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**THE FEASIBILITY OF GAMIFIED MARKETING
FOR ORGANIZATIONS AND CONSUMERS**

Dissertation work to obtain the Master's degree in Business
Management

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Declaração de Honra

Eu, Ivo Manuel Fonseca Morais Rodrigues abaixo assinado, aluno do mestrado em Gestão de Empresas do ISAG – Instituto Superior de Administração e Gestão, com o n.º 191260017, declaro por minha honra que esta Dissertação com o tema - *The Feasibility of Gamified Marketing for Organizations and Consumers* - respeita os direitos de autor e não contém qualquer plágio.

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ABSTRACT

Gamification is a tool that has been receiving supporters from various areas. One of these areas is marketing, where the stake on gamified marketing actions has been growing exponentially.

However, despite the growing interest on the subject, most of the available studies derived from academic samples which are focused on the user/ consumer perspective. Although there are studies that address the consumer perspective complemented by the organizational perspective, only few studies observe the viability of gamified marketing in more than one area of activity.

This dissertation is based on the realization of two academic studies developed around the gamified marketing aspects experienced by companies and consumers. The perspective of consumers is based on a quantitative analysis, and complemented by the organizational perspective, based on qualitative data.

From the results, it appears that most organizations already have basic knowledge to apply gamified marketing strategies, which are classified by most consumers as fun tool to establish contact with brands. Regarding to applicability in the Portuguese market, the primary objective of organizations (direct sales) does not always coincide with consumers (involvement). However, most of the observed experiences are classified as positive, supporting the deepening of the theme.

From this dissertation, it was possible to conclude that the adoption of a gamified marketing strategy can represent a certain degree of risk for organizations, however, its strong acceptance by the public can result in significant gains in engagement and brand attitude.

Key Words: Marketing; Gamification; Engagement; Co-creation; Management

RESUMO

A gamificação é uma ferramenta recente que tem vindo a receber adeptos das mais diversas áreas. Uma dessas áreas é o marketing, onde a aposta em ações de marketing gamificado tem crescido exponencialmente.

Contudo, apesar do crescente interesse sobre o tema, muitos dos estudos realizados focam-se maioritariamente numa amostra exclusivamente académica e que ausculta apenas a perspetiva do utilizador/ consumidor. Pese embora, existam estudos que abordam a perspetiva do consumidor complementada pela perspetiva organizacional, são escassos os estudos que observam a viabilidade do marketing gamificado em mais do que uma área de atuação.

A presente dissertação, baseou-se na realização de dois estudos académicos desenvolvidos em torno das vertentes de marketing gamificado experienciadas por empresas e consumidores. A perspetiva dos consumidores foi fundamentada através da análise quantitativa, sendo complementada pela perspetiva organizacional, fundamentada através de dados qualitativos.

Dos resultados, retira-se que a maioria das organizações já detém conhecimentos básicos para aplicar estratégias de marketing gamificado, sendo estas classificadas pelos consumidores como ferramentas divertidas de contacto com as marcas. No que respeita a aplicabilidade no mercado português, o objetivo primordial das organizações (venda direta) nem sempre coincide com o dos consumidores (envolvimento). Contudo, a maioria das experiências observadas são classificadas como positivas, suportando o aprofundamento do tema.

A partir desta dissertação, foi possível concluir que a adoção de uma estratégia de marketing gamificado pode representar um determinado grau de risco para as organizações, no entanto, a sua forte aceitação pelo público pode resultar em ganhos significativos de engagement e brand attitude.

Palavras-chave: Marketing; Gamificação; Customer Engagement; Co-criação; Gestão

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LIST OF ACRONYMS

TAM – Technological Acceptance Model

PU – Perceived Usefulness

PEU – Perceived Ease of Use

PE – Perceived Enjoyment

IOE – Intention of Engagement

GP – Gamification Performance

BA – Brand Attitude

PM – Player Motivations

PSI – Perceived Social Influence

PSI – Perceived Social Influence

KMO – Kaiser-Meyer-Olkin

KS – Kolmogorov-Smirnov

GDP – Gross Domestic Product

ROI – Return Over Investment

SME – Small and Medium Enterprise

KPI – Key Performance Indicator

HR – Human Resources

MKT – Marketing

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CHAPTER 1 - INTRODUCTION

This dissertation has its genesis in the interest developed by the author in the area of marketing and the new tools and currents of thought that have been developed in order to help companies to communicate better with their customers, but also allowing an upward communication in the light of the reality currently felt by organizations and their audiences.

1.1. Statement of the Problem

Since marketing is not static and, therefore, adapts to the needs and realities of the moment, it has been changing its definition since its inception. With its beginnings dating back to 1920, the definition that at the time reached the greatest consensus was that marketing consisted of “the distribution of goods and the process of buying and selling, encompassing all the processes of transformation, storage, weighing, classification, purchase and sale” (Duncan, 1920).

This definition has been changed subsequently to the present day, where the definition with greatest consensus seems to gather is presented by American Marketing Association (2017) and describes marketing as an “Activity made up of organizations and processes, oriented towards the creation, communication, delivery and exchange of offers that have value for consumers, customers, partners and society in general”.

In its conceptual evolution, marketing has also undergone a change in its focus. Initially in "marketing 1.0" the focus of work was centered on the product. With the emergence of "marketing 2.0" this focus was directed to the consumer, being replaced by humanity and social responsibility in "marketing 3.0". This in turn gave rise to "marketing 4.0" which focuses on the transition from traditional to digital marketing where the consumer also has control over the process (Gdańska et al., 2017; Kotler et al., 2019).

As a result of the evolution of time, marketing started to have the need to anticipate the desires and opinions of consumers, therefore, it started to need to study more carefully the interaction developed between companies and their consumers (Hao, 2020; Harmeling et al., 2017).

It is also at this stage that, together with the technological boom, we are witnessing the emergence of new tools for the interaction of brands with consumers, which can highlight social networks (Facebook; YouTube; Instagram; etc.); digital

messaging platforms (WhatsApp; Messenger; etc.); digital satisfaction surveys; Live chats and Chatbots, among other engagement platforms (Kotler et al., 2019; Studen & Tiberius, 2020; Vassileva, 2017).

Although there is no consensus on the subject, some literature points to the emergence of the word “engagement” in the 90's, being used to describe a questionnaire tool (*Gallup's engagement questionnaire*) (Buckingham & Coffman, 1999). There are multiple approaches to the term as well as its meaning. In this sense, the view of academic researchers does not always meet the view of marketers (Bowden, 2009; Luthans & Peterson, 2002; Macey & Schneider, 2008; Truss et al., 2014).

In an effort to converge on a current and widely accepted meaning, we note that the online dictionary Merriam-Webster (2021) presents a more holistic definition “An act of emotional involvement or commitment”, with a more business oriented aspect. The online dictionary of the Cambridge University (2021) propose “the process of encouraging individuals to take an interest in the work of the organization”.

One of the reasons that may contribute to the lack of congruence in accepting a common definition of engagement is the very ambivalence of the theme and the fact that it is too extensive. Therefore, in this work we guide our study towards customer engagement (Bowden, 2009), which has become increasingly popular in academic literature, but also with companies (Harmeling et al., 2017).

Customer engagement is defined as a behavioral manifestation of the consumer towards the brand that goes beyond the monetary transaction (Verhoef et al., 2010).

In line with the previously indicated, organizations pay more and more attention to the relationship they develop with their consumers in addition to the purchase of their products.

This can often be seen in the after-sales support services (such as additional guarantees, satisfaction surveys, training in the purchased product) but also in the experience of purchasing a product (Nobre et al., 2017).

This additional concern of brands arises after the perception of the influence that customer engagement has on the individual's motivation to value, trust, promote and buy the brand and not just a product (Bowden, 2009; Thakur, 2019; Vivek et al., 2012).

It is through the observation of the influence that customer engagement represents on consumer motivation that we develop the connection with gamification. This term presented by Nick Pelling in 2002 (Pelling, 2010) has also been changing its

definition over time, however, the literature points to a convergence in the definition presented by Deterding (2011) that justifies gamification as “*The use of game design elements in nongame contexts*”.

Although the term “gamification” is close to 20 years old, it was only in 2010 that the first academic articles referencing the term began to emerge, and it was also at this point that we began to verify some organizations working on the concept of gamification, initially with their employees and in a more advanced stage with your target audience (Alsawaier, 2019).

At the initial phase, organizations tend to resort to gamification in order to promote the satisfaction and motivation of their human resources, looking for an increase in productivity through “games” (Silic et al., 2020). This approach to gamification has enabled many companies to prove the power that gamification can have in motivating individuals, particularly their employees (Wozniak, 2020).

According to Zichermann and Cunningham (2011), individuals born between 1990 and 2010, the so-called “Generation Z”, demonstrate the greatest desire to use the internet and connect with other people.

Additionally, these individuals present an average of 16 hours per week spent in activities that are somehow related to games (Mills et al., 2018).

Indicators such as those mentioned above have not been ignored by organizations, which has led to a greater focus on the binomial developed between gamification and marketing, thus seeking to take advantage of the interaction and motivation skills of games, combining them with companies' marketing strategies (Hofacker et al., 2016).

An indicator on this stake is a 10% increase per year on the value of investment in Gamified marketing, leading Market and Markets (2020) to predict that the value of this stake will reach US \$ 30 billion in the year 2025 (Jami Pour et al., 2020). That said, what is the 4P's aspect of marketing in which gamification can play a differentiating role? Observing the doctrine transmitted by Philip Kotler (2016), these 4P's nowadays have become 4C's and gamification can be the board where co-creation; currency; communal activation and conversation can be “played”.

These 4 C's are presented as the pillars of “marketing 4.0”, where the consumer becomes interconnected with all his peers, which represents opportunities and challenges, not only for organizations, but also for their audiences (Kotler et al., 2019).

Nowadays, a bad experience is no longer an isolated event contained in a client, and it can be scaled to third parties given the possibilities offered by new technologies and social networks. However, these same tools can be powerful allies for an organization when worked properly (Vassileva, 2017). The promotion of products is giving way to a bilateral conversation between consumers and organization, the offices where these conversations could take place are slowly being dematerialized and replaced by social networks (Asle Fagerstrøm et al., 2020).

It is expected that gamified marketing, in these cases, will be able to act as a mechanism capable of combating the loss of visibility and the increase of competition, maintaining and fostering consumer engagement with the brand. These strategies are already visible on some digital platforms where organizations resort to the attribution of points, badges and rewards in order to keep their users active and interested in the content of their brands (Huotari & Hamari, 2017; Jin et al., 2016; Nobre & Ferreira, 2017).

However, the literature points to the fact that consumers do not look for just a channel where they can be heard and relate to brands. The current consumer has a need to get involved and participate in the creation process, it is in this aspect that the connection between gamification and co-creation arises (Kotler et al., 2019; Nobre & Ferreira, 2017).

For Kotler (2019), the process of involving the consumer in product development tends to increase the success rate of the product. By involving the consumer in the development, the possibility arises for the customer to be able to customize and personalize the item or service, thus increasing their connection with it. However, we found that the level of consumer involvement may vary depending on the strategy, size and resources of the organization (Ungerman et al., 2018).

When analyzing the example of Lego, we find that the concept of co-creation is something that has been explored by the brand for some time, having created a range of products dedicated to this purpose, "Lego Ideas" (Schlagwein et al., 2014). Any individual can contribute to this range of products, submitting constructions of his own and if he obtains sufficient approval from the Lego community, his idea will be transformed into a branded product, leading to its commercialization (Fagerstrøm, et al., 2020).

Observing the theme of co-creation from a different perspective, it is possible to see the implementation of the binomial between gamification and co-creation in Japan. The

Yamaha Motor Company developed the “MyGarage” application that allows users to build their favorite motorcycle in a gamified environment (Yamaha Motor, 2020).

Consequently, allowing the brand to develop the motorcycle according to the customer's specifications and thus ensure that the vehicle it delivers to the consumer obeys all their wishes and expectations.

In this way the brand seeks to be able to approach a wider audience, reaching not only those who have immediate purchasing power to purchase their products (Bendheim et al., 2020; Nobre & Ferreira, 2017; Patrício et al., 2018).

Although we can understand the factors that motivate the emergence of gamified marketing, the existing literature continues to present a space for further study and observing some of the gaps presented by it (Hamari et al., 2014; Nobre & Ferreira, 2017; Vassileva, 2017; Yang et al., 2017a), we come to the following questions: Is gamified marketing a viable tool in the market? Who can benefit from it, are the organizations prepared and what is the opinion of the different stakeholders?

1.2. Unit of Analysis and Research Themes

According to the subject of this dissertation, assessing the viability of gamified marketing is the main focus of the study.

However, having obtained theoretical knowledge about “marketing”, “gamification”, “co-creation” and “customer engagement”. This dissertation seeks to provide a better understanding of the applicability of gamified marketing, observing not only the perspective of organizations, but also that of consumers, thus converging on a 360° view of the advantages and challenges that the tool can offer.

In the elaboration of this dissertation, it was intended to combine academic knowledge with what is practiced in the market, thus aiming to enrich the theme through cases with real challenges and opportunities. This path led to the elaboration of two chapters (chapter 2 and chapter 3).

Thus, chapter 2 of this dissertation pursued to listen to the viability of using gamified applications as tools for engagement and brand attitude, observing the relationships that the users of these applications developed with the brands. This perspective is enriched by chapter 3, where we listen to the point of view of organizations around gamified marketing in order to understand the gains and threats detected by them.

In short, this approach (Figure 1) seeks to consolidate different points of observation, in order to demonstrate the validity that gamified marketing can play in the experience of all stakeholders. Contributing with valuable guidance for future projects or research related to the topic.

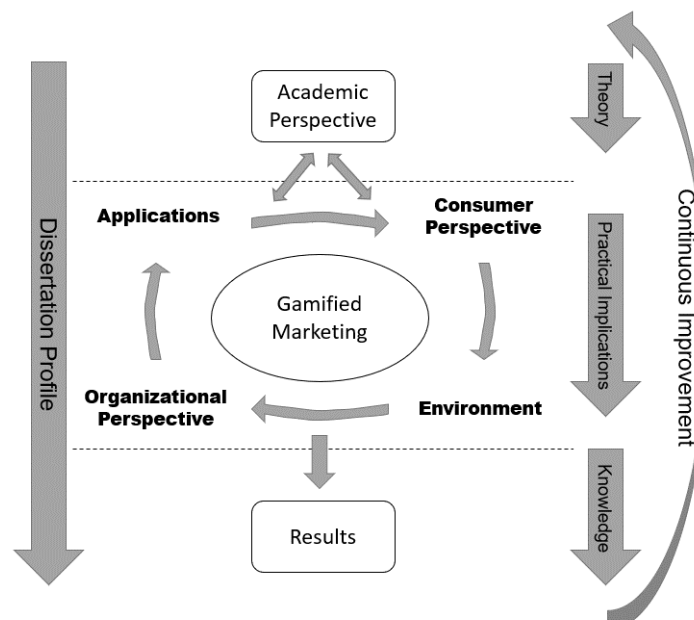


Figure 1: Dissertation Profile

Source: Self elaboration

1.3. Methodology

The scientific methodology applied throughout this dissertation is visible in subsection 1.3.1, with the specific structure and methodology of each chapter presented in subsection 1.3.2.

1.3.1. Scientific method

With regard to scientific research in the marketing area, according to Green (2005) discussions normally take place in an alternation between theory and practice. The scientific thinking present in these discussions can be presented as inductive, deductive and abductive (Arthur, 1994; Fann, 1970; Heit, 2010; Johnson-Laird, 1999; Nandasena et al., 2018; Shani et al., 2020; Williams, 1995). These three types of reasoning vary in the way they observe a reality and draw conclusions about it.

Inductive thinking arises through Francis Bacon (1620), consisting of reasoning worked on the basis of a probability element, in other words, the deduction results from a generalized conclusion supported by particular observations, thus developing a theory about the event (Arthur, 1994; Heit, 2010). This type of reasoning seeks to achieve an alternative to deductive thinking, which, contrary to inductive thinking, uses logic as the reasoning engine, so the conclusion is formed based on the generalized observation of the facts, thus testing an existing theory (Blachowicz, 2009; Johnson-Laird, 1999).

Last but not least, we observe abductive thinking, which, according to Charles Peirce, in 1903, mirrors the formation of the conclusion based on known information, thus consisting of the investigation of the observable, elaborating theories capable of justifying the event (Fann, 1970; Kapitan, 1992).

This type of (abductive) reasoning has been attracting supporters especially in experiences that lead to collaboration between companies and academics (Shani et al., 2020).

Taking into account the etymology of the words, we can also understand the form and direction in which the reasoning is processed (Andersen, 1973). According to Merriam-Webster (2021) the prefix used in each of the types of thinking, can also serve as a clue to the way they describe reasoning.

Starting from a Latin base, the prefix "in" is related to the term "go to" (particular-> general), in the case of the prefix "de" the meaning is precisely the opposite "come from" (general-> particular), finally, the prefix "ab" derives from the term "away" (Merriam Webster, 2020).

The elaboration of this dissertation followed a deductive reasoning process, based on the observation of the general theory as a reference base, supporting the convergence in particular case studies.

1.3.2. Approaches in individual chapters

This dissertation is based on the theoretical and practical observation of isolated events where gamified marketing was put into action. Despite the existence of actions where gamification was placed at the service of marketing, little is known about the validity of the concept of gamified marketing (Huotari et al., 2017; Noorbehbahani et al., 2019).

