MARKETING & TOURISM Review
NEECIM TUR | UFMG
ISSN 2525-8176

Recebido em 06.09.2021
Aprovado em 20.11.2021
Avaliado pelo sistema double blind review
Editor Científico: Marlusa de Sevilha Gosling

DOI: 10.29149/mtr.v7i1.6783

# THE BRAZILIAN PLAYER OF LEAGUE OF LEGENDS: PROFILE AND PLAYING MOTIVATION[1]

## O JOGADOR BRASILEIRO DE *LEAGUE OF LEGENDS*: PERFIL E MOTIVAÇÃO PARA JOGAR

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## ABSTRACT

The aim of this paper is to identify the profile of the Brazilian player of League of Legends by understanding the motivations that lead them to play. The video games industry is a growing market with the potential to provide interest insights to the field of consumer research. League of Legends is a MOBA game developed by Riot Games in 2009 and had over 100 million monthly players in 2016. We used a quantitative approach to achieve the research goal. The Digital Games Motivation Scale (DGMS) was applied in a survey with 240 players. PLS-SEM was utilized to identify how this motivation affect the behavior of the players. We found that pastime, performance, habit and agency were the most important motives for the players and motivation has a greater impact when it comes to the number of hours the player spends on the game daily, the number of matches they play, the interest they have in buying game items with real money. Finally, the limitations of the study and suggestions for future research are presented.

**Keywords:** League of Legends, Motivation to Play, PLS-SEM.

1 – This article was accepted and presented in 12° Latin American Retail and Consumption Conference in 2019.

## RESUMO

O objetivo deste artigo é identificar o perfil do jogador brasileiro de League of Legends por meio do entendimento das motivações que o levam a jogar. A indústria de videogames é um mercado em crescimento com potencial para fornecer percepções de interesse para o campo de pesquisa do consumidor. League of Legends é um jogo MOBA desenvolvido pela Riot Games em 2009 e teve mais de 100 milhões de jogadores mensais em 2016 (Tassi, 2016). Usamos uma abordagem quantitativa para atingir o objetivo da pesquisa. A *Digital Games Motivation Scale* (DGMS) foi aplicada em uma pesquisa com 240 jogadores. O PLS-SEM foi utilizado para identificar como essa motivação afeta o comportamento dos jogadores. Descobrimos que passatempo, desempenho, hábito e agência são os motivos mais importantes para os jogadores e a motivação tem um impacto maior quando se trata do número de horas que o jogador passa no jogo diariamente, do número de partidas que joga, do interesse em comprar itens do jogo com dinheiro. Por fim, são apresentadas as limitações do estudo e sugestões para pesquisas futuras.

**Palavras-chave:** League of Legends, Motivação para Jogar, PLS-SEM.

## INTRODUCTION

Technology is expanding to optimize several processes. With the use of advanced technology, video games have begun to gain more popularity in recent decades (Cottrell et al., 2019). Paravizo and Souza (2018) discuss the influential factors in the video game industry: accessible platform, more developed hardware and software, globalization, and competitiveness associated with games.

The popularity of video games can be explained by the case of eSports (Eletronic Sports). In 2017, the League of Legends World Championship reached 58 million viewers (Romer, 2017). New Zoo (2018) forecasted that individuals worldwide would spend U$137.9 billion on games in 2018, of this number, U$56.4 billion will come from the mobile segment and computer games will bring about U$ 32.9 billion. In the United States, TechCruch (2018) indicated that the revenue of the games industry was U$ 43.8 billion, both surpassing the projections for the film industry and streaming services. On the subject of streaming services, the gaming industry is shaping the way consumers entertain. For example, one of the biggest streaming services, Netflix (2019), told to stakeholders that their competition was higher with the Epic

Games' Fortnite than with HBO channel, showing the potential of the gaming industry towards other markets.

In addition to the popularity of eSports, the goal of improving the tactics for the players is becoming more relevant. Universities are offering eSports courses, for example, the University of Bayreuth which opened a specific course for players (University of Bayreuth, 2020). All these new opportunities are making eSports more exciting and motivating (Geiler, 2016).

