (Moon & Han, 2018)

Furthermore, the researcher looked at the relationship between the dimensions of experience quality with trip satisfaction. Based on the results, peace of mind (β: 0.301, p <0.05), hedonics (β: 0.271, p <0.05), and involvement (β: 0.145, p <0.05), have a significant influence on the trip satisfaction. Thus, H2 is partially supported. This in line with previous research (Moon & Han, 2018)

Lastly, trip satisfaction (β: 0.535, <0.05) has a positive and significant effect on the traveller’s intention to revisit. Thus, H3 is supported. This is in line with previous research (Chen & Chen, 2010; A. K. Kim & Brown, 2012; Quintal & Polczynski, 2010; Sangpikul, 2018). The t-values relationship can be seen in figure 3.

A total effect analysis was conducted. From the results shown in the Table 8 below, trip satisfaction has the greatest total effect on tourist intention to revisit (0.535). For experience quality, peace of mind has the greatest total effect on trip satisfaction (0.301), followed by hedonics (0.271), and involvement (0.145). Meanwhile, for destination attributes, the effect of physiography on experience quality hedonics has the greatest total effect (0.387), followed by the effect of physiography on peace of mind (0.283), and the effect of activities and special events on involvement (0.265).
### Table 8 – Total effect results

<table>
<thead>
<tr>
<th>Path</th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC -&gt; ESC</td>
<td>0.388</td>
<td>0.082</td>
<td>0.066</td>
<td>1.326</td>
<td>0.185</td>
</tr>
<tr>
<td>ACC -&gt; HED</td>
<td>0.223</td>
<td>0.223</td>
<td>0.060</td>
<td>3.714</td>
<td>0.000</td>
</tr>
<tr>
<td>ACC -&gt; INV</td>
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<td>0.208</td>
<td>0.058</td>
<td>3.560</td>
<td>0.000</td>
</tr>
<tr>
<td>ACC -&gt; IR</td>
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<td>0.073</td>
<td>0.020</td>
<td>3.550</td>
<td>0.000</td>
</tr>
<tr>
<td>ACC -&gt; POM</td>
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<td>0.133</td>
<td>0.057</td>
<td>2.407</td>
<td>0.016</td>
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<tr>
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<td>0.136</td>
<td>0.036</td>
<td>3.745</td>
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</tr>
<tr>
<td>ACT -&gt; ESC</td>
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<td>0.301</td>
<td>0.065</td>
<td>4.544</td>
<td>0.000</td>
</tr>
<tr>
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<td>0.261</td>
<td>0.056</td>
<td>4.601</td>
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<tr>
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<tr>
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<td>0.750</td>
<td>0.453</td>
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<td>DMG -&gt; HED</td>
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<td>0.074</td>
<td>2.350</td>
<td>0.019</td>
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<tr>
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<td>0.079</td>
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<td>-0.219</td>
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<td>-0.199</td>
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<td>3.984</td>
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<td>0.065</td>
<td>3.334</td>
<td>0.001</td>
</tr>
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<td>4.323</td>
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</tr>
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<td>0.026</td>
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<td>0.062</td>
<td>2.335</td>
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</tr>
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<td>-0.069</td>
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<td>0.996</td>
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<td>2.501</td>
<td>0.012</td>
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<td>-0.008</td>
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<td>0.891</td>
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<td>-0.056</td>
<td>0.035</td>
<td>1.558</td>
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<tr>
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<td>0.216</td>
<td>0.068</td>
<td>3.145</td>
<td>0.002</td>
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<td>0.050</td>
<td>7.766</td>
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<td>0.217</td>
<td>0.062</td>
<td>3.518</td>
<td>0.000</td>
</tr>
<tr>
<td>PHY -&gt; IR</td>
<td>0.125</td>
<td>0.127</td>
<td>0.023</td>
<td>5.520</td>
<td>0.000</td>
</tr>
<tr>
<td>PHY -&gt; POM</td>
<td><strong>0.283</strong></td>
<td>0.282</td>
<td>0.055</td>
<td>5.172</td>
<td>0.000</td>
</tr>
<tr>
<td>PHY -&gt; TS</td>
<td>0.233</td>
<td>0.236</td>
<td>0.035</td>
<td>6.692</td>
<td>0.000</td>
</tr>
<tr>
<td>POM -&gt; IR</td>
<td>0.161</td>
<td>0.161</td>
<td>0.043</td>
<td>3.784</td>
<td>0.000</td>
</tr>
<tr>
<td>POM -&gt; TS</td>
<td><strong>0.301</strong></td>
<td>0.299</td>
<td>0.073</td>
<td>4.097</td>
<td>0.000</td>
</tr>
<tr>
<td>SHP -&gt; ESC</td>
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<td>0.020</td>
<td>0.088</td>
<td>0.313</td>
<td>0.754</td>
</tr>
<tr>
<td>SHP -&gt; HED</td>
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<td>0.070</td>
<td>0.066</td>
<td>1.048</td>
<td>0.294</td>
</tr>
<tr>
<td>SHP -&gt; INV</td>
<td>0.129</td>
<td>0.128</td>
<td>0.075</td>
<td>1.721</td>
<td>0.085</td>
</tr>
</tbody>
</table>
After knowing the results of the total effect, a deeper analysis was conducted to find out the most influential indicators on these variables by looking at the value of outer loadings. Table 9 below illustrates the results of outer loadings.

### Table 8 – Total effect results

|                  | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|------------------|---------------------|-----------------|---------------------------|----------------|----------|
| SHP -> IR        | 0.033               | 0.033           | 0.022                     | 1.510          | 0.131    |
| SHP -> POM       | 0.077               | 0.074           | 0.065                     | 1.176          | 0.239    |
| SHP -> TS        | 0.062               | 0.062           | 0.040                     | 1.544          | 0.123    |
| SUP -> ESC       | -0.033              | -0.028          | 0.074                     | 0.440          | 0.660    |
| SUP -> HED       | -0.104              | -0.103          | 0.060                     | 1.735          | 0.083    |
| SUP -> INV       | 0.007               | 0.011           | 0.059                     | 0.123          | 0.902    |
| SUP -> IR        | -0.015              | -0.014          | 0.020                     | 0.738          | 0.461    |
| SUP -> POM       | 0.004               | 0.006           | 0.061                     | 0.065          | 0.948    |
| SUP -> TS        | -0.028              | -0.026          | 0.037                     | 0.742          | 0.458    |
| SVC -> ESC       | 0.228               | 0.231           | 0.106                     | 2.161          | 0.031    |
| SVC -> HED       | 0.014               | 0.012           | 0.071                     | 0.189          | 0.850    |
| SVC -> INV       | -0.023              | -0.018          | 0.089                     | 0.257          | 0.797    |
| SVC -> IR        | 0.022               | 0.023           | 0.026                     | 0.843          | 0.399    |
| SVC -> POM       | 0.096               | 0.100           | 0.073                     | 1.304          | 0.192    |
| SVC -> TS        | 0.041               | 0.043           | 0.048                     | 0.861          | 0.389    |
| **TS -> IR**     | **0.535**           | **0.537**       | **0.046**                 | **11.680**     | **0.000** |

Source: processed by the author
<table>
<thead>
<tr>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics ([O/STDEV])</th>
<th>P Values</th>
</tr>
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<tr>
<td>ACC1 &lt;- ACC</td>
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<td>0.794</td>
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<td>0.778</td>
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<tr>
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<td>0.909</td>
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<td>0.957</td>
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</tr>
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<td>0.841</td>
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<td>0.820</td>
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</tr>
<tr>
<td>TS2 &lt;- TS</td>
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<td>0.918</td>
<td>0.011</td>
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<td>0.914</td>
<td>0.914</td>
<td>0.011</td>
<td>84.268</td>
</tr>
</tbody>
</table>

Source: processed by the author
Based on the results from Table 9, for trip satisfaction, TS2 has the highest outer loading value (0.918). This indicator related to the favourable tourist review on the overall experience in Labuan Bajo.

For experience quality, the strongest indicator of peace of mind is POM1 (0.909) where tourists feel they are in a comfortable environment. For hedonics, the strongest indicator is HED2 (0.897), which is related to tourists feeling doing something memorable, and for involvement, the strongest indicator is INV2, where tourists feel they have a choice in deciding on a tourist experience.

For destination attributes, the strongest indicator of physiography is PHY1, where the natural environment in Labuan Bajo is what makes tourists interested in visiting. In addition, the strongest indicator of activities and special events is ACT2, which is related to the opportunity for tourists to be able to carry out activities outside of daily routine activities (such as diving, snorkeling, etc.), while in Labuan Bajo.

In summary, trip satisfaction has the largest influence on the travellers' intention to revisit to Labuan Bajo. Peace of mind is the experience quality that has the strongest total effect on trip satisfaction, and physiography is a major factor that has a positive and significant influence on peace of mind. In addition, the creation of activities that make tourists feel they can do something outside of daily routine activities (such as diving, snorkeling, etc.), also has a strong influence.

5. Discussion

From the theoretical perspective, the findings revealed some various destination attributes that influenced the traveller’s experience quality. Furthermore, some dimensions of the traveller’s experience quality have a significant effect on their trip satisfaction, and subsequently, it positively correlates with their intention to revisit the destination. This is in line with previous studies conducted by (Moon & Han, 2018).

This study offered some practical implications for the tourism authority in Labuan Bajo and the tourism marketer in general who are interested to study tourism in an emerging market, namely Indonesia. Especially due to the pandemic (Covid-19) situation where tourism authority and businesses must work on their tourism recovery plan, domestic travel would play an important role to start building confidence for people to travel again.

Based on the results, some suggestions were made. Firstly, trip satisfaction has the strongest influence on the intention to revisit, in which peace of mind is the experience quality that has the strongest effect on the trip satisfaction. It is suggested that the destination marketer created activities that can highlight this type of experience, for example, the implementation of dive tourism and wellness tourism.

Physiography and activities and special events are two key destination attributes that have the strongest effect on the peace of mind experience quality. Thus, the implementation of sustainable tourism is important. These two attributes were also suggested to be the basis in the delivery of communication messages and the development of tourism products or programs in Labuan Bajo.

On the other side, while infrastructure is an important supporting factor for a destination, this study revealed that it has a negative effect on the experience quality in general. The next question is how to create a balance infrastructure development so that it does not reduce the natural characteristics of the destination.

6. Conclusions

Based on this empirical study, the intention to revisit is positively influenced by trip satisfaction, where trip satisfaction is influenced by experience quality, and experience quality is influenced by destination attributes. From the results obtained, there are several destination attributes that have and do not have an influence on experience quality. For the dimension of experience quality, hedonics, peace of mind, and involvement are significantly influence the trip satisfaction of tourists.
The research findings have practical implications for further knowledge on tourism marketing regarding tourist behaviour when visiting a tourist destination and as reference for the local government and destination managers for making tourism policies and strategic planning.

This study has several limitations that can be considered for future research. First, the sample is only limited to Indonesian domestic tourists. Further study can consider using a sample of foreign tourists to compare the result. Secondly, this study did not factor in the element of cost. Future studies can consider whether cost factors influence tourist intention to revisit. Lastly, this study is only limited to one destination, Labuan Bajo, so the results cannot be generalized. In the future, it can be considered to include several destinations for comparison and find common factors for further insights.

References


HOTEL'S MARKETING ON INSTAGRAM: SOCIAL INFLUENCE AND ATTITUDE TOWARD INSTAGRAM & HOTEL BRAND ON HOTEL BOOKING INTENTION AND E-WOM
Yosua Parhorasan Manullang

Abstract
Purpose: Instagram, a popular global mobile photo and video sharing platform with variety of features has become an important marketing tools especially for hotel. These paper aim to examine the consumer behavior model toward marketing on Instagram including factors and impact.

Methodology: This study expressed the integrated model between marketing and social psychology theories through Instagram Hotel. Data have been collected via a structural online survey which respondent expected to visit the live Instagram Hotel then fill out the survey. Structural equation model (SEM) has been used to test the model.

Findings: Compliance as a part of social psychology hasn’t strong affected for attitude toward Instagram rather than Identification and Internalization. On the other side, Hotel Booking Intention and Intention of e-WOM are impact from marketing.

Originality/value: The study contributes to become knowledge about Instagram marketing effectiveness in hospitality industry.

Practical implications: This study provided guidelines for hotel marketers to create marketing strategy through Instagram with considering how to create value for customer rather than impress customer with giving reward. Intention to purchase and e-WOM are impact of marketing definitely, however it would be starting with strategic approach by creating interactive ways (attractive photos and videos) with utilizing variety of Instagram features.

Research limitations: The major limitation of this study is sample collection process due to on boundary of sample criteria to get strong point for analysis.

Keywords: Compliance; Identification; Internalization; Hotel booking intention; e-WOM; Instagram hotel.

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1. Introduction

Penetration of Internet has gain every year, and its effect also for using social media. Based on the result of research conducted by We Are Social Hootsuite (2020), amount of social media users around the world reach to 3.8 billion or 49% penetration for total population. Facebook, Twitter and Instagram are the most widely used social networks. According to Smith (2018), Instagram is one of the most popular social media platform and the fastest growth in the world where users able to share photos and videos with caption. Users able to use Instagram to find information related to other people, documenting their lives, tell others their fun and creativity, and share what they interested in (Sheldon & Bryant, 2016). In addition, users also can tag their photos/videos with various motivation, so other users easier to find related information. Instagram as a popular photo or video sharing platform that focuses on user interaction allows users to post photos or videos with hashtag to provide more information (Lee et al, 2016).

Instagram has added the new feature called “Instagram Stories” on 2016. Instagram define with this feature, users can share daily moment, not moment that users want to convey on their profile page. The stories will open in slide show mode (Introducing Instagram Stories, 2016). Instagram stories is a way to generate conversations and make connections between Instagram users (Dunne, 2019). Instagram stories is interesting for the millennials because it’s easy to use, has 24 hours limit, and can be used to build networks. Today, around 63% of millennials like to see and view the Instagram stories (Joseph, 2018). On 2018, Instagram launched the feature called “IGTV” where users can share longer length videos (Instagram, 2018).

Over the time, social media also used as a media for marketing (Kotler & Keller, 2012). Instagram become a promising media for marketers because large of user number and Instagram users have more strength social interactions in the use of social media (Sheldon & Bryant, 2016). Moreover, according to data posted on Facebook for business website (2020), 90% of account have followed businesses account on Instagram. It is an important opportunity for marketers. Hotel is one of the industries that use Instagram to increasingly attached with customers utilize all features such as caption and hashtag on photos or videos, Instagram stories and IGTV. Social media marketing especially Instagram doing to shape the consumer attitude toward social media itself and hope ends with forming an intention to purchase which means intention to booking hotel. The level of hotel occupancy is a benchmark for hotel’s marketing result for star hotels and non-star hotels. The following report is a hotel’s occupancy in Indonesia:

![Figure 1 - Level of Occupancy Star Hotels and Non-Star Hotels Indonesia](source: Indonesian Ministry of Tourism, 2020)

Based on the data in Figure 1 above, hotel industry in Indonesia has decline occupancy in 2019 due to various factors. Indonesian hotels have to find the way how to build superior communication and interaction with consumers to help increased level of occupancy in 2020 (Chen et al, 2014). How to design their Instagram pages then users
have interest in seeing the hotel’s overall social media activities become an example. First impression on Instagram pages are important to shaping the consumer interest (Kusumasondjaja & Tjiptono, 2019). Consumer interest can be expressed through “likes” in posts, watching “stories & IGTV”, and share hotels content to other Instagram users. Most of Instagram users are looking for entertainment and fun, they will tend to move from one post to another easily to find what they like (Kusumasondjaja & Tjiptono, 2019). Marketers have to maintain their Instagram page with interested content with photos or videos, because interested photos can create the emotional stimuli who can felt by consumer (Kim et al, 2017). This study wants to see attitude toward Instagram has related to build behavior which mean intention to purchase. Even many of hotels already utilize Instagram as a media for marketing, in the other side they still do not realize how to develop and maintain Instagram to be an effective marketing way such as how to interested the potential guest. The aim of this study to examine hotels marketing on Instagram including social factors, process and consequences of marketing on Instagram. Specifically, this study intends to achieve the following objectives:
1. To explain factors who influence consumer to have an attitude toward Instagram hotel.
2. To explain outcomes from Instagram marketing for hotel.

2. Literature review

2.1 Digital and Social Media Marketing

Digital marketing is marketing activities using various web-based media such as blogs, websites, emails, ad-words or social networks (Sanjaya & Tarigan, 2009). Digital marketing used in the process of creating a relationship of trust and loyalty with consumers (Baltes, 2016). With digital concept, marketing doing by using transparent and smart communication to consumers. Building relationships by providing content based on consumer needs. Marketers need to observe relationship between consumers with product, which grouped (Solomon, 2018):
1. Self attachment concept; product used can show the personal identity of consumers.
2. Nostalgic attachment; product used remind consumers of themselves in the past
3. Interdependence; product as a part of daily routine of consumers
4. Love; product give a strength emotional ties, warmth, passion and emotion.

Social media marketing is the one of digital marketing strategies. Social media marketing defined as an internet based marketing by using social networks as a media that can be managed by increasing search and search on social media, brand exposure and consumer interaction (Dodson, 2016). A company use social media marketing because it’s believed more effective in interacting with more social media users, consumers and potential consumers (Alawan et al, 2017).
Social media marketing work if there is an interaction from audience to social media itself. Interaction from audience can be categorized into 4 levels as follows (Dodson, 2016):
The first response, audience will interacted with likes on post or follow an account, then they will share their opinion by comment on content, if audience has need to spread, they will tend to retweet/repost/forward the content, finally audience will face the marketing goal which is purchase/registration/subscription.

2.2 Social Influence Model
Social influence models begin with the assumption that person will process stimuli cognitively. Social influence is a form of action taken by someone or several people with the aim of changing the attitudes, beliefs, perceptions, and behavior of others (Baron & Byrne, 2005). Social influence can be obtained from observation by someone of experience from others. When attitude is confronted with consequences that are positive or negative, changes in attitude can occur. Attitude which have positive consequences from others will be repeated by someone through process observation, while if attitude have negative consequences will be rejected.

Bagozzi & Lee (2002) builds an analogy that social influence is formed by 3 things; social compliance, internalization and identification. Social compliance addresses about a person's response based on their need. Compliance occur when changes in attitude caused by rewards or punishments are given (Kelman, 1958). A person will be rewarded if he behaves compatible with the opinions, suggestions and directions from person who has the authority (Cialdini & Goldstein, 2004). Internalization is the incorporation or unification of attitude, standard of behavior and opinion (Chaplin, 2005). Tsai and Bagozzi (2014) explain that internalization is a personal guide of idealizing values and goals so they can share with others in a group. Internalization occur when behavior influenced by the similarity of someone values with the values that exist in others (Kelman, 1958). Identification occur when person accepts influence because that person wants to establish or maintain a satisfying self-defining relationship to another person or group (Kelman, 1958).

To explain that person has an attachment to another person or group can be understanding with social identification which have elements such as social perception, feelings and behavior (Tajfel & Turner, 1979).

Today, social influence has very broad effect influenced by technological advances such as internet and media social existence (Khawk & Ge, 2012). The social influence model adopted to explain potential consumer attitude toward Instagram because users of Instagram have high social interaction with others. Compliance, internalization and identification were assumed have relationship to build attitude toward social media. Thus, this study proposes hypothesis:

- **H1.** Compliance is positively effect to attitude toward Instagram hotel
- **H2.** Internalization has a positively effect to attitude toward Instagram hotel
- **H3.** Identification has a positive effect to attitude toward Instagram hotel

![Figure 2 - Level of Interaction](image)
2.3 Attitude toward Social Media and Hotel Brand
Attitude is a construct to view and predict a behavior specifically for example people attitude to make a purchase (Rizvi & Oney, 2018). Attitude begin by building perceptions about hotels through the hotel’s social media account (Alansari & Jai, 2018). If hotel’s social media has a lot of bad things, consumer will not interest about hotel. But if hotel’s social media contains information and pictures which are good and have quality, consumer will view the hotel as a good hotel. In the context of attitude towards online sites, its necessary to have trust from consumers which is marked by willingness to accept consequences of losses that maybe have during transaction (Chang & Chen, 2003). An attitude towards social media can be generated and reflected through activities such as like on content, comments on content and sending private messages (Roots et al, 2015).