The lack of knowledge on gamification is often pointed out by the literature as the main factor behind the failure of some of the experiences (Mgiba, 2019; Thorpe et al., 2019). However, there are few articles that seek to analyze the perspective of the customer, but also of the company, in order to draw a conclusion about gamified marketing. In this dissertation we seek to ensure not only the academic perspective, but also the practical perspective, and within the practical perspective, listen to the subject not only from the companies' point of view, but also from the consumers point of view.

One of the observable trends in scientific research in the marketing area is the high use of quantitative techniques for conducting tests (Brinberg et al., 1986; Hanson et al., 2007). This type of approach has been pointed out as insufficient for the construction of viable theories (Harrison et al., 2011; Weinreich, 1996). In this sense, this dissertation also focuses on quantitative analysis (chapter 2) from the consumer perspective, complementing the results obtained using qualitative analysis (chapter 3) from the perspective of organizations, thus contributing to scientific knowledge about gamified marketing in a more robust and comprehensive way.

Chapter 2 follows a quantitative approach to gamified marketing from the consumer perspective, using an adaptation of the TAM model to listen to the relationship and engagement developed between consumers and brands through a gamified application (designed by Nike). The adoption of a quantitative methodology in this chapter is related to its disposition to test existing theories (Newman & Benz, 1999) and work out numerical representations statistically in order to mirror a real image of the hypotheses (Larsson, 1993).

Chapter 3 follows a qualitative approach to the perspective of organizations on the topic of gamified marketing as a co-creation tool. Using interviews with marketing managers from different organizations, it was intended to observe the way companies view gamified marketing and to point out the advantages and challenges already experienced by these organizations. The selection of a qualitative methodology in this chapter is consistent with the need to study the consequences and patterns resulting from the adoption of gamified marketing, making it possible to explain the “how” and “why” of the phenomenon, thus admitting a dynamic strategy that is adapted to the reality of the respondent (Minikel-Lacocque, 2019).

1.4. Dissertation Structure

According to what is shown in Figure 2, this dissertation is structured in four distinct chapters.

The first chapter concerns the introduction, followed by chapters 2 and 3 made up of scientific articles, converging in chapter 4 where the conclusions of the dissertation are presented.

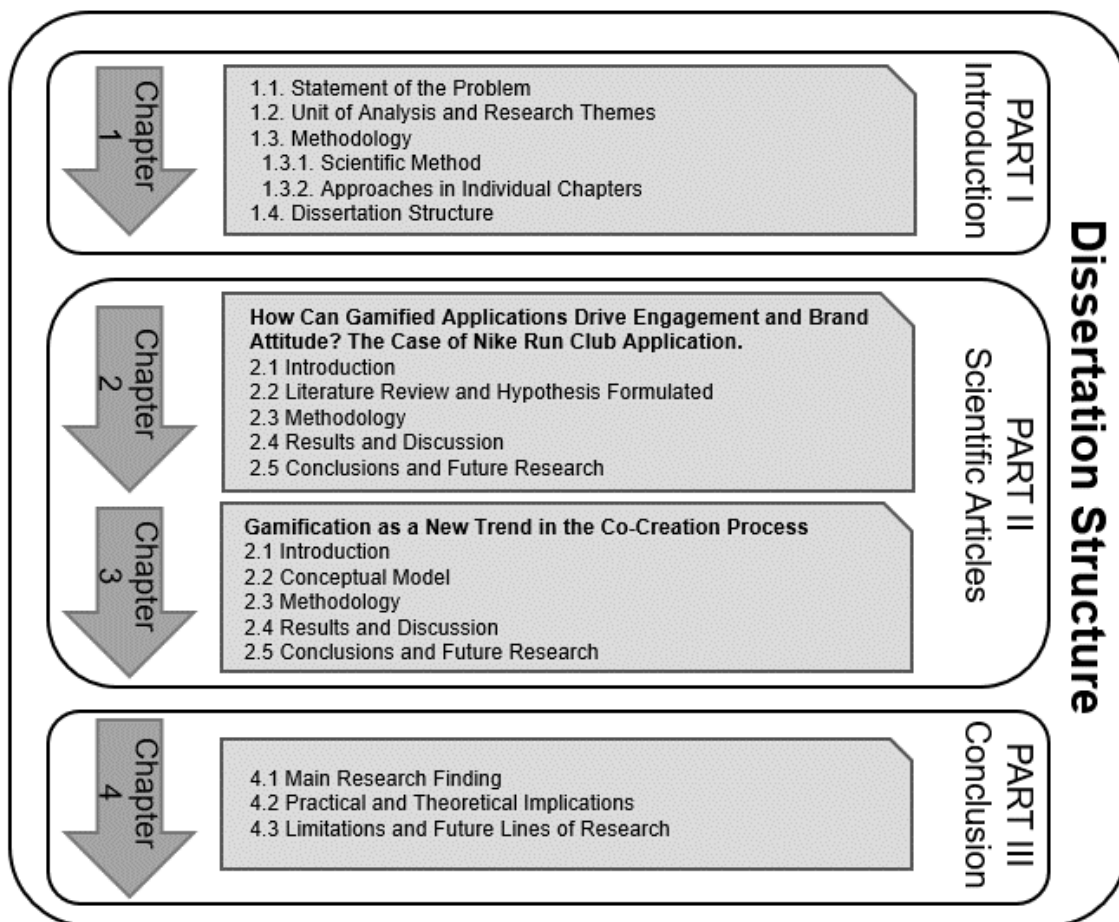


Figure 2: Dissertation Structure

Source: Self elaboration

CHAPTER 2 – HOW CAN GAMIFIED APPLICATIONS DRIVE ENGAGEMENT AND BRAND ATTITUDE? THE CASE OF NIKE RUN CLUB APPLICATION.

Abstract

This research aims to analyze the feasibility of gamified applications as tools to promote engagement and brand attitude, to investigate this theme an adaptation of the Technology Acceptance Model (TAM) was used. The selected methodology is quantitative, supported by factorial analysis, Bartlett's and Kaiser-Meyer-Olkin tests, Kolmogorov-Smirnov test and Pearson and Spearman's correlations. A questionnaire was applied to Portuguese consumers who use the "Nike Run Club" application, from which 203 valid responses were received. In this research we verified the existence of a correlation between perceived usefulness (PU), perceived ease of use (PEU), intention of engagement (IOE) and gamification performance (GP) with brand attitude (BA). On the other hand, it was not possible to establish the same relationship between the player motivations (PM) and perceived social influence (PSI) with the intention of engagement (IOE). The results suggest that although the sample confirms the influence of social circles, it does not impact the intention to interact with the brand. We also found that the higher the IOE is, the greater the impact on BA. This paper provides an adaptation of the TAM model, complemented with two new dimensions (PM and GP). The research contributes to the development and clarification of the literature on the subject under analysis. Additionally, we consider this research as a valid tool for marketers who need to develop gamified engagement strategies.

Keywords: Gamification, Engagement, Companies, Brand Attitude, Marketing, Mobile Apps, Covid-19

2.1. Introduction

According to Kotler (2019) , the 1990s marked a significant change in the way marketing was handled. Marketing strategies started to change their working focus, directing it to the relationship developed between customers and brands. With this change, new campaigns and services dedicated to create and maintain customer-brand engagement emerged (Harmeling et al., 2017).

The traditional marketing processes undergone a transformation shifting the focus on the product (marketing 1.0) towards the deepening of the connection between customer and brand throughout social responsibility and other strategies (marketing 3.0). Nowadays we see greater interest in transition from the traditional marketing to the digital marketing, where the consumer is considered a key part in the development process (marketing 4.0).

Supported by the technological boom felt in the 90's, it was possible to observe a significant investment in new technologies to promote marketing. Internet became a vehicle for communication between brands and customers, but games oriented in this direction also appeared. According to Zichermann & Cunningham (2011) individuals born at this time had an intrinsic predisposition to coexist with a technological environment and interact with each other through it, this interaction can occur through social networks; games; forums; among many others.

Linked with the game side, at the beginning of the 21st century the concept of gamification was introduced, this concept consists on “the use of elements used in the creation of games applied to non-game contexts”(Deterding et al., 2011).

The average activity with games for individuals born between 1990 and 2010 is estimated to be 16 hours a week (Zichermann & Cunningham, 2017). This games ability to capture the attention of individuals for a long period of time was not unnoticed to the marketing strategies of many companies, proof of this is the investment growth on the promotion of “gamified” content, accounting an increase of more than 10% per year, with an expectation to reach \$ 30 billion by 2025 (Alsawaier, 2018; MarketsandMarkets, 2020; Seiffert-Brockmann et al., 2018).

Once the games 'ability to effectively retain the players' attention is validated, it becomes interesting to associate this context with the theme of customer engagement to a digital component. Therefore, it is necessary to prove whether the combination of the two translates into a gain in brand attitude (Alsawaier, 2018; Kamboj et al., 2020).

Nowadays, with the emergence of the Covid pandemic¹⁹, many brands lost one of their main pillars in customer interaction, the physical contact. The direct contact that many establishments provided is no longer possible, and much of the promotion marketing carried out in these physical spaces dropped significantly their importance. (Fonseca & Azevedo, 2020; Jiang & Wen, 2020).

Many companies are already promoting some kind of engagement with stakeholders in a digital aspect, however, with the difficulties imposed presently, the importance of maintaining and increasing this type of relationship has been increasing, as companies do not act as closed systems. Consequently, companies recognize the need to have a relationship with the entire community that surrounds them (M. Greenwood, 2007; Karpen & Conduit, 2020; Yang et al., 2017b).

Engagement can be defined as the practices that an organization develops to positively involve stakeholders with the company's activities (Bowden, 2009). Thus, marketing recognizes that engagement is a concept too broad to be studied with reliability, it is necessary to observe its subclasses and identify the aspects that best corresponds to the object of study.

In this research, this aspect is “customer engagement” (Hollebeek et al., 2014), since one of the objectives is to observe a sample of individuals who have already performed some type of digital interaction with a brand, or may eventually do (Yang et al., 2017b).

Being widely known that customer engagement contributes positively to the success of marketing activities (Moliner et al., 2018), it seems that, in its digital aspect, there is literature that points out the need for further research on the reliability and how it should be developed (Moliner et al., 2018; Thakur, 2019).

The same can be said about gamification, with its advantages supported by some literature (Alsawaier, 2018; Hamari et al., 2014; Huseynov & Dhahak, 2020), a research space continues to exist when the need arises to validate whether the use of gamified applications as tools for engagement and brand attitude effectively represents a gain for organizations and consumers (Kamboj et al., 2020).

The literature revealed already some work done in order to answer to the aforementioned questions. Yang (2017), sought to prove the legitimacy of gamification as a digital engagement tool, having managed to establish a positive correlation between perceived enjoyment and perceived usefulness with engagement and brand attitude,

however failing to establish the same correlation between social influence and perceived ease of use.

Huseynoy & Dhahak (2020), also refer to the use of TAM model to quantify the influence that gamification can have on the attitude and purchase intention of digital consumers, and managed to establish that social influence, perceived usefulness and perceived enjoyment actively influence brand attitude and engagement.

Much of the literature available on this topic predates the events of 2020, namely the Covid-19 pandemic. The reality and challenges presented by the emergence of the new virus, especially the need for isolation and reduction of physical contact, led to a reinforcement in the need for organizations to explore digital solutions to relate with their consumers. Thus, strengthening the importance to find viable solutions for engagement and brand attitude (Karpen & Conduit, 2020).

When discerning the literature, an opportunity arises to deepen the scientific discussion regarding the viability and applicability of the concept of gamified engagement and brand attitude in markets similar to the Portuguese one.

In this sense, this research aims to prove the reliability of gamified applications as tools of engagement and brand attitude, using a quantitative analysis, supported by an adaptation of the TAM model applied to the observation of user's experience using a gamified digital application (Nike Run Club) in the Portuguese territory.

The paper is organized as the follows: Part 1 gives an introduction to the theme; Part 2 presents the literature review and the formulation of hypothesis. The third part introduces the work methodology where it is possible to verify the structure of the questionnaire and description of the sample; Part 4 exhibits the results and discussion of them; and finally. Finally, part 5, presents the conclusions, limitations of the research and future lines of investigation.

2.2. Literature Review and Formulated Hypothesis

Currently, there are some articles that associate gamification with the connection that customers develop with companies. However, most of the authors point out the existence of a void which acknowledges a need of further research. Usually, the sample is observed in cultural contexts different from the Portuguese market (A. Chen et al., 2016; Kuo & Chuang, 2016).

The existence of such void in the existing knowledge about gamification combined with engagement and brand attitude, points to a literature gap, which leads to the following initial question: “Through an adaptation of the TAM model, were we able to prove that gamification on digital platforms represents a valid tool for users and organizations, capable of promoting engagement with the Portuguese consumer and directly affecting the brand attitude?”

2.2.1. Technology Acceptance Model

The emergence of the Technology Acceptance Model (TAM) results from the necessity to prove or predict a possible degree of user acceptance when faced with a new or existing technology (Davis, 1989).

To this purpose, the author uses the dimensions of "perceived ease-of-use" and "perceived usefulness" to obtain a clear image of the user's intention to develop a relationship with the technology in question (Deterding et al., 2011).

The “perceived ease-of-use” (PEU) allows to listen to the initial acceptance and continued use of a certain technology (Davis, 1989), and denotes a critical factor in the adoption process (Fuchs, 2014). This aspect is still studied today, helping to understand the factors that lead the user to accept a new technology (Mutambara & Bayaga, 2020).

“Perceived usefulness” (PU) is identified as the most important aspect in the TAM model since it acts as the main indicator of the user's intention to use a new technology (Davis, 1989), reflecting the degree of utility that the new technology represents for the user in his own view.

The latest research indicates that both “perceived usefulness” and “perceived ease-of-use” play a mediating role that influences not only the consumer's intention to use the technology, but also impacts its behavior before and after its use (Deterding et al., 2011).

The use of the TAM model investigates the adoption of new technologies, and has been applied to diverse sectors, such as; financial (Zhou et al., 2018); tourism (Peng et al., 2012); Education (Sharma & Pal, 2020); Health (Djamasbi et al., 2009) and manufacturing (Hernandez et al., 2008). Therefore, proving the versatility of the tool and its high adaptability (Hassan et al., 2019).

2.2.2. Gamification as a tool for Engagement and Brand Attitude

Investigating gamification without addressing motivation and engagement is increasingly complicated, since these concepts are interconnected and progressively developed (Alsawaier, 2018).

On the other hand, the relationship developed between gamification and brand attitude has its study in a more embryonic stage. This does not mean that the impact of gamification on brand attitude is a recent subject, but, that it is being studied as a topic more recently (Huseynov & Dhahak, 2020).

The year that many points out as the first time the term gamification was used is 2002 during a presentation conducted by Nick Pelling on a theme related to computer software (Mora et al., 2015). Gamification was later defined by Deterding (2011) as the use of game mechanics and tools in non-game contexts.

When gamification is used in commercial contexts, it usually aims to afford more fun to the consumer experience and contribute directly and indirectly to the marketing of a product, but also playing a facilitating role aiming customers loyalty (Huotari & Hamari, 2017).

In the interaction with the user, the organization that created the gamified tool employs several strategies and elements such as the “PBL Triade” (points; badges and leaderboards) (Werbach & Hunter, 2015); “Intrinsic Motivation and Flow” (Rheinberg & Engeser, 2018) and Player segmentation (Bovermann & Bastiaens, 2020). Consequently, it seeks to develop an experience that can contribute to the user's engagement with the brand.

When examining the available literature on engagement, we found that the term has a wide scope, as such, it is necessary to deepen the research into a more specific aspect of customer engagement (Kotler et al., 2019). Therefore, looking for a clearer image about the relationship developed between the consumer and the brand (Thakur, 2019).

Customer engagement can be defined as how brands connect with consumers, at a given time or over long-term relationships (Lee et al., 2017; Paul & Bhakar, 2018; Vivek et al., 2012). This is not only oriented to the physical and face-to-face interactions that are facing a disruption trend, but, increasingly oriented towards the adoption of digital tools disregarding face-to-face and equipped with artificial intelligence. (L. Chen & Aklikokou, 2020; Normalini PhD, 2019).

The Covid-19 pandemic created uncertainty and economic pressure and acted as a driver for many businesses to evolve on how they were approaching their consumers (Karpen & Conduit, 2020). This forced numerous companies to digitize most of their services, promote online contact points, migrate customers to digital channels and significantly increase their presence in social media (Jiang & Wen, 2020).

In this context, the brand attitude reflects the most emotional aspect of the consumer towards the brand (Vahdat et al., 2020). The brand attitude acts as a barometer of consumer satisfaction with a brand, product or service (Lee et al., 2017). This indicator is very important since it allows the brand to understand the intentions of its potential consumers in relation to its products or services. Thus, reflecting which products respond, or not to the needs of consumers; what level of performance is recognized by the consumer; the level of utility and value of the product (A. A. Mitchell & Olson, 1981).

Previous studies prove the existence of a connection between attitude and behavior (L. Chen & Aklikokou, 2020; Normalini PhD, 2019; Subramanian, 1994), indicating that brand attitude can influence brand behavior (Spears & Singh, 2004). This reinforces the need for the brand not only to understand what kind of attitude consumers have, but mainly how they can positively influence such attitude. (Paul & Bhakar, 2018).

In a recent study developed by one of the leading companies in the commercial analysis market, it was uncovered that the digital aspect tends to increasingly impact the relationship that the consumer develops with the brand (Salesforce Research, 2019).