Although the academic interest for games is increasing, one particular game genre still lacks attention, the Multiplayer Online Battle Arena (MOBA). Mora-Cantallops (2018) review the literature on MOBA games and found that even though this genre is played by millions of people daily, scholars still show a timid interest for them and the topics most common on studies are the player experience and toxic behavior. MOBA refers to a game of real time strategy, where two teams play against each other with the main goal of destroy the enemy's structure.

One of the most popular MOBA game is League of Legends (LOL). The game was created in 2009 by Riot Games and has the dynamic of two teams on opposite sides of a map playing against each other to defeat the enemy's nexus. League of Legends has a World Championship where professional teams play for the chance to win the title of World Champion. In 2018, these games were watched by over 99.6 million viewers. Lee et al. (2014) found that the viewers watched these games for the recreational aspects, the skills showed by the professionals, and the matches' dramas.

Altogether, given the extension of the game, its potential to shape the consumer behavior and the scarcity of research, the purpose of this paper is to identify the profile of the Brazilian player of League of Legends by understanding the motivations that lead them to play. To achieve this objective, we conducted a survey using the Digital Games Motivation Scale (DGMS) (Grove et al., 2014). The data was analyzed Structural Equation

Modeling (PLS-SEM) and the results show the profile of the players and the most important constructs regarding their motivation to play.

The contribution of this paper is twofold. First, this research is going to contribute to the development of theory on the field of consumer behavior by testing the effect of the motivation variable to other constructs while investigating the psychometric properties of a scale that can be used in future research. Lastly, this paper can help game companies to understand their consumers' needs and also their purchasing and motivational behavior, while providing reliable data that can be used to better develop strategies for these customers.

## FACTORS FOR PLAYING VIDEO GAMES

The motivations for playing video games have been a frequent topic on the academic community (eg. Vorderer et al. 2003; Qian et al. 2019; Gridths, 2017). Conolly et al. (2012) argues that video games have been identified as a way of influencing a variety of educational outcomes, such as acquisition of motivational improvements as well as general cognitive skills, such as space navigation and orientation (Feng et al., 2007, Ratan et al., 2015).

Vorderer et al. (2003) found that in playing video games, competition plays an important role when it comes to enjoyment of the game, on the grounds that when individuals interact due to the competition, the game engagement is enhanced.

Following the perspective of the role of interaction on playing video games, Qian et al. (2019) argues that the assembling of friends, the competition among the players, the nature of the game, and the recognition of the games inspire new players. Aligned to this, the advantage is that all players can play anywhere, just with a computer and internet access. Thus, the ease of connecting to the game anywhere, at any time and with any person, presents as a freedom that the restrictions of time and place do not physically allow (Choi, 2019).

As video game players begin to gain financial resources, motivational factors are altered (Gridths, 2017). In this sense, the activity that was once just a hobby becomes a source of income (Bányai, 2019). Therefore, dedication becomes needed from the moment that the players need to win, increase the competitiveness and, if they excel in their matches, are motivated, even, by their fans. **Table 1** introduces some of the motivational factors that researchers identified as the leading ones to the players of video games.

**Table 1**
Motivational Factors to Play Video Games

| Authors | Motivational Factors |
|---|---|
| Varderer, (2000); Verderer et al., (2003) | Interactivity and Competition |
| Greenberg et al., (2010); Shery et al., (2006) | Arousal, Challenge, Competition, Distraction, Fantasy and Social Interactions |
| Yee (2006a, 2006b) | Achievement Motivations (Advancement, Mechanics, Competition), Social Motivations (Socializing, Relationship, Teamwork) and Immersion Factors (Discovery, Role-Playing, Customization, Escapism) |
| Demtrovies et al., (2011) | Escapism, Coping, Fantasy, Skill, Development, Recreation, Competition and Social |

*Source*. Elaborated by the authors, 2021.