Then if consumer views social media has good things, consumer will be interested to know more about hotel’s brand. Attitude towards social media can improve attitude towards brands through its positive effect on consumer choices and beliefs about brand (Gardner in Gaber et al, 2019). A factor that makes a company successful is how consumers know about brand strongly which achieved with brand knowledge (Kotler & Keller, 2009). Brand knowledge consist of brand awareness and brand image. Brand awareness is a power of brand presence in minds of consumer meanwhile brand image is a consumer perception and beliefs which reflected in associations on consumer’s memory (Ross, 2006; Kotler, 2010). An attitude toward hotel brand can be said positive if brand is more liked, remembered and chosen more than competing brands (Till & Baack, 2005). When someone follows a brand on social media, the brands able to forms a consumer desire to buy and forms a consumer loyalty (Delafrooz, 2019). After consumer realize about the brand, then next step to consider is an intention from consumer to make purchases in the near or long term. Purchase intention is a willingness of consumers to act towards a brand and the result of the decision making (Wells et al, 2011). Purchase intention on hotel concept called hotel booking intention. This study adopted former study’s which proposed attitude toward hotel Facebook pages has impact to attitude hotel brand and influences to has intention to booking hotel. The hypothesis as follows:

**H4.** Attitude toward Instagram hotel is positively effect to attitude toward hotel brand.

**H5.** Attitude toward hotel brand is positively effect to hotel booking intention.

2.4 e-WOM (Electronic Word of Mouth)
Electronic word of mouth (e-WOM) can be known by the existence of positive or negative statements made by potential consumers, consumers still using, and consumers who have used a product which can be accessed and seen by many people (Thurau et al, 2004). Filieri (2015) said that e-WOM influenced by informational influence including credibility, relevance and quantity of information and normative influence which is related to expectation from others including comments and rating. This study has focused in pre-purchased doing by potential consumers. On social media especially Instagram, e-WOM divided into two dimensions namely tagging and following activities (Delafrooz, 2019). e-WOM given for many reasons such as the results of social interactions and connections, enjoy activities on online sites, form of logistical support, the results of the negotiation process, altruism, feelings of solidarity and even to help create self-esteem (Munar & Jacobsen, 2014). Factor can influence WOM and e-WOM in hospitality concept is attitude (Cheng et al, 2006; Leach et al, 2008), then Leung et al (2015) combine attitude toward social media, hotel booking intention and e-WOM in their study as an integrated marketing model. Hypothesis as follows:

**H6.** Attitude toward hotel brand is positively affect to spread positive word of mouth on Instagram.

**H7.** Hotel booking intention is positively affect to intention to spread positive word of mouth about hotel on Instagram.
3. Data and Method

**Sampling and Data Collection**
The study implemented a self administered online survey. A link survey was sent by social media platform such as Instagram, email and whatsapp. The study utilize live hotel Instagram called “Yats Colony”. This hotel is local hotel in Indonesia and one of most active hotel use Instagram to interacted with their consumers. This study used Instagram “Yats Colony” to reduce impact of famous brand and past experience staying at this hotel. Participants were true Instagram user at least last 3 months use, were at least 18 years old and ever booking hotel at least last 6 months. Qualified participant will allow to following online survey. First step, participant will lead to open and browse the activities hotel in Instagram such as photos, videos, live video or IGTV. Then requested the participant to complete the survey based on the truth condition of Instagram hotel. Final sample of the study is 200 respondent, online survey was conducted in April 2020.

**Measurement**
The survey items used in this study were developed based on literature review and previous study. The questionnaire of survey has five components – social influence has 15 items – attitude toward Instagram hotel has 7 items – attitude toward hotel brand has 6 items – hotel booking intention has 3 items and Intention of e-WOM has 6 items. A 5 points Likert scale from 5 (strongly agree) to 1 (strongly disagree) to measure social influence, attitude toward Instagram hotel, hotel booking intention and e-WOM. Semantic differential used to measure attitude toward hotel brand. The instrument of survey was test through pre-test. Pre-test conducted to check the questionnaire with 33 Instagram users and hotel users. Participant completed the survey then ask to make a comment below of the questionnaire.

**Data Analysis**
The data collected were analyze using Smart PLS 3.0 program to test the hypothesis in this study. Data examine using structural equation model (SEM). Analysis with PLS conducted with 3 steps; outer model analysis, inner model analysis and hypothesis testing. Outer model analysis begins with examine validity test which consist component:
level of outer loading is 0.5 or higher, level of Average Variance Extracted (AVE) is 0.5 or higher, level of Heterotrait-Monotrait Ratio (HTMT) is not more than 0.9 and level of cross loading. Then will examine with reliability test which consist component: level of composite reliability is 0.7 or higher and level of Cronbach alpha is 0.6 or higher. Then inner model analysis to examine relationship between each of variable, level of significant and R-square from research model. After inner model, this study will examine with analysis of collinearity where accepted if value higher than 0.2 and less than 5. Final step, this study will examine with hypothesis testing by doing bootstrap method toward sample.
### Table 1 Measurement Items

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measurement Item</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance</td>
<td>For me to get reward, it was necessary to express right attitude.</td>
<td>O'Reilly &amp; Chatman (1986)</td>
</tr>
<tr>
<td></td>
<td>My private views about hotel were different those express in public.</td>
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<tr>
<td></td>
<td>How much I am involved in Instagram hotel was directly linked to how</td>
<td></td>
</tr>
<tr>
<td></td>
<td>much I am rewarded.*</td>
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<tr>
<td></td>
<td>If I am rewarded, I see no reason to give extra effort on Instagram hotel.</td>
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</tr>
<tr>
<td>Internalization</td>
<td>If values of Instagram hotel were different, I wouldn’t to be attached.*</td>
<td>O'Reilly &amp; Chatman (1986)</td>
</tr>
<tr>
<td></td>
<td>My private views about hotel were different those express in public.</td>
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</tr>
<tr>
<td></td>
<td>Since joining the Instagram hotel, my personal values and hotel values</td>
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<tr>
<td></td>
<td>have become more similar.</td>
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<tr>
<td></td>
<td>The reason I prefer to this Instagram hotel was because of its value.</td>
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<tr>
<td></td>
<td>My attachment to Instagram hotel was primarily based on the similarity of my</td>
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<tr>
<td></td>
<td>value and hotel value.</td>
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<tr>
<td></td>
<td>What hotel stands for in Instagram is important for me.</td>
<td></td>
</tr>
<tr>
<td>Identification</td>
<td>My personal identity overlaps with hotel’s identity in Instagram before</td>
<td>Bagozzi &amp; Dholakia (2002)</td>
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<tr>
<td></td>
<td>joining the Instagram hotel.</td>
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<tr>
<td></td>
<td>When I am engage in Instagram activities, my personal identity overlaps</td>
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<td>with hotel’s identity.</td>
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<td>I am attached to the Instagram hotel I like.</td>
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<td></td>
<td>I have strong feelings of belonging to the Instagram hotel I like.</td>
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<td></td>
<td>I am a valuable user of Instagram hotel I like.</td>
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<tr>
<td></td>
<td>I am an important user of Instagram hotel I like.</td>
<td></td>
</tr>
<tr>
<td>Attitude toward</td>
<td>The Instagram hotel makes its easy for me to build a relationship with the hotel.</td>
<td>Chen &amp; Wells (1999); Brunner &amp; Kumar (2000)</td>
</tr>
<tr>
<td>Instagram hotel</td>
<td>I am satisfied with information provided by Instagram hotel.</td>
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<td></td>
<td>I feel comfortable in surfing the Instagram hotel.</td>
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<td></td>
<td>I feel surfing the Instagram hotel was good way to spend my time.</td>
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<td></td>
<td>Overall, I think Instagram hotel is good.</td>
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<tr>
<td></td>
<td>Overall, I like this Instagram hotel.</td>
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<tr>
<td></td>
<td>I think I will follow this Instagram hotel.</td>
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<tr>
<td>Attitude toward</td>
<td>Important/Unimportant</td>
<td>Mitchel &amp; Olson (1981); Shimp (1981)</td>
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<td>Hotel brand</td>
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<td>Favorable/Unfavorable</td>
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<td>Pleasant/Unpleasant</td>
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<tr>
<td>Hotel booking</td>
<td>My willingness to book Yats Colony Hotel very high</td>
<td>Chiang &amp; Jang (2006)</td>
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<tr>
<td>Intention</td>
<td>Probability that I would consider to book Yats Colony Hotel very high</td>
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<tr>
<td></td>
<td>The likelihood of booking Yats Colony Hotel very high</td>
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<tr>
<td>Intention of e-WOM</td>
<td>I will like content post by Instagram hotel</td>
<td>Svensson (2011); Chen &amp; Wells (1999)</td>
</tr>
<tr>
<td></td>
<td>I will comment on content post by Instagram hotel</td>
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<tr>
<td></td>
<td>I will share content post by Instagram hotel to friends on Instagram</td>
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<td></td>
<td>I will post my experience surfing the Instagram hotel</td>
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<td></td>
<td>I will mention the Instagram hotel on my post</td>
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<tr>
<td></td>
<td>I will recommend hotel to friends on Instagram</td>
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</tbody>
</table>

*Notes: Items which eliminated from construct of measurement

**Source:** Elaborated by the researchers

### 4. Results

#### Sample Characteristic

Table 2 show the characteristics of sample. There were more females (61%) than males (39%). Largest age group was 26-35 years old (50,5%), following by 18-25 years old (43,5%), then 36-45 years old (4,5%) and 46-55 years old (1,5%). Based on educational background, majority sample is high school (24,5%), following by diploma (20%), then bachelor degree (51%) and master degree (4,5%). Samples based on profession has
private employees (56.5%) as majority samples, followed by entrepreneur (17%), then state-own enterprise employees (12.5%), student (10%) and government employees (4%).

Based on frequency of booking hotel per 6 months, majority sample is making a hotel’s booking for 1-2 times (69%), followed by 3-5 times (19%), then 6-7 times (6.5%), 8-10 times (2.5%) and more of 10 times (3%). And the last characteristic is frequency using Instagram which majority by user who use Instagram few times in a day (91%), followed by user who use Instagram at least one time in a day (6.5%), then user who use Instagram several times in a week (2%) and user who use Instagram at least one time in a week (0.5%).

<table>
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<th>Table 2 Sample Characteristics</th>
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<tr>
<td>Female</td>
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<td>1-2 times</td>
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<td>6-7 times</td>
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<td>8-10 times</td>
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<td>More than 10 times</td>
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<td>Instagram Use</td>
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<td>Several times per day</td>
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<td>At least one time per day</td>
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<tr>
<td>Several times in a week</td>
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<tr>
<td>At least one time in a week</td>
</tr>
</tbody>
</table>

Source: Processed data from researchers using Smart PLS 3.0

**Measurement model**

Model was examined begins with validity test and reliability test. Validity test examined by value from outer loading and average variance extracted (AVE), Heterotrait-Monotrait Ratio (HTMT) and cross loading. Result of outer loading indicate items compliance 2 and internalization 1 have low value 0.460 and 0.457 which is not accepted to continue for main test. Item compliance 2 and internalization 1 was cut from model. After 2 items cut, all indicator has a good fit in cross loading. Level of AVE was good also because items questionnaire more than 0.5. Level of HTMT also was good which all of construct have value not more than 0.9. Reliability test examine by measure value of composite reliability and Cronbach alpha. This model has good reliability which has all value of composite reliability more than 0.7 and Cronbach alpha more than 0.6. This result indicate that items of measurement is valid and reliable.
Table 3 Measurement Model

<table>
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<tr>
<th>Indicator</th>
<th>CO</th>
<th>IN</th>
<th>ID</th>
<th>ATI</th>
<th>ATB</th>
<th>BI</th>
<th>WOM</th>
<th>AVE</th>
<th>Cronbach Alpha</th>
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Source: Processed data from researchers using Smart PLS 3.0

Structural Model
Evaluation of structural model done with examine result from predictive power analysis (R², F² dan Q²). Effect exogenous variable can be predicted endogenous variable illustrated with level of R² each variable. The real condition of consideration is R² has to reach 0.20 (Hair, 2014). There is a rule of thumb value of 0.75 (substantial) 0.50 (moderate) and 0.25 (weak). Level R² of attitude toward Instagram hotel is 0.656 (65.6%) explained by compliance, internalization and identification. Level R² of attitude toward hotel brand is 0.463 (46.3%) explained by attitude toward Instagram hotel. Level R² of hotel booking intention from is 0.513 (51.3%) explained by attitude toward hotel brand. Level R² of word of mouth is 0.699 (69.9%) explained by hotel booking intention and attitude toward hotel brand.

This study examined F² test which has purpose to measure effect from every exogenous variable on endogenous variable. The real condition of consideration is 0.02 (weak) 0.15 (moderate) and 0.35 (strength). Level F² of attitude toward hotel brand is 0.143 and 1.054 to explain hotel booking intention and word of mouth. Level F² of attitude toward Instagram hotel is 0.863 to explained attitude toward hotel brand. Level F² of hotel booking intention is 0.577 to explain word of mouth. Level F² of compliance, internalization and identification is 0.005; 0.143; 0.342 to explain attitude toward Instagram hotel. From the result, every exogenous variable has different effect on endogenous variable.

Q² test to measure predictive relevance of exogenous variable to endogenous variable. Result of Q² test is more than 0. The level of Q² must has value with range 0<Q²<1 which is model getting better if value close to 1. Based on the result, every exogenous variable can predict the endogenous variable.
Mediation Testing

Mediation testing show that attitude toward hotel brand is a positive mediator between hotel booking intention and intention of e-WOM which indicates partially mediation between the two mediation with value of variable account for (VAF) is 59% that mean more than rule of 20%.

Path Analysis

Direction of the relationship as well as the magnitude of the influence of exogenous variables on endogenous variables carried out by path coefficient analysis. If the t-value is greater than t-table (1.65), with level significance of 5% in one tailed. The path coefficient is significant. The result indicated compliance has a negative effect and not significant to influence attitude toward Instagram hotel (Original sample -0.060; t-value 0.873). The others variable is positive and significant.

Table 4 - Measurement Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
<th>Q²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude toward Instagram</td>
<td>0.056</td>
<td>0.495</td>
</tr>
<tr>
<td>Attitude toward Hotel Brand</td>
<td>0.463</td>
<td>0.370</td>
</tr>
<tr>
<td>Hotel Booking Intention</td>
<td>0.513</td>
<td>0.441</td>
</tr>
<tr>
<td>e-WOM</td>
<td>0.699</td>
<td>0.540</td>
</tr>
</tbody>
</table>

Source: Processed data from researchers using Smart PLS 3.0

Table 5 - Result of Path Coefficient

<table>
<thead>
<tr>
<th>Variable</th>
<th>f²</th>
<th>Original Sample</th>
<th>T Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance -&gt; Attitude toward Instagram</td>
<td>0.015</td>
<td>-0.060</td>
<td>0.956</td>
</tr>
<tr>
<td>Internalization -&gt; Attitude toward Instagram</td>
<td>0.342</td>
<td>0.569</td>
<td>7.096</td>
</tr>
<tr>
<td>Identification -&gt; Attitude toward Instagram</td>
<td>0.145</td>
<td>0.338</td>
<td>4.976</td>
</tr>
<tr>
<td>Attitude toward Instagram -&gt; ATB</td>
<td>0.863</td>
<td>0.681</td>
<td>9.855</td>
</tr>
<tr>
<td>ATB -&gt; Hotel Booking Intention</td>
<td>1.054</td>
<td>0.716</td>
<td>13.531</td>
</tr>
<tr>
<td>ATB -&gt; e-WOM</td>
<td>0.145</td>
<td>0.297</td>
<td>3.774</td>
</tr>
<tr>
<td>Hotel Booking Intention -&gt; e-WOM</td>
<td>0.577</td>
<td>0.397</td>
<td>7.733</td>
</tr>
</tbody>
</table>

Source: Processed data from researchers using Smart PLS 3.0
Hypothesis testing

Hypothesis testing was explained with result of P-value in bootstrapping process. Conditions result of hypothesis testing must have level of P-value less than 0.05. The result indicate that only compliance has P-value 0.360 which is its value more than 0.05. Internalization, identification, attitude toward Instagram hotel, attitude toward hotel brand, hotel booking intention and intention of e-WOM was accepted because have P-value 0.000 which is less than 0.05. The result as shown in figure 4.1, indicate that compliance had significant negative effect on attitude toward Instagram hotel. Internalization had significant positive effect on attitude toward Instagram hotel. Identification had significant positive effect on attitude toward Instagram hotel. Attitude toward Instagram hotel had significant positive effect on attitude toward hotel brand. Attitude toward hotel brand had significant positive effect on hotel booking intention. Hotel booking intention had significant positive effect on intention of e-WOM.

Figure 5 - Result of Hypothesis Testing

Source: Processed data from researchers using Smart PLS 3.0

5. Conclusions

This study investigated the factors of social influence to have an attitude toward Instagram hotel and the consequence from marketing activities through Instagram. The result of this study summarized as on top. First, compliance had negative effect on have an attitude toward Instagram hotel. Internalization and Identification had positive effect on have attitude toward Instagram hotel. Second, attitude toward Instagram hotel had positive effect on have attitude toward hotel brand. Third, attitude toward hotel brand had positive effect on hotel booking intention and intention to spread of positive e-WOM. Fourth, hotel booking intention had positive effect on intention to spread positive e-WOM. Based on result, internalization have a strong effect to influence people to have an attitude on Instagram. Hotel as a marketer has to consider to design Instagram pages the value of hotel such as value of caring the environment. The second factors which has strong effect is identification. Hotel as a marketer had to realize that audience is a value users and potential consumer. Hotel had to give audience an important side where consumers find their social identity in media social used. The findings give recommendation that potential consumers will have an attitude toward Instagram hotel influenced by value offered and similarity identity in Instagram hotel. The academic and practical implications of this study are as follows. This study combined
social influence with attitude toward social media to propose integration marketing through Instagram. The findings a negative effect of compliance to attitude toward social media means hotel marketers have to think how the way to make and design their Instagram pages and refuse to give a reward.

Hotel need to consider to create interested, unique and educational content. For an example hotel to consider about quality of photos and videos, color selection and educational content. This study also proposed that appearance desire from potential consumers to knowing about hotel brand. The role of attitude toward Instagram has been demonstrated. The findings recommend that hotel brand become an important part to have a desire to do more attitude. The good or bad of hotel brand able to lead consumers to have intention on booking hotel and spread a positive e-WOM to others in Instagram.

Potential consumers are expected to have an intention to booking hotel and to spread positive e-WOM to friends on Instagram. The result indicated that people tend to share their experience of surfing the Instagram pages if they interested. From the result of mediation, hotel must utilize the “swipe up” feature in Instagram Stories by create several contents and will end with “swipe up content” to lead the audience to make a hotel’s booking. Because audience have tendencies to have an intention to doing hotel’s booking then spread information to others on Instagram. This integrated model combines factors which might can influenced and outcomes from marketing activities in Instagram to help researchers marketing mechanism of social media marketing. The limitation of this study is how to collect sample with characteristics: active social media at least 3 months uses, ever booking hotel at least one time on last 6 month.

The limitation helps researches to have critical view from respondent. As a recommendation for future student, to consider this limitation and might use others theory to develop Instagram marketing model. Other limitation of this research is two indicators of variable have not been maximized to describe aspect that want to examined.