In this sense, by observing the trends of engagement and brand attitude for the coming years, it is not surprising that “insights” are pointed out as the increase the importance that consumers will attribute to companies that use new technologies to improve their interactions (Pöyry et al., 2020), echoed on the increasing demands for greater personalization and connectivity in customer interactions (Pallant et al., 2020) and also an upsurge in the demand for an interaction accompanied by a feeling of “tribe” without space or time.

It is within these aspects that the binomial between gamification and new technologies can prove to be a winning stake. Based on this idea, the following hypothesis were formulated:

- *H1: The existence of a gamified application represents a valid tool in the brand's interaction with the public.*

- *H2: The gamified application influences the connection that the user develops with the brand and promotes with third parties.*

2.2.3. Perceived Usefulness and Perceived Ease of Use

Perceived usefulness (PU) and perceived ease of use (PEOU) are two of the master pillars when analyzing the level of acceptance that the user has towards a technology (Davis, 1989).

The PU points out the degree that the user assigns to the utility that a given technology plays in their daily lives, thus allowing users to perceive its performance level (L. Chen & Aklikokou, 2020; Normalini PhD, 2019; Subramanian, 1994). In this research, this indicator pursues to reflect to which extent the use of a gamified application can influence the intention to use or purchase the brand's products.

In the case of PEOU, it exposes the ease of interaction with the new technology, not only in the initial moment, but also over time (Gede & Permana, 2019; McNab & Hess, 2007; Subramanian, 1994).

For the present research, the author tried to understand how the ease of use of a gamified application can influence the feeling that the user develops towards the brand. Being so, we converge to the formulation of the following hypothesis:

- *H3: The perceived usefulness of the gamified application affects the relationship developed between the user and the brand.*
- *H4: The ease of use of a gamified application influences the feeling developed between the user and the brand.*

2.2.4. Perceived Social Influence, Perceived Enjoyment and Intention of Engagement

Although pointed out as a valid tool by several researchers, recent studies argue on about possible improvements in the quality and reliability of the TAM model, defending that the dimensions should always be adapted according to the subject under study, consequently managing to direct the model more effectively to the subject under analysis (He et al., 2018; L. Silva, 2007).

Several authors acknowledge that social influence can have a direct action not only on an individual's intention to use a new technology, but also on the fun deriving from it (Cho & Son, 2019; Nawaz et al., 2017). Individuals tend to assume certain behavior if one or more individuals belonging to the same group commonly understand so (Weitzner & Deutsch, 2015).

Observing this relationship is especially important nowadays, where we are facing a significant increase in the use of social media. In turn, there is a substantial growth in online groups where members share the same goals and values (Bruhn et al., 2012; Studen & Tiberius, 2020; Tench & Jones, 2015).

Currently, most gamification actions tend to take place in a virtual environment with direct use of social media (Alsawaier, 2018; Tegtmeier et al., 2013). In this sense, it is likely that social pressure will be able to actively influence the individual's interest in the use of a gamified application.

Social influence is often seen as a powerful tool to change behaviors and ideas (Cook et al., 2009; Goodpastor & Montoya, 1996).

Usually, individuals tend to demonstrate behaviors and values based on the group they are in or want to be associated with (Ruangkanjanases et al., 2020). These groups where the individual is or wants to be, can be constituted by friends, family, co-workers, famous individuals, amongst others.

When we relate the viability of social influence with the concept of gamification, we uncover that games have a strong component of competition and cooperation, thus establishing the relationship of the individual to other groups and creating conditions for influence to occur between them (Huseynov & Dhahak, 2020; R. Mitchell et al., 2017; Nobre & Ferreira, 2017).

In brief, the concatenation of these two factors when transported to the commercial environment can impact the manner of how an individual is related to a brand. Taking this into account, the following hypothesis were formulated:

- *H5: Social circles influence the user's willingness to use the application.*
- *H6: Social circles impact the individual's attitude towards the brand.*

2.2.5. Attitude towards the use of a gamified application

The attitude towards the use (ATU), is strongly influenced by PU and PEOU and regarded as one of the main indicators of user's willingness to use an application (Davis, 1993; Šebjan et al., 2016; Teo, 2011).

Since we cannot say that gamification generates consensus on whether it is a viable or adaptable tool to all markets and sectors (Hamari et al., 2014; Hussain et al., 2018), understanding how users view themselves is crucial to measure the possible success of a gamified initiative.

Previous studies point to the success of gamification in motivating users to continue to be involved in the process (Alsawaier, 2018; Ghazali et al., 2019; Kuo & Chuang, 2016). In this case, gamification can play an identical role by contributing to the interest of users to try the application and continue to use it. Consequently, believing that gamification can directly impact the user's predisposition to participate in the action and, therefore, influence its outcome. Considering this, the following hypothesis was formulated:

- *H7: The predisposition for consumers to engage in gamified activities influences their attitude towards the brand.*

2.2.6. Player motivations and gamification performance

Finally, two new dimensions were added (*Player motivations; Gamification performance*) to the model that we have adapted (Yang et al., 2017b).

Having previously verified that customer engagement can be influenced by several factors (Kotler et al., 2019), it was also confirmed that this is usually analyzed in a downward way (company to consumer) (Bowden, 2009; Hollebeek et al., 2014).

Nevertheless, we understand that nowadays it is the consumer who often takes the initiative to engage with the brand (A. Payne et al., 2009). Therefore, it is equally important to listen to the phenomenon of customer engagement in an upward direction (consumer to company) and attend to the reasons that lead the customer to interact with the brand. Believing that the motivations that lead consumers to interact can also influence their intention to get involved in the engagement with brands, the following hypothesis is proposed:

- *H8: The player's motivations influence engagement with the brand.*

The second new dimension (gamification performance) focuses on the performance of the gamified application and its relationship with the consumer's attitude towards the brand.

According to the literature previously analyzed (Lee et al., 2017; Vahdat et al., 2020) the brand attitude has a strong emotional component in the consumer, previous studies also point to a connection between attitude and behavior (Spears & Singh, 2004), we believe that it is equally important to assess the existence of a link between the attitude and the performance of a gamified application, being so, we formulate the last hypothesis:

H9: The performance of the gamified application impacts the brand attitude.

2.3. Methodology

This research was developed using a quantitative methodology. The adoption of a quantitative method, instead of the qualitative, is due to the fact that the qualitative analysis is more related to the construction of theories and the quantitative more oriented to test the theory (Newman & Benz, 1999). Since the study that served as an initial basis already had a strong qualitative component (Yang et al., 2017b), in this phase, we need to quantify and analyze all possible scenarios using a numerical representation and obtain quantifiable data that can be analyzed using statistical techniques and illustrate a valid and real image of the observed hypothesis (Larsson, 1993).

Consequently, this research observed the interaction that users developed with Nike brand through its gamified application "Nike Run Club". The reason behind this choice was the fact that this app was highlighted by many gamification organizations as a good example on how to apply gamification elements in business and also the fact that it belongs to Nike that is a well-known brand and famous for their engagement with their audiences.

The ease of use of a new technological tool is crucial to ensure its adoption and continuous use (Yang et al., 2017b). Therefore, we recourse to the adaptation of a previously used methodology (TAM) to perceive the level of acceptance perceived by the users of the application. (Zichermann & Cunningham, 2017).

Since we do not have the complete list of the individuals belonging to the population, a non-probabilistic convenience sample was used (Acharya et al., 2013). Thus, the sample under analysis includes individuals who used or had already used the application and were available to share their experience and contributing to increase the viability of the collected data (Zichermann & Cunningham, 2017).

Consequently, we moved to the primary data collection phase through a questionnaire, taking advantage of the fact that the application addresses to a sports theme, publicized and available from June to December 2020, in a website specialized in the practice of physical activity (www.strava.com), complementarily, two other digital platforms were used (Facebook and Instagram).

2.3.1. Questionnaire

The questions used the questionnaires were adapted from a study previously developed by Yang e Asaad (2017) and completed with new research constructs validated by Zichermann e Cunningham (2011). Though adaptation and deepening, the continuity of the previously developed research was assured. Before the dissemination, a pre-test was carried out in to eliminate possible errors, therefore allowing its further validation.

In this context, a questionnaire with 37 closed questions was made prepared. The questions were inspired in other authors studies and questionnaire was divided into two distinct segments; the first (30 questions) aims to collect data related to the use of the application and the relationship with the brand, while the second (seven questions) is oriented to the collect information regarding the player profile. The questions were grouped according to the corresponding measurement item, which can be consulted in the Table 1 (Yang et al., 2017b).

Table 1: Set of applied questions

Type	Questions
A (<i>Sample characterization</i>)	Q1; Q2; Q3; Q4
B (<i>Perceived usefulness</i>)	Q5; Q6; Q7
C (<i>Perceived ease of use</i>)	Q8; Q9; Q10
D (<i>Perceived Social Influence</i>)	Q11; Q12; Q13
E (<i>Perceived Enjoyment</i>)	Q14; Q15; Q16; Q17; Q27

F (<i>Intention of Engagement</i>)	Q18; Q19; Q20
G (<i>Brand attitude</i>)	Q21; Q22; Q23; Q24; Q25; Q26; Q28
H (<i>Player motivations</i>)	Q29; Q30; Q31
I (<i>Gamification performance</i>)	Q32; Q33; Q34; Q35; Q36; Q37

Source: Self elaboration

2.3.2. Data analysis

Data collection was carried out between June and December 2020 and publicized over time to increase the number of responses by users of the application.

After this period, the collected data was gathered and filtered, subsequently initiating the process of quantitative analysis. For data processing, Microsoft Excel (with statistical analysis additives) in parallel with SPSS software were used.

Throughout the research, different types of analysis were used. An initial phase used descriptive statistics to summarize and describe the sample, allowing a better understanding of the data (Janes, 1999).

Next, a factorial analysis was used to better understand the variables in action, using Bartlett's & Kaiser-Meyer-Olkin tests (Dziuban & Shirkey, 1974; Rummel, 1967). The analysis was complemented with the Kolmogorov-Smirnov test (Lilliefors, 1967), which allowed to identify the distribution, followed by each variable and finally to comprehend its connections through Pearson and Spearman's correlations.

Six of the analyzed dimensions were adapted from the model previously used by Yang Yang (2017), however this research added two new dimensions: Player Motivations and Gamification Performance (Figure 1), therefore concentrating the attention on eight distinct dimensions in order to observe nine different hypothesis.

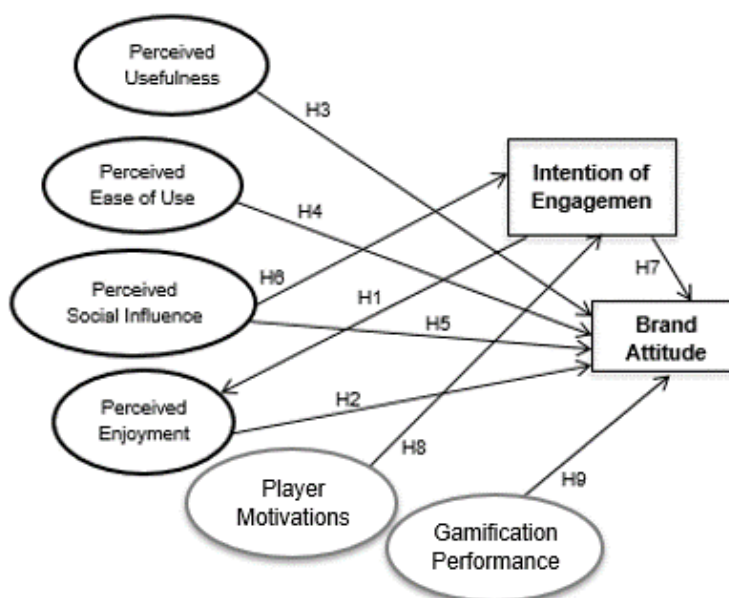


Figure 3: Investigation Model

Source: Adapted from Yang et al., (2017)

2.4. Results and Discussion

The sample consisted of 56.7% males and 43.3% females, in contrast to the Portuguese average of 47% females and 53% males (Pordata, 2019).

The age group with the highest incidence is between 24 and 28 years, representing 33.5% of the sample. The sample consists of more than half of individuals with higher education, with special representation in individuals with a degree, occupying these 49.3% of the sample.

Finally, Porto region represents 58.6% and Lisbon 16.3% with the remaining 25.1% being occupied by the remaining regions, noting the absence of data in the more southern regions (Table 2), meeting the information advanced by the institute National Statistics Institute (INE), indicating a variation from 1000 inhabitants per km² on the coast to 50 inhabitants per km² in the interior (INE, 2020).

Table 2: Sample description

Variable	Description	Frequencies	Percentage
Gender	Male	115	56,7

	Female	88	43,3
Age Group	19 - 23	47	23,2
	24 - 28	68	33,5
	29 - 33	33	16,3
	34 - 38	33	16,3
	39 or more	22	10,8
Education Degree	9 th year or less	10	4,9
	10 th - 12 th year	44	21,7
	Undergraduate	100	49,3
	Master	45	22,2
	PhD	4	2
Geographic Region	Azores	2	1,0
	Aveiro	10	4,9
	Braga	9	4,4
	Bragança	3	1,5
	Castelo Branco	2	1,0
	Coimbra	4	2,0
	Guarda	5	2,5
	Leiria	5	2,5
	Lisboa	33	16,3
	Madeira	2	1,0
	Porto	119	58,6
	Santarém	1	0,5
	Setúbal	1	0,5
	Viana do Castelo	2	1,0
	Vila Real	4	2,0
Viseu	1	0,5	
Total of replies		203	100

Source: Self elaboration

In table 3, reflects the replies obtained from questions Q5 to Q28, a five scale of values was used to reply on the degree of agreement with the question, where 1 meant “Strongly disagree”; 2 “Disagree”; 3 “Does not agree or disagree”; 4 “Agrees” and 5 “Totally agrees”.

In this table, we can highlight the answer that has the greatest positive consensus (Q7), where 72.8% of the respondents answer that they agree or fully agree that the application is a useful marketing tool, being congruent with the results obtained in other studies (Hofacker et al., 2016; Nobre & Ferreira, 2017).

In turn, we can also point out the issue that has the greatest negative consensus (Q13), where 30.6% of respondents disagree or totally disagree with the influence exerted by their acquaintances in their actions.

Table 3: Gamified Applications as a Customer Engagement and Brand Attitude tool: factor scale, descriptive analysis

Dimensio n	Variables		Strongl y disagre e (%)	Disagre e (%)	Does not agree or disagre e (%)	Agree s (%)	Total y agrees (%)	Averag e	Standar d deviatio n
	Questio n	Description							
B	Q5	The application effectively motivated me to think about Nike	2,0	8,9	21,2	44,3	23,6	3,79	0,97
B	Q6	The application increased my familiarity with Nike	2,0	7,9	26,1	36,9	27,1	3,79	0,99
B	Q7	I find the application a useful tool in Nike marketing	1,0	3,4	19,7	38,4	37,4	4,08	0,89
C	Q8	It was easy to learn how to use and compete with others	3,0	7,9	27,6	36,5	25,1	3,73	1,02
C	Q9	The balance between using the application and competing is well established	0,0	8,9	29,1	36,5	25,6	3,79	0,93
C	Q10	It was easy to access the app and get someone to compete with	1,5	13,8	24,1	36,5	24,1	3,68	1,03
D	Q11	If my friends find it fun to participate in the app competition, I will also participate	3,9	13,8	22,2	36,0	24,1	3,63	1,11

D	Q12	If my school / work colleagues find it fun to participate in the app competition, I'm also going to participate	4,9	17,7	25,1	32,5	19,7	3,44	1,14
D	Q13	If any of my acquaintances find it fun to participate in the application competition, I will also participate	16,3	14,3	22,7	26,1	20,7	3,21	1,36
E	Q14	The application is interesting	1,0	3,9	28,6	40,9	25,6	3,86	0,88
E	Q15	I had fun using the application	0,5	9,4	23,6	41,4	25,1	3,81	0,94
E	Q16	The application was a good way to spend my free time	1,0	5,9	32,0	39,4	21,7	3,75	0,90
E	Q17	I felt involved with the application in a pleasant way	2,5	9,4	30,5	37,4	20,2	3,64	0,99
F	Q18	I intend to try these activities again	1,0	7,4	23,2	46,3	22,2	3,81	0,90
F	Q19	I intend to use this application frequently	3,4	8,9	26,6	37,4	23,6	3,69	1,04
F	Q20	I intend to continue using this application because it is fun	2,0	10,3	23,2	46,8	17,7	3,68	0,95
G	Q21	This activity made me feel more emotionally connected with the Nike brand	2,5	14,8	33,5	32,0	17,2	3,47	1,02

G	Q22	This activity triggered positive feelings towards the Nike brand	2,0	13,8	29,1	35,0	20,2	3,58	1,02
G	Q23	I am more inclined to purchase Nike items after participating in the activity	4,9	17,2	30,5	29,6	17,7	3,38	1,11
G	Q24	This activity makes me feel happy when I buy a Nike branded item	7,9	15,8	28,6	31,5	16,3	3,33	1,16
G	Q25	This activity makes me feel pleasure when using a Nike branded item	4,4	18,7	26,6	31,5	18,7	3,41	1,12
G	Q26	This activity triggered my interest in using other Nike products / services	3,4	10,3	32,0	34,0	20,2	3,57	1,03
E	Q27	I enjoyed the experience of using the application and competing online	0,5	12,3	21,2	40,4	25,6	3,78	0,98
G	Q28	I will recommend Nike to others	1,0	5,9	29,1	43,3	20,7	3,77	0,88

Source: Self elaboration

Regarding the players profiles of the, through Table 4 we can observe the aspects such as the type of game, motivation to play, as well as the frequency with which they do it (Q29, Q30 and Q31) tend to vary. However, during the questionnaire period, we found that “Adventure” is considered a favorite by most of the sample (26.60%).