Furthermore, De Grove et al. (2014) developed a scale to identify the motivations to playing video games and found eight dimensions relevant to explain the motives to play video games: habit, moral self-reaction (reactivity), agency, narrative, escapism, pastime, performance, and social.

Habit refers to start playing the game without thinking about it. Reactivity refers to the expectations connected to the social and own moral norms. Agency alludes to the player's expectation of playing accordingly to what they want. Narrative seeks to identify the role of the game narrative as a motive to play digital games. Pastime refers to playing the game with the goal of filling the empty moments. Performance is the expectation of the player to performs well in the game and social analyze how can socialization can be a motive to play video games.

## SHOPPING BEHAVIOR IN VIDEO GAMES

Supplementary to motivation, shopping behavior in video games is a frequent topic in academia. Digital media offers many opportunities for new consumer styles, including the desire to consume virtual products, even if they are paid for with real money (Molesworth & Knott, 2013). For Setterstrom and Pearson (2019), massively increased sales of online games began in the 21st century due to the onset of easy access to the computerization of online games. As a result, companies not only started selling products online, but also began to create products that caught the attention of consumers and players (Molesworth & Knott, 2013).

Setterstrom and Pearson (2019) argue that social influence has a strong relation with the individual's willingness to pay. In this sense, companies seek to create their identity so that all players feel the will to buy their products.

Cotter (2019) argues that social-network algorithms often affect social realities. In this sense, it is perceived that the digital influencers can impact their followers' consumption behaviors, corroborating with the interests of an online gaming company. Which can explain the investments apply in digital influencers.

## MICROTRANSACTIONS IN VIRTUAL GAMES

Virtual marketing is increasing according to the demand that has arisen (Macedo & Vieira, 2019). Thus, microtransactions - non-physical objects acquired for use in online communities or online games - have begun to dominate the video game industry (Gusmão et al., 2019).

Macedo and Vieira (2019) indicates that "virtual consumer goods" began to emerge in order to construct - and distinguish - the values, hierarchies, and meanings among players. Corroborating with Gusmão et al. (2019) regarding the increase of monetary transfers in online games, with the intention of distracting the "virtual social classes".

Microtransactions are becoming increasingly popular, especially with purchases of aesthetic variations in games, such as the famous skins of the League of Legends (Reza et al. 2019). In this context, companies seek ways to improve the design of the characters with the aim of attracting players, thus generating revenue (Guo et al., 2014).

In summary, purchases in virtual games can occur in order to obtain a visual representation linked to the player's idetity (Reza et al., 2019). Thus, companies seek strategies that influence the player to buy the product of the game so that it can be used as a representation of the virtual sportsman (Guo et al., 2014). Therefore, supply and demand are closely connected, thus, since the company offers several types of different designs, the players also have a deep desire to acquire it (Reza et al., 2019; Guo et al., 2014).

In this context of video games and the use of technology by companies to improve process and products, League of Legends has arisen and soon became one of the most popular games of this decade. Therefore, it is important to understand what lead so many individuals to play this game.

## LEAGUE OF LEGENDS

League of Legends is a Multiplayer Online Battle Arena (MOBA) game developed in 2009 by Riot Games. Two teams are formed and they play in a map divided into two parts, one for which team. The players are distributed into five roles in the game, witch of them with different champions and purposes (Top lanner, Mid lanner, jungle, AD Carry and Support) the roles and maps are shown in the **Figure 1**.

**Figure 1.** League of Legends map.
*Source*. Image downloaded from Uol (Man, 2019).

As it is shown in figure 1, the two teams fight against each other aiming to destruct the enemy's nexus, which is the most important structure and it is located on the base of each team. In 2016, Riot Games announced that League of Legends had over 100 million of players monthly.

The game is free to play, however, users can use real money to buy cosmetics products inside the game, such as skins that change the aesthetics of the champions and also boosters to evolve more quickly. Macedo and Vieira (2018) studied League of Legends' players and found that people bought skins due to its symbolic aspects since there is no functional benefit in buying them, and the reasons can be both social, such as power and exclusivity and hedonic, as in the aesthetic experience.

## CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

This research aims to identify the profile of the Brazilian player of League of Legends by understanding the motivations that lead them to play. For this purpose, we propose the conceptual framework present on the **Figure 2**.

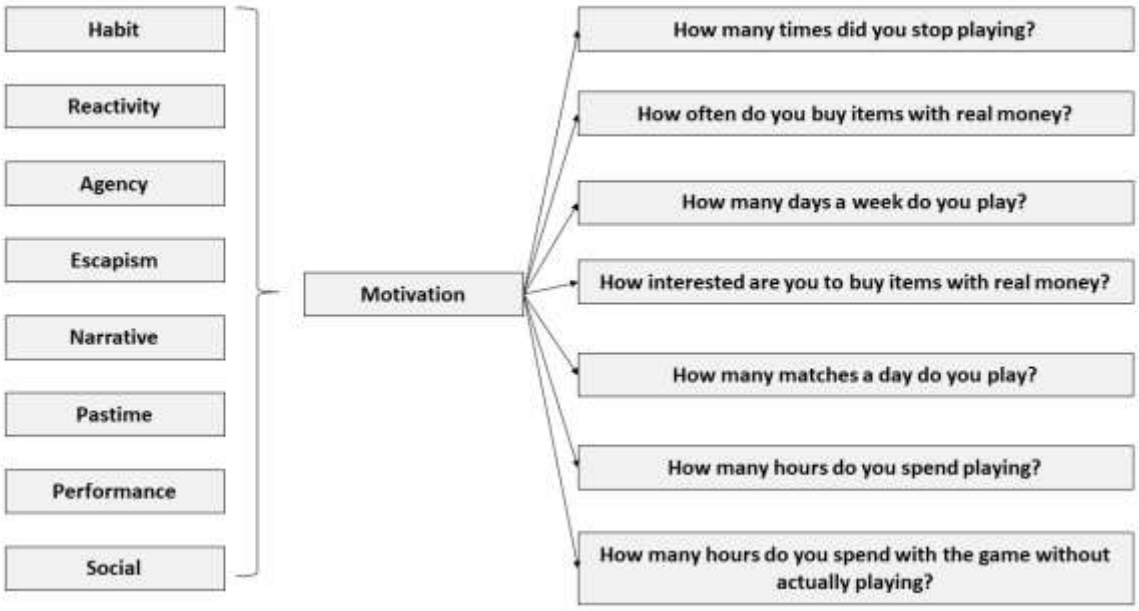


**Figure 2.** Research Framework.
*Source*. Elaborated by the authors, 2021.

De Grove et al. (2014) identified the following dimensions as motives to play digital games: habit, reactivity, agency, escapism, narrative, pastime, performance and social. Our purpose is to identity what are the most relevant dimensions to the Brazilian player of League of Legends and how does the motivation to play (a dimension of all motives) can influence some aspects such as times the player stopped playing the game, frequency they buy game items with real money, the number of matches and hours they play and the time they spend with the game without actually playing it, suchlike talking to friends about it, reading about it and watching others players streams the game. Therefore, we propose the following hypotheses to test:

**H1**: Motivation will negatively affect the number of times a League of Legends player stopped playing the game.

**H2**: Motivation will positively affect the frequency a League of Legends player buys items with real money.

**H3**: Motivation will positively affect the number of days a week that an individual plays League of Legends.

**H4**: Motivation will positively affect the interest a League of Legends player has of buying items with real money.

**H5**: Motivation will positively affect the number of matches a League of Legends player is willing to play daily.

**H6**: Motivation will positively affect the number of hours the League of Legends player spends daily.

**H7**: Motivation will positively affect the number of hours the League of Legends players spends with the game without playing.

## METHOD

In order to achieve the research objective, the quantitative method was identified as the best for the proposed question, both for the possibility of answering the questions and also providing reliable and comparable knowledge to the field of consumer behavior.