There are two indicators have bad validity so the indicators were cut from research. Recommendation for future research to added some indicators and variables to describe the right aspect to investigated. Recommendation for hotel managerial and others hotel marketer to consider factors of social influence on create and design interested Instagram pages. Because today Instagram become most social interaction platform who use by people.

References


PREDICTING THE TREND OF INDONESIAN STOCK PRICE MOVEMENTS USING DISCRIMINANT ANALYSIS AND SUPPORT VECTOR MACHINE
Hanandi Rahmad Syahputra 1; Zaäfri Ananto Husodo 2

Abstract
Purpose: Predicting the movement of stock prices is a very challenging task because the characteristics of the stock market are complex, non-linear, and full of uncertainty. Many approaches have been applied for predicting the movement of stock prices ranging from simple linear statistical approaches such as discriminant analysis (DA) to complex machine learning approaches such as support vector machines (SVM). Both DA and SVM are approaches that can be used to do classifications such as separating stock price trends into several classes. By designing a number of prediction models that also apply the feature selection process, the level of prediction accuracy and the factors that can influence both approaches can be compared and analysed.

Methodology: In this study, the trends of stock price movements are classified into two classes, namely "highly possible to go up" and "highly possible to go down or be neutral" in which the class separation is based on technical, fundamental, financial, and beta coefficient data from issuers on the Indonesia Stock Exchange (IDX). By using this data, a number of prediction models with specific prediction periods were trained and then used to predict the trends of stock price movements on the IDX. The prediction periods used in this study are ranging from 1 month to 9 months.

Findings: The results show that SVM outperforms DA in terms of classification accuracy. This study also implies that several factors such as the selection of features in the DA and SVM models and the selection of kernel functions and parameters in the SVM model affect the performance of the classification model designed.

Originality/value: The stepwise linear regression (SLR) and sequential forward selection (SFS) methods are applied to select the features that are most relevant so that the performance of each prediction model increases. The SFS method in this study is based on the k-fold cross-validation and the results of the SVM training-testing process as the criterion test. This proposed criterion test aims to increase the effectiveness of the feature selection process in the SFS method. The application of Bayesian optimization is proposed to optimize the parameters in the SVM model training process. This Bayesian optimization has proven to be far better than other parameter optimization approaches.

Keywords: Stock price prediction; Discriminant analysis; Support vector machine; Feature selection; Stepwise linear regression; Sequential forward selection.

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1. **Introduction**

Prediction of stock price movements is one of the most challenging applications of financial time series predictions because, characteristically, the stock market is a very complex, fluctuating, dynamic, unstructured, non-linear, non-stationary, and high level of uncertainty (Gunduz & Cataltepe, 2015). In addition, stock prices are influenced by many factors which the relationship of these factors is also complex. Several factors such as the political situation, economic conditions, future company targets, investor expectations, world stock exchanges, and psychological conditions of investors greatly affect the behaviour of the stock market, making it difficult to predict its direction. Even so, the prediction of financial time series has also become a popular research topic because the results can provide opportunities for investors to get better returns (C. S. Lin et al., 2012; R. Cao et al., 2012).

There are many methods that can be used to predict stock price movements, where the majority of them use time series analysis using numerical data and structured data such as stock prices. In theory, there are two methods that can be used to predict stock price movements, i.e. technical analysis and fundamental analysis. Technical analysis uses historical stock prices to predict the direction of future stock price movements while fundamental analysis makes predictions by utilizing data relating to economic structures such as inflation rates, trading volume, interest rates, unemployment rates, demand for goods, etc. (Gunduz & Cataltepe, 2015). The more information an investor has and the better the investor's ability to predict prices, the higher the chance of generating abnormal returns. Therefore, this can motivate investors to always develop their ability to predict stock prices so they can compete with other investors. One way to achieve this is to create predictive models through a classification approach.

Among the many approaches in predicting stock price movements, machine learning is one of the most rapidly developing approaches this decade. Even the level of effectiveness can match conventional statistical approaches or simple linear models that have developed much earlier. One example of a machine learning approach is support vector machine (SVM) which is a supervised learning method that can be used to classify, regress, and outlier detection (C. S. Lin et al., 2012). According to Zhang et al. (2016), classical statistical modelling techniques are considered inadequate for forecasting stock trends due to the non-stationarity and non-linearity of the stock market. Moreover, the stock price movement is likened to a randomly moving curve so that the classical statistical approach is very rarely used in making predictive models of stock price movements because of the difficulty level. Therefore, many machine learning approaches are used to improve the effectiveness of predictive results (R. Cao et al., 2012).

Although there are many machine learning approaches besides SVM, such as artificial neural networks (ANN), SVM provides more advantages compared to ANN (Yang & Lin, 2016). SVM has the ability to generalize in getting unique solutions and the principle of structural risk minimization (SRM) it has can produce excellent performance so that it can attract the attention of many researchers to implement it. The SVM developed by Vapnik (1995) is based on the SRM principle which aims to minimize the upper limit of generalization errors rather than empirical errors such as BPN. In SVM, non-linearity problems in the dimensions of low input features can be overcome by transforming data to higher dimensions of feature space (C. S. Lin et al., 2012). Although ANN has also been widely used as an approach in making a prediction model, ANN has several disadvantages such as being often stuck with overfitting problems and tends to be trapped to the local minimum (Chen & Hao, 2017).

With excellent generalization capabilities, SVM has attracted more attention than ANN (Luo & Chen, 2013). Cao & Tay (2003) has implemented SVM to predict stock prices, and shows that SVM outperforms back-propagation artificial neural networks (BPN) in making financial predictions. Rajput & Kaulwar (2019) using the SVM approach to predict stock price movements on a daily basis by using features such as stock prices and daily
moving averages. Chang & Wu (2015) applying weighted SVM and features in the form of several technical indicators to predict the turning point of changing stock price trends. Nahil & Lyhyaoui (2018) using regression in SVM and features in the form of several technical indicators to predict stock price movements. Although SVM offers many advantages, the training phase of SVM is a fairly time-consuming process when there is a large amount of data used in the training phase (C. S. Lin et al., 2012).

With the many advantages offered by the machine learning approach, the classical statistical approach in terms of multivariate classification such as discriminant analysis (DA) and logit models does not get much attention in its application to predict stock price movements. One reason is the non-stationarity and non-linearity characteristics of the stock market. Some other shortcomings of DA are that they cannot explain the effects of outliers and abnormalities of input data (Mihalović, 2016).

Although DA has several shortcomings to be applied in the stock market, there are still studies that have tried to use DA in predicting stock prices. This is because DA is a linear transformation that can widen partitions and determine the direction that can separate between different classes or groups (WJ Lee et al., 2016; Li et al., 2013). One of the studies that applied DA was researched by Daigler & Fielitz (1981) which uses technical indicators as input variables. The research by Daigler and Fielitz shows that the prediction model designed is better than the simple strategy of buy and hold. Some other studies that use DA to predict stock price movements are research by Siqueira et al. (2012), Jasmina et al. (2014), and Nwakuya & Ofokansi (2016). Research by Siqueira et al. and Nwakuya et al. use beta coefficients, fundamental variables, and financial variables to create a discriminant analysis model to select stocks that have high-profit potential in the future. Whereas research by Jasmina et al. use the beta coefficient, market capitalization, turnover, and return to select stocks based on liquidity.

In predicting stock price movements, one thing to note is feature selection. The application of feature selection in making prediction models of stock price movements can improve the performance of classifications made in modelling. By using feature selection, relevant features will be selected while less informative features will be eliminated (Gunduz & Cataltepe, 2015). Both in SVM and DA, the involvement of features or input variables that are less relevant can reduce the performance of the classification performed (Nahil & Lyhyaoui, 2018).

One of the feature selection methods that allows to be applied in DA modelling is stepwise linear regression (SLR) (Gunduz & Cataltepe, 2015) (Mihalović, 2016). Although SLR can be applied in SVM modelling, there are still a number of other methods that are not based on statistical approaches and are more suitable to be applied as feature selection methods such as sequential forward selection (SFS) and kernel principal component analysis (KPCA) (Nahil & Lyhyaoui, 2018; Erişi et al., 2010). SLR is a method that can be used to select variables where many combinations of these variables are tested together and sequentially. By using SLR, the prediction or classification process only leaves variables that can separate different classes or groups significantly (Gunduz & Cataltepe, 2015; Mihalović, 2016).

SFS is a solid algorithm used to select features where the process starts with an empty data set and each feature is added one by one to the data set sequentially in order to minimize the classification error criteria. In this study, we applied SFS based on k-fold cross-validation (K-fold CV) and SVM classification criteria as a feature selection method in SVM modelling. In SFS, one feature is added to each iteration until the error criteria stop improving or when a specified number of features are selected (Zarbakhsh & Demirel, 2018; M. C. Lee, 2009).

Both SVM and DA are approaches that can be applied to classify where each of them has advantages and disadvantages in its application. With the growing level of complexity of the stock market today, it is very difficult to say whether classical statistical approaches such as DA can still be applied effectively or not. This is certainly different from many machine learning approaches that are increasingly effective as technology develops. What's more, there have been many studies that want to compare linear
models such as DA with non-linear models such as SVM with the result that linear models can outperform non-linear models, but in some cases the result is just the opposite (Yang & Lin, 2016).

There have been many studies conducted with the aim to predict stock price movements for both long-term and short-term trends. Even so, there is still rarely any research conducted on markets that are still in the developing stages such as the Indonesia Stock Exchange (IDX). IDX is a market that has a character in the form of quiet high volatility so that it is still very attractive for investors to get profits. Therefore, in this study we made a comparison between the SVM and DA approaches which also implemented a feature selection process in modelling to predict trends in stock price movements, especially in emerging markets such as the Indonesia Stock Exchange (IDX). This research also focuses on analyzing the factors that can influence the effectiveness of each approach.

2. Literature Review

2.1 Stepwise Linear Regression

Stepwise linear regression (SLR) is a method that can be used to select variables where many combinations of these variables are tested together and sequentially. There are two types of variable selection methods that can be applied to SLRs, i.e. the forward selection method and the backward elimination method. In the forward selection method, variables that can increase the value of R squared are added one by one in making the model. The addition of variables to the model will stop if the minimum value of F-to-enter exceeds a certain probability level. Whereas in the backward elimination method, all variables are directly entered into the model and one variable will be eliminated over time until the minimum F-to-remove value is below a certain probability level limit (Gunduz & Cataltepe, 2015; Mihalović, 2016; Siqueira et al., 2012).

There are several measurements of the significance of each independent variable that can be used in the SLR method, such as Wilks' Lambda and Mahalanobis distance. Each of these measurements can be used to select the independent variables that can make the best contribution in separating groups from two different groups in a classification model. The variable will be included in the model if it has a significance value of F not greater than the maximum significance value of F-to-enter or not smaller than the maximum significance value of F-to-remove (Siqueira et al., 2012; Viana & Sansigolo, 2016).

2.2 Sequential Forward Selection

Sequential forward selection or sequential forward search (SFS) is a solid algorithm used to select features where the process starts with an empty data set and each feature is added one by one to the data set sequentially in order to minimize a classification criteria that are manually defined. In SFS, each additional feature will go through a testing process to find out whether the feature is worthy of being selected (Zarbakhsh & Demirel, 2018).

SFS itself is one type of sequential feature selection algorithm. Some other types of sequential feature selection algorithms are sequential backward selection (SBS), sequential forward floating selection (SFFS), and sequential backward floating selection (SBFS) (Xie et al., 2012).

The algorithm of SFS can be described as follows. Assume the initial input is as many features as d features, which are members of the initial set $Y = \{y_1, y_2, ..., y_d\}$. Then by selecting features, the output of the SFS algorithm is a subset $X_k = \{x_j | j = 1, 2, ..., k; x_j \in Y\}$ where $k = (0, 1, 2, ..., d)$. $X_k$ is a new subset consisting of as many features as $k$ where $k < d$. The number of $k$ will increase until the value $k = N$, where $N$ is the number of features that we want to select and determine from the start. The
algorithm starts with initializing the form \( X_0 = \emptyset \) and \( k = 0 \), which \( \emptyset \) is an empty set without any features in it. Each feature is selected based on the following equation:
\[
x^+ = \arg \max_j f(x_k + x)
\] (1)

Where \( x \in Y - X_k \) is the feature being tested with the aim of achieving certain criteria while \( x^+ \) is the feature chosen among all \( x \) features. In general, the criteria are features that can maximize classification performance or features that can minimize the misclassification chosen as \( x^+ \). One approach that can be used to maximize the effectiveness of testing of each feature is \( k \)-fold cross-validation (K-fold CV) (Zarbakhsh & Demirel, 2018). With the addition of one new feature, the total number of features selected \( X_k \) will increase based on the following algorithm:
\[
X_{k+1} = X_k + x^+
\] (2)

With \( k \) values redefined based on the following algorithm:
\[
k = k + 1
\] (3)

The whole iteration process of the SFS algorithm will stop if the value of \( k \) is equal to the value of \( N \) (Zarbakhsh & Demirel, 2018; Dimitrios & Constantine, 2005).

2.2.1 K-Fold Cross-Validation
K-fold cross-validation (K-fold CV) is one of the validation techniques that can be used to evaluate the predictive performance of various classification models (Li & Sun, 2009). K-fold CV divides the initial training data into \( k \) sections. In this study, the data distribution uses a random sampling approach to ensure the distribution of data from each fold or section is equivalent to the distribution of all initial datasets. K-fold CV will do iteration in the training-testing process using data that has been divided into testing data and training data that are different in each iteration. In each iteration, each fold of the initial training data will be used as testing data (\( n \)) while other data outside the testing data section will be used as training data. The training data is used to create a classification model such as SVM that can be used as one of the criteria in selecting features, while testing data is used to evaluate the accuracy of the classification model designed. In the SFS approach, each feature addition in the evaluation model will go through one full process of the K-fold CV so that by testing as many times as \( k \) times, a feature can be tested for validity in achieving certain SFS criteria (Meyer et al., 2018; Lajnef et al., 2015).

2.3 Discriminant Analysis
Discriminant analysis (DA) is a statistical technique used to classify observations into one or several groups depending on the individual characteristics of the observations. One of the main objectives of DA is to classify and / or make predictions in a problem where the dependent variable is a qualitative variable. DA was developed by Fisher in 1936 where this technique is aimed to maximize the ratio of variance within groups and between groups (TH Lin, 2009; Li et al., 2013).

One of the advantages of DA is its ability to analyze all profile of the variables simultaneously rather than having to examine individual characteristics of each variable in turn. Another advantage of DA is that this approach can reduce the analysis space dimension from the number of different independent variables to the \( g-1 \) dimension, where \( g \) is the number of initial groups (T. H. Lin, 2009).

The discriminant function is formed by using training data that can classify a number of \( g \) groups where the classification of two contiguous groups is based on the cut off value calculated based on the group centroids of the two groups (Gunduz & Cataltepe, 2015; Li et al., 2013). Discriminant function is a linear combination of all the independent variables, where each coefficient in the function is estimated in order to increase the variability of the discriminant function scores between groups (Viana & Sansigolo, 2016),
where all the independent variables in the discriminant function are predictors and the dependent variable is the group that wants to be predicted based on the predictor characteristics (Mihalovic, 2016; Li et al., 2013). Assuming the number of groups to be classified as much as $g$, there is only a discriminant function as much as $g-1$ resulting from DA, where in general the first discriminant function is the most reliable function (TH Lin, 2009; Viana & Sansigolo, 2016).

Assuming there are a number of $p$ independent variables, a discriminant function ($d$) can be written as follows:

$$d_i = w_{i1}x_1 + w_{i2}x_2 + \cdots + w_{ip}x_p + c_i , \quad i = 1, 2, ..., g - 1$$

Where $x_i$ is an independent variable, $w_i$ is the coefficient, and $c_i$ is a constant (T. H. Lin, 2009).

2.4 Support Vector Machine

The support vector machine (SVM) method, proposed by Vapnik in the early 1990s, is one of the most effective machine learning algorithms for classification problems. SVM is based on the principle of structural risk minimization and statistical learning theory. The basic idea of SVM is to convert data into higher dimensional spaces and find a classification hyperplane or optimal separating hyperplane (OSH) that separates data with a maximum margin (Zhang et al., 2016). SVM itself can be applied to 2 things, i.e. classification and regression (Rosillo et al., 2014). The SVM standard model can be written as follows:

$$\min \frac{1}{2} \|\omega\|^2 + C \sum_{i=1}^{l} \xi_i$$

s.t. $y_i \left( (\omega \cdot \phi(x_i)) + b \right) \geq 1 - \xi_i$

$$\xi_i \geq 0, \quad i = 1, 2, ..., l$$

Where $x_i \in \mathbb{R}^n$ and $y_i \in \{-1, +1\}$ are samples for training data and class labels in sequence. Whereas $\phi$ is a non-linear map that has a function to transform data into a high dimensional feature space, $\omega$ is a normal vector to the boundary plane (hyperplane), and $b$ is a bias value. Then $\xi_i$ is the slack variable which is useful for measuring the degree of misclassification of the data and $C$ is the penalty parameter (Zhang et al., 2016; Rosillo et al., 2014). But rather than having to find a solution of this optimization equation, it will be easier to solve multiple equations by using the multiplier lagrangian ($\alpha$) so that Eq. (2) can be rewritten as follows:

$$\min_{\alpha} \frac{1}{2} \sum_{i=1}^{l} \sum_{j=1}^{l} y_i y_j \alpha_i \alpha_j K(x_i \cdot x_j) - \sum_{j=1}^{l} \alpha_j$$

s.t. $\sum_{i=1}^{l} y_i \alpha_i = 0$

$$0 \leq \alpha_i \leq C, \quad i = 1, 2, ..., l$$

Where $K(x_i \cdot x_j) = \phi(x_i) \cdot \phi(x_j)$ is called the kernel function. Then the decision function $f(x)$ can be written as follows:

$$f(x) = \text{sign} \left( \sum_{x_i \in SV} y_i \alpha_i^* K(x, x_i) + b^* \right)$$

Where $\alpha_i^*$ is the optimal solution of Eq. (3), SV is the set of support vectors, and $b^* = y_i - (\sum_{x_i \in SV} y_i \alpha_i^* K(x, x_i))$ if $0 < \alpha_i^* < C$ (Zhang et al., 2016). The kernel function is one of the concepts applied in SVM. The concept of a kernel function is to transform data that has many features to a higher dimensional space so that it can obtain an optimal hyperplane in separating between two different groups.
There are several kernel functions that can be applied to SVM, i.e. linear kernel, polynomial kernel, and radial basis function kernel (Upadhyay et al., 2016).

<table>
<thead>
<tr>
<th>Types of kernel functions</th>
<th>Equation</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear Kernel</td>
<td>$K(x_i, x_j) = x_i \cdot x_j$</td>
<td>None</td>
</tr>
<tr>
<td>Polynomial kernel</td>
<td>$K(x_i, x_j) = (x_i \cdot x_j + 1)^d$</td>
<td>$d$</td>
</tr>
<tr>
<td>Radial basis function kernel</td>
<td>$K(x_i, x_j) = \exp\left(-\gamma |x_i-x_j|^2\right)$</td>
<td>$\gamma &gt; 0$</td>
</tr>
</tbody>
</table>

Source: Upadhyay et al. (2016).

The choice of parameters in the kernel function is also important to optimize the results of SVM modelling because these parameters control the complexity of the final solution by defining the structure of the high-dimensional feature space, namely $\phi(x)$. One example of parameters can be seen in the kernel RBF, where the parameters that must be optimized are the kernel parameter $\gamma$ and the penalty parameter $C$ (Nahil & Lyhyaoui, 2018). There are several popular methods for optimizing parameters found in SVM modelling and kernel functions, i.e. manual tuning, grid search, random search, and Bayesian optimization (Quitadamo et al., 2017).