Regarding the reasons that lead respondents to play, we realized that “mental challenge” is the factor that most consensus presents (33%).

Table 4: Player Profiles: factor scale, descriptive analysis.

Type	Question	Description	Profile	Frequency	Percentage %
H	Q29	Indicate your favorite game type	Action	34	16,75
			Adventure	54	26,60
			Others (Puzzle; Board Games; etc...)	38	18,72
			Simulation	36	17,73
			Strategy	41	20,20
H	Q30	What motivates you the most to play	Botheration	23	11,33
			Physical challenge	27	13,30
			Mental challenge	67	33,00
			Distraction from everyday life	1	0,49
			Play with other people	49	24,14
			To socialize	28	13,79
			None	8	3,94
H	Q31	How often do you play	Daily (10 times or more per month)	63	31,03
			Weekly (5 to 9 times per month)	68	33,50
			Monthly (2 to 4 times per month)	41	20,20
			Rarely (One or less per month)	26	12,81
			Never	5	2,46

Source: Self elaboration

The sample was consulted to assess the type of gamification tools presented in the activity. In Table 5, we can perceive that the tool that has the greatest positive consensus with players is badges of achievements (badges), directly contrasting with the public profiles (players profile), these gathered the greatest negative consensus regarding their performance in gamified activity.

Table 5: Evaluation of gamification tools: factor scale, descriptive analysis

Variables			Very negative	Negative (%)	Nor negative or positive	Positive (%)	Very positive (%)	Average	Standard deviation
Type	Question	Description							

			(%)		itive (%)				
I	Q32	Points (Points earned for reaching goals in the game, which can be exchanged for real or virtual items)	2,5	4,4	23,2	41,4	28,6	3,89	0,95
I	Q33	Leaderboards (Table with the rank achieved by each player)	3,4	5,9	21,7	46,8	22,2	3,78	0,97
I	Q34	Player profile (Personalization of avatar and personal statistics)	2,0	13,8	26,6	32,0	25,6	3,66	1,07
I	Q35	Team (Possibility to play in team with other people)	1,5	11,8	20,2	37,4	29,1	3,81	1,03
I	Q36	Progress bars (Graphs indicating the level of completion of an objective)	3,0	6,9	19,2	38,9	32,0	3,90	1,02
I	Q37	Achievement badges (Badge awarded in recognition of completion of an objective)	2,0	7,4	19,2	40,9	30,5	3,91	0,98

Source: Self elaboration

2.4.1. Factorial analysis

In order to support the research, a factorial analysis was performed to substantiate the eight dimensions under study. To validate the factor analysis model, a Kaiser-Meyer-Olkin test (KMO) was used to understand the validity of the sample and the Bartlett test to confirm the validity of the factor analysis.

With KMO test values never below than 0.55 and never higher than 0.92, we can consider that the factor analysis is closer to 1 than to 0, thus confirm its quality.

Regarding the Bartlett test, we found that the lowest value presented is 14.403 and the highest value is 687.977 for a p-value = 0.000, this demonstrates that variables are significantly correlated and, therefore, we can perform factor analysis (Table 6).

Table 6: Gamified Applications vs Portuguese Public: Factor Analysis; Bartlett's test; KMO 'test

Variables	PU	PEU	PSI	PE	IOE	BA	PM	GP
Q5-The application effectively motivated me to think about Nike	0,828							
Q6-The application has increased my familiarity with Nike	0,763							
Q7-I find the application a useful tool in Nike marketing	0,749							
Q8-It was easy to learn how to use and compete with other people		0,817						

Q9-The balance between using the application and competing is well established		0,764						
Q10-It was easy to access the application and get someone to compete with		0,783						
Q11-If my friends find it fun to participate in the application competition, I will also participate			0,849					
Q12-If my school / work colleagues find it fun to participate in the application competition, I will also participate			0,891					
Q13-If any acquaintance of mine finds it fun to participate in the application competition, I will also participate			0,878					
Q14-The application is interesting				0,812				
Q15-I had fun using the application				0,730				
Q16-The application was a good way to spend my free time				0,797				
Q17-I felt involved with the application in a pleasant way				0,757				
Q18-I intend to try activities of this kind again					0,829			
Q19-I intend to use this application frequently					0,753			
Q20-I intend to continue using this application because it is fun					0,851			
Q21-This activity made me feel more emotionally connected with the Nike brand						0,776		
Q22-This activity triggered positive feelings towards the Nike brand						0,759		
Q23-I am more inclined to purchase Nike items after participating in the activity						0,798		
Q24-This activity makes me happy when I buy a Nike branded item						0,828		
Q25-This activity makes me happy to use a Nike branded item						0,799		

Q26-This activity triggered my interest in using other Nike branded items / services						0,783		
Q27-I liked the experience of using the application and competing online				0,734				
Q28-I will recommend Nike to others						0,743		
Q29-Indicate your favorite game type							0,743	
Q30-What motivates you the most to play							0,552	
Q31-How often do you play							0,668	
Q32-Rate the tool: Points								0,712
Q33-Classify the tool: Classification tables								0,676
Q34-Rate the tool: Player profile								0,770
Q35-Rate the tool: Team								0,600
Q36-Rate the tool: Progress bars								0,709
Q37- Rate the tool: Achievement badges								0,533
% Variance	60,918	62,149	76,229	58,788	65,951	61,518	43,447	45,053
Bartlett's test	97,165	103,601	252,009	323,272	140,234	687,977	14,403	265,658
KMO' teste	0,646	0,665	0,721	0,847	0,665	0,920	0,543	0,766
Notes: Significant at $p < 0,01$ *Extraction Method: Principal component Analysis.								

Source: Self elaboration

Taking as proven the validity of the dimensions under study, we proceed to the elaboration of the Kolmogorov-Smirnov (KS) test, visible in Table 7, thus realizing whether each dimension follows a normal distribution or not.

Table 7: Kolmogorov-Smirnov Test

		PU	PEU	PSI	PE	IOE	BA	PM	GP
N		203	203	203	203	203	203	203	203
Normal Parameter sa,b	Mean	,0000 00	,0000 00	,0000 00	,0000 00	,0000 00	,0000 00	,0000 00	,0000 00
	Std. Deviation	1,000 000	1,000 000	1,000 000	1,000 000	1,000 000	1,000 000	1,000 000	1,000 000

Most Extreme Differences	Absolute	,093	,088	,101	,060	,076	,076	,063	,041
	Positive	,067	,073	,067	,053	,064	,076	,063	,041
	Negative	-,093	-,088	-,101	-,060	-,076	-,054	-,049	-,038
Kolmogorov-Smirnov Z		1,321	1,248	1,445	,850	1,088	1,083	,898	,589
Asymp. Sig. (2-tailed)		,061	,089	,031	,465	,187	,191	,395	,878

Source: Self elaboration

From the analysis of Table 7 it is possible to see that with a level of significance of 1%, all constructs follow a normal distribution. However, for a significance level of 5%, PU, PEU and PSI do not follow a normal distribution.

For the dimensions that follow a normal distribution, a Pearson's correlation was applied, for those that do not follow a Spearman's correlation was applied. Table 8 reflects the results obtained according to the previously developed hypothesis.

Table 8: Results of the correlation between dimensions

Hypothesis	Correlation between dimensions	Pearson Corr.	Spearman's Corr.
H1	IOE - PE	0,802	
H2	PE - BA	0,742	
H3	PU - BA	0,565	0,495
H4	PEU - BA	0,531	0,529
H5	PSI - BA	0,604	0,580
H6	PSI - IOE	0,577	0,568
H7	IOE - BA	0,706	
H8	PM - IOE	-0,019	
H9	GP - BA	0,505	

** . Correlation is significant at 0.01.

Source: Self elaboration

2.4.2. Hypothesis Validation

From the analysis of Table 3 we can realize that the respondents' opinion regarding the PU on gamified applications (Q5-Q7) more than 60% tend to agree, with special emphasis on Q7 where 76% of the respondents recognize that the gamified application is a useful tool in brand marketing.

When looking to PEU (Q8-Q10) 61% recognized the application's ease of use, 11.6% disagreed or completely disagreed.

Relating these insights with the data presented in Table 8, it is possible to establish a correlation between the PU-BA dimensions ($\beta = 0.495$, $p > 0.001$); PEU-BA ($\beta = 0.529$, $p > 0.001$). Patel e Patel (2018) confirmed identical results when observing the influence of PEU and PU in the engagement, these results were also pointed out by Huseynov and Dhahak (2020) as positive influencers in the users' satisfaction with the brand. Therefore, hypothesis H3 and H4 can be considered as valid.

With regards to PSI (Q11-13), 53% of respondents agree or fully agree that social circles influence their decisions.

On the other hand, in Q18 69% of the respondents assume the availability to experience gamified applications again in the future and. Finally, 55% admitted having developed positive feelings with the brand through the activity (Q22).

Comparing these data with the values presented in Table 8, it is possible to verify a correlation between the dimensions of PSI and IOE ($\beta = 0.568$, $p > 0.001$), as well as between PSI and BA ($\beta = 0.580$, $p > 0.001$), however no support was found to validate the effect of PSI on IOE.

Relating the data obtained with the literature previously analyzed, we found that they tend to meet it, where PSI is identified as an influencing factor of IOE (Kamboj et al., 2020) and as a positive influencer of BA (Bauer et al., 2020), failing to validate H5 but supporting H6.

When examining the sphere of the PE (Q14-Q17; Q27), 5% of the sample does not show feelings of joy regarding the use of the gamified application, this is in line with the replies obtained in Q19 and Q20 where 65% assume that they will continue to use the application because they like it.

It was also verified that 60% of respondents had fun when using the application and considered it as interesting (Q14-Q15), this is in line with the replies obtained in Q28, where 64% of the sample confirms that they will recommend the brand to third parties.

This data is congruent with the literature, where gamified applications are identified as tools that significantly influence engagement (Huseynov & Dhahak, 2020), actively contributing to user satisfaction with the brand, which in turn leads to a positive increase in the word-of-mouth (Noorbehbahani et al., 2019).

When crossing this information with the data from Table 8, it is possible to verify a correlation between the dimensions of PE and IOE ($\beta = 0.802$, $p > 0.001$), as well as PE and BA ($\beta = 0.742$, $p > 0.001$), thus, assuming H1 and H2 as valid.

Looking to the BA sphere (Q21-26; Q28) divulges that more than 50% of the respondents agree that the application made them feel more connected with the brand, giving special emphasis to Q23 where 47% of the respondents reveal that they feel more inclined to purchase products of brand. Thus, contrasting with the literature, where gamification is pointed out as not developing a direct link with the desire to buy (Huseynov & Dhahak, 2020).

Nevertheless, the literature points to the fact that, although a direct relationship with the sales growth has not been proven, gamification is considered to have a positive impact on the establishment of BA (Patzner et al., 2020). This information, together with the results obtained in Table 8 support a correlation between IOE and BA ($\beta = 0.706$, $p > 0.001$) thus confirming H7.

From the responses disclosed in Table 4, regarding the player profiles, it is necessary to validate whether there is a relationship between the profiles and factors such as gender, age and scholarity. In this sense, we recourse to a non-parametric analysis, applying the Chi-square test in Q29; Q30 and Q31.

Through the analysis of Table 9, it is possible to observe that the age and gender factor tend to influence the types of games preferred by those who were interviewed (Q29). In contrast, the schooling factor does not have any influence when choosing a particular type of game.

Table 9: Dependence on game types: X2 test performed for Gender; Age and level of education

Q29 - Favorite game types	Men (%)	Women (%)	19 - 23 (%)	24 - 28 (%)	29 - 33 (%)	34 - 38 (%)	39 or < (%)	12 th year or > (%)	Undergraduate (%)	Master (%)
Action	10,84	5,91	4,43	4,93	2,46	3,45	1,48	4,43	8,37	3,94
Adventure	11,33	15,27	3,45	11,33	3,94	4,93	2,96	6,40	13,30	6,90
Strategy	9,85	10,34	8,87	4,93	1,97	2,46	1,97	7,39	7,39	5,42
Others	7,88	10,84	3,94	6,90	5,42	1,48	0,99	4,43	10,84	3,45
Simulation	3,45	14,29	2,46	5,42	2,46	3,94	3,45	3,94	9,36	4,43
X2 Test (P)	15.221 (0,04) **		26.553 (0.047) **				4.785 (0.780) *			
Significance at $P < 0,05$ (*= $P > 0.05$; **= $P < 0.05$)										

Source: Self elaboration

“Adventure” is the favorite type of game, and is equally considered by male and female gender. The type of game that arouses the least interest in the male sample (Simulation) contrasts with the second place in the type of game most appreciated by the female audience.

In reverse order, the type of game least appreciated by the female gender (Action), occupies the second place in the type of game most appreciated by the male audience. This data is congruent with previous studies, however, we witnessed a migration of the preference of the genre "Adventure" from the younger to older (Ghazali et al., 2019).

By observing the age group, and according to the favorite game types, it is possible to see that Strategy is the most demanded genre in the age group 19-23; in the age group 24-28 we witnessed a migration to the Adventure genre, is extended to the 34-38 range; lastly, we perceived a more pronounced preference in the Simulation genre in individuals aged from 39 or over.

Looking to Table 10, it is possible to verify the reasons that lead to the game (Q30) none of the observed factors (Gender; Age and Education) performs an influential action within the respondent.

Table 10: Dependence on the reasons that lead to the game: X2 test performed for Gender; Age and level of education

Q30 - Reasons that lead to the game	Men (%)	Women (%)	19 - 23 (%)	24 - 28 (%)	29 - 33 (%)	34 - 38 (%)	39 or < (%)	12 th year or > (%)	Undergraduate (%)	Master (%)	
Botheration	6,40	4,93	1,97	2,46	3,94	1,97	0,99	2,46	3,94	4,93	
Play with other people	9,36	14,78	2,96	7,39	3,94	6,90	2,96	5,42	13,30	5,42	
Physical challenge	6,40	6,90	3,45	5,42	0,99	1,48	1,97	2,96	9,36	0,99	
Mental challenge	12,32	20,69	10,84	11,33	3,94	2,96	3,94	10,34	13,79	8,87	
Other	1,48	2,96	0,49	2,96	0,99	0,00	0,00	0,49	2,46	1,48	
To socialize	7,39	6,40	3,45	3,94	2,46	2,96	0,99	4,93	6,40	2,46	
X2 Test (P)	4.849 (0,435) *		29.223 (0,083) *					15.339 (0,120) *			
Significance at P < 0,05 (*=P>0.05; **=P<0.05)											

Source: Self elaboration

Nonetheless, in the observed sample we can see that “Mental Challenge” is the reason that most often leads the genders to play, male (12.32%) and females (20.69%), immediately followed by playing with other people. These results reflect an image that is not very different from the literature, where socialization is most pointed factor (L. F. S. da Silva et al., 2019).

In comparison with education levels, we also found a preference based on the reason for the mental challenge, this preference is maintained in all observed classes (<12 years (10.34%); Bachelor's (13.79%);> Master's (8 , 87%)).

Table 11 shows the frequency that the respondents play (Q31), it was possible to verify that none of the observed factors (Gender; Age and Education) performs an influential action with the respondent.

Table 11: Dependence on game frequencies: X2 test performed for Gender; Age and level of education

Q31-Game frequency	Men (%)	Women (%)	19 - 23 (%)	24 - 28 (%)	29 - 33 (%)	34 - 38 (%)	39 or < (%)	12 th year or > (%)	Undergraduate (%)	Master (%)
Daily (10 times or more per month)	14,78	16,26	6,90	13,30	3,94	3,94	2,96	8,37	16,75	5,91
Monthly (2 to 4 times per month)	8,37	11,82	2,96	7,39	3,94	3,45	2,46	6,40	9,85	3,94
Never	1,48	0,99	0,00	1,97	0,49	0,00	0,00	0,49	1,48	0,49
Rarely (One or less per month)	5,42	7,39	3,45	3,45	2,46	1,97	1,48	3,45	5,42	3,94
Weekly (5 to 9 times per month)	13,30	20,20	9,85	7,39	5,42	6,90	3,94	7,88	15,76	9,85
X2 Test (P)	1.471 (0,832) *		15.598 (0,481) *					3.786 (0,876) *		
Significance at P < 0,05 (*=P>0.05; **=P<0.05)										

Source: Self elaboration

Analyzing the frequency that respondents play, it was corroborated that male individuals have the largest portion (14.78%) which interact daily with game activities. When observing the female gender, the largest portion (20.20%) reports a weekly

frequency. When regarding to the frequency in function of the age group, we verified that the choices “daily” and “weekly” always compete for the first places, representing 64.53% of the total sample.

Taking into account the results obtained in Q29; Q30 and Q31 and comparing them with the results obtained in Table 8 ($\beta = -0.019$, $p > 0.001$), we found that contrary to what is suggested by the literature (Ghazali et al., 2019), we were unable to establish a correlation between the PM and IOE dimensions. Therefore, we could not confirm H8.

Finally, we found that the results obtained in Table 5, are in line with the reviewed literature, where Badges are often pointed as the tool that indicates greater effectiveness, better influences on the player and, and attitude towards the brand (Huseynov & Dhahak, 2020).