Due to the lack specific instruments to measure the motivation in the context of MOBA games, we adapted the Digital Games Motivation Scale (DGMS) from De Grove et al. (2014). The scale was created to find out what factors that lead individuals to play digital games. We adapted the items to the League of Legends domain, both to find if these constructs could also affect the players of this game and testing the psychometric properties of an instrument that can be used in further research.

The first step was the translation and adaptation of the scale. The authors did a full read of the original scale and discussed how it could be adapted to Portuguese language. After the last version of the item's translation, a native English speaker who also spoke Portuguese reviewed the scale to find possible inconsistencies in the translation process. Discrepancies were solved through discussion and a final decision was achieved in consensus.

The adapted scale has 24 items divided into 8 dimensions: habit, reactivity, agency, escapism, narrative, pastime, performance and social. We

proposed a questionnaire divided into 3 sections, the first having the socio-demographic questions and we were interested in knowing who is the player of League of Legends. The second was comprised of questions about the game, playing frequency and purchasing, aiming to identify the purchasing behavior of the Brazilian players, and the third section had the items from the DGMS, they were all mixed to avoid response bias and were evaluated using Likert's 10-point scale (totally disagree to totally agree).

## APPLICATION AND SAMPLE

The questionnaire was created by using Google Forms platform and before the participant started answering, there was first a section indicating the research goal and they would then indicate if they agreed or did not in answering the survey. A pre-test was applied with 17 players to assess whether there was any difficulty to understand or some mistakes that the were not able to identify.

The data collection procedure started on march 25th until may 9th. The survey was shared on the social networks of the authors, on Facebook, WhatsApp and Instagram and we shared on specialized groups of League of Legends on Facebook and also in the Riot Games forum for the games. This process purpose was to get as many answers as possible from active League of Legends' players. The sampling was non probabilistic and the participants answered by convenience, the choice of this sample form was due to the exploratory nature of this research, providing initial data to develop the theory.

## DATA ANALYSIS

The data we collected was then analyzed by some statistical procedures. First, exploratory analysis was performed using the Statistical Package for the Social Sciences - SPSS (version 21), this stage identified the sample characteristics and showed descriptive results, to assess who are the player of League of Legends and what are the motives more relevant to them.

Aiming to establish the relationship between motivation and the behavior presented on the research framework, we then performed a Structural Equation Modeling using the Partial Least Square technique (PLS-SEM), since it is most appropriate to exploratory research and to develop new theory (Hair et al., 2016). The purpose of the analysis was to identify the path coefficients on how motivation could affect some player behaviors.

The use of PLS is more appropriated since our interest resides on the causal relationships. The sample and the results of the statistical analysis is presented in the next section. All the procedures were performed on the free software SmartPLS 2 and were carried out with the support of specialized literature (Costa, 2011; Bejamin & Gaskin, 2014; Ringle et al., 2014; Hair et al., 2014; Hair, 2016;).

## RESULTS AND DISCUSSION

This section presents the results of the analysis, discussing the players' profile and the outcomes of the statistical analysis.

### SAMPLE

After the process of data collection, our final sample had 245 respondents. No missing values were identified in the process of exploratory data analysis; thus, no questionnaire was excluded by this reason. About players' gender, 78% are male (n=198) and 22% are female (n=54). The age mean is 20 years old (SD=3.4), the youngest player having 15 years old and the oldest, 36. Most of the respondents are from Ceará (35%, n=80), 15% (n=35) are from São Paulo and 15% (n=35) from Rio de Janeiro. The other states did stand out regarding a significant number of respondents.

Most of the players declared to be single (91.8%, n=225), 14 (7.8%) married and 1 widower (0.4%). They mostly have or are having they undergraduate degree (53.1%, n=135) and 101 (41.2%) finished or are finishing high school, the others are at graduate level (3.6%, n=9) and 5 (2%) respondents are still at basic education. Regarding monthly income, most of

the players (n=90, 36.7%) declared to have an income of one to two minimum wages.