### 3. Research Design and Methodology

#### 3.1 Dataset

The data used in this study are primary data derived from ‘Yahoo! Finance’, ‘idx.co.id’ and Thomson Reuters. Some data that are considered to be taken are closing prices both daily, and weekly ranging from 2015 to 2018. These data are used to calculate yields, beta coefficients, to technical data from each sample issuer. While the data taken from Thomson Reuters are data in the form of assets, liabilities, equity, income, net income, to the number of shares outstanding. The data is used to calculate some fundamental data or financial ratios from the sample issuers.

In making predictive models, 2 datasets are needed, they are training data and testing data. The training data consists of 100 listed companies with prediction ranges from April 2016 to January 2017. While the testing data consists of 110 listed companies with prediction ranges from April 2017 to January 2018. Both ranges were chosen because the market that years tends to grow stably, so the presence of factors such as systematic risk can be minimized when designing prediction models. The sample selection is based on the largest market capitalization and issuers whose share prices tend to be constantly rising, constantly falling, or constantly neutral for 9 months. In making a classification
model, especially in the machine learning approach, the more samples, the better the classification model produced, but it should be noted that one of the weaknesses of SVM is the negative effect of imbalanced classes during the training process. Imbalanced classes are labelled class data where there are classes that have a far greater proportion than other classes. The classification model that results from imbalanced classes will be more inclined to classify the majority class, because most machine learning algorithms assume a balanced class distribution in the dataset used (Gunduz & Cataltepe, 2015). In this study, we limit the number of samples because market trends and the majority of issuers in 2016 are likely to experience an upward trend. So as to avoid imbalanced classes, sample selection must be done carefully not to include too many issuers that are performing well in 2016. Another thing to consider in determining this variable is the corporate action taken by each issuer that can change nominal price and number of shares outstanding, be it a stock split, stock reserve, right issue, and stock dividend.

3.2 Dependent Variable
The yield of each sample issuer is calculated for a prediction period of 1 month, 3 months, 5 months, 7 months, and 9 months from the share price at the starting point of the prediction namely $p_0$. In this research $p_0$ taken in early April because in general the annual reports of new companies are issued by issuers from January to the end of March. Assuming the price at the end of the prediction period is $p_t$, so the change in price during the prediction period in percentage $r_t$ can be calculated as follows:

$$r_t = \frac{p_t - p_0}{p_0} \times 100$$  \hspace{1cm} (8)

With $t = (1, 3, 5, 7, 9)$ is the prediction period. Investors generally determine the upper and lower limits to define the level of significance of changes in stock prices within a certain period. The upper and lower limits will certainly vary from investor to investor, so in this study, we define an upper limit of +10% annually and a lower limit of -10% annually. The upper limit of 10% annually is taken considering that the returns from risk-free instruments in Indonesia are generally less than 10% annually. Since these upper and lower limits are defined as annual returns, to adjust to each prediction period, we define $\tau_t$ as the limits derived from the effective rate equation as follows:

$$\tau_t = ((1 + 10\%)^{t/12}) - 1$$  \hspace{1cm} (9)

In this study, we classify the class trend of stock price movements into 2 classes, i.e. "highly possible to go up" and "highly possible to go down or be neutral" with the class labels +1 and -1 respectively. This class label will be used as the dependent variable in conducting the training or testing process of the prediction model. The +1 class label indicates that price changes tend to increase ($r_t > \tau_t$), while the -1 class label indicates that prices tend to be neutral unchanged ($-\tau_t \leq r_t \leq \tau_t$) or down ($r_t < -\tau_t$). The class label of the issuer $g$ with a prediction period $t$ can be defined as follows:

$$g^t = \begin{cases} +1 & \text{for } r_t > \tau_t \\ -1 & \text{for } r_t \leq \tau_t \end{cases}$$  \hspace{1cm} (10)

Apart from the 5 prediction periods above, we also use $t = MT$ which is defined as a major trend for 9 months. Defining a major trend is based on a qualitative assessment in which issuers that tend to increase constantly for 9 months will be classified as class +1, while issuers who tend to decrease or neutral for 9 months are classified as class -1.

3.3 Independent Variables
The independent variable or feature in this study consists of beta coefficient data, technical data and fundamental data. Beta coefficients are calculated based on weekly
data for about 2 years and 3 months back before predicting stock price movements. As with the beta coefficient, technical data, i.e. simple moving averages, relative strength index, stochastic relative strength index, and rate of change are calculated based on weekly closing price \((Cp)\) data (Patel et al., 2015). Whereas fundamental data or financial ratios are calculated based on annual data. Some fundamental data and financial ratios used as input in this study are net profit margin, return on equity, return on assets, debt to equity ratio, earnings per share, price to earnings ratio, price to book value, price to sales ratio, and market capitalization (Jaiwang & Jeatrakul, 2017). Calculations to determine the value of each independent variable can be seen in Table 2. The performance of all prediction models in this study was evaluated based on the representation of this input data.

Some data normalization or data conversion into logarithmic data is done in order to provide input variable variations in the form of input with a range of data that is not too lame. The beta coefficient is calculated based on the covariance between stock returns \((R_i)\) and the JCI index returns \((R_m)\) and the variance of the JCI index returns \((R_m)\). In the calculation of the RSI variable, the UP component is a positive return while DW is a negative return. The period used for RSI, STOCH RSI, and ROC is 14, whereas fundamental data or financial ratios are calculated based on annual data. Some fundamental data and financial ratios used as input in this study are net profit margin, return on equity, return on assets, debt to equity ratio, earnings per share, price to earnings ratio, price to book value, price to sales ratio, and market capitalization (Jaiwang & Jeatrakul, 2017).

### Table 2 – Calculation of variables and the calculation formula

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Calculation formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta coefficient</td>
<td>[ \frac{\text{cov}(R_i, R_m)}{\sigma^2(R_m)} ]</td>
</tr>
<tr>
<td>Simple moving average (n) weeks period, (n = 5, 10, 20, 50)</td>
<td>[ \frac{C_p + C_{p-1} + C_{p-2} + \cdots + C_{p-(n-1)}}{n} ]</td>
</tr>
<tr>
<td>Relative strength index (n) weeks period, (n = 14)</td>
<td>[ 100 - \frac{\sum_{i=0}^{n-1} \text{Up}<em>i - \sum</em>{i=0}^{n-1} \text{Down}_i}{n} ]</td>
</tr>
<tr>
<td>Stochastic relative strength index (n) weeks period, (n = 14)</td>
<td>[ \frac{\text{RSI}<em>{\text{Highest}} H(h(n) - \text{RSI}</em>{\text{Lowest}} \text{Low}(n))}{\text{RSI}} ]</td>
</tr>
<tr>
<td>Rate of change (n) weeks period, (n = 14)</td>
<td>[ \frac{C_p - 1}{\text{SMA}_n - C_p} \times 100 ]</td>
</tr>
<tr>
<td>RSMA (n) weeks period, (n = 5, 10, 20, 50)</td>
<td>[ \frac{C_p \times \text{Listed Shares} \times \text{EPS}}{\text{Revenues}} ]</td>
</tr>
<tr>
<td>RSI(<em>{\text{norm}}); STOCH(</em>{\text{RSInorm}}); ROC(_{\text{norm}})</td>
<td>[ \frac{\text{EPS} \times \text{PER} \times \text{Net Income}}{\text{Equities} \times \text{Listed Shares} \times \text{EPS}} ]</td>
</tr>
<tr>
<td>NPM; ROE; ROA</td>
<td>[ \frac{\text{EPS} \times \text{PER} \times \text{Net Income}}{\text{Equities} \times \text{Listed Shares} \times \text{EPS}} ]</td>
</tr>
<tr>
<td>EPS(<em>{\text{norm}}); PER(</em>{\text{norm}})</td>
<td>[ \frac{\log(PBV) \times \log(PSR) \times \log(\text{listed shares})}{\text{Revenues}} ]</td>
</tr>
<tr>
<td>(\log\text{PBV}; \log\text{PSR}; \log\text{MCAP})</td>
<td></td>
</tr>
</tbody>
</table>


3.4 Feature Selection

In making a classification model such as a prediction model of stock price movement trends, one thing to note is feature selection. The application of feature selection in
making model predictions for stock price movements can improve the performance of classifications done in modelling. By using feature selection, relevant features will be selected while less informative features will be eliminated (Gunduz & Cataltepe, 2015). Both in SVM and DA, the involvement of features or input variables that are less relevant can reduce the performance of the classification performed (Nahil & Lyhyau, 2018). In this study, SLR is used to select features or independent variables in DA modelling. Although SLR can be applied in SVM modelling, other feature selection methods such as SFS are more suitable to be applied in SVM modelling because this method is not based on a statistical approach (Erişti et al., 2010). Therefore, SFS was chosen as a feature selection method in SVM modelling.

3.4.1 SLR Framework

The type of SLR method applied in this study is the forward selection method. To select variables that can be included in DA modelling, the maximum significance value of F-to-enter applied in the forward selection method is 15%. With this maximum significance value from F-to-enter, any variable that exceeds the significance value of F by 15% will not be included in the model.

To determine the ranking of the most significant variables, Mahalanobis distance is used as a measurement method in SLR. Assuming an observation data $x = (x_1, x_2, x_3, ..., x_N)^T$ from observational data sets with averages $\mu = (\mu_1, \mu_2, \mu_3, ..., \mu_N)^T$ and covariance matrix $S$, the $DM$ distance can be defined as follows:

$$D_M(x) = \sqrt{(x - \mu)^T S^{-1} (x - \mu)}$$

(11)

By using Mahalanobis distance, SLR will choose one variable at a time that has the highest DM distance value from two groups that are close together to be included in the DA modelling. This process stops when there are no independent variables that have a significance value of F below 15%. By using Mahalanobis distance, it can be seen which variable can best separate two groups that are close together in the DA approach (Siqueira et al., 2012; Viana & Sansigolo, 2016). In this study, we also compared the effect of the number of features using a maximum significance value of F of 5%. Fig. 2 explains the framework used in selecting features using the SLR method.

Figure 2 – The feature selection framework uses the SLR method

![Feature selection framework diagram](source: Author)
3.4.2 SVM-SFS Framework

In this study, the results of the SVM classification will be used as a criterion in testing and selecting the features or independent variables that most influence both the performance improvement of the final SVM model designed to predict trends in stock price movements. It can be said that in making this SVM prediction model, the SVM classification process is not only done once but more than 2 times, i.e. in the feature selection stage and in the final model making stage based on the selected features. With the application of SVM in SFS, a new method called SVM-SFS is proposed to select features in SVM modelling. The number of features to be selected ($p$) is 2, 3, and 4 features for each SVM prediction model with the same prediction period (Deng et al., 2013).

At the feature selection stage, the feature selected is the one that adds to the SVM classification process resulting in the highest accuracy or the lowest classification error rate. The idea is to choose a feature whose additions to the prediction model produces the lowest average error value. In testing the criteria, the average error value ($E$) is calculated from each cross-validation process by adding up all the error values ($E_i$) of all classification results that are in the iteration of the CV and divided by $k$ (Deng et al., 2013). In this study, we use a $k$ value of 5. The following is the formula for calculating the error value of each iteration with $n$ data testing and the average error value in the prediction period $t$:

$$E_k(\%) = 100 - \frac{100}{n} \sum_{i=1}^{n} a_i^t \quad (12)$$

$$a_i^t = \begin{cases} 
1 & \text{for } g_{\text{predicted}}^t = g_{\text{actual}}^t \\
0 & \text{for } g_{\text{predicted}}^t \neq g_{\text{actual}}^t 
\end{cases}, t = (1, 3, 5, 7, 9, MT) \quad (13)$$

$$E = \frac{1}{k} \sum_{i=1}^{k} E_i \quad (14)$$

In the feature selection process that is based on the results of the SVM classification as the criterion, kernel functions and parameters in the kernel functions applied to SVM must be chosen very carefully because these parameters control the complexity of the final solution by defining the structure of the high dimensional feature space. In this study, we also try to compare the results of using polynomial kernel and RBF kernel. In the RBF kernel, the parameters that must be selected or optimized are the kernel parameter $\gamma$ and the penalty parameter $C$. This is different from the polynomial kernel which needs to adjust the kernel parameter $d$ and penalty parameter $C$ (Nahil & Lyhyaoui, 2018).

In this study we used manual tuning in this feature selection process because with the iteration and cross-validation process in SFS, the time required will be longer if using other methods. In manual tuning, we use the default values for each parameter without changing it, i.e. 1 for both kernel parameter $\gamma$ and penalty parameter $C$ (Quitadamo et al., 2017). Fig. 3 explains the framework used in selecting features using the SFS method.
3.5 DA Modelling Framework

Two groups or classes that have been previously defined as "highly possible to go up" and "highly possible to go down or be neutral" will be used as training sets to create discriminant functions that can distinguish between the two groups using group centroids. Since there are only 2 groups, the analysis is transformed into only 1 dimension so that only 1 discriminant function can be generated. Fig. 4 explains the framework used in DA modelling.

3.6 SVM Modelling Framework

In this study, SVM is used to classify two different groups or classes, i.e. "highly possible to go up" and "highly possible to go down or be neutral". In doing SVM modelling, kernel functions must be chosen carefully. There are several types of kernel functions that can be selected, as seen in Table 1. Linear kernel can be applied to linear data so it is not suitable to be applied in this study because stock prices have non-linear characteristics. Unlike the linear kernel, the other two kernel functions, the polynomial kernel and the radial basis function (RBF or Gaussian) kernel, can be applied well to non-linear data. However, several studies have shown that in classifying stock price movements, RBF kernel provides better performance and require shorter time in classification than polynomial kernel (Nahil & Lyhyaoui, 2018; Upadhyay et al., 2016). Therefore, in this study, we use the RBF kernel as a kernel function in SVM. However, to find out the effectiveness of implementing the
RBF kernel, we also apply polynomial kernel to compare with the results of implementing the RBF kernel.

To get a good model, the parameters in SVM modelling need to be optimized. In this study, the Bayesian optimization approach is used to optimize kernel parameters $\gamma$ and penalty parameters $C$. Some studies show that Bayesian optimization is better than other parameter optimization approaches such as manual tuning, grid search, and random search (Quitadamo et al., 2017; Xia et al., 2017). Bayesian optimization (BO) is an efficient approach applied to parameter optimization by using a probability framework to model the objective function. BO implements an acquisition function to determine sample points. This acquisition function makes a trade-off between exploration and exploitation in order to maximize the acquisition function to determine the next evaluation point. The acquisition function explores areas where epistemic uncertainty is high and exploits areas where function values are expected to be higher in a weighted manner. Using this algorithm, BO can find the global optimum with a minimum number of steps (Theckel Joy et al., 2019). We also try to do a comparison using the manual tuning (MT) method by setting the kernel parameter $\gamma$ at 1 and the penalty parameter $C$ at 1.

One problem that must be considered in making classification models using machine learning is the problem of overfitting and underfitting. Some indications of overfitting in a model are high training accuracy and the training accuracy is far higher than the testing accuracy. While indications of underfitting are low training accuracy and the training accuracy is approaching the testing accuracy (Ursenbach et al., 2019). To prevent overfitting or underfitting and get a moderate hyperplane, we assess the shape of the hyperplane by plotting the model. Even so, plotting for models that have more than 3 features is not easy so plotting is only done for models with 2 and 3 features. Fig. 5 explains the framework used in SVM modelling.

**Figure 5 – SVM modelling framework**

Source: Author.

### 3.7 Performance Evaluation

Appropriate evaluation criteria must be chosen to make comparisons and analyzes that make sense from the prediction models made. Table 3 is a confusion matrix that lists the number of incorrect classifications and correct classifications of each class. In the confusion matrix, there are components which are true positive (TP), true negative (TN), false positive (FP), and false negative (FN).
Table 3 – Confusion matrix

<table>
<thead>
<tr>
<th>Predictive class</th>
<th>+1</th>
<th>-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+1</td>
<td>TP</td>
<td>FN</td>
</tr>
<tr>
<td>-1</td>
<td>FP</td>
<td>TN</td>
</tr>
<tr>
<td>Total</td>
<td>TP + FP</td>
<td>FN + TN</td>
</tr>
</tbody>
</table>

Source: Mihalović (2016).

Based on these components, evaluation criteria such as accuracy, recall, precision, correct downtrend (CD), and F measure can be calculated as follows:

\[
\text{Accuracy} = \frac{TP + TN}{TP + FP + TN + FN} \quad (15)
\]

\[
\text{Recall} = \frac{TP}{TP + FN} \quad (16)
\]

\[
\text{Precision} = \frac{TP}{TP + FP} \quad (17)
\]

\[
\text{CD} = \frac{TN}{FP + TN} \quad (18)
\]

\[
\text{F measure} = \frac{2 \times \text{Precision} \times \text{Recall}}{\text{Precision} + \text{Recall}} \quad (19)
\]

Basically, there is a correct uptrend but this criterion is already represented by recall because the calculations of both are the same. Evaluation criteria for type I errors and type II errors can also be used as a reference in evaluating models, but both are not involved in this study. The value of type I error and type II error are equivalent to the value of the calculation of \((1 - \text{correct downtrend})\) and \((1 - \text{recall})\) respectively. The overall performance of a classification model can be assessed by the accuracy and F measure criteria. In general, the F measure is used to evaluate models that experience imbalanced classes. As with accuracy, the range of values from F measure is between 0 to 1, the closer to 1 the better the performance of the classification model (Patel et al., 2015; Xia et al., 2017).

4. Results

4.1 Discriminant Analysis Models

Table 4 and Table 5 are descriptions of all DA models made. Table 4 focuses on the components of the DA model designed in which there are 2 types of models, namely those that apply the maximum significance value of F-to-enter of 0.15 and 0.05 in the feature selection process. While Table 5 focuses on the statistical component of all discriminant functions that are made starting from the adjusted R squared, Wilks' lambda, eigenvalue, and the significance of F (Nwakuya & Ofokansi, 2016). The naming of the DA model with a prediction period t can be formulated as follows:

\[
DA_t = \begin{cases} 
DA_{ta}, & \text{sig. of } F - \text{to enter } = 0.15 \\
DA_{tb}, & \text{sig. of } F - \text{to enter } = 0.05 
\end{cases}, t = (1, 3, 5, 7, 9, MT) \quad (20)
\]
### Table 4 – DA prediction models

<table>
<thead>
<tr>
<th>Model name</th>
<th>Discriminant function</th>
<th>Group centroid (+1)</th>
<th>Group centroid (-1)</th>
<th>Training accuracy</th>
<th>Training F measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA1a</td>
<td>$Y = -0.877 + 0.398\text{DER} - 0.226$</td>
<td>0.226</td>
<td>1.170</td>
<td>0.570</td>
<td>0.613</td>
</tr>
<tr>
<td>DA3a</td>
<td>$Y = -1.798 + 3.590\text{RSI}14\text{norm} + 15.631\text{ROA} - 3.386\text{logPBV}$</td>
<td>0.405</td>
<td>-0.306</td>
<td>0.640</td>
<td>0.617</td>
</tr>
<tr>
<td>DA5a</td>
<td>$Y = -1.419 + 0.963\text{BETA} + 0.153\text{RSMA}5 + 1.536\text{STOCHRSI}14\text{norm}$</td>
<td>0.326</td>
<td>-0.383</td>
<td>0.620</td>
<td>0.655</td>
</tr>
<tr>
<td>DA7a</td>
<td>$Y = 0.895\text{STOCHRSI}14\text{norm} + 0.001\text{EPS} + 2.185\text{logPBV} - 1.369\text{logMCAP}$</td>
<td>-0.473</td>
<td>0.512</td>
<td>0.720</td>
<td>0.731</td>
</tr>
<tr>
<td>DA9a</td>
<td>$Y = -1.737 - 0.138\text{RSMA}5 + 0.032\text{RSMA}50 - 0.405\text{ROA} - 3.386\text{logPBV}$</td>
<td>0.405</td>
<td>-0.306</td>
<td>0.640</td>
<td>0.617</td>
</tr>
<tr>
<td>DAMTa</td>
<td>$Y = -1.419 + 0.963\text{BETA} + 0.153\text{RSMA}5 + 1.536\text{STOCHRSI}14\text{norm}$</td>
<td>0.326</td>
<td>-0.383</td>
<td>0.620</td>
<td>0.655</td>
</tr>
</tbody>
</table>

DA1b No variables are qualified for the analysis  
DA3b No variables are qualified for the analysis  
DA5b No variables are qualified for the analysis  
DA7b No variables are qualified for the analysis  
DA9b $Y = -0.861 - 0.138\text{RSMA}5 + 2.046\text{logPBV}$  
DAMTa $Y = -0.889 + 2.520\text{logPBV}$  

Source: Author.