The results obtained in Q32 – Q37 allow a better understanding on the performance level of the application. By crossing this information with the results obtained in Table 8 we confirm the existence of a correlation between the dimensions of GP and BA ($\beta = 0.505$, $p > 0.001$), thus confirming H9.

Throughout this discussion it was possible to confirm the validity of most of the hypothesis. Table 12 summarizes the hypothesis and results obtained.

Table 12: Hypothesis and their results

Hypothesis	Result
H1	Confirmed
H2	Confirmed
H3	Confirmed
H4	Confirmed
H5	Not Confirmed
H6	Confirmed
H7	Confirmed
H8	Not Confirmed
H9	Confirmed

Source: Self elaboration

2.5. Conclusions and Future Research

The present research observed the interactions that users developed with the “Nike” brand throughout the use of the “Nike RunClub” application. The research is based

on a quantitative methodology supported by an adaptation of the TAM model, seeking to validate the use of gamified digital applications, such as engagement and brand attitude tools, with the Portuguese consumers.

Nine hypothesis were formulated: H1- The existence of a gamified application represents a valid tool in the interaction of the brand with the public; H2- The gamified application influences the connection that the user develops with the brand and promotes it with third parties; H3- The perceived usefulness of the gamified application affects the relationship developed between the user and the brand; H4- The ease of use of the gamified application influences the feeling developed between the user and the brand; H5- Social circles, influence the user's willingness to use the application; H6- Social circles, impact the individual's attitude towards the brand; H7- The predisposition for consumers to engage in gamified activities influences their attitude towards the brand; H8- The player's motivations influence engagement with the brand; H9- The performance of the gamified application impacts Brand Attitude.

The results obtained demonstrated that perceived enjoyment (PE) has a correlation with intention of engagement (IOE) and brand attitude (BA). This information, associated with the fact that the majority of respondents intend to continue using the application and assume to recommend the brand to third parties, contributes to support H1 and H2.

Contrary to the data obtained in the original article from Yang (2017), in this research we verified the existence of a correlation between BA and perceived usefulness (PU) and perceived ease of use (PEU). This correlation is supported by the fact that the majority of respondents demonstrate ease in using the application and recognize that it is a useful tool in brand marketing, validating the H3 and H4.

With regards to perceived social influence (PSI), we found that the majority of the sample agreed on the influence exerted by social circles and in the analysis of the dimensions we were able to verify the existence of a correlation between the IOE and the BA.

Failing to support the effect of PSI on IOE, it was not possible to validate H5. However, it was possible to verify that, as indicated by the literature (Huseynov & Dhahak, 2020), there is an impact on BA, thus supporting H6.

In the sphere of the IOE, we found that the majority of respondents intend to use these activities again, with a large part assuming they will continue to use the Nike application. This is supported by the demonstrated correlation between IOE and BA,

reflecting that the higher the IOE, the greater the impact on BA and, therefore, supporting H7.

In contradiction with the suggestion from Ghazali e Mutum (2019), it was not possible to establish a correlation between the dimensions player motivations (PM) and IOE. Consequently, failing to validate H8. However, it was possible to perceive, using the Chi-Square test, that age and gender tend to influence the types of favorite games, having been the adventure games pointed out as the most accepted among men and women.

Finally, in gamification performance (GP), we found that the badges of achievements (badges) are identified as the most useful tool, in contrast to the player profiles (players profiles) that are identified as the least useful. This information is in line with the literature, supported by the observed correlation between GP and BA, thus confirming H9.

This research presents three innovative aspects that result, in a first phase, from the adaptation of a TAM model previously tested by Huseynov e Dhahak (2020), pretending to complement it by adding the dimensions “Gamification Performance” and “Player Motivations”. The second innovative aspect is related to the fact that the sample is completed by individuals of different degrees of education and not belonging entirely to the academic environment, unlike previous studies. The third innovative aspect concerns the location of the sample itself, which is entirely resident on Portuguese territory.

This research contributes to the existing literature and academic knowledge in the areas of marketing and gamification, providing a suggestion for the TAM model to be used in this type of research. It also contributes to a better understanding of the relationship between gamification and marketing, demonstrating that the use of gamified applications as engagement tools can have a positive impact on the brand attitude of the brands operating in the Portuguese market.

Becoming a valid consultation tool for brands, application designers and marketers when defining engagement strategies, allowing a better understanding of the factors that may or may not influence the public's relationship with the brands and what dynamics they should use in the development of new Gamified marketing solutions.

The selected application can be pointed out as the first limitation of the research. Due to its specificity, it was not possible to obtain a greater number of responses and

since the application is oriented towards sport, the sample had to be limited to practitioners of some type of sports activity.

In order to have a more uniform spectrum on the Portuguese market, it would be important to be able to extend this research to a more diversified sample through the inclusion of questions in the questionnaire that addressed the themes without necessarily being connected to the use of the application under investigation.

Another limitation of the research is due to the fact that the present research is preliminary in the possible usable gamification elements, having been focused only on those present in the application under investigation. In order to complement the research, it would be important to be able to listen to other gamified applications, with different gamification elements.

It is also important to mention the inexistence of a significant number of articles that address gamification, which is even greater when the research is oriented to the Portuguese market, in turn, justifying the continuation of research on this topic applied to the Portuguese market.

As for future lines of investigation, it is recommended to broaden the scope of the research, allowing it to be answered by individuals who have never used a gamified application or have used completely different ones, in order to understand if the type of gamified application can in any way influence the results obtained. It would be pertinent to replicate this research in a market other than Portuguese, in order to assess whether cultural or socioeconomic factors can influence the validity of gamified applications.

In this research, the interactions of users of the gamified application are analyzed, however, this represents only a part of the stakeholders that may be affected by it. It would be interesting to hear opinions about gamified applications from other stakeholders such as suppliers, store sellers and others.

Conclusively, this research failed to establish a relationship between player motivations and intention of engagement, so it would be interesting to investigate these dimensions more extensively in another type of sample and gamified strategy.

CHAPTER 3 – GAMIFICATION AS A NEW TREND IN THE CO-CREATION PROCESS

Abstract

Interaction through the use of social media, smartphones and online games is increasingly growing. Regarding games, it is estimated that part of the population spends more than twelve hours a week in interactions provided by online games. In this context, the present research objective is to study and deepen the connection between co-creation and gamification applied to the services sector. This research aims to contribute to the GAP reduction in the existing literature in the areas of gamification and co-creation applied to the services sector. The fact that the research is applied to a peripheral region of Europe and with a different business sector, contributes to a better understanding of the relationship established between gamified co-creation and the business sector in these types of regions. It also helps companies in the process of developing and implementing new strategies. Using a qualitative methodology, seven interviews were carried out in different companies located in Portugal and operating in the service sector. This research will allow a better understanding of the Portuguese business world and if this corporate environment is ready work with new methodologies. It was possible to point out some good practices related to the implementation of a gamified co-creation methodology, as well as providing an alert for the negative aspects that may arise when working under this approach. Companies acknowledge that the adoption of a gamified co-creation methodology brings some advantages and increases their competitiveness levels in the market.

Keywords: Gamification, Co-creation, Companies, Marketing

3.1. Introduction

For decades, the aim of marketing strategies was focused on the triad, product, price and promotion. Although they are critical for success determinants, as from the 90s of the 20th century onwards, the relationship with the customers has gained a greater level of relevance (Kotler et al., 2019). Current consumers are more informed, demanding and ready to suggest improvements, or even participate in a co-creation process (Kotler et al., 2019). Consequently, under a globalized and highly competitive context, this new trend is an added concern for companies, mainly regarding the products' life cycle and its quality standards (Tekic & Willoughby, 2017).

Knowing that, consumers are getting more demanding. The influence of opinion makers is becoming increasingly narrowed, thus compelling companies to develop their marketing focused in generations with a high digital propensity (Fuchs, 2014). Therefore, an extra effort is necessary in order to grasp their attention, that is why many brands use gamification strategies to improve their engagement with these audiences (Alexander, 2019).

According to Kotler et al. (2019), the European market is in a period of transaction and adaptation to a digital economy where the large use of social media allows the comparison between competitors and a quick disclosure of the experiences' results, with unpredictable repercussions, mainly if they are negative (Abdulahi et al., 2014). Brands that are perceived as belonging to the customer, tend to distinguish themselves positively from the competition in aspects such as involvement and purchase intention (Ward et al., 2020), as a consequence it is necessary to put in practice a set of methodologies to help companies in the development of their products to assure that they will meet the expectations of their clients allowing them to feel that products were created by them for them (Singh & Sonnenburg, 2012).

Hamari (2014) reiterate that gamification positively affects consumption's loyalty, motivation and engagement. However, only a few numbers of studies addressing to the topic of brand context are available. For this reason, it is important to analyze the consumers' motivations in the involvement with the gamification experiences as well as their impact in the consumer's commitment to the co-creation and brand experience process (Nobre & Ferreira, 2017). The authors explore the motivations that lead to the implementation of gamification systems with a clear effect in co-creation and brand value. Nobre and Ferreira (2017), suggest other qualitative researches using focus groups.

Gamification offers a considerable return in the co-creation of new solutions, fostering this practice in a collaborative, engaged, creative and open environment (Ind & Coates, 2013; Patricio et al., 2020). Gamification provides the rules, as well as the essential processes to involve teams and create high quality solutions (Sanders et al., 2010). The research of the connection between gamification and co-creation allows the development and understanding of how co-creation practices can be improved (Patricio et al., 2020).

Nowadays, we witness attempts by several companies to make co-creation more pleasant and user-friendly. However, the link between co-creation and gamification is still not observable in majority of scientific articles (Patricio et al., 2020). If we deepen literature search within the services sector, the results are even scarcer (Oertzen et al., 2020). Consequently, the objective of the present research is to deepen the connection between co-creation and gamification when applied to the services sector. Testing the level of acceptance of this methodology in service companies involving a business sector located in a peripheral country. Also seeking to aid companies in the process of developing and implementing new strategies in the same manner.

This research was carried out following a qualitative perspective through the organization of interviews to company managers who perform functions related to area of marketing across Portugal. The present research was applied to seven different companies operating in the services area in order to allow a comparison between companies within the same sector.

This paper starts with an introduction, which includes the framework related to the topic in question as well as the clarification associated to the source and motivations that have led to the present research. The second part addresses to the literature review on the topic under research and the main concepts. The third part describes the methodology used. Further on we present the results and its discussion through the comparison of the data obtained. Finally, we present the conclusion, stating the main findings of the research, its practical implications, limitations and future lines of research.

3.2. Conceptual Framework

The tertiary sector (services) is the sector where we can observe the highest level of competition amongst organizations, therefore, the number of companies to use clients to increase the level of participation and engagement has increased. However, the information available to prove the success of co-creation applied to small and medium-

sized companies is scarce (Asiah Omar et al., 2020). The same can be said about gamification that has been frequently used in large companies to captivate external and internal public through formal processes. Nevertheless, not much is known about the success of this methodology when used by small and medium companies as they tend to work with informal processes (WOŻNIAK, 2017).

The topics of gamification and co-creation are relatively recent in business environments. Some authors state that gamification began to be used by organizations from 2005 onwards (Zichermann & Linder, 2011); as far as co-creation is concerned, it is a common belief that its proliferation has begun in 2004 after the publication of the book “The future of competition: Co-creating unique value with customers” (Prahalad & Ramaswamy, 2004).

Although these topics, are in the very beginning, they are not connected with several co-creation strategies applied over the time where gamification acted as a process, an enabling tool and a methodology that has become visible in a wide range of business areas (Charitsis et al., 2019; Harwood & Garry, 2015). Hereinafter we will summarize these two topics, addressing to its crucial aspects allowing a better understanding.

3.2.1. Co-creation

The co-creation topic has been frequently surfacing in contemporary society, but still lacks some clarity regarding its precise definition (Vedrashko, 2011). Despite this, there seems to be some unanimity regarding the implications of this approach, which derived from the new society patterns that have represented the transfer of power from companies to its connected consumers (Kotler et al., 2019). In these context, co-creation is always related to the interactions between the company and the final client (Prahalad & Ramaswamy, 2004). Considering this, the definition of company’ co-creation value by the clients emerged in the 90s of the 20th century (Kambil et al., 1999), however it has gained increased reputation with Coimbatore Krishna Prahalad and Venkat Ramaswamy (2004). Co-creation is presented as a management initiative, which occurs when an external element – individual or collective – is associated to the business, thus contributing with added value, content or marketing, and an active and direct role aiming to improve the business’ production and profitability. The goal of this strategy is to understand what the consumer is looking for and adapt the business in consonance with

the wishes and needs of the market, thus offering the most adequate product with increased success possibilities (Prahalad & Ramaswamy, 2004; Zwass, 2010).

Brands didn't become the consumers or stakeholders' mind readers. However, the most successful companies started to be fully informed about what they were looking for and the value obtained by a product or service, as long as knowledge was shared, and the experiences became the focus of any creation. Traditionally, the value creation process is made underlying the markets, unilaterally driven from the producer to the consumer, together with differentiated perceptions and rules between the officials involved in the production and consumption actions (Prahalad & Ramaswamy, 2004; Ramaswamy & Gouillart, 2010).

Considering the need to provide a sustainable answer to the highly competitive and totally globalized markets, it became a key factor for organizations and managers to understand that long term added value is crucial (Aaker & Joachimsthaler, 1999).

Consumers exposed to better and updated information become more active and connected. They look for satisfaction through experience, thus, disrupting the vision associated to the product value (Prahalad & Ramaswamy, 2004).

Together with companies and through transparent processes, consumers started to co-create value. Companies abandon the internal practical decision of value creation and initiate the delivery of services and resources in exchange for innovation, creativity and co-creation, increasing the level of involvement between both. This process is called 'Service-to-Service' (Witell et al., 2011).

Researches and literature reviews on co-creation allow a better understanding about this relationship's construction process, which is also a transfer of creation and power decision. Prahalad and Ramaswamy (2004) paved the way through the proposal of the DART model (Image 4), which is composed of basic elements necessary to assure co-creation, more specifically: (1) Dialogue; (2) Access; (3) Risk/Benefit; (4) Transparency. These basic elements allow managers to define starting points towards a co-creation strategy, able of initiating a relationship using any of the interaction means between the company and the stakeholders (Taghizadeh et al., 2016).

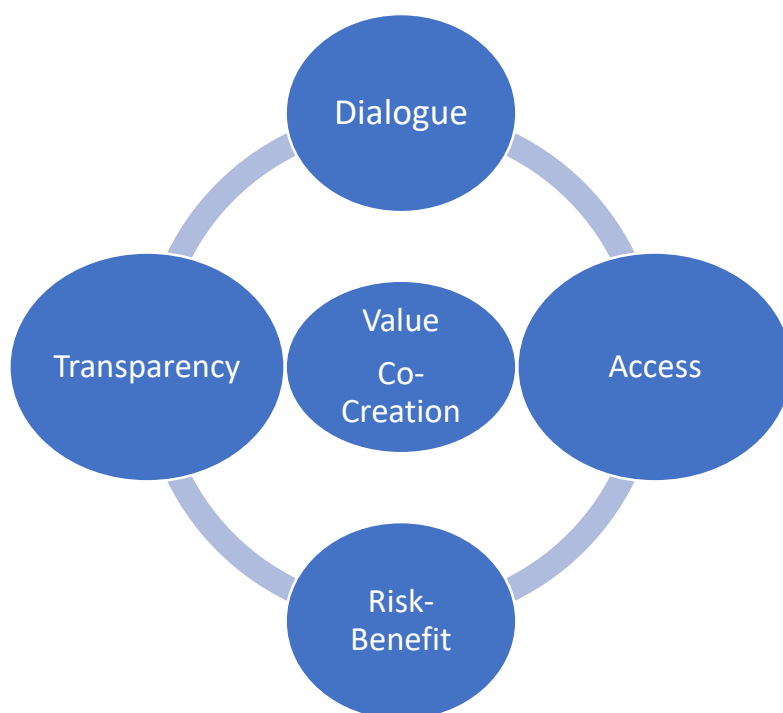


Figure 4: DART Model of Value Co-Creation

Source: Adapted from C. K. Prahalad and V. Ramaswamy (2004)

Apart from the DART reference model for co-creation, other authors map the companies and clients' processes and the common grounds between both. They enhance the importance of the relationship between the organization and the client as a group of experiences and lasting, dynamic and interactive activities. This connection is influenced by emotional factors (personality characteristics, mood and feelings), cognitive (developed through information which is present in our memories), and behavioral (actions that result from experiences) (A. F. Payne et al., 2008).

The main process for co-creation is the interaction with the consumer. To obtain feedback, research, tests, suggestions and opinions from the clients are the best way to achieve a more accurate result regarding what the target audience is looking for, thus becoming more loyal to the brand (Martinez-Canas et al., 2016).

There are companies that successfully applied co-creation. Lego, for example, was one of the known brands to begin a co-creation project with the fans by gathering ideas through the website for a series of games, as was the case of the successful television series 'The Big Bang Theory'. Ikea was another company with a competitive advantage, which adopted a co-creative approach and, like LEGO, launched several

products in the market created in cooperation with several designers (Asle Fagerstrøm et al., 2020).

Adidas has been maintaining a close relationship with their clients. They have a wide range of collections developed in co-creation, thus building an innovative e-commerce model in a more customized manner. Therefore, trust serves as a support for the 'relationship experience' with the clients. By providing their emotions, knowledge, and behaviors, consumers became active members of a trustful network (Siguaw et al., 2014).