Group centroid (+1) is the group centroid of the "highly possible to go up" group, while the group centroid (-1) is the group centroid of the "highly possible to go down or be neutral" group. The cut-off value is the boundary value between the two classes that serves as a determinant of whether a discriminant function calculation results will belong to which group between the two groups. The calculation of the cut off value of each discriminant function is as follows:

$$\text{cut\ off} = \frac{\text{group centroid (+1)} + \text{group centroid (-1)}}{2}$$  (21)

<table>
<thead>
<tr>
<th>Model name</th>
<th>Cut off</th>
<th>Adj. R Squared</th>
<th>Wilks' lambda</th>
<th>Eigenvalue</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA1a</td>
<td>-0.028</td>
<td>0.028</td>
<td>0.962</td>
<td>0.039</td>
<td>0.053</td>
</tr>
<tr>
<td>DA3a</td>
<td>0.0495</td>
<td>0.084</td>
<td>0.888</td>
<td>0.126</td>
<td>0.009</td>
</tr>
<tr>
<td>DA5a</td>
<td>-0.0285</td>
<td>0.085</td>
<td>0.887</td>
<td>0.127</td>
<td>0.009</td>
</tr>
<tr>
<td>DA7a</td>
<td>0.0195</td>
<td>0.147</td>
<td>0.802</td>
<td>0.247</td>
<td>0.002</td>
</tr>
<tr>
<td>DA9a</td>
<td>-0.067</td>
<td>0.153</td>
<td>0.813</td>
<td>0.230</td>
<td>0.001</td>
</tr>
<tr>
<td>DAMTa</td>
<td>0.000</td>
<td>0.122</td>
<td>0.842</td>
<td>0.187</td>
<td>0.002</td>
</tr>
</tbody>
</table>

DA1b No variables are qualified for the analysis  
DA3b No variables are qualified for the analysis  
DA5b No variables are qualified for the analysis  
DA7b 0.013  
DA9b -0.061  
DAMTa 0.000  

Source: Author.
4.2 Support Vector Machine Models

Table 6 and Table 7 are descriptions of all the SVM models made. Table 6 focuses on the SVM model by applying a number of different features, i.e. 2, 3, and 4 features. While Table 7 focuses on the SVM model with 4 features that implement polynomial kernel as a kernel function or manual tuning as a parameter selection method. Fig. 6 and Fig. 7 are examples of the results of plotting SVM models made for models with 2 and 3 features.

\[
SVM_t = \begin{cases} 
SVM_a, \text{number of features} = 2 \\
SVM_b, \text{number of features} = 3 \\
SVM_c, \text{number of features} = 4 
\end{cases}, t = (1, 3, 5, 7, 9, MT) \tag{22}
\]

\[
SVM_t = \begin{cases} 
SVM_d, \text{RBF kernel and manual tuning} \\
SVM_e, \text{polynomial kernel and Bayesian opt.} 
\end{cases}, t = (1, 3, 5, 7, 9, MT) \tag{23}
\]

<table>
<thead>
<tr>
<th>Model name</th>
<th>Features</th>
<th>Training accuracy</th>
<th>Training F measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVM1a</td>
<td>RSI14norm; DER</td>
<td>0.880</td>
<td>0.857</td>
</tr>
<tr>
<td>SVM3a</td>
<td>RSMA5; RSMA10</td>
<td>0.910</td>
<td>0.889</td>
</tr>
<tr>
<td>SVM5a</td>
<td>STOCHRSI14norm; DER</td>
<td>0.650</td>
<td>0.701</td>
</tr>
<tr>
<td>SVM7a</td>
<td>BETA; NPM</td>
<td>0.570</td>
<td>0.591</td>
</tr>
<tr>
<td>SVM9a</td>
<td>RSI14; NPM</td>
<td>0.650</td>
<td>0.568</td>
</tr>
<tr>
<td>SVMMTa</td>
<td>STOCHRSI14norm; ROC14norm</td>
<td>0.570</td>
<td>0.583</td>
</tr>
<tr>
<td>SVM1b</td>
<td>DER; PERnorm; logMCAP</td>
<td>0.910</td>
<td>0.901</td>
</tr>
<tr>
<td>SVM3b</td>
<td>RSMA10; PERnorm; logPBV</td>
<td>0.660</td>
<td>0.575</td>
</tr>
<tr>
<td>SVM5b</td>
<td>STOCHRSI14; ROE; logPBV</td>
<td>0.760</td>
<td>0.774</td>
</tr>
<tr>
<td>SVM7b</td>
<td>BETA; ROC14norm; DER</td>
<td>0.720</td>
<td>0.720</td>
</tr>
<tr>
<td>SVM9b</td>
<td>RSMA50; RSI14norm; ROE</td>
<td>0.670</td>
<td>0.560</td>
</tr>
<tr>
<td>SVMMTb</td>
<td>RSI14norm; ROE; logPBV</td>
<td>0.750</td>
<td>0.737</td>
</tr>
<tr>
<td>SVM1c</td>
<td>RSI14norm; ROE; PER; EPSnorm</td>
<td>0.980</td>
<td>0.976</td>
</tr>
<tr>
<td>SVM3c</td>
<td>RSI14norm; ROC14norm; PERnorm; logPBV</td>
<td>0.830</td>
<td>0.800</td>
</tr>
<tr>
<td>SVM5c</td>
<td>RSI14norm; NPM; ROA; logPBV</td>
<td>0.680</td>
<td>0.698</td>
</tr>
<tr>
<td>SVM7c</td>
<td>BETA; STOCHRSI14norm; DER; EPSnorm</td>
<td>0.790</td>
<td>0.779</td>
</tr>
<tr>
<td>SVM9c</td>
<td>RSI14; RSI14norm; ROA; logPBV</td>
<td>0.690</td>
<td>0.617</td>
</tr>
<tr>
<td>SVMMTc</td>
<td>RSI14; STOCHRSI14; ROC14norm; ROE</td>
<td>0.600</td>
<td>0.630</td>
</tr>
</tbody>
</table>

Source: Author.
Figure 6 – SVM5a model with training data

<table>
<thead>
<tr>
<th>Model name</th>
<th>Features</th>
<th>Training accuracy</th>
<th>Training F measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVM1d</td>
<td>ROE; ROA; PER; logMCAP</td>
<td>0.890</td>
<td>0.864</td>
</tr>
<tr>
<td>SVM3d</td>
<td>RSMA5; RSMA10; RSI14norm; STOCHRSI14norm</td>
<td>0.900</td>
<td>0.875</td>
</tr>
<tr>
<td>SVM5d</td>
<td>ROC14; ROC14norm; NPM; ROA</td>
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<td>0.842</td>
</tr>
<tr>
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<td>0.690</td>
<td>0.687</td>
</tr>
<tr>
<td>SVM9d</td>
<td>RSI14; RSI14norm; NPM; ROE</td>
<td>0.780</td>
<td>0.718</td>
</tr>
<tr>
<td>SVM1e</td>
<td>RSMA20; DER; EPSnorm; PERnorm</td>
<td>0.660</td>
<td>0.346</td>
</tr>
<tr>
<td>SVM3e</td>
<td>STOCHRSI14norm; ROA; PERnorm; logPBV</td>
<td>0.640</td>
<td>0.308</td>
</tr>
<tr>
<td>SVM5e</td>
<td>RSMA5; STOCHRSI14norm; ROE; logPBV</td>
<td>0.780</td>
<td>0.800</td>
</tr>
<tr>
<td>SVM7e</td>
<td>BETA; RSMA10; RSI14norm; DER</td>
<td>0.690</td>
<td>0.726</td>
</tr>
<tr>
<td>SVM9e</td>
<td>ROC14norm; ROA; DER; logPSR</td>
<td>0.730</td>
<td>0.597</td>
</tr>
<tr>
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<td>RSI14norm; ROC14norm; ROA; logPBV</td>
<td>0.650</td>
<td>0.632</td>
</tr>
</tbody>
</table>

Source: Author.
4.3 Evaluation Results

Table 8 and Table 9 summarize the results of the performance evaluation of all prediction models made using testing data. The results show that the SVM model outperforms the DA model. The results also show that factors such as the selection of features in the DA and SVM models and the selection of kernel functions and parameters in the SVM model affect the performance of the resulting model.

Table 8 – Results of performance evaluations of DA prediction models

<table>
<thead>
<tr>
<th>Model name</th>
<th>CD</th>
<th>Recall</th>
<th>Precision</th>
<th>Accuracy</th>
<th>F measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA1a</td>
<td>0.242</td>
<td>0.636</td>
<td>0.359</td>
<td>0.400</td>
<td>0.459</td>
</tr>
<tr>
<td>DA3a</td>
<td>0.559</td>
<td>0.500</td>
<td>0.412</td>
<td>0.536</td>
<td>0.452</td>
</tr>
<tr>
<td>DA5a</td>
<td>0.418</td>
<td>0.628</td>
<td>0.409</td>
<td>0.500</td>
<td>0.495</td>
</tr>
<tr>
<td>DA7a</td>
<td>0.493</td>
<td>0.634</td>
<td>0.426</td>
<td>0.545</td>
<td>0.510</td>
</tr>
<tr>
<td>DA9a</td>
<td>0.433</td>
<td>0.488</td>
<td>0.356</td>
<td>0.455</td>
<td>0.412</td>
</tr>
<tr>
<td>DAMTa</td>
<td>0.485</td>
<td>0.591</td>
<td>0.433</td>
<td>0.527</td>
<td>0.500</td>
</tr>
<tr>
<td>DA1b</td>
<td>No variables are qualified for the analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DA3b</td>
<td>No variables are qualified for the analysis</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>DA5b</td>
<td>No variables are qualified for the analysis</td>
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<tr>
<td>DA7b</td>
<td>0.493</td>
<td>0.415</td>
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<tr>
<td>DA9b</td>
<td>0.478</td>
<td>0.512</td>
<td>0.386</td>
<td>0.491</td>
<td>0.440</td>
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<tr>
<td>DAMTb</td>
<td>0.500</td>
<td>0.455</td>
<td>0.377</td>
<td>0.482</td>
<td>0.412</td>
</tr>
</tbody>
</table>

Source: Author.
Table 9 – Results of performance evaluations of SVM prediction models

<table>
<thead>
<tr>
<th>Model name</th>
<th>CD</th>
<th>Recall</th>
<th>Precision</th>
<th>Accuracy</th>
<th>F measure</th>
</tr>
</thead>
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<tr>
<td>SVM1a</td>
<td>0.561</td>
<td>0.455</td>
<td>0.408</td>
<td>0.518</td>
<td>0.430</td>
</tr>
<tr>
<td>SVM3a</td>
<td>0.809</td>
<td>0.476</td>
<td>0.606</td>
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<tr>
<td>SVM5a</td>
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<td>0.674</td>
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</tr>
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<td>0.406</td>
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<td>0.509</td>
</tr>
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<td>0.465</td>
<td>0.582</td>
<td>0.465</td>
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<tr>
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<td>0.495</td>
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<tr>
<td>SVM1b</td>
<td>0.515</td>
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<tr>
<td>SVM3b</td>
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<td>0.664</td>
<td>0.543</td>
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<tr>
<td>SVM5b</td>
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<td>0.329</td>
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<td>0.414</td>
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<td>0.545</td>
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<tr>
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<tr>
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<td>SVM9c</td>
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<td>SVNMTc</td>
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<td>0.482</td>
<td>0.496</td>
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<td>0.439</td>
<td>0.439</td>
<td>0.582</td>
<td>0.439</td>
</tr>
<tr>
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<td>0.415</td>
<td>0.545</td>
<td>0.405</td>
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<tr>
<td>SVNMTd</td>
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<td>0.546</td>
<td>0.436</td>
<td>0.536</td>
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<td>0.581</td>
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<tr>
<td>SVM7e</td>
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<td>0.585</td>
<td>0.414</td>
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<td>0.485</td>
</tr>
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</tr>
</tbody>
</table>

Source: Author.

5. Discussion

To show the effect of feature selection on DA modelling, the design of predictive models in the form of discriminant functions using SLRs that apply different maximum significance value of F-to-enter has been done. The results show that there are several models that apply a maximum significance value of 5% that do not pass the discriminant analysis stage because there are no variables that match the criteria to be included in the analysis. This shows that although there are variables that have high DM values, the minimum significance value of F-to-enter has exceeded the 5% significance level. Each DA model designed has a different composition of independent variables. Of the 24 variables used as input data, only 11 variables tend to be linearly relevant to the dependent variable, including DER, RSI14norm, ROA, logPBV, BETA, RSMA5, STOCHRSI14norm, RSMA50, EPS, logMCAP, and logPSR. Of the 11 variables, the most frequently selected variables are logPBV and RSMA5, then followed by RSMA50, STOCHRSI14norm, and logPSR. The discriminant function and the group centroid value indicate that the correlation of logPBV, logPSR, and RSMA50 to the potential for an upward price trend is negative, meaning that the greater the value of logPBV, logPSR, and RSMA50, the price will tend to decrease in the future. The correlation of logPBV and logPSR with the stock price shows that the stock price which tends to be expensive will decrease in the future. This correlation is inversely proportional to RSMA5, STOCHRSI14norm, BETA, and logMCAP which have a positive correlation with the potential for rising prices. The results show that BETA and logMCAP are positively
correlated with the potential for an upward price trend in line with the assumptions used in this study i.e. the market tends to be optimistic for the next 9 months.

Each discriminant function created has several statistical components that can be used to assess the quality of the discriminant function. Of all the discriminant functions created, there is only one discriminant function, namely "DA1a" which is not statistically significant because the p-value is greater than 0.05. Eigenvalue and Wilks' lambda can also be used to assess a discriminant function, a discriminant function can be classified as a good model is a discriminant function that has an eigenvalue greater than 1 and Wilks' lambda is close to zero. Unfortunately, the results show that all DA models designed have eigenvalue values below 0.250 and Wilks' lambda above 0.800. This indicates that each discriminant model designed is still not enough to be classified as a good model. This indication can also be seen from the small adjusted R squared value so it can be said that all independent variables in each discriminant function are only able to explain a little about their dependent variable. This is certainly not surprising because the capital market has so many factors that can influence the stock price movements of an issuer. The evaluation results also show that discriminant functions that have more features or independent variables tend to have better performance. This can be seen from the accuracy, F measure, and statistical components of the "DA1a" model better than the "DA1b" model.

Unlike the DA modelling that can only produce 1 output with the same input, SVM modelling in this study can be done repeatedly. Each prediction model that results from the same input will have its own characteristics. However, the model must be chosen carefully to avoid overfitting and underfitting. In the case of stock price movements, a model that has a high training accuracy will tend to experience overfitting and will produce testing accuracy that is much lower than its training accuracy. To avoid this, a model that has a high training accuracy should be avoided, although of course, this does not apply to other classification cases that are simpler and not as complex as stock price movements. As with overfitting, underfitting must also be avoided by not choosing a model that has too low training accuracy. In general, a good model will have criteria values that are not too lame among all the criteria used in this study, namely correct down, recall, precision, accuracy, and F measure.

The results of the evaluation of the SVM model show that models with a prediction period of 1 month and 3 months tend to overfit. This can be seen from the high value of training accuracy while the value of testing accuracy possessed by both types of models is not too high. Of all the SVM models made, models with a period of 5 months and 7 months tend to have better performance than other models. In terms of feature selection, the most frequently selected feature in making SVM models is RSI14norm, then followed by ROE, DER, and logPBV. This is quite different from the DA models in which the most frequently selected features are logPBV and RSMA5.

Of all the types of SVM models designed, it can be seen that models that implement polynomial kernels tend to produce poor performance over several prediction periods. The effect of different optimization or parameter selection methods can also be seen quite clearly, where the model with the implementation of Bayesian optimization tends to be more able to avoid overfitting than the models that apply manual tuning. This can be seen in Table 6 and Table 7 where the training accuracy possessed by the SVM models that apply manual tuning tend to be higher although the testing accuracy of the both types of models are quite the same. On the other hand, the effect of differences in the number of features in the SVM models is less pronounced, but it can be seen that models with the same prediction period have quite different performance from each other. The effect of the number of features in SVM modelling still needs to be further investigated by involving a greater number of features than just a number of 2, 3, and 4 features.

Overall, although the DA model performance has been classified as quite good in doing classification, in some cases, the SVM model can outperform DA models in terms of classification performance. Thus a conclusion can be drawn where the DA approach can
still be applied in making stock price trend prediction models, regardless of the results of statistical evaluations which is not very satisfying. This research shows that investors can create their own prediction models through both the DA and SVM approaches. Of course they also have to pay attention to factors that can affect the quality of the prediction models made, as discussed earlier. Moreover, this research still applies several restrictions that can be used as a reference for further research. As mentioned, out of all prediction periods from historical data, only the prediction periods of 1 month, 3 months, 5 months, 7 months, and 9 months were analysed and prediction models were made, whereas the predicted periods of 2 months, 4 months, 6 months, and 8 month was not carried out in this study. Furthermore, in this study, the feature selection method used is SLR and SFS, while there are still a lot of feature selection methods that can be applied both to DA modelling and SVM modelling. Then the data used for the SVM model training process are balanced classes so that research related to SVM that uses imbalanced classes still needs to be done to find out how to do the modelling so that problems related to imbalanced classes can be found the best solution. Then, optimization or selection of parameters in SVM modelling is done by considering the length of time from the running program, so that parameter optimization methods such as grid search and random search that take time are not implemented. This research also does not involve a comparison of running time programs in SVM modelling which is quite crucial in the application of different kernel functions. Moreover, this research only involves a few input variables, while there are still many fundamental indicators and technical indicators that can be used as input variables, even the technical indicators themselves can still be varied based on the calculation period. And the last, the prediction model of the results of this study can only be applied to markets that are expected to be optimistic or have positive sentiments for the next 9 months.

6. Conclusions

In this paper, we have conducted a comparison and analysis between discriminant analysis and support vector machine approaches in predicting the trend of stock price movements on the Indonesia Stock Exchange. Some prediction models both DA and SVM prediction models have been successfully made, where some prediction models have the results of performance evaluation in the form of a fairly good level of prediction accuracy. The process of making prediction models in both DA and SVM involves a feature selection process. The feature selection method implemented in DA modelling is stepwise linear regression while the feature selection method implemented in SVM modelling is sequential forward selection. The results show that the selection of parameters such as the maximum significance value of F-to-enter, kernel parameters, and penalty parameters in both feature selection methods greatly affects the performance of the classification results. The performance evaluation results of both DA and SVM approaches show that SVM can outperform DA in classifying trends in stock price movements that have complex and non-linear characteristics.

References


THE IMPLICATION OF SALARY SATISFACTION ON CAREER SATISFACTION MEDIATED BY WORK-FAMILY ENRICHMENT AND EMPLOYEE COMMITMENT ON MILLENNIAL GENERATION EMPLOYEES IN INDONESIA
Almira Fawnia 1; Elok Savitri Pusparini 2

Abstract
Purpose: Millennials are often dissatisfied with their level of salaries, and that eventually will lead to a low commitment towards their companies with family attainment is the least prioritized in their list of ambitions based on Indonesia’s Deloitte Millennial Survey in 2019. This research goal is to find out whether the relationship between salary satisfaction, as one of the goals in supporting families, still influences millennials career satisfaction. This research determines to see the effect of salary satisfaction on career satisfaction with work-family enrichment (WFE) and employee commitment as a mediating variable for millennial generation in Indonesia.

Methodology: This study gathered data from 238 millennials employees in Indonesia using the purposive sampling technique and processed the aforementioned relationships through structural equation modelling (SEM).

Findings: The results indicate that there is a significant role of work-family enrichment and employee commitment as a mediator on the relationship between salary satisfaction and career satisfaction.

Originality/value: Recommendations provided a fresh insight related to work-family situation and commitment perspective towards salary satisfaction and Indonesia’s millennial career path.

Keywords: Salary satisfaction; Work family enrichment; Employee commitment; Career satisfaction, Millennials, Indonesia.

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1. Introduction

The differences in age could lead to different value and work preference between generational differences (Bright, 2010). Generation Y or millennial generation is currently the largest population (Dhini, Nurdini, & Kusuma, 2019). The millennial generation is defined as people who born from 1980 to 2000 (Stafford & Griffis, 2008). The importance of HR management on the millennial generation, whose existence employments dominates any position in the company companies nowadays, needs to be considered, because there are due to the differences in the characteristics of millennial generation with compared to other generations. Millennials are considered to have high career expectations for themselves and prospective employers (Ng & Parry, 2016). Ng, Schweitzer, and Lyons (2010) conducted a survey of millennials in Canada about their careers and the result has shown that millennials have high expectations in terms of salaries and promotions. Millennial generation employees are more concerned with their career developments, and they actively seek for career options for their future (Guan et al., 2017).

A Deloitte survey in 2019 stated that 87% of millennials considered the career growth in the workplace to be very important (IDN Research Institute, 2019). Millennials have an interest in achieving clear and important goals in their work. On the other hand, they are also eager to have faster accelerations in pursuing their career goals at work. Management is required to create a career development strategy that is suitable for the millennial generation. In the World Economic Forums in 2017, 54% millennials rated salary or financial compensation as the most important factor in finding a job. In addition to salary, there are several other criteria, including career development, search for meaning and purpose in life, and work-life balance. Salary is also proven to be the main reason for prospective employees to apply for a job, followed by the location of the company (Madan & Madan, 2019). In addition, another research related to HR management also proves that salary and job security are important to increase employees’ motivation (Jiang, Lepak, Hu, & Baer, 2012).

The same Deloitte’s survey also has obtained that 49% of the millennials involved did not or had not reached stability in their works. This instability emerged as they tend to change jobs within two years with salaries dissatisfaction being the greatest factor. Based on the survey results, it can be concluded that millennials are not sufficiently committed to the organizations due to salaries dissatisfaction. The salary satisfaction can be achieved through fulfilment of salaries, wages, and other payments classified as material resources. Material resources is one of the variables of resources at work that can affect the quality of life of someone (Greenhaus & Powell, 2006). Job resources are able to promote work-family enrichment since the individuals would feel that they are being a good family member (Carlson, Thompson, Crawford, & Rooms, 2019). Greenhaus and Powell (2006) also explained that the work-family enrichment shows the extent of someone's experiences in their roles and it can improve their overall quality of life. Achieving a satisfying work-life balance indicates the fulfilment of both roles in work and family (Hudson, 2005). Correspondingly, imbalanced work and family life will ultimately affect the work commitments (Poulose & Dhal, 2020).

Based on the Equity Theory, employees will commit to their companies if they feel assured with the fairness within their company. Employee commitment is the psychological attitude of employees that allows employees to identify the goals and values of the organization (Peng, 2016). Financial compensation directly impacts on employee commitment (Mahmood, Akhtar, Talat, Shuai, & Hyatt, 2019). Noe et al. (2016) also found that the higher wage and job satisfaction will impact employee commitment in the company. Millennials as individuals who currently dominate the workforce are considered to be uncommitted to the organization (Özcelik, 2015). The Deloitte Millennial Survey in 2019 stated that 43% of millennials were dissatisfied with the salaries provided by the companies which led to instability in their work. Based on the same study regarding life goals, millennials also have different priorities where family achievement
ranks last on their list of ambitions. It is interesting to see whether the salary satisfaction, which is related to the individuals’ ability to support their family, is still relevant to millennials on their career satisfaction. This study collects data from millennials in various industries in Indonesia to assess the role of work-family enrichment and employee commitment in mediating the relationship between salary and career satisfaction. Finally, the findings will delineate useful recommendations for business practices to improve the salary satisfaction and career path for millennials.

2. Literature review

In their study of frontline hospitality employees, Kong, Wang, and Fu (2015) explored the relationship between organizational commitment, career satisfaction, and employees’ turnover intention. It was concluded that their affective organizational commitment was not significantly affected by their level of career satisfaction. However, findings from this study also suggested that front-line employees have a low level of commitments and have the intentions to leave the organization. Commitment growth is associated with increasing overall work-related outcomes lower absenteeism and turnover, tendencies of performing extra works, and improvement of individual performances (Wasti, 2003). The strategy to keep the high-performing employees and reach positive organisational outcomes is by enhancing employees’ career satisfaction. Even if it is tough to be applied in the hotel industry, material and psychological resources are needed to get a positive perception about one’s career and improving the dissatisfaction among employees (Rastogi, Karatepe, & Mehmetoglu, 2018). Crain and Hammer (2013) have also identified work–family life relationship to be one of the key antecedents of employees’ satisfaction.

2.1 Career Satisfaction

Career success can be defined by "positive psychological or job related criteria or achievements that have accumulated from a work experience" (Selbert, Crant, & Kraimer, 1999). Many studies in organizational and management behaviour has confirmed that job satisfaction is a major predictor of employee commitment and their intention to switch jobs (Knight, Durham, & Locke, 2001). Apart from the common themes such as job satisfaction of individuals in the hospitality workplace, career satisfaction is also defined as "an individual satisfaction with accumulated experiences related to their careers" (Dacre-Pool & Qualter, 2013) although it received less attention. Lacks of supervision and attention influenced career satisfaction as described in hospitality and tourism studies (Kang, Gatling, & Kim, 2015). Joo and Park (2010) further stated that career satisfaction is the main factor in determining the turnover intention. Using similar argument, Wright and Bonett (2007) argued that career and job satisfaction are significant predictors of employee turnover. Many other empirical investigations also stated that both job and career satisfactions tend to influence individual commitment to the organizations, and thus, not only influence the decision to quit, they also result in adverse outcomes like organizations losing their talents (Tracey, 2014).

2.2 Work-Family Enrichment

Work-to-family enrichment (WFE) is an experience for someone in one role which leads to increasing quality of life in another role (Greenhaus & Powell, 2006). Enrichment occurs as a resource generated in one domain transfer and subsequently contributes to another domain in terms of development, influence, capital, or efficiency (Carlson D. S., Kacmar, Wayne, & Grzywacz, 2006). According to Greenhaus and Powell (2006), the fundamental behind enrichment is to provide resources for individuals in form of appreciations, incomes, interpersonal relationships, or other benefits that improve the individuals in their both work and family roles. Work-family enrichment occurs both–ways; work-to-family enrichment happens when resources obtained in the work role help to
complete their family role and produce a better family life; and family-to-work enrichment occurs when resources obtained in the family domain improve work functions and performances (Carlson et al., 2006). Greenhaus and Powell (2006) stated that enrichment occurs when the acquisition of resources in one role enhances performances or affects other role. The five types of resources used for the work-family enrichment are: (1) skills and perspectives (cognitive, interpersonal, and multitasking skills; how to define a problem or situation); (2) psychological and physical resources (self-esteem, optimism, physical health); (3) social resources (e.g. influences and information derived from interpersonal relationships in work and family roles); (4) flexibility (time management, speed, and location where role requirements are met); and (5) material resources (money and gifts from work or family domains). These resources improve performances in other roles either directly (i.e. instrumental pathways) or indirectly (i.e. affective pathways).

2.3 Employee Commitment
According to Mathieu and Zajac (1990), commitment is influenced by several demographic factors, group dynamics and leaderships in the organization, as well as other occupational characteristics, such as tenure, level of work, and salary. Furthermore, commitment can be understood as a set of behaviors or attitudes towards the organization (Mathieu & Zajac, 1990). According to the three-component model of organizational commitment (Meyer & Allen, 1991), there are various forms of commitment, each is marked by a different psychological state or mindset. Affective commitment reflects emotional attachment and a desire to stay with the organization, normative commitment is experienced as a sense of obligation to remain, and ongoing commitment reflects an awareness of the costs associated with resignation. Organizational commitment is expressed by Robbins (2003) as a form of employee orientation towards the organization such as trust (trust in organizational values), involvement (willing to do their best for the organization), and loyalty (the desire to remain a member of the organization concerned). Another important development in commitment research is the increasing attention to other workplace commitments (Meyer & Herscovitch, 2001), including commitments to other organizations. Commitment increase is associated with increase in overall work-related outcomes, reduced absenteeism, low turnover, increased extra-role behaviour, and improved individual performance (Wasti, 2003).

2.4 Salary Satisfaction
Noe (2016) stated that from the perspective of employees, policies related to wages, salaries, or other incomes affected the company’s overall income and their living standard. Noe (2016) also stated that employees often evaluate their wage rates towards other employees. This Equity Theory for payment arises on the basis of the employees' tendency to evaluate the fairness of their situation at work compared to others. Using similar definition, payment satisfaction is a concept that is related to the difference between the level of payment received and the amount that employees believe must receive, rather than the amount that is self-charged (Williams, McDaniel, & Nguyen, 2006). In its most basic form, salary satisfaction refers to the degree to which employees are satisfied with the methods and levels of monetary awards that are directly or indirectly received while working (Ducharme, Singh, & Podolsky, 2005). According to Greenhaus and Powell (2006) salary with an adequate amount or large profits obtained from the workplace can improve the life quality of employees' families by purchasing goods and services needed by family members. Extrinsic indicators of career success are defined as objective and observable factors, and consist of achieving visible outcomes such as salary or promotion increases (Judge, Higgins, Thoresen, & Barrick, 1999).
2.5 Conceptual Model
The conceptual model in this study is developed from Rastogi et al., (2018) research model which tests the relationship of salary satisfaction and career satisfaction. The selection of work-family enrichment mediation variables is also based on Rastogi et al., (2018) who have successfully demonstrated that employee satisfaction with salaries and job security needs encouragement by work-family enrichment and is able to raise the career satisfaction in the organization. The commitment mediation variable is based on Chan & Ao (2019) who examined the effect of salary satisfaction and work-family conflict in relation to turnover intention. Using regression, this study has found that job satisfaction and organizational commitment mediate the effects of salary satisfaction and work-family conflict on turnover intention.

Figure 1 – Conceptual Model: Salary Satisfaction to Career Satisfaction with WFE and EC as the mediators

Source: Own elaboration based on Rastogi, Karatepe, & Mehmetoglu (2018) and Chan & Ao (2019)

2.6 Hypotheses formulation
Direct Effects
Research by Faupel-Badger, Nelson, and Izmirlian (2017) has shown that most individuals in the study are satisfied with their career trajectories because they are compensated fairly. El Baroudi, Fleisher, Khapova, Jansen, and Richardson (2017) have also identified that salary increases affect the mediation on the relationship between employee’s ambitions and increased career satisfaction. Another finding that supports this hypothesis is that salary level is one of the factors positively influences career satisfaction in the dentists in Jordan (Malkawi, 2016).

H1: Salary satisfaction has a direct, positive, and significant effect on career satisfaction

The presence of material resources affects the quality of family life or marriage of employees (Larson, Wilson, & Beley, 1994). Findings related to the effects of satisfaction with salary, job security, and self-esteem are in accordance with other studies by Carlson et al., (2011). It was also proven that employees’ satisfaction with salaries and job security needs to be encouraged using work-family enrichment in front-line hotel employees in Delhi (Rastogi et al., 2018).

H2: Salary satisfaction has a direct, positive, and significant effect on work-family enrichment

Offering appropriate benefits for part-time employees can have a positive impact on job satisfaction and commitment to overall work (Lee & Lin, 2014). Salary increases positive effect to the academics’ institutional commitment is also presented by Ebru and Yalçinkaya (2016). Orkibi (2016) also concluded that employees who earn above average or average salary have high career commitment.

H3: Salary satisfaction has a direct, positive, and significant effect on employee commitment.
Rastogi et al., (2018) have successfully demonstrated that work-family enrichment as a salary mediator raises career satisfaction of front-line hotel employees in Delhi. Work-family relationships and life have also been recognized as one of the main antecedents of satisfaction experienced by employees (Crain & Hammer, 2013). Results in the research from Hirschi, Hermann, Nagy, and Spurk (2017) also supported the enrichment perspective – family orientation has a positive relationship with career satisfaction. 

H4: Work-family enrichment has a direct, positive, and significant effect on career satisfaction.

The role of career commitment as a mediator in the relationship between ethics, affective commitment, and career satisfaction is evident in the research conducted by Pathardikar, Sahu, and Jaiswal (2016). This commitment also positively influences employee satisfaction (Brewer & Nauenberg, 2003). One factor in increasing the career satisfaction of engineers is organizational commitment (Martínez-León, Olmedo-Cifuentes, & Ramón-Llorens, 2018).

H5: Employee commitment has a direct, positive, and significant effect on career satisfaction.

**Mediating Effects**

Work-family enrichment as a mediator in the relationship between salary satisfaction and career satisfaction has been proven by Rastogi et al., (2018). Hirschi et al., (2017) further stated that enrichment in resource support of the non-work role can increase one’s career satisfaction.

H6: Work-family enrichment mediates the relationship between salary satisfaction and career satisfaction.

Using the regression analysis, organizational commitment, income level, suitability for work, and culture are found to support the work-life balance and increase the career satisfaction of engineers (Martínez-León et al., 2018). Ballout (2009) has shown that career commitment can predict salary levels and career satisfaction with high self-efficacy.

H7: Employee commitment mediates the relationship between salary satisfaction and career satisfaction.

### 3. Data and Method

The data collected in this study is classified into two, primary data and secondary data. Primary data is obtained from the main test from the questionnaires distribution. Meanwhile, secondary data is obtained from online articles, journals, books, and other literature studies that provide information and have relevance to the object of research. The analysis of data in this research using quantitative methods by using a Likert scale of 7 and is processed using SPSS 26.0 and AMOS 26.0. The first stage conducted in the research aims to determine the variables, dimensions, models, and instruments used in the questionnaire. Next, a pilot test is conducted to seven respondents to test the understanding of all aspects of the questions in the questionnaire. The results of the pilot test indicate that all of the questionnaire question items have been understood by the respondents as a whole. This step is continued with the pre-test stage which aims to determine the feasibility of the questionnaire before it is distributed to the main respondents. The pre-test is conducted for 30 millennial generation employees. Furthermore, the results of the pre-test are also tested for validity and reliability by SPSS 26.0 using the Kaiser Measure Olkin (KMO) factor analysis method, Bartlett's Test, and factor loading for each indicator. Indicators of each statement’s validity is KMO value> 0.5, Bartlett's Test <0.005, and a factor loading value> 0.5 (Hair et al., 2014). Reliability test is conducted to see whether the value of Cronbach’s alpha is greater than 0.6 (Malhotra & Birks, 2010). The result indicates that 38 items of questionnaire used in this study are valid and reliable so it could be used in the main test. Salary satisfaction is measured sequentially through 18 items from Carraher (1991); 9 items from Rastogi et al., (2018)
to assess employee’s WFE; 6 items from Rogg et al. (2001) to measure the employee commitment; and finally 5 items from Greenhaus, Parasuraman, and Wormley (1990). The questionnaire items are translated to Indonesian with some paraphrasing and different order from the original sources.

The sampling technique in this study is non probability sampling with the purposive sampling method. The sample criteria in this study are (1) in the age range of 25 to 40 years and (2) have worked in the company for at least one year. The respondents then asked to help distributed the questionnaire to their colleagues who have the same criteria until the minimum respondent target is achieved. The number of samples in this research is based on the theory of Hair et al. (2014) which is five times of the total item. Based on these 38 items, minimum 190 respondents are required for this research. 238 responses are collected, processed, and analysed. The structural model testing is conducted by using AMOS 26.0 software while the structural model compatibility test in SEM analysis is done by looking at several Goodness of Fit criteria models. According to Hair et al., (2014) a model is said to be the most feasible if one of the criteria is met.

4. Results

Respondents Description
From the 238 data analyzed in this study, 71% of respondents are female, 78% of respondents are not married, 44% of them in age 25-30 years, and 87% of participants have the highest education level of S1 or bachelor. The majority (57%) of respondents have worked for less than 3 years and most of them have a monthly income between Rp3,800,000 and Rp7,600,000 per month. In this research, the majority of respondents work in the trade, service, and investment sector with a percentage of 75.20%.

Construct Validity and Reliability
The validity and reliability test conducted for the main research data utilizes the Structural Equation Modelling (SEM) techniques. Indicators for each variable are declared valid if the Standardized Loading Factor value is greater than or equal to 0.5. The reliability test is calculated using construct reliability measure (CR) and average variance extracted measure (AVE). Test results are deemed reliable if the value of CR ≥ 0.70 and AVE ≥ 0.5 (Hair et al., 2014).
Table 1 – Construct Validity and Reliability

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>λ</th>
<th>Validity</th>
<th>AVE</th>
<th>CR</th>
<th>Reliability</th>
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</table>

Source: Own study

Based on the results of testing the construct validity and reliability in the table above, the analysis shows that the loading factor of all indicators is more than 0.5 which indicates that all indicators are valid in measuring the construct, then the reliability test results show that all constructs have a CR value of 0.7 and AVE> 0.5 which shows that all constructs are reliable.

Goodness of Fit Model

Structural model testing is used to test the research hypothesis. Structural model compatibility test in SEM analysis is done by looking at several criteria of goodness of fit model such as Chi Square value, probability, DF, GFI, RMSEA, AGFI, TLI, NFI, CFI, IFI and RFI. By making comparisons based on the categories in each indicator size, the level of goodness of fit of the proposed research model can be determined. Table 2 shows the results of the structural model fit test in this study based on the criteria of each indicator.
Table 2 – Goodness of Fit Model Measurement

<table>
<thead>
<tr>
<th>Goodness of Fit Index</th>
<th>Cut off Value</th>
<th>Result</th>
<th>Model Fitness</th>
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</tr>
<tr>
<td>Probability</td>
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<td>0.000</td>
<td>Poor Fit</td>
</tr>
<tr>
<td>Chi Square</td>
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<tr>
<td>CMIN/DF</td>
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<td>GFI</td>
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<td>Moderate Fit</td>
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<tr>
<td>AGFI</td>
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</tr>
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<td>RFI</td>
<td>&gt;0.90</td>
<td>0.907</td>
<td>Good Fit</td>
</tr>
</tbody>
</table>

Source: Own study

In this study, the fulfillment of the model goodness is not focused on the probability values and Chi Square models, because the required model probability value >0.5 is only for samples less than 200 respondents whereas in this study 238 respondents are analyzed. Based on the results from the GOF table analysis, this model has fulfilled several goodness of fit criteria, and it is feasible to be used to test the hypothesis in this research.

Direct Effect Measurement

After the model meets the criteria for goodness of fit, the direct effect between variables is tested. With a significance level of 0.05, the relationship between variables is deemed significant if it meets the p-value <0.05 and CR >1.96 which is assessed and shown in Table 3.