The co-creation process with the suppliers is mainly focused in the optimization capacity of products and services, rendering them into a more efficient and cost reduced offer. Digital marketing is one of the company's sectors that can most benefit from the co-creation process as it can be decisive to identify which actions, campaigns or communication channels will be able to assure a better return and at the same time create a closer relationship with the client (Kuula et al., 2018).

3.2.2. Gamification

Gamification is a concept that has been attracting a lot of attention from both academics and practitioners, extending its influence amongst a wide range of business and entrepreneurial contexts (Buckley et al., 2019). This term is connected with technological advances felt in the 80s and the 90s, which originated a new generation. The so-called 'Y Generation' (individuals born after the 80's marked by the significant advances in technology and internet) portrays those who are technology fans. However, it was in 2010 that a greater interest arose regarding gamification, which started to be studied both academically and professionally.

Nowadays, the use of digital tools is a reality in the daily life of a substantial share of the world's population, not only in their social life, but also at work. These individuals interact through the use of social media, smartphones, and online games, amongst other technological devices. As far as games are concerned, it is estimated that part of the population may spend more than twelve hours each week in interactions provided by online games (Yust, 2014; Zichermann & Linder, 2011). In this context, the concept of gamification is being discussed by several authors and its definition changes according to the approach made by different authors (Gatautis et al., 2016).

However, independently from the wide variety of usable applications, there is one which seems to be widely disclosed to explain the gamification concept: 'The use of game design elements in nongame contexts' (Deterding et al., 2011). Some authors are clearly concerned with the misconceptions that may arise from the incorrect use of the term, considering that it is important to differentiate 'legitimate' gamification from 'rhetorical' gamification due to the fact that the latter is only an artificial device that doesn't correspond to the gamification' original intents, thus preventing the liberation of the term's full potential inside the companies (Landers, 2019).

Considering the varied tools used in the creation of games, in the development of this research we emphasize three elements that are frequently pointed out as being essential in the implementation of a gaming strategy: (1) PBL triad (Points, Badges and Leader boards); (2) Players' segmentation and (3) Motivation.

The PBL triad helps to define the way we intend to interact with the player and attract him. This triad is composed of three feedback stages: Points, Badges and Rankings. Regarding the first stage (Points), this is a feedback mechanism shared by the players and the creators, and it is usually used to encourage players to foster competition inside and outside the game environment. They are also a precious piece of information for creators, due to the fact that they allow the identification of the products that are mostly pursued by players and how they exchange their points, a type of information which can be later translated into reports that mirror consumers' preferences (Werbach, 2014). As far as the second feedback stage is concerned (Badges), it consists in the attribution of badges when the player reaches some kind of deed or milestone (Salcu et al., 2013). Finally, the rankings are connected with the acknowledgement of the player's dedication and aim to inspire other players to reach specific stages by fostering their relationship with the game. The Ranking should be as transparent as possible, thus allowing the other players to understand how a certain player has reached a particular position in the ranking (Kim, 2018).

Regarding the second element (Players' Segmentation), for the implementation of a players' strategy, Bartle (1996) establishes the players' segmentation in four differentiated types: Explorers, Achievers, Socializers, Killers. The 'Explorer' is a type of player who attempts to explore the entire map, trying to obtain the highest possible number of elements, in order to show them to the gaming community. The 'Achievers' only want to win. Maintaining these players interested is always a challenge, considering the difficulty to create games where everybody can win. The 'Socializers' participate in the games mainly because of their social dimension, although they also want to

participate and win. Nevertheless, their motivation is a result of the socialization process. The 'Killers' have a more aggressive drive, these players are similar to the Achievers, nevertheless their major difference is related to the fact that winning is not enough. For these players, if there's a winner then there is also a loser. One of the main motivations is to show off their victory to the gaming community. The segmentation provides the knowledge regarding the types of players that the initiative wants to influence. This tool is essential to the definition of the narrative associated to the game.

Concerning the third element, 'Motivation', the implementation of the strategy by the players can derive from numerous levels and aspects related to survival issues up to the attainment of some source of reward. When relating motivation with gamification, one has to consider the intrinsic motivation theory (RAMP). This theory, presented by Marczewski (2018) links two different studies: 'Intrinsic and extrinsic motivations: Classic definitions and new directions' by Ryan and Deci (2000) and 'Drive: The Surprising Truth About What Motivates Us' by Pink (2010). It mentions the four aspects that contribute the most to keep the interest of the player alive: (1) Relatedness; (2) Autonomy; (3) Mastery; and (4) Purpose. Regarding 'Relatedness', it corresponds to the wish of being connected to the others or to a brand. This may be observed through interactions developed on the leader boards, when a specific logo is shown and/or there's an exchange of messages with the other players.

As far as 'Autonomy' is concerned, it consists in the need to experience independence and freedom. The perception that people have regarding 'Autonomy' may vary according to the number of interesting choices/actions, this can be perceived in the 80/20 rule used by Google for the motivational management of their collaborators. The third aspect that most contributes to keep a player interested in the game is 'Mastery'. Mastery is the desire felt by the player in order to learn new skills and become an expert. This is mainly presented in videogames, it implies the changing of the paradigm, instead of disclosing an instruction's manual, it creates introductory levels with the purpose of teaching the players through experience ('On Boarding'). The last aspect is 'Purpose', which consists on the sensation of being a part of something bigger than the player (Šlibar et al., 2018).

In conclusion, for the development of a gamification tool independently of its purpose, the creators should, at least, be aware of the three pillars above mentioned (the PBL triad; the Segmentation of the players and Motivation). These have been established as crucial elements of gamification. Being so, this knowledge is usually a

clear indicator of the preparation level of organizations and professionals to implement gamification strategies in their businesses.

3.3. Methodology

The present research is the result of a methodological approach of a qualitative nature, considering that the main purpose is to evaluate the structural conditions necessary to implement a business strategy. Another aim is to observe possible consequences, deviations and patterns resulting from its implementation, considering that in these cases the selected approach is truly crucial, due to the fact that it presents a dynamic structure which can be adapted to the respondent's own reality; therefore, it will be fairly easy to explain the "how" and "why" of the phenomenon under investigation (Lucas, 2014; Minikel-Lacocque, 2019).

A case study guarantees its own 'argumentation' in a particular reality, thus allowing a better understanding of the facts. It also allows to deepen its operations, therefore, reflecting an alternative research methodology that has been increasingly applied by academics (Barratt et al., 2011; Lopes et al., 2018; Yin, 2015). After interviews selection (Scharp & Sanders, 2019), participants were chosen due to their experience in the field and also because they would be able to provide relevant information. Not only about the seven companies under analysis, but also regarding the sector they operate (Services). Respondents were geographically located in the northern region of Portugal, nonetheless, they operate countrywide and the characteristics of their companies can be seen below in Table 13.

Table 13: Companies Characteristics

Key Points	Company A	Company B	Company C	Company D	Company E	Company F	Company G
Net Sales	1.3B€	8.5M€	19B€	621M€	650.000€	280.000€	485.000€
Headcount	45 000	330	30 000	780	4	1	8
Range	International	National	International	National	National	National	National
Age	21	100	73	75	1	3	5
Business	Financial services	Automotive Services	Professional Services	Distribution Services	Real Estate Services	Food Services	Marketing Services

Source: Self elaboration

The individuals were contacted using an intimate and customized approach, aiming to obtain richer honest answers, thus trying to lower the influence of the interviewer and foster the feasibility of the data collected (López-Herrera & Salas-Harms, 2009).

The above-mentioned interviews intended to analyze the level of knowledge on these topics; perception about their validity, possible market applications as well as the degree of preparation of those companies to initiate these types of strategies. In order to obtain results to be compared, the script with semi structured questions applied to companies was elaborated adapting the model previously used in interviews by Nogueira-Pellizzoni and Baldanza (2019), Camargo et al. (2018) and Gomes (2014). The semi-structured questionnaire with open questions was subjected to prior validation before the interviews. The main purpose of the qualitative component was gathering the inputs to further allow the analysis of the data in a more sustainable manner. This previous qualitative collection also allowed the access to the information in a more exhaustive way, which was pivotal to explain and contextualize the results that will be presented later.

3.3.1. Research questions and method

The script of the interviews consisted of 24 questions, divided in two segments: the first aimed to collect information interconnected with the co-creation topic, while the second was related to the gamification theme. The questions were grouped according to their objective, as stated in Table 13.

- A. The purpose is to identify characteristics of the company and the sector.
- B. The purpose is to access the level of knowledge on the topic.
- C. The purpose is to highlight practical applications of the platform.
- D. The purpose is to collect the opinion of the organizations as far as the application of the topic is concerned.

Table 14: Cluster of the applied questions

Type	Question
A (business sector)	3; 7; 10; 11; 12; 13; 14; 23
B (knowledge)	1; 2; 15; 16; 20
C (applicability)	5; 6; 17; 19
D (opinion)	4; 8; 9; 18; 21; 22; 24

Source: Self elaboration

The interviews were performed between November 2019 and September 2020, onsite and remotely, according to the availability of the companies selected. After its conclusion, the data was gathered and filtered. In order to remove possible inconsistencies at this stage, we have contacted the respondents one more time, asking them to provide further details on doubtful replies. All the gathered information is summarized in Table 14.

Table 15: Concatenated answers

Question	Key Points	Company A	Company B	Company C	Company D	Company E	Company F	Company G
Q5	Main motive why companies launch co-creation programmes	Sales	Reach goals	Continuous improvement, Engagement, Feedback	The growth is slower	Need to develop new products	Improve customer relationship	Continuously improve processes and services
Q6	Main goal of co-creation	Loyalty	Purchase APP	Team alignment	Prospection of new markets	Service development	Improved engagement	After-sales support
Q17	Recommendations for a possible gamification system	N/A	Social Media development	Assessment processes	Awards	Customer communication	N/A	Role Play Storytelling
Q19	Main purpose of a gamification tool	Product promotion	Ranking of results	Operation management and recruiting	More sales	Sales increase	Interdepartmental cooperation	Promotion of products / services
Q20	The respondent is able to define a gamification strategy? (Control question)	N/A	N/A	Yes, goals; implementation; evaluation; revision	Yes, goals; rewards; monitoring; results	N/A	Yes, Objectives; History; Personal and general goals;	Yes, Strategy; feedback; Leader board;

							Rewards	Rewards
Q1	The respondent is familiar with the co-creation topic?	Engage the client in the product's creation	Doing something with external help	Creation processes using several stakeholders	Sharing ideas leads to the creation of a product	Product development with the customer	Listen to the customer's opinions and wishes	Create viable solutions for all stakeholders
Q2	The company has already applied co-creation?	N/A	Yes - subcontracting	Several actions taking place	Yes, development programmes	No	Yes, strategy development	Yes, customer shared services program
Q15	The respondent is familiar with the gamification topic?	Creation of games to sell products	Engagement tool	Use games to promote motivation	Introduction of the game component in the relationship with the client	Games applied at work	Use of games to increase engagement	Use of game dynamics to involve stakeholders
Q16	The company has already applied gamification?	N/A	No	In the applicant's evaluation	Yes, internal program of health promotion	No	No	No
Q3	The Stakeholders show interest in co-creation?	Very important issue	Yes, they act on a partnership basis	It depends on the client, but, in principle, yes	All the stakeholders are recipients	No, they value the price more	Yes, it may vary with some partners	It depends on the stakeholder but in principle yes
Q7	Recommending companies to start working the co-creation topic	Feedback	Disclosure	Disclosure and	State support	Greater training	Greater communication	Greater dissemination

				training	and use of specialized platforms	ing for managers and advice from state agencies	unication on the use of business centres for testing	mination of success stories
Q10	Preferential channel for improvement suggestions?	Marketing Department	Call Center	Live meeting	Commercial team	Sales Team	E-mail	Site and WhatsApp partition
Q11	The company has implemented a continuous improvement system where the client is an integrated party?	N/A	Yes, the responsibility belongs to the process manager	Yes, the responsibility belongs to the process manager	Client oriented for an innovation department	Yes, being controlled by management	Yes, sales management responsibility	Yes, specific department for that purpose
Q12	The client is involved with the continuous improvement system (labelled as redundant after the revision)	N/A	N/A	Yes	N/A	No	Yes	Yes
Q13	The company has more than 4 communication channels with the client?	Yes	Yes	Yes	Yes	No	Yes	Yes
Q14	Preferential channels for co-creation?	Social Media	N/A	Live of telephone Workshops	Digital Platform	Social networks	Direct telephone contact	Social networks
Q23	The company establishes a relationship with the client under an informal environment?	N/A	Usually formal	Very formal	Very formal environment	Formal	Casual	Informal
Q4	The company acknowledges that profits justify the costs associated to the development of co-creation?	Yes	Yes	Yes, being compensated by a greater involvement	The gain justifies the investment	Yes, depending on the sector	Yes	Yes
Q8	Main threats to co-creation	Conflicting interests	Insufficient resources	Marketing myopia	Business verticalization	Conflict of interests	Marketing Myopia; Lack	Conflict of interests

							of transparency	
Q9	Main advantages of co-creation	Engagement	Engagement	Engagement and feedback	Engagement	Customized products / services	Custom solutions; cost reduction; improvement in service quality	Loyalty; engagement
Q18	Gamification may harm the company's reputation?	No	Yes, positively or negatively	Yes, positively or negatively	Some clients may object	Yes, in a positive or negative way	Yes, in a positive or negative way	Yes, depending when it is, poorly explained
Q21	Main threats to gamification	Failure in the expected impact	Traditionalism and bad implementation	Marketing myopia	Failure in the expected impact	Loss of credibility and trust	Misfit objectives; Loss of credibility; Development cost	Loss of credibility; Loss of productivity
Q22	Main advantages of gamification	Market increase, Product promotion	Teamwork	Motivation	Alignment, Informality	Internal satisfaction and better alignment	Team spirit; Increased sales; Increased productivity	Team spirit; Aware of external inputs
Q24	Do you think gamification is feasible in the Portuguese business environment?	Not yet, still very incipient	Possibly yes	Yes, more influence in the tasks than in the company	Yes, but companies need support	More testing is still needed	Yes, but smaller companies have difficulty	Yes, depending on the sector

Source: Self elaboration

3.4. Results and Discussion

In Portugal, we can observe a business sector with divergent particularities towards the rest of Europe where more than 70% of the companies are family and responsible to generate 65% of the Portuguese GDP (Portuguese Family Business Association, 2019). Through the information provided in the table below (Table 15), we can see that in Portugal 69.2% of the business sector is allocated to the tertiary sector (services). Therefore, we can conclude that this kind of companies are of crucial importance to the country, however, and as rule, the culture associated with this type of business sector is highly conservative which may represent a barrier to the adoption of new commercial strategies such as the case of Gamified Co-creation (Fernandes & Ussman, 2013).

Table 16: Portugal Key Indicators

Indicators	1991	2001	2011	2018
Resident population	9 960,20	10 362,70	10 557,60	10 283,80
Active population	5 101,60	5 342,40	5 428,30	5 232,60
Personnel employed in companies	2 514,26	3 116,35	3 741,63	4 154,18
Employed population in the primary sector (%)	17,5	12,9	10,2	6
Employed population in the secondary sector (%)	33,5	33,8	26,9	24,8
Employed population in the tertiary sector (%)	49	53,3	62,9	69,2
Employees (%)	69,6	72,5	78,5	83,4
Self-employed (%)	26,7	24,7	20,9	16,2
Unemployment rate (%)	4,1	4	12,7	7
GDP	13.646(B€)	18.074(B€)	18.743(B€)	19.871(B€)

Source: www.pordata.pt, Accessed in 20/09/2020

When analyzing the information in table table15 in a chronological manner, we can see that the trend felt in the business sector is the migration of companies operating in the primary and secondary sectors to the tertiary sector. In the same table it is possible to observe an increase in the number of employees and a reduction in the level of self-employed workers, which may be related to the growth of the companies installed in the country, but also a greater risk and a lack of interest in the creation of new owned businesses. Finally, when crossing the data in the above table with the last activity report of the Portuguese Association of Family Businesses, we confirm that family businesses are responsible for a significant part of the Portuguese GDP (12.916 billion euros).

The seven interviews held in the various companies provided 168 answers. The results obtained were able to ascertain the responsiveness of each one of the companies, as well as mirror the advantages and disadvantages of gaming co-creation's application in the Portuguese business environment.

After dividing the results by the type of question applied, we started by reporting those related to the knowledge demonstrated by the companies. In this field, and relying on Q1 and Q15, we conclude that, in general, all the companies demonstrated that they are already familiar with the areas of co-creation and gamification and being able to describe the basic processes inherent to each one of the methodologies. Results confirm that companies "C", "D" e "G" are the best prepared, since they have obtained the highest rating in this regard; this result is justified by Q2 and Q16, where it becomes clear that both were already using co-creation and gamification tools and also incorporated those tools in their daily working practices, even so, in the case of company "G", we see a greater use of co-creation to the detriment of gamification.

This result was acknowledged in case studies previously presented in the pharmaceutical industry in Portugal, which intended to relate the implementation of gamification to monitor the different processes of quality revision of the products in a highly regulated and entangled sector, as is the case of the Health sector (Marcão et al., 2019). This research correlates gamification concepts with the applicability of new organizational processes applied in a case study with the project team of Altran Portugal S.A. Still in the same environment, i.e., human resources companies performing in the national market, Randstad Portugal, through a partnership with the project Foundry, has been developing several projects and solutions using gamification to engage the human resources and motivate teams in its business model. Gamification, as a recruiting tool in human resources companies, is a widely developed process, in which several recruiting scenarios are outlined through the use of gamification experiences, thus justifying a familiarity with the final results (Zielinski, 2015).