Table 3 – Direct Effect Measurement

<table>
<thead>
<tr>
<th>Path</th>
<th>CR</th>
<th>p-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Satisfaction -&gt; Career Satisfaction</td>
<td>5.678</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>Salary Satisfaction -&gt; Work Family Enrichment</td>
<td>10.089</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>Salary Satisfaction -&gt; Employee Commitment</td>
<td>10.111</td>
<td>***</td>
<td>Significant</td>
</tr>
<tr>
<td>Employee Commitment -&gt; Career Satisfaction</td>
<td>3.167</td>
<td>0.002*</td>
<td>Significant</td>
</tr>
<tr>
<td>Work Family Enrichment -&gt; Career Satisfaction</td>
<td>4.919</td>
<td>***</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Note: "***" indicates a very significant level of p-value, it is even greater than level of significance 0.001

Source: Own study

Based on the SEM analysis results shown in the above table, salary satisfaction has a significant effect to all three paths. The significant and positive influence to career satisfaction, work-family enrichment, and employee commitment are indicated by their positive CR values of 5.678, 10.089, and 10.111 consecutively and p-values (p-value =
Career satisfaction is also positively and significantly influenced by employee commitment (p-value = 0.002*, CR = 3.167) and work-family enrichment (p-value = ***, CR = 4.919). Therefore, it can be concluded that a positive and significant effect is observed in the relationship between the variables in this study.

**Indirect Effect Measurement**

In this study, work-family enrichment and employee commitment act as mediating variables. To see the significance of these variables in mediating the indirect effect of salary satisfaction on career satisfaction, Sobel test will be used. With a significance level of 0.05, the relationship will be considered significant if the p-value < 0.05 and t-value ≥ 1.96. The Sobel test results can be seen in Table 4.

### Table 4 – Indirect Effect Measurement

<table>
<thead>
<tr>
<th>Indirect Effect</th>
<th>T Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS -&gt; WFE -&gt; CS</td>
<td>4.421</td>
<td>0.0000098</td>
</tr>
<tr>
<td>SS -&gt; EC -&gt; CS</td>
<td>4.423</td>
<td>0.0000097</td>
</tr>
</tbody>
</table>

Source: Own study

The Sobel test results for the role of work-family enrichment in mediating the effect of salary satisfaction on career satisfaction has p-value of 0.0000098 and t-value of 4.421. Therefore, it is concluded that work-family enrichment can significantly mediate the effect of salary satisfaction on career satisfaction. On the other hand, employee commitment role in mediating the influence of salary satisfaction on career satisfaction shows p-value of 0.0000097 and t-value of 4.423, also proves that the relationship is significant.

**Hypotheses Testing**

The hypothesis in this study discusses the results of SEM analysis using a significance level of 0.05. The p-value represents a stretch on acceptance or on the proposed hypothesis. If the p-value < 0.05 then H0 is rejected and the hypothesis can be accepted. But if the p-value > 0.05 then H0 is accepted and the hypothesis is rejected. Table 5 shows the results of hypothesis testing.

### Table 5 – Hypothesis Results

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>SLF</th>
<th>CR</th>
<th>P value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Salary satisfaction has a direct, positive, and significant effect on career satisfaction</td>
<td>0.385</td>
<td>5.678</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>Salary satisfaction has a direct, positive, and significant effect on work-family enrichment</td>
<td>0.637</td>
<td>10.089</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3</td>
<td>Salary satisfaction has a direct, positive, and significant effect on employee commitment</td>
<td>0.643</td>
<td>10.111</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>Employee commitment has a direct, positive, and significant effect on career satisfaction</td>
<td>0.324</td>
<td>4.919</td>
<td>***</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>Work-family enrichment has a direct, positive, and significant effect on career satisfaction</td>
<td>0.208</td>
<td>3.167</td>
<td>0.002</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6</td>
<td>Work-family enrichment mediates the relationship between salary satisfaction and career satisfaction</td>
<td>0.206</td>
<td>4.421</td>
<td>0.0000098</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7</td>
<td>Employee commitment mediates the relationship between salary satisfaction and career satisfaction</td>
<td>0.134</td>
<td>4.423</td>
<td>0.0000097</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Note: "***" indicates a very significant level of p-value, it is even greater than level of significance 0.001

Source: Own study
Based on the SEM analysis results, p-values less than 0.05 (H1, H2, H3, H4 = ***, H5 = 0.002, H6 = 0.0000098, H7 = 0.0000097) and positive CR signs (H1 = 5.678, H2 = 10.089, H3 = 10.111, H4 = 4.919, H5 = 3.167, H6 = 4.421, H7 = 4.423) are observed in all hypotheses. The standard loading factors (SLF) values for H1 to H7 shows the effect value from one variable to another as well as the relationship that is influenced by the mediating variable. It can be seen that the H3 has the greatest SLF value (H3 = 0.643). Therefore, it can be concluded that Ho for all hypotheses are rejected and these seven hypotheses are acceptable.

5. Discussion

This study aims to determine the effect of salary satisfaction on career satisfaction mediated by work-family enrichment and employee commitment on millennial generation employees in Indonesia. The relationships described in the seven proposed hypotheses prove their influence and significance. This result shows that millennial generation employees in Indonesia perceive salary satisfaction as an important variable and has influence over their satisfaction in carrying out their work in various industry sectors. In addition, work-family enrichment and employee commitment are proven to mediate salary satisfaction with career satisfaction. This result provides more explanation for the 2019 Deloitte Millennial Survey result statement regarding salary dissatisfaction as the biggest factor for the lack of millennial commitment to work. The past survey also suggested that millennial generation did not prioritize the goal of having a family, while in this study, work-family enrichment is still relevant to the reciprocal relationship they felt from work-family.

The most significant value in this study came from the test results of the effect of salary satisfaction on employee commitment which proved to be significant and positive. In this study, SS03 statement items (salary increase that was most recently given according to my expectations) on the variable salary satisfaction has the highest SLF value of 0.910 and EC03 statement items (persist in the company where they work despite getting a job offer from another company) on the employee variable commitment has the highest SLF value of 0.937. This shows that if the company provides a salary in accordance with expected expectations, it will encourage the level of commitment of these employees even though they are offered to work in other companies. This result is consistent with the research by Lee and Lin (2014) which stated that offering appropriate benefits for part-time employees can have a positive impact on job satisfaction and commitment to overall work. Salary increases positively affecting organizational commitment to their institutions is also evidenced by Özer and Yalcinkaya (2016). Orkibi (2016) also concluded that employees who earn above average or average salary have higher career commitment.

This study also finds that salary satisfaction has a positive and significant effect on career satisfaction. This statement is proven by SS03 question item (salary increase that was most recently given according to my expectations) on the salary satisfaction variable which has the highest SLF of 0.910 and the CS4 question item (feeling satisfied with the increased expertise gained) on the career satisfaction variable which has the highest loading factor value which is 0.881. This result is also in-line with the findings by El Baroudi et al., (2017) which identify that salary increases moderate the effect of mediation on behavior in the relationship between employee ambitions towards increasing career satisfaction. Another research that supports this finding is the study of dentists in Jordan shows that salary level is one of the factors that positively influences their career satisfaction (Malkawi, 2015).

Based on the analysis, the influence of salary satisfaction on work-family enrichment is proved to be significant and positive. Therefore, it can be concluded that the higher employee satisfaction due to the salary satisfaction will impact the employee satisfaction in their family role. SS03 (the most recent salary increase according to my expectations) on the salary satisfaction variable has the highest SLF of 0.910 and the question item
WFE5 (my involvement in the current job makes me happy, and it helps me to become a better family member) the work-family enrichment variable has the highest SLF at 0.918. This is also supported by the research of Rastogi et al., (2018) which found that along with the salary and job security, work-family enrichment is encouraged to improve employee satisfaction in front-line hotel employees in Delhi.

The relationship between work-family enrichment and career satisfaction is found to have a positive and significant effect with the aforementioned items WF5 and CS04 as the highest SLF value. This hypothesis is supported by Rastogi et al., (2018) research which have successfully demonstrated that work-family enrichment can act as a mediator for salary raise in improving career satisfaction of the front-line hotel employees in Delhi. Work-family relationships and life have also been recognized as one of the main antecedents of satisfaction experienced by employees (Crain & Hammer, 2013). The research by Hirschi et al., (2017) also supported this hypothesis. In other words, if millennials feel that their work can provide happiness and contribution to their family, they will achieve satisfaction in their career.

On the other hand, the relationship between employee commitment has a positive and significant effect on career satisfaction with the aforementioned items EC03 and CS04 as the highest SLF value. This is also aligned with the findings that the factor in increasing the career satisfaction of engineers is an organizational commitment based on the study conducted by Martínez-León et al., (2018). Therefore, an appropriate career trajectory plan for each employee is required to increase their commitment towards the company and eventually achieving a career satisfaction. The role of career commitment as a mediator is also evident in the relationship between ethics, affective commitment, and career satisfaction (Pathardikar et al., 2016).

Finally, there is an effect of salary satisfaction on career satisfaction with work-family enrichment and employee commitment as mediators. This shows that the higher the salary given to meet the employee satisfaction, the higher the work-family enrichment felt. It also encourages commitment to the company and will increase employee career satisfaction. Work-family enrichment has been proven to be a mediator in the relationship between salary satisfaction and career satisfaction (Rastogi et al., 2018; Hirschi et al., 2017). Martínez-León et al., (2018) further stated that organizational commitment, income level, suitability for work, and culture can promote the work-life balance and increase the engineers’ career satisfaction. The career commitment can also predict salary levels and career satisfaction with high self-efficacy (Ballout, 2009). Therefore, based on the findings in this research, supported by previous researches, the company needs to consider the salary given to employees so that they can feel their role that can support the family and in addition also increase employee commitment to the company so that the employees could gain the career satisfaction.

These results show that salary undeniably remains as the biggest factor to drive employee motivation for a career and the biggest reason for an employee commitment to the company. In accordance with the term by McKinsey "war for talent" which refers to an increasingly competitive industry to recruit and retain talented employees, companies should compete to get the best employees. A way to attract prospective employees is by offering salaries that match their expectations. By providing fair and appropriate wages for their works, employees will feel satisfied and motivated to increase their productivity, and this will benefit the company. Providing salaries will also increase the welfare of employees which will also impact their personal life and eventually increasing the employee commitment to remain loyal to the company. Career plans for each employee also needs to be considered, especially for millennials who tend to have ambitions in career achievement and development.

6. Conclusions

Theoretical implications
This study shows that there’s a positive effect between salary satisfaction and career satisfaction as salary is the most frequently used objective career success indicator because it can be applied to all forms of paid work. The extrinsic indicators of career success are defined as objective and observable factors, and consist of achieving visible outcomes such as higher salary or promotion (Judge et al., 1999); they have been considered as a strong and consistent measure of success in various contexts (Heslin, 2005). WFE as the mediator between salary satisfaction and career satisfaction is also proven to have a direct and significant impact. This is also shown in the research by Rastogi et al., (2018) which examined the antecedents of WFE and gauged the effects of the employee satisfaction with salary and job security.

Implications for Practice
It is found through this study that millennial generation would still stay in their companies despite getting job offers from other companies. This is slightly different from the general characteristics of millennial generation which is easy to move from one workplace to another. The salary factor is the main motivator for maintaining millennials loyalty to their company. Therefore, attractive salary is needed to be arranged in accordance with the company’s standards and capabilities to foster employee commitment to the company. The proven relationship between salary satisfaction effect on career satisfaction shows that millennial has a perception that salary is closely related to the intended career path. Millennial generation is perceived to be enthusiastic in learning new things, hence the company needs to identify the potential of every employee and give them appropriate trainings and development programs to improve their skills and expertise. Companies need to consider other resources such as skills, psychological and physical resources, social resources, and flexibility aside from material resources to improve the employee concerned because it can also affect the role as a family member.

Limitations and Future Research
This study is cross sectional in which the results obtained only reflect one particular time so different results are expected in different times. This research is also a case study analysis so potentially different results will occur if the research hypotheses are tested in different contexts. Another limitation comes from the survey method which is self-rated and done using online distributed questionnaires online. Bias is unavoidable because it relies on the ease of obtaining responses and it influences the results of this study. Future avenues are suggested for the next generation who enter the workforce (generation Z) to establish a comparison. In addition, further researches can narrow the object of research in a certain industry like the start-up companies which are more attractive to the millennials and Z generations given their closeness to technology and information. There are possibilities to use other variables which potentially influence the career satisfaction such as superior leadership, work culture, work environment, or variables. Future studies could also compare specifically the effect of gender constructs to see the comparison of career satisfaction between men and women in the current global era.

References


LOYALTY OF GAME ONLINE, RELIABILITY OF THE GAME, AND DESIRE TO MAKE PURCHASES IN THE ONLINE MOBILE GAME

Regie Rivai 1; Gunawan Alif 2

Abstract

Purpose: The purpose of the research that the author wants to convey is to find out knowing and analyzing the attraction of the game will increase expectations of the development of game characters, knowing and analyzing the attraction will make a dependency on the Online Mobile Game, knowing and analyzing the dependence of the online mobile game will increase the expectations of the character development, knowing and analyzing the influence of online game dependence with increasing online mobile game loyalty, knowing and analyzing Online mobile game dependency will increase online mobile game loyalty, knowing and analyzing online game dependency will increase the desire to buy online mobile games in applications or game features, and knowing and analyzing loyalty with online games will increase the desire to buy mobile games online in applications or game features

Methodology: Techniques and methods used in data collection used to achieve the objectives of this study use primary data as a reference and use a questionnaire. In this study will use a sample of 200 in the territory of Indonesia

Findings: Attractiveness increases expectations of character development, Attractiveness makes dependency on Mobile Online Games, Dependence of Online Mobile Games increases expectations on character development, Dependence of online mobile games increases game loyalty mobile online, The dependence of mobile online games increases the desire to buy in-game applications, and Fidelity to mobile online games increases the desire to buy in-game applications

Originality / Value:
Attractiveness and Dependence of Online Mobile Games

Limitations: There is no previous research that discusses about how long the normal time required to play games in a day so this slows the research process

Keywords: Attractiveness; Character development; Dependence; Desire to buy; Fidelity; Mobile online games.

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1. Introduction

Online game can be interpreted as a game that uses computer networks such as the internet and the like in which modems and cable connections are the media. Online game is a feature of the Company plus games that menyedikan onlineagar facilities such games can be played simultaneously by using tools Personal Computer (PC) and connected to network. The main attraction of playing online games which player can meet other players and interact. So it is a special attraction for players to meet with friends who have similar hobbies and socialize with them. The rise of online gaming itself can be proven at that time when game centers that provide online game by all ages who spend time in the game center.

The development of online games began initially spearheaded by Clash of Clans (COC). Then after that came the generation of Multiplayer Online Battle Arena (MOBA) which is strongly associated with games using Personal Compter (PC) pioneered by the Mobile Legends (ML) and Arena of Valor (AOV). After the MOBA game appeared the Battle Royale type game entered the mobile market which began with Free Fire (FF) and Player Unknown's Battleground (PUBG) and most recently there was Call of Duty (COD). Online Game addiction is experienced a lot not only from children but many teenagers and adults who have also played Online Games. Many people who are teenagers and adults play online games with the aim other than to look for entertainment in times when they are busy as well as enhancing friends or meeting with fellow online game lovers. Playing online games together where initially boring can be interesting to the point where they play their own time forgetting to play the game.

The purchase of Virtual goods is carried out by the players through several stages in making a purchase process. Kotler and Armstrong (2006) say the stages are in the form of an introduction to the needs and information seeking, there are alternative evaluations to purchasing decisions and post-purchase behavior. So by doing this research, researchers tried to explain the relationship between dependence with Mobile Online Games with loyalty to Mobile Online Games to the desire to make purchases in the application or game features. Mobile gaming is one of the fast-growing parts of the industry with an average of 17% per year between 2017 and 2021. Within a decade, Mobile gaming grew from a small segment to a segment worth 100 million dollars by 2021. Mobile Game Revenue will continue to increase overall.

Information can be taken that a new term has emerged, namely virtual goods that players must buy to make their characters stronger. Players who are addicted to playing a game and become loyal to the game are willing to spend their money to buy goods in the game. When they have spent a lot of money in the game, the players feel no regret because they think playing the game is one of the hobbies that they enjoy. The thing that makes them spend a lot of money in playing online games is that they are initially addicted to playing games so that they become loyal customers in the online game. Addictions to playing online games alone can stimulate buying intentions among loyal players. This loyalty can grow slowly when they feel comfortable to be loyal and support the Online Game. From the game developer side, he always wants to facilitate loyalty among his customers thereby increasing purchase intentions in their games.

The purpose of the research that the author wants to convey is to find out knowing and analyzing the attraction of the game will increase expectations of the development of game characters, knowing and analyzing the attraction will make a dependency on the Online Mobile Game, knowing and analyzing the dependence of the online mobile game will increase the expectations of the character development, knowing and analyzing the influence of online game dependence with increasing online mobile game loyalty, knowing and analyzing Online mobile game dependency will increase online mobile game loyalty, knowing and analyzing online game dependency will increase the desire to buy online mobile games in applications or game features, and knowing and analyzing loyalty with online games will increase the desire to buy mobile games online in applications or game features.
2. Literature review

2.1 Online Gaming

2.1.1 Definition Online Gaming

Online gaming can be said as a technology rather than a type of game. A method that can connect between players, compared to certain patterns in the game (Rolling & Adams, 2012). Roettl & Terlutter (2018) stated that online game graphics technology can be divided into two parts, namely:

1. Two Dimensions or 2D
   Two-dimensional game seen from the state of space that only has two sides (X and Y). To make an animated move running, jumping, running, etc. we have to make pictures one by one called the frame. The realization of the movement is determined from the images made, the number of images (frames) used, and the count of images per second. This two-dimensional game has 2 concepts, namely:
   1. Where all objects main character's movements are limited to that area.
   2. Side Scrolling View, where objects and background images will continue to move right and left according to the speed of movement of the character being played. Example: Pac-man, Space Invader, Mario Bros, and other simple games.

2. Three Dimensions or 3D
   While 3D games are the games that besides involving the elements x and y, also involve some element z in the calculations, so the concept of a camera on a 3D game actually resembles the concept of a camera in real life, which is in addition shifted (as in the 2D games), can also be played with particular axis.

2.1.2 Type of Online Gaming

By type, online games are divided into (Harsono, 2014):

1. Massively Multiplayer Online First-person shooter games (MMOFPS)
   This game takes a first-person view so it is as if the player is in the game in the perspective of the characters being played, where each character has different abilities in the level of accuracy, reflexes, and others. This game can involve many people and this game usually takes the setting of warfare with military weapons. Examples of this type of game include Counter Strike.

2. Massively Multiplayer Online Role-playing games (MMORPG)
   A game where the players play the role of imaginary characters and collaborate to knit a story together. RPG usually leads to social collaboration rather than competition. Generally in RPGs, the players are joined in one group. Examples of this game genre are Ragnarok Online, The Lord of the Rings Online: Shadows of Angmar, Final Fantasy, DotA.

3. Cross-platform online play
   Types of games that can be played online with different devices. Currently console game machines (console games) are starting to develop into computers that are equipped with open source networks (open source networks), such as Dreamcast, PlayStation 2, and Xbox which have online functions. For example, need for Speed Unferground, which can be played online from a PC or Xbox 360.

4. Simulation games
   This type of game aims to provide experience through simulation. There are several types of simulation games, including lifesimulation games, construction and management simulation games, and vehicle simulation. In life-simulation games, players are responsible for a character or character and fulfill the needs of the character as if in real life, but in the virtual realm. Character has human needs and life like work activities, socializing, eating, shopping, and so on. Usually these characters live in a virtual world filled with characters played by other players. An example of the game is Second Life.

2.2 Consumer Behavior

2.2.1 Definition of Consumer Behavior
According to Kotler and Keller (2016) is a study of how individuals, groups, and organizations choose, buy, use, and how goods, services, ideas, or experiences to satisfy their needs and desires.

Zeithaml, Bitner, and Gremler (2009) state that consumer behavior is studying how individuals, groups, and organizations choose to use and also utilize goods, services, ideas, or experiences in order to satisfy their desires and needs.

According to the above definition, consumer behavior is the process by which decision making in purchasing is done through planning, choosing products, services, ideas until those needs are met.