Taking into account that both sectors have shown some knowledge about the above-mentioned methodologies, we used Q5 and Q6 to conclude that five of the seven companies confirmed that co-creation is a type of functionality directly related with the sales increase. The same happens when the topic gamification is addressed (Q19), although different terms are used, the purpose is still geared towards the increase on sales performance, in the case of company "F", the objective is oriented towards interdepartmental cooperation within the company.

It became clear that one of the main assumptions for co-creation is the creation of value. This means, that the answers are connected with a strictly business perspective (internal) tailored to the creation of value represented by money. Such is related to the controversial role of co-creation when the innovators are searching for profits (Martovoy & dos Santos, 2012). The wideness of the questions presented allows the evaluation of the level of intention regarding the relational deepening with the client, which, ultimately, aims at increasing the sales (Bai, 2018).

Still related to the topic of applicability, with the exception of companies “A” and “F”, the respondents presented several development lines to co-create gamification methodologies (Q17), we can mention ‘social media development’, connection promotion with the clients; role play and storytelling, to engage the customer with the company; ‘assessment processes’, favoring the individual’s evaluation inside the organizations and, finally, the ‘awards programs’, thus allowing an alignment of human resources with the institutional goals.

In the present research we also assessed the environment where companies are immersed and the way they relate with it. Considering Q3 and with the exception of company “E”, which believes that customers value the price more, we concluded that all companies are well aware that their stakeholders highly acknowledge a significant value in the application of co-creation and gamification methodologies, in this sense, and with the exception of company “A”, all the respondents involve their clients in the continuous improvement processes nevertheless, it usually happens on a controlled and limited environment, even so, companies “D” and “G” have a specific department for this purpose, as stated in Q11.

Etgar (2008), departs from this level of involvement and control, intended to differentiate the process of co-creation from the process of co-production, considering that in the first case there’s an active participation of the clients in distinct productive activities, whereas in co-production, the participation of the client is identified in the production stage of the product or service, but limited in the chain’s integration level, as we could conclude from the answers. The continuous improvement process, in accordance with the clients’ expectations, implies listening to the consumers, gathering and disclosing feedback about the whole creation process (F. Greenwood, 1992), and being the main focus of value, the client should be included in new co-creation structures, thus assuring the expected return (Heavey et al., 2014).

With exception of companies “F” and G”, a common characteristic of the Portuguese business environment is related to the fact that companies tend to prefer a more formal communication flow with their clients (Q23), although most of them provide multiple communication channels to clients, company “F” only provides 2 channels (Q13), the majority ends up choosing the most traditional tools, such as Call Centers and Sales Reps, this tendency is contradicted by company “G”, which bets on a more informal communication through a direct line created in the application “WhatsApp” (Q10).

Being aware of the above-mentioned characteristics, companies believe that the channels currently preferred by the clients are not the most efficient ones for the implementation of a co-created gamification strategy. Using Q14, alternative channels are presented such as ‘digital platforms’ for their interaction qualities; ‘social media’, due to their disclosure capacity and ‘telephone or live workshops’, which are focused in improving the involvement with the stakeholders.

C. K. Prahalad and V. Ramaswamy (2004) state that, as far as the co-creation process is concerned, one of the suggested dimensions is dialogue, because it is a natural communication channel to interact with the co-creators. Therefore, we consider that this conscience of a communication of sorts doesn’t enable the co-creation process; however, it can be fought by social media, thus opening a ‘co-creative network’ (Donato et al., 2017).

Having in consideration that the co-creation and the gamification topics are relatively recent in the Portuguese business environment, some companies feel some constraints when they activate this type of methodology. All the respondents have presented factors which they believe are critical for success (Q7), such as the commitment to strongly promote programs aiming at reaching the target audience, thus allowing an increase in the ROI. The feedback of the client must be taken into consideration since the very first moment, in order to assure a more accurate focus and in turn lower the deviation risks, while preventing possible budgetary slippages. The state is defined as a strategic partner, considering its support could mitigate part of the development’s associated costs, in the case of company “E”, the inclusion of material related to management in the secondary education system is also suggested, taking into account the fact that more than 50% of SME’ managers in Portugal only have 9th year of scholarship (Medeiros, 2019).

Although the limited perception of value creation by brands within the scope of a co-creation system, it became clear the leverage that this process brings to the industry

overpowered by the burgeoning presence of the marketing influencers. On the other hand, the measurement of the value created for companies is hardly an easy task, thus entailing some liabilities. The process has been growing as far as transparency is concerned, but it is essential to put forward a set of control methods (KPI's and ROI) (Pilon & Hadjielias, 2017; Zaborek & Mazur, 2019).

Finally, we approach the topic related to the way companies would consider the feasibility of a co-created gamification methodology. As any working methodology, there are risks and advantages in this type of tool, as far as hazards are concerned (Q8 and Q21). Companies have highlighted the so-called Marketing myopia, conflict of interests, lack of trust and the scarcity of resources as possible threats, in case the development process is not duly safeguarded, in the case of companies "E" and "G" there is a special concern on the credibility damage that companies may suffer.

They also pointed out the traditionalism associated to the business environment as a possible entry barrier and also the fact that this methodology could be seen by the client as an attempt to carry out the business verticalization, thus leading to a failure in the intended impact; in this particular case, the existence of some conservative barriers in the implementation of a co-created gamification methodology are, in consequence, validated.

Richard et al. (1993) identified the strategic frames of those companies, which are hostages of the business goals and 'SMART' methodologies, disregarding the gamification's feedback power and the element stating that consumers want to play this game, being so, they should comply with the rules (Raj & Gupta, 2018).

On the other hand, companies are not unaware of the advantages inherent to the adoption of a co-created gamification methodology, in Q9 and Q22 some of the positive aspects of this type of strategy were pointed out.

Special emphasis was given to the significant increase in the 'engagement' of all the stakeholders, increase of external inputs, as well as the contribution to a market increment and product's promotion, enabling a tool to create "Custom services" as indicated by companies "E" and "F. At an internal level, these strategies also present some advantages, such as the fostering of team work productivity increment and alignment with the goals and promotion capacity regarding the informal relationship with all the intervenient parties.

Breaking orthodoxies and being disruptive is rarely seen in the DNA of most of the small and conservative organizations found in the Portuguese business environment.

In order to initiate a scrutiny related to the interest of the respondents in adopting this methodology, we used Q18 to assess if they acknowledged that it could affect (or not) their reputation in the market, and how. With the exception of company "A", the answers demonstrated that all the respondents recognized that the adoption of such a strategy has an effective impact on company's reputation in the market. This impact may prove to be positive or negative, depending on the actions developed in the different stages of the process.

The results obtained are based on the idea that the implementation of a co-created gamification methodology strategy displays a tool that could provide a competitive advantage if used in the correct manner, thus prevailing the risk of starting a disruptive process in the sector (Shams & Kaufmann, 2016; Whalen & Akaka, 2016).

As a way of validating the previously collected data, we used Q4 to confirm that all companies posit that the gain obtained through the adoption of a co-created gamification methodology totally justifies the cost associated to its development. This was confirmed by Q24, where it was possible to conclude that five out of seven companies believe in the feasibility of this type of solution for the Portuguese market.

Although this is not a widely disclosed methodology in the Portuguese business environment, there are companies whose core business is the development of engagement solutions using gamification approaches.

These companies operate in the B2B market, and, in their projects' portfolio they have partnerships with several sectors of activity, such as: automobile, cosmetics, distribution, human resources, insurance, health, industry, banking, construction, food (Alsawaier, 2018; Nobre & Ferreira, 2017; L. F. S. da Silva et al., 2019).

3.5. Conclusions and Future Research

The present research aims to deepen qualitatively the understanding of the relationship between co-creation and gamification when applied to the services sector, test the level of methodology acceptance in a peripheral country within a business sector mostly composed by SMEs operating in the services sector and contribute with insights to help companies to develop and implement strategies tailored to this type of markets. For this purpose, several interviews were carried out in national and international companies providing services and operating in the Portuguese market.

It was possible to conclude that all the respondents already knew the co-created gamification methodology, albeit they don't master it. It was also confirmed that, although

it is a relatively recent topic, there are companies that are currently using this type of methodology and taking advantage of it. The company that mostly profit from this methodology is company “C”. This company uses gamification metrics to evaluate the applicants and improve the levels of assertiveness of the employment allocations, company “G” has also verified gains by working with this methodology, they used it to develop a service sharing program with its customers. The other companies presented daily practices of gamification tailored for engagement and team motivation, but they don’t confirm the applicability of these advantages in the interactions with the stakeholders and the clients.

We observed that it is not necessary to look for extensive training to supply the companies with the essential valences that could allow them to develop this methodology, considering that they have confirmed the existence of a basic knowledge connected with it.

Regarding the sales resulting from the use of a co-created gamification methodology, it can be concluded that with the exception of company “G” that believes in implementing this methodology to improve after-sales service, most companies perceived it as a tool to assure sales growth, leaving aside possible applications that don’t lead to an immediate sale. After hearing the experience and knowledge of the respondents, it was possible to point out potential implementation strategies, like the use of external trainers for companies without the necessary know-how, the creation of a network to produce and share knowledge with the several stakeholders, among others.

After comparing the advantages and the disadvantages related to the adoption of a co-created gamification methodology, we concluded that the majority of companies confirm the feasibility of its use; however, it should be developed under a controlled environment. Companies “A” and “E” showed a conservative attitude, which most certainly will hamper the implementation of a co-created gamification methodology.

Despite being the smallest and the most recently created companies "F" and "G", bet on a dematerialization of the business and therefore tend to prefer to carry out their commercial activity in a direct but digital contact, thus looking for a structure reduction and suggesting a predisposition to counter the tendency inherent in companies of this kind and be more tolerant to risk. This research may be used by several companies, thus allowing a more confident and disruptive approach towards their clients. It also enables an holistic vision regarding the implicit motivations in the use of a co-created gamification methodology and the return expected by the organizations.

The results of this research may be considered as beneficial for some economic agents, namely in terms of knowledge and training for new methodologies. These new methodologies may even bring mid-term benefits to local economies. The use of innovative methodologies such as co-creation, gamification or the symbiosis of both are already being put in practice by companies as a mechanism of engagement, motivation and internal loyalty. As a consequence, the present research contributes to clarify the implementation of this type of methodologies within the internal scope of the organizations.

This research provides an input to the academic studies in the area of business sciences and strategies to deal with the creation of value. There are not many applied studies related to co-creation in the massive gaming market. This has been clearly a growing market, due to the predominance of the new social trends. To help companies with the implementation of a co-created gamification methodology, it is crucial to assure cooperation with the clients in the creation of value.

Regarding the limitations of the present study, it should be mentioned that it contemplates only seven companies located in Portugal, thus being impossible to generalize the results. Concerning the elaboration of the interviews, several questions included in previous studies were adapted and used. However, some relevant studies regarding this topic were not considered, consequently, some potential interesting questions were left out.

As for future research lines, we suggest the elaboration of new researches in companies belonging to other sectors. It is also necessary to carry out quantitative studies on the implementation of a co-created gamification methodology in companies in order to generalize the results. Another research could assess the impact of Brand Equity that results from gamification and co-creation, through a study applied to consumers. It would also be possible to assess the impact of co-creation within the scope of gamification on a start up's Brand Equity process, and the liability/benefit factors in such a strategy at an early stage.

CHAPTER 4 – CONCLUSIONS

4.1. Main Research Findings

Gamified marketing can take many forms, since its ambivalence is limited only by the imagination of the marketer and public acceptance.

Bearing this in mind, two scientific articles were developed throughout this dissertation in order to reconcile the perception of companies on the subject, but also to listen to consumers' perspective on the same matter.

With regard to consumer' perspective, this dissertation concluded that for the Portuguese user, contact with gamified marketing represents an added value in communicating with the brand. At the same time, it was observed that gamified marketing can actively influence engagement as well as word to mouth.

Looking at the word to mouth, we see that it does not demonstrate the ability to lead an individual to get involved with a gamified marketing strategy for a given brand. However, we can see that it can influence the opinion that the individual develops about the brand.

Gamified marketing was also highlighted as an active loyalty tool. Most individuals demonstrated the intention to continue to interact with that gamified environment and showed an interest in trying similar activities in the future. This beneficial relationship between marketing and gamification can be justified by the ease of interaction presented by respondents, having classified the activity as a fun game.

Within the games it was observed that although the preferences of the respondents vary according to age and gender, adventure games are pointed out as the ones that gather the most supporters, regardless of gender or age.

However, not all tools removed from games are considered beneficial, for example “player profiles” ended up receiving the lowest rating with regard to their usefulness. Contrasting directly with “badges” that are pointed out as a crucial tool and that are most useful in a gamified marketing strategy.

Although the present dissertation fails to establish a connection between the motivations that lead the consumer to become involved in a gamified marketing strategy, it was demonstrated that the consumer considers the impact of this type of strategy to be positive, recognizing the validity of actions of this kind. Having validated the drive of

gamified marketing to consumers, it is necessary to assess the repercussions that it can trigger within organizations.

In this sense, this dissertation seeks to assess the level of acceptance of gamified marketing within the Portuguese business sector. For this purpose, interviews were conducted with marketing managers addressing a possible gamified co-creation tool.

From the interviews with managers, it was possible to validate that, although not all organizations dominate gamified marketing, most of them have knowledge about the topic.

Of the companies that have great knowledge around gamified marketing, two areas of action stood out (HR and MKT) because they already implement gamified marketing strategies in their daily operations with their customers. While the remaining companies demonstrated some gamification, knowledge oriented towards the internal environment and motivating teams.

Nevertheless, with the exception of the insurance area, which presents a more conservative stance, all companies surveyed observe gamified marketing as a tool that, directly or indirectly, should be used to promote sales.

However, the surveyed companies that have already developed gamified marketing activities highlight more internal than external gains, showing significant gains in motivation and alignment of employees at the expense of direct sales increases.

Although most of the companies surveyed have knowledge to develop a basic gamified marketing strategy, the existence of some challenges in its applicability was validated. Having been highlighted, within the various obstacles pointed out, the type of communication developed by companies as a possible barrier to implementation, since a gamified marketing strategy implies closer contact and less formalism. What we find that is not in line with the policy of most companies surveyed.

Another possible obstacle to gamified marketing is related to the business fabric where it will be developed. Since all the companies surveyed highlighted risks that may arise from putting such a strategy into practice. Risks such as the loss of credibility and trust, as well as high development costs are, as a rule, deterrent factors for any organization, however they acquire a greater preponderance when we speak of small and medium companies, which constitute the bulk of the Portuguese business fabric.

Last, but not least, we can conclude that the adoption of a gamified marketing strategy presents risks for the organization, however, when properly applied, it can result in significant gains in the engagement and brand attitude of the brand.

The information obtained in conjunction with the entire literature review carried out throughout this dissertation, leads to the suggestion of a possible implementation model for new gamified marketing experiences (Figure 5).

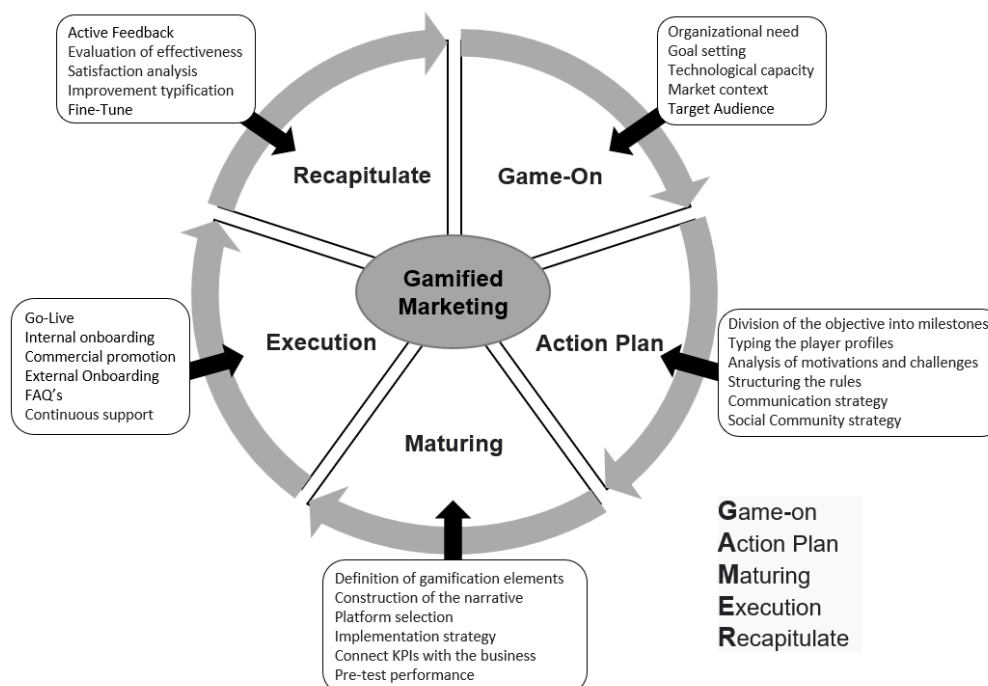


Figure 5: Gamified Marketing Implementation Model "GAMER"

Source: Self elaboration

The initial phase (Game-on) seeks to ensure a comprehensive analysis of the foundations of the action, since one of the obstacles pointed to development is the weak definition of objectives. Therefore, it is recommended that the organizational objectives are well structured and at the same time there are no doubts as to the technological capacity of the organization, neither about the target audience nor the market where it is located.