### 2.2.2 Factors Affecting Consumer Behavior

Consumer behavior can be influenced by many circumstances and situations such as where he was born and developed, income, tastes, prices of goods so that they will have an opinion or assessment of the goods or services to be purchased. According to Kotler and Keller (2012) that consumer behavior is influenced by the following factors:

1. **Cultural Factors**
   This factor is the most fundamental factor in determining desires and behavior. Cultural factors, according to Kotler and Keller (2012: 151), are a state of cultural value systems, customs, and ways of life of people that surround a person's life.

2. **Social factors**
   Social factors according to Kotler and Keller (2012: 151) are the influence of others both formally and informally.

3. **Personality factors**
   The personality factor is concluded based on the opinion of Kotler and Keller (2012: 151) as a factor that originates from oneself. Personality factor indicators seen from: age, occupation, and monthly income.

4. **Psychological factors**
   Psychological factors according to Kotler and Keller (2012: 151), namely factors related to a person's psyche. Psychological indicators are seen from motivation, experience and attitude.

### 2.3 Loyalty Online Games

In the context of online gaming, loyalty has been defined as the intention to play games in the future. Loyalty online gamers have a variety of socially related sources, critical periods, subjective norms of team participation, social needs satisfaction, and social satisfaction literature like that motivated this research to enter a factor community. Among other things, community involvement is important in deciding on the spending game, justifying the use of commitments for virtual communities. In addition, loyalty among online gamers has other sources, including usability, ease of use, challenges, control, flow, visual values, escape, pleasure, and hedonists and utilitarian values. The sources are important and well-known. Therefore, this study does not replicate everything.

### 2.4 Addiction to Online Games

Nowadays online games are rife in the community, enthusiasts are indiscriminate ranging from children to adults. In playing, sometimes students do not know the time so students often forget about time, for example at 10 pm it is fitting for people to sleep, but apparently not for some communities in this case as true online gamers. These times are actually even fun. Its spread was very fast, especially in recent years. Not only in big cities, but some small cities have been attacked by this opium. Fun and exciting, that's the comment of many people who are already infatuated by online games (Sudarwan, 2016). Lemmens, et al (2009) said that there are seven (7) parts in Online Game dependence, namely:

1. **Salience**
Playing online games is the most important activity in the life of someone who dominates the mind (pre-occupation), feelings (the desire to always want to do), and behavior (overuse).

2. Tolerance
A process where someone plays the Game more often, so that slowly increasing the duration of time spent playing Online Game

3. Changes in Mood
Subjective experiences are reported by individuals as a result of attachment to playing Online games. Changes in mood can also be a feeling of calm associated with running away.

4. Withdrawal
Unpleasant feelings that occur when playing online games are reduced or stopped. This aspect is more negative changes such as moody and easily offended.

5. Relapse
The tendency to repeat the old pattern of playing Online Games after not doing it for a certain period or taboo period

6. Conflict
This refers to interpersonal conflict that results from excessive online gaming. Conflicts can include ignoring debates so that lies and cheating

7. Problems
Refers to the problems that result from overplaying Online Games. This problem arises because playing Online Games is the main activity rather than other activities such as school, work and socialization. Problems can arise in every individual such as loss of control

Many impacts will arise from playing online games. There are positive and negative impacts. In playing online games, players must pay attention to the impact that will arise, whether detrimental to him or can be beneficial for himself. Positive impacts that will be caused when a person when playing online games include, (Eskasasnanda, 2017):

1. Developing children’s abilities,
2. Making mindsets faster,
3. Improve foreign language skills,
4. Make students think more creatively.

Not only that the positive impact of online games, but from playing online games, children can also practice how to set strategies when playing the game. Children practice thinking when playing these online games. The negative impact that will be caused when someone has addicted to playing online games include (Eskasasnanda, 2017):

1. Lazy to learn
2. Spending pocket money to play online games at internet cafes or just providing equipment in the online games
3. Lack of socialization with others
4. Difficult to express and interact
5. Forget about other activities besides playing online games.

2.5 Purchasing Decision
Purchasing decisions are a series of processes that begin with consumers knowing the problem, finding information about a particular product or brand and evaluating the product or brand how well each alternative can solve the problem, which then leads to a purchase decision (Tjiptono, 2014: 21). Furthermore Kotler and Keller (2012: 227) add that, the purchase decision process is a five-stage process that consumers go through, starting from problem recognition, information search, alternative evaluations that can solve the problem, purchasing decisions, and post-purchase behavior, which began long before actual purchases are made by consumers and have a long after-effects. So, the purchase decision is a buying decision, namely:

1. Taking the initiative (initiator)
Individuals who have a certain item purchase initiative or who have needs or desires but do not have the authority to do it themselves.

2. People who influence (influencers)

Individuals who influence the decision to buy intentionally are good or accidentally.

3. Decider

Individuals who decide whether to buy or not, what they will bought, how to buy it, when and where to buy it.

4. Buyers

Individuals who make actual purchases.

5. User

Individuals who enjoy or use the product or service purchased. A company needs to know about that role because all roles have implications for designing products, determining messages and allocating promotional budget costs and creating marketing programs that are suitable for buyers.

3. Data and method

The research method includes research procedures and techniques. The research method is an important step for solving research problems. By mastering research methods, not only can solve various research problems, but also can develop the field of science that is involved. In addition, increasing the number of new discoveries that are useful for the wider community and education world (Sugiyono, 2017). The research method used in this research is descriptive quantitative research method that is by searching information about the symptoms that exist, clearly defined goals to be achieved, plan how to approach it, collect data as material to make a report (Sugiyono, 2017). In this study will use a sample of 200 in the territory of Indonesia as mentioned by (Malhotra, 2010) that in marketing research has a total of 200 people.

This study uses a conclusive design that aims to test a hypothesis and see the relationship or influence between variables. In addition, researchers also used a single cross-sectional design in which information was collected once for each respondent and used a questionnaire survey distribution method that was prepared and given to respondents in accordance with research criteria in order to obtain information specific to this study.

<table>
<thead>
<tr>
<th>Table 1. Goodness of Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boundary</strong></td>
</tr>
<tr>
<td>Chi Square ≤41.337</td>
</tr>
<tr>
<td>probability 0.05</td>
</tr>
<tr>
<td>CMIN / DF Positive</td>
</tr>
<tr>
<td>RMSEA &lt;1</td>
</tr>
<tr>
<td>GFI ≥0.9</td>
</tr>
<tr>
<td>AGFI ≥0.9</td>
</tr>
<tr>
<td>RMR ≤0.08</td>
</tr>
<tr>
<td>TLI ≥0.9</td>
</tr>
<tr>
<td>HOELTER ≤200</td>
</tr>
<tr>
<td>NFI ≥0.9</td>
</tr>
</tbody>
</table>

Source: Processed Data, 2020

It can be seen from the table above that all the criteria for goodness of fit have been reached, and therefore no modification of the model is needed and the model is declared fit.
### 4. Result

**Hypothesis 1: Attractiveness increases expectations of character development**

Based on the table above, it can be seen that hypothesis 1 has a P value of 0.00, which is far below the value of 0.05. Therefore it can be concluded that hypothesis 1 is accepted. Some relevant studies show some similar terms in character development. Expectations shown by gamers and hopes can show someone's loyalty in playing online games. Expectations to increase game levels show their conceptual differences that have been identified as antecedents to online game loyalty. Expectations regarding the attractiveness of these online games have a unique focus on the level of the game so that they can have an increase in character growth.

**Hypothesis 2: The appeal of making dependency on Online Mobile Games**

Based on the table above, it can be seen that hypothesis 2 has a P value of 0.001 which is still below the value of 0.05. Therefore it can be concluded that hypothesis 2 is accepted. Addiction to online games is a behavior of someone who really likes to play online games continuously and spend a lot of time. The positive impact of online game players who play 18 hours per week (an average of 2.5 hours/day) has good coordination between hands and eyes equivalent to the ability of an athlete (Gaga, 2010). True online game players have a high concentration of power that allows individuals to be able to complete several tasks with faster eye sharpness. Gaga (2010) also mentioned that by playing action games regularly, gamers have faster eye acuity than individuals who are not accustomed to playing games. The activity of playing this game can improve brain performance and stimulate the brain to receive information. Stimulus related to the body's reaction speed or language can quickly produce positive results because it is done without coercion but with the pleasure of the individual.

**Hypothesis 3: The dependence of the Online Mobile Game will increase expectations of character development**

Based on the above table, it can be seen that hypothesis 3 has a P value of 0.04 which is still below the value of 0.05. Therefore it can be concluded that hypothesis 3 is accepted. Someone who has a dependency on online games is caused by the choice of various or varied types of games. Online games provide various types (genres) of games. In addition, online games are also presented with interesting audio and visuals even for certain games, the characters that appear can be seen as real and lively. The development of characters shown in playing online games can increase the duration of time spent playing Online Games. Subjective experiences are reported by individuals as a result of attachment to playing Online games. Changes in mood can also be a feeling of calm associated with running away or there are changes that are negative, including depressed and easily offended. In addition interpersonal conflict resulting from excessive online gaming activities has become a problem in other activities such as school, work and socialization. Problems can arise in every individual such as loss of control.

**Hypothesis 4: Addiction to online mobile games will increase the loyalty of online mobile games**

Based on the table above, it can be seen that hypothesis 4 has a P value of 0.01. Therefore it can be concluded that hypothesis 4 is accepted. Online Games loyalty can be described by characters who make repeated purchases and use these goods or

<table>
<thead>
<tr>
<th>Source: Processed Data, 2020</th>
</tr>
</thead>
</table>

### Table 2 Hypothesis Result

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td>Attraction</td>
<td>0.712</td>
<td>0.603</td>
<td>0.605</td>
<td>0.00</td>
</tr>
<tr>
<td>Attraction</td>
<td>1.392</td>
<td>0.634</td>
<td>0.527</td>
<td>0.00</td>
</tr>
<tr>
<td>Addiction</td>
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<td>0.503</td>
<td>0.243</td>
<td>0.04</td>
</tr>
<tr>
<td>Addiction</td>
<td>0.762</td>
<td>0.648</td>
<td>0.447</td>
<td>0.01</td>
</tr>
<tr>
<td>Addiction</td>
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<td>0.590</td>
<td>0.361</td>
<td>0.00</td>
</tr>
<tr>
<td>Loyalty</td>
<td>1.082</td>
<td>0.412</td>
<td>0.650</td>
<td>0.00</td>
</tr>
</tbody>
</table>
services consistently in the future and have a tendency to play certain games continuously and find it difficult to move to other games. Loyalty online gamers have a variety of related sources socially, including community involvement is important in deciding on a spending game, justifying the use of commitments for virtual communities. Hypothesis Analysis 5: Addiction to online mobile games will increase the desire to buy in game applications

Based on the table above, it can be seen that hypothesis 5 has a P value of 0.00. Therefore it can be concluded that hypothesis 5 is accepted. The desire to purchase is a stage where consumers want to buy or not to the product. Where there are various factors that influence in making a purchase of a product or service that consumers usually consider the quality, price and products that are already known by the public. Someone’s dependence on online games will make someone to decide whether they will buy the item or not based on a number of considerations, among other individuals who have a certain item purchase initiative or who have a need or desire but do not have the authority to do it themselves, influencing the decision to buy either independently intentionally or unintentionally, and enjoy or use the products or services purchased.

Hypothesis Analysis 6: Loyalty with mobile online games will increase the desire to buy in game applications

Based on the table above, it can be seen that hypothesis 6 has a P value of 0.00. Therefore it can be concluded that hypothesis 6 is accepted. The desire to buy is part of the behavioral component in the consuming attitude. A product is said to have been consumed by consumers if the product has been decided by consumers to be purchased. The decision to buy is influenced by the value of the product being evaluated. If the perceived benefits outweigh the sacrifice to get it, then the drive to buy it is higher. Conversely, if the benefits are smaller than the sacrifice, usually the buyer will refuse to buy and generally switch to evaluating other similar products. In most people, consumer buying behavior is often preceded and influenced by many stimuli from outside themselves, both in the form of marketing stimuli and stimuli from their environment. The stimulation is then processed in accordance with his personal characteristics, before the purchase decision is finally taken.

5. Discussion

Modification of the model that all existing goodness of fit criteria can be met. Modification of the model is based on the advice given by Lisrel and can be seen in the table of covariance and regression modification indices. Modifications are made by looking at how much change will occur (Santoso, 2015). The column that shows the change is column M.I, then the modification is based on the largest number indicated by the column. The largest number shown by the M.I column is two-way relationship, so the model modification done by adding a covariance line to the two indicators. After the modification’s done, the criteria for goodness of fit are reviewed again.

It can be seen that all the criteria for goodness of fit have been fulfilled by making only one modification of the model. After this a discussion of each of the goodness of fit criteria will be discussed. The first criterion is chi square. The purpose of testing using chi square is to determine whether the sample covariance matrix differs significantly from the estimated covariance matrix (Santoso, 2015). From this table it can be seen that the chi square value that must be met is ≤41,337, from the modification of the model, the chi square value of 30.452 is obtained. It can be concluded that the sample covariance matrix does not differ from the estimated covariance matrix (Santoso, 2015).

The second criterion is probability. Probability has a limit of > 0.05 and the existing model produces a probability value of 0.342. Therefore, the probability criteria for the model fit with existing data. The third criterion is CMIN / df. The CMIN / DF value must be positive and state that the model is overidentified. The existing model has positive CMIN / DF value; therefore the CMIN / DF criterion model is compatible with existing data.
The fourth criterion is RMSEA (Root Mean Square Error of Approximation). A model declared fit with existing data if it has an RMSEA value below 1. The existing model produces an RMSEA value of 0.026, which is far below 1. Therefore, for the RMSEA criteria the model is declared fit with the existing data. The fifth and sixth criteria are the GFI (Goodness of Fit Index) and AGFI (Adjusted Goodness of Fit Index). Theoretically, GFI and AGFI figures range from 0 to 1 (Santoso, 2015). The seventh criterion is the RMR (Root Mean Residual), the smaller the RMR results will certainly be better, which indicates the closer numbers in the sample to its estimation (Santoso, 2015). The RMR criterion used was ≤0.08 and the existing model produced an RMR value of 0.018. Therefore, for the RMR criteria the model is stated to be fit with the available data. The eighth criterion is TLI (Tucker Lewis Index). The ninth criterion is HOETLER. HOETLER is a test tool that looks at the adequacy of the sample size compared to the fit model (Santoso, 2015). A HOETLER number below 200 shows that the model is compatible with the data. The model that is owned has a HOETLER value of 176 <200, therefore it is compatible with existing data. The tenth or final criterion is the NFI (Normed Fit Index). NFI has a range of values between 0 to 1; but in general, values above 0.9 indicate the model is compatible with the data. The model has a value of 0.921, therefore the model is stated to be fit with the available data.

6. Conclusion

Based on data processing that has been done before, then conclusions can be drawn, including: Attractiveness increases expectations of character development, Attractiveness makes dependency on Mobile Online Games, Dependence of Online Mobile Games increases expectations on character development, Dependence of online mobile games increases game loyalty mobile online, The dependence of mobile online games increases the desire to buy in-game applications, and Fidelity to mobile online games increases the desire to buy in-game applications.

To increase consumer purchase intentions, online game companies should focus on clarifying the flow experience in playing online games for consumers, by adding new modes and features of online games, creating challenges in games that are of interest to consumers. In addition to increasing the Intention to play online consumer games. Online games companies should be even more active in promoting social media about online games more broadly so that they can influence the mindset of consumers.

In this study, researchers realized that there were still limitations experienced in the study. For this reason, academics who use the results of this study as scientific studies and practitioners who use the results of this research as a basis for decision making are expected to pay attention to the limitations of researchers in this research, namely:

1. There is no previous research that discusses about how long the normal time required to play games in a day so this slows the research process.
2. Time in research is also limited, so it is hoped that this research should be conducted in a relatively long time so that field data can be collected more deeply.
3. The tendency to play games addiction can also be negative which means that the longer playing games then the less the tendency of a person to loyal to the games.

References
EMPOWERMENT STRATEGY ON MICRO, SMALL, AND MEDIUM ENTERPRISES (MSME) IMPLEMENTED BY BRI MICROFINANCE CENTER (BMC) DURING COVID-19 PANDEMIC
Dhayita Tanaya ¹; Fandis Ekyawan ²

Abstract
Purpose: This paper presents a case study to understand the empowerment strategy of Indonesian MSMEs implemented by the BRI Microfinance Center (BMC), a research institution under the BRI Group as the leader of microfinance in Indonesia, especially during Covid-19 pandemic.

Methodology: Qualitative research approach by in-depth interviews on the BMC team and literature studies on supporting documents, this paper will delve into the strategy used by BMC to conduct the empowerment activities to increase the productivity of Indonesian MSMEs to be able to survive.

Findings: Many MSMEs are impacted by Covid-19 pandemic in Indonesia, especially the ones who hasn’t fully adapted to the industrial revolution 4.0. As a result, they are forced to change their culture into Internet of Things (IoT), which open another options for BMC to enter and empower them with their main empowerment application.

Originality/value: The result presented in this paper has important points to deeply understand the MSME empowerment strategy in Indonesia implemented by BMC and to provide recommendations for the future development on the MSMEs. This paper will also complete other similar researches regarding the studies on empowerment strategy to enhance the MSME’s competitiveness in Indonesia.

Keywords: MSME empowerment; microfinance; BRI Microfinance Center; Covid-19 pandemic.

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CONSUMER BEHAVIOR BEFORE, DURING AND AFTER AT THE TIME COVID-19: AN APPLICATION TO GEORGIA
Giorgi Devrisashvili 1; Ana Pinto Borges 2

Abstract
Purpose: The main purpose of this research is to evaluate the possible changes in the consumption patterns and the attitude towards the lockdown caused by Covid-19 in Georgia. According to the governmental statistics, there have been 723 confirmed cases of Covid-19, 12 fatalities and 495 persons are shown as recovered by 22nd of May 2020 (Government of Georgia, 2020). However, despite the relatively few confirmed cases of Coronavirus in Georgia, there has been extreme precaution measures implemented by the government to stop the outbreak. The state of emergency has been declared on 21st of March and lasted for 2 months. All stores, except grocery and pharmacy, have to close. Amid global economic crisis, which turned out to be not only a financial crisis, but also one of capitalism, the new consumer behaviour has encountered a series of changes. Consumers became more economical, more responsible and more demanding (Voineia & Filip, 2011). Therefore, we may expect profound changes in consumer behaviour post-COVID-19 pandemic. Because of the importance of these expected changes, we have decided to analyse consumer behaviour during the current lockdown and make assumptions about future trends.

Methodology: Among the quantitative research methods, customers were surveyed through an online survey. The questionnaire was disseminated mainly in social media and through e-mail. The quantitative research methodology was selected to focus on the consumer’s behaviour in different market segments and compare which segments have been affected by the Covid-19 pandemic the most. We could use the received data for statistical analysis to have an idea for future trends in consumer behaviour.

Originality/value: Since the pandemic is very recent and still ongoing, there are no researches done in Georgia on consumer behaviour. We believe that our findings and results of the survey will help marketers and managers to analyse the changes in consumer behaviour and adapt the marketing strategies so that they can meet customers’ new or changed needs and values.

Findings: The preliminary results indicate that most respondents have increased the frequency of the online shopping during the lockdown, and more than half think that they are more likely to shop online frequently in the future. Food/meal and grocery were types of products/services, that had a significant increase in online shopping at the time of the pandemic. For the majority of the respondents, health safety measures had no or little importance in shopping online prior to the lockdown, however, after the lockdown, the respondents think that it has become a very important factor.

References

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2 ISAG – European Business School and Research Group of ISAG (NIDISAG), Research Centre in Organizations, Markets and Industrial Management (COMEGI). E-mail: anaborges@isag.pt
Keywords: Consumer Behaviour; Covid-19 impact; Online Shopping.