Subsequently, we moved to the Action Planning phase, where the literature advises the division of the objective into small milestones, in order to promote the motivation of the participants. At this stage, as we verified throughout this dissertation, different types of player present different motivations and challenges, in this sense it is

important to typify the public as to their type of player in order to better structure the rules and narrative. It is also at this stage that the communication and interaction strategy between players must be devised. Not only because social influence in the players' decisions has been validated, but also due to the danger pointed out by some companies, that if the action is not correctly presented to the public, you may experience the risk of discrediting the idea.

Moving on to the final stage of development (Maturing). Where, taking into account the narrative to be developed, the gamification mechanics that best fit the goals and player profiles are added. We realized that the action must contain precise and measurable indicators to be considered valid by the company, therefore, it is at this stage that the connection between the main KPIs and the business should be idealized. We also verified that many of the strategies are developed internally and when they reach the market, they may not correspond to 100% with the expectations, in this sense, it is also recommended to carry out a pre-test to check the public's acceptance.

Once the pre-test was validated, we reached the stage of implementation of the action (Execution). In this phase, the literature points to the need to first communicate the gamified marketing activity internally and only later externally, thus enabling the creation of a continuous communication channel and thus responding to a need that both companies and consumers consider a critical success factor.

Finally, we have the recapitulation and action evaluation phase (Recapitulate). The present dissertation demonstrated that often the effectiveness may not be related to the satisfaction, in this sense they must be analyzed separately. It was also demonstrated the continuity that gamified marketing actions may have, in this sense it is necessary to carry out adjustments to it, so that it is able to evolve along the objectives of the organization and the needs of the public.

4.2. Practical and theoretical implications

This dissertation used a set of study methodologies aimed at establishing a relationship between academic knowledge and what is observable in organizations and consumers.

In this sense, resulting from the work developed, a possible new approach to the TAM model appears when applied to gamification, contributing directly to academic knowledge, but also to future projects related to the theme.

It was also demonstrated that the use of gamification as an engagement tool can have a positive impact on the brand attitude of the brands that are operating in the Portuguese market. Even so, we find that some organizations tend to focus too much on gamification and put communication in the background (or the opposite) and this causes inconsistencies in the action.

The present dissertation concludes that organizations that are concerned with developing their actions while observing communication and gamification simultaneously, tend to have better results, achieving a superior impact on the brand attitude generated by the gamified marketing action.

Regarding the ability of organizations develop gamified marketing strategies, we conclude that most organizations have incipient knowledge on the topic, however, we find that managers who dominate the topic tend to present more robust and greater gamified marketing strategies. success.

In this sense, in companies that still do not master the topic, it is recommended to use external entities (specialized in gamified marketing) to aid development, in order to reduce the company's exposure and risk, contributing significantly to the success of the action.

Analyzing consumers, we noticed that they observed gamified experiences as fun tools that enhance their interaction with the brand. However, consumers' motivations and desires can vary depending on a number of factors.

Therefore, before developing a gamified marketing action, organizations must invest in the typification of the player profile present within their audiences, thus enabling the construction of narratives adapted to each profile, achieving a greater probability of success in their actions.

Although gamified marketing is seen as viable by companies and consumers, the experiences developed in the Portuguese market are, as a rule, oriented towards an immediate sales process, which is often not in line with consumer expectations.

In order to fight this mismatch of expectations observed in some gamified marketing actions, it is recommended that companies, before beginning the development of a gamified marketing action, carry out an internal and external consultation in order to relate their objectives with consumers expectations, thus ensuring greater consistency in the message and a significant improvement in public satisfaction.

As previously indicated, the knowledge acquired throughout this dissertation cemented the creation of the “GAMER” model (figure 3). It is expected that this model, when adopted by companies or academics, will be able to contribute to a better orientation of the development of a gamified marketing action, but also to a reduction of possible errors already experienced in past situations.

Reinforcing the aforementioned, the results presented in this dissertation can assist managers and companies in the various stages of developing gamified marketing strategies, since they point to factors that directly or indirectly influence the relationship between consumer and brand, allowing a better understanding of dynamics and challenges of gamified marketing.

This dissertation contributes equally to the enrichment of academic knowledge in the areas of management and marketing, as it provides a holistic view of gamified marketing, mirroring not only its possible applications, but also advantages and challenges observed by the market.

4.3. Limitations and Future Lines of Research

With regard to limitations in this dissertation, we can highlight right away that it only addresses two of the possible applicability's of gamified marketing.

On the one hand, the strategy used in listening to consumers only observed an audience that somehow used mobile applications in the course of physical activity, which ends up directly limiting the sample.

The same can be said of the strategy used to listen to organizations, where only companies linked to the services sector are interviewed on a gamified marketing format, which may limit the responses of respondents. The interviews and surveys carried out arose from the adaptation of questions observed in previous studies. However, some relevant studies were not considered for this purpose, leaving room for a better deepening of the scripts used.

Even though in the course of both chapters there was a concern to address the topic of gamification from a general and exploratory perspective, we conclude that the present dissertation can be preliminary in the observed elements, since the focus was directed only on the subjects under development (gamified mobile applications and gamified co-creation tools).

In this sense, in order to continue the study of gamified marketing, we suggest the observation of the subject through other gamified applications, which contain different gamification elements and a more diverse audience. It is also important to mention the scarcity of scientific studies that address the subject of gamified marketing applied to the Portuguese market, which justifies an incentive on the continuity of research to be developed on the subject. Even so, gamified marketing is not a phenomenon that occurs only in the Portuguese sector, in that sense the replication of these studies in other types of markets can prove to be interesting, especially in the comparison of results.

The “GAMER” implementation model, shown in figure 5, offers a tool that aims to help managers and creators in the development of gamified marketing, in this sense, it would be interesting to put the model into practice and collect feedback from the creators for validation and some necessary fine tune.

Finally, the present dissertation paves the way for the creation of a mobile application of gamified co-creation in the Portuguese market, so it would be equally interesting to follow an application developed according to the guidelines of this dissertation and analyze its impact on the brand attitude of the brand. As well as comparing the results obtained with the results of other applications

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List of Attachments

Attachment I

Gamificação, sim ou não?

Este questionário é desenvolvido no âmbito de uma dissertação de mestrado em Gestão Empresarial a decorrer no European Business School (ISAG). O mesmo, têm como objetivo realizar um estudo para medir a perceção dos consumidores quanto à viabilidade da introdução da gamificação (elementos de desenvolvimento de jogos em contextos que não sejam de jogo) nos canais de comunicação das empresas.

O presente questionário é composto por questões de escolha múltipla, sendo que o tempo estimado de resolução do questionário é inferior a 5 minutos.

O mesmo é desenvolvido em torno da aplicação Nike Run Club. Caso ainda não tenha utilizado a aplicação, pode descarregá-la para o seu smartphone, disponível em Android (Play Store) e IOS (App Store), e experimentar.

- <https://play.google.com/store/apps/details?id=com.nike.plusgps>
- <https://apps.apple.com/us/app/nike-running/id387771637>

***Obrigatório**

1. Já utilizou a aplicação Nike Run Club? *

Marcar apenas uma oval.

Sim

Não *Avançar para a secção 6 (Obrigado Pela Ajuda!)*

Parte
I

Por favor considere a sua experiência com a aplicação Nike Run Club e responda às questões de acordo com as classificações em baixo indicadas, utilizando a opção que mais se adequa a si.

2. A aplicação motivou-me eficazmente a pensar na Nike. *

Marcar apenas uma oval.

1 2 3 4 5

Discordo Totalmente Concordo Totalmente

3. A aplicação aumentou a minha familiaridade com a Nike. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

4. Considero a aplicação uma ferramenta útil no marketing da Nike. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

5. Foi fácil aprender como utilizar e competir com outras pessoas. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

6. O equilíbrio entre utilizar a aplicação e competir encontra-se bem estabelecido. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

7. Foi fácil aceder à aplicação e conseguir alguém com quem competir. *

Marcar apenas uma oval.

1 2 3 4 5

Discordo Totalmente Concordo Totalmente

8. Se os meus amigos consideram divertido participar na competição da aplicação, eu também vou participar. *

Marcar apenas uma oval.

1 2 3 4 5

Discordo Totalmente Concordo Totalmente

9. Se os meus colegas de escola/ trabalho consideram divertido participar na competição da aplicação, eu também vou participar. *

Marcar apenas uma oval.

1 2 3 4 5

Discordo Totalmente Concordo Totalmente

10. Se algum conhecido meu considera divertido participar na competição da aplicação, eu também vou participar. *

Marcar apenas uma oval.

1 2 3 4 5

Discordo Totalmente Concordo Totalmente

11. A aplicação é interessante. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

12. Diverti-me a utilizar a aplicação. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

13. A aplicação foi uma boa maneira de passar o meu tempo livre. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

14. Senti-me envolvido com a aplicação de uma maneira agradável. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

15. Tenciono voltar a experimentar atividades deste género. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

16. Tenciono utilizar frequentemente esta aplicação no futuro. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

17. Tenciono continuar a utilizar esta aplicação porque é divertida. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

18. Esta atividade fez-me sentir mais ligado emocionalmente com a marca Nike. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

19. Esta atividade despoletou sentimentos positivos para com a marca Nike. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

20. Sinto-me mais inclinado a adquirir artigos Nike após participar na atividade. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

21. Esta atividade faz-me sentir prazer ao comprar um artigo da marca Nike. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

22. Esta atividade faz-me sentir prazer ao utilizar um artigo da marca Nike. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

23. Esta atividade despoleta o meu interesse em utilizar outros artigos/ serviços da marca Nike. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

24. Gostei da experiencia de utilizar a aplicação e competir online. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

25. Vou recomendar a Nike a outras pessoas. *

Marcar apenas uma oval.

	1	2	3	4	5	
Discordo Totalmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo Totalmente

Parte
II

Refletindo sobre outros jogos que aprecie, por favor responda às questões em baixo indicadas.

26. Indique o seu tipo de jogo favorito? *

Marcar apenas uma oval.

- Aventura
- Simulação
- Puzzle
- Estratégia
- Plataformas
- Nenhum
- Outra: _____

27. O que mais o motiva a jogar? *

Marcar apenas uma oval.

- Jogar com outras pessoas
- Desafio mental
- Desafio físico
- Aborrecimento
- Para socializar
- Nenhum
- Outra: _____

28. Com que frequência costuma jogar? *

Marcar apenas uma oval.

- Diariamente
- Semanalmente
- Mensalmente
- Raramente
- Nunca

Por favor classifique cada um dos elementos de jogos em baixo indicados, atendendo ao contributo que desempenham quando joga.

29. Pontos (Pontos ganhos por atingir objetivos no jogo, possíveis de ser trocados por itens reais ou virtuais). *

Marcar apenas uma oval.

	1	2	3	4	5	
Muito Negativo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito Positivo

30. Tabelas de classificação (Tabela com a classificação alcançada por cada jogar). *

Marcar apenas uma oval.

	1	2	3	4	5	
Muito Negativo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito Positivo

31. Perfil de jogador (Personalização de avatar e estatísticas pessoais). *

Marcar apenas uma oval.

	1	2	3	4	5	
Muito Negativo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito Positivo

32. Equipa (Possibilidade de jogar em equipa com outras pessoas). *

Marcar apenas uma oval.

	1	2	3	4	5	
Muito Negativo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito Positivo

33. Barras de progresso (Gráficos indicadores do nível de conclusão de um objetivo). *

Marcar apenas uma oval.

	1	2	3	4	5	
Muito Negativo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito Positivo

34. Emblemas de conquistas (Emblema concedido como reconhecimento pela conclusão de um objetivo). *

Marcar apenas uma oval.

	1	2	3	4	5	
Muito Negativo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito Positivo

Parte III - Covid_19

35. Antes do confinamento motivado pela pandemia de Covid_19, usava com frequência a aplicação Nike Run Club para fazer exercício. *

Marcar apenas uma oval.

	1	2	3	4	5	
Nunca	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Sempre

36. No decorrer do confinamento, o uso da aplicação Nike Run Club para fazer exercício foi afetado. *

Marcar apenas uma oval.

	1	2	3	4	5	
Nada afetado	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Totalmente afetado

37. Estando terminado o confinamento motivado pelo Covid_19, vai aumentar a frequência de uso da aplicação Nike Run Club para fazer exercício. *

Marcar apenas uma oval.

	1	2	3	4	5	
Nada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Totalmente

Parte IV

Por favor seleccione a opção com a qual melhor se identifica.

38. Género *

Marcar apenas uma oval.

- Masculino
 Feminino

39. Idade (número) *

40. Grau de Ensino *

Marcar apenas uma oval.

- 9º ano ou inferior
 12º ano ou inferior
 Licenciatura
 Mestrado
 Doutoramento
 Outra: _____

41. Residência *

Marcar apenas uma oval.

- Viana do Castelo
- Braga
- Vila Real
- Bragança
- Porto
- Aveiro
- Viseu
- Guarda
- Coimbra
- Castelo Branco
- Leiria
- Lisboa
- Santarém
- Portalegre
- Setúbal
- Évora
- Beja
- Faro
- Açores
- Madeira

Obrigado Pela Ajuda!

Este conteúdo não foi criado nem aprovado pela Google.

Google Formulários

Attachment II



Instituto Superior de Administração e Gestão do Porto
Mestrado em Gestão Empresarial/ Direção Comercial e
Marketing 19/20

Gamificação como plataforma de Cocriação

Questionário qualitativo realizado no âmbito da unidade curricular de Gestão de Marketing em virtude da realização de Mestrado em Gestão de Empresas

Enquadramento

O tema da Gamificação como plataforma de cocriação tem sido alvo de diversos estudos, procurando estabelecer uma relação entre as duas áreas e identificar em que aspetos é que a aplicação de tal ferramenta pode impactar a experiência do consumidor e a forma como as marcas se relacionam com os mesmos.

Após análise da pesquisa previamente conduzida por outros investigadores, verificamos que muitos dos artigos atualmente publicados procuram analisar o tema focados na perspetiva do consumidor e o impacto que a ferramenta pode ter para o mesmo. Por conseguinte, verificamos que a vertente das organizações ainda não se encontra extensamente estudada e como resultado, esta é uma das lacunas apresentadas por muitos autores.

Este inquérito centra-se na abordagem do tema da Gamificação e Cocriação junto das organizações, procurando aferir de forma qualitativa o conhecimento das empresas sobre os tópicos o esforço necessário para o desenvolvimento e se o mesmo é ou não considerado como viável na perspetiva das empresas.

Inquérito

Entrevistado:

Idade:

Escolaridade:

Empresa:

Sector:

Cargo:

Tempo de experiência:

Parte I

Q1: Por palavras suas, por favor descreva o significado de Cocriação.

Q2: A sua empresa tem ou já teve algum programa de cocriação? Se sim, por favor descreva.

Q3: Como descreve os seus stakeholders, nomeadamente fornecedores e clientes, em relação ao tema da cooperação?

Q4: Na sua opinião, o custo de desenvolvimento de um sistema de cocriação pode ser justificado pelo ganho obtido na relação com o cliente?

Q5: Qual acredita ser o motivo mais preponderante para levar uma empresa a criar um programa de cocriação?

Q6: Se tivesse de desenvolver uma ferramenta de cocriação na sua empresa, qual seria a finalidade?

Q7: Sendo a cocriação um tema relativamente recente em Portugal, é normal que o tecido empresarial ainda não se encontre totalmente familiarizado com o conceito. Qual acredita ser o caminho ideal para as empresas começarem a ter um melhor entendimento sobre o tema?

Q8: Identifique ameaças num contexto de cocriação.

Q9: Identifique vantagens num contexto de cocriação.

Q10: Como pode um cliente contactar a empresa para sugerir uma melhoria?

Q11: Se um cliente contactar a empresa e sugerir a criação/ alteração de um serviço/ produto, como a empresa trata a situação?

Q12: No processo de melhoria contínua, em que aspetos é o cliente tido em consideração e, se existente, como se processa o diálogo com este?

Q13: Existe mais que um canal de comunicação com o cliente? Por favor descreva.

Q14: Nos canais indicados na Q13, o consumidor é encorajado a trocar ideias com a organização? Se sim, por favor indique de que modo.

Parte II

Q15: Por palavras suas, por favor descreva o significado de Gamificação.

Q16: Conhece alguma estratégia de gamificação, aplicada pela sua empresa ou outras? Se sim, por favor indique qual a empresa e descreva a estratégia.

Q17: Consegue indicar uma maneira “divertida” para conseguir aumentar o relacionamento com os seus clientes?

Q18: “Uma estratégia de gamificação pode afetar a reputação de uma empresa”, por favor comente a frase.

Q19: Se tivesse de desenvolver uma ferramenta gamificada na sua empresa, qual seria a finalidade?

Q20: Por favor indique as etapas presentes no processo de desenvolvimento da sua ferramenta de gamificação.

Q21: Identifique possíveis ameaças representadas pela gamificação.

Q22: Identifique possíveis vantagens representadas pela gamificação.

Q23: Descreva o relacionamento da empresa com o cliente (Formal; Informal; Casual), justifique por palavras suas.

Q24: Uma vez que o tecido empresarial nacional é, na sua maioria, constituído por empresas de pequena e média dimensão, será a gamificação uma ferramenta viável para estes negócios?

Obrigado pela sua participação!