## THE PROFILE OF THE PLAYERS

The second part of the questionnaire had questions specifically about League of Legends. When it came to how many hours the player spent playing the game, most of them (53.9%) answered that they spend usually one to three hours daily. Regarding the ranked system of the game, most of the respondents are in the Gold tier (30.6%, n=75), Silver is in second position (13.9%, n=34) and 34 players (13.9%) answered that they do not play in the ranked system.

They play up to four to seven matches a day (40.4, n=99) and 95 players answered that they play at least three matches per day (38.8%). Most of them play every day (33.9%, n=83) and 45 (18.4%) plays at least five days a week. They have been playing for 2 to 4 years (31%, n=76 and we identified 60 new players who play from less than two years and two respondents indicated that they play the game since the beta version. Concerning time, the players spend with the game by talking about it with friends, reading about it and/or watching streams, most of the players spend up to one hour dedicated to this activity (37.1%, n=91). The majority of the players (47.3%, n=116) have already stopped playing the game one to three times.

As concerns to purchase behavior in game, 179 (73.1%) of the players responded that they bought in game with real money, however, the mean of the buying frequency was 3.67 (SD=2.37) in a scale of 0 to 10. Nonetheless, the men of the interests to buy items with real money was 4.76 (SD=4.41).

## MOTIVES TO PLAY LEAGUE OF LEGENDS

The **Table 2** shows the dimensions of the Digital Games Motivation Scale (DGMS) and the results we obtained applying the scale to the League of Legends context. As it is shown, the Pastime, Performance, Habit and Agency were the dimensions that had the highest mean scores.

**Table 2**
Motives to Play League of Legends.

| Dimension | Mean | Median | Standard Deviation |
|---|---|---|---|
| Habit | 6.04 | 6.33 | 2.83 |
| Reactivity | 5.19 | 5.00 | 1.48 |
| Agency | 5.96 | 6.00 | 2.37 |
| Escapism | 5.10 | 5.33 | 2.42 |
| Narrative | 5.36 | 5.33 | 2.79 |
| Pastime | 7.09 | 7.33 | 2.44 |
| Performance | 6.31 | 6.67 | 2.54 |
| Social | 5.91 | 6.33 | 2.54 |

*Source*. Elaborated by the authors, 2021.

Regarding these dimensions presented by Dogan et al. (2015), it is possible to infer that Brazilian League of Legends players seek to play the game to fulfill the empty moments, thus representing a fundamental aspect of entertainment. They seek to perform well on the game and also to show their abilities inside it. We can also highlight the fact that habit had a high mean, which we can infer that the game has become an intrinsic part of the individual's lives. Besides that, it's possible to see that technology can enlarge the social moments that, before, there was through physical space and, now, the players use to use the technology to fortify their social relationships, corroborating with the study of Matos and Marques (2018), stating that the technology can be considered a previous category of relationality because contribute with the feeling of being present in an environment for a certain period.

Agency was also a construct with a high mean, indicating that Brazilian League of Legends players are interested in determinate how the game develops.

## STRUCTURAL MODEL

Specialized literature was used to develop the structural model and assess its validity and reliability (Lowry & Gaskin, 2014; Ringle et al., 2014; Hair, 2016). We followed Hair (2014) recommendations to assess the reflective measurement models (internal consistency, discriminant and convergent validity and the structural model (coefficients of determination, predictive relevance, size and significance of path coefficients, $f^2$ effect sizes and $q^2$ effect sizes).

A dimension of motivation was formed with the sum of all the 8 constructs. The structural model is composed of the eight dimensions of the scale connected to the motivation construct and motivation connected the other constructs presented in the conceptual framework section. These other constructs, representing player's behaviors were created by using items from the questionnaire. Since each of these formative dimensions have only one item, we do not present an evaluation of these constructs. Table 3 shows the overall convergent validity of the model. The model satisfies the requirements for Composite Reliability (>0.7), Cronbach's Alpha (>0.6) and Average Variance Extracted (>.5) (Costa, 2011; Hair, 2014).

**Table 3**
Overall convergent validity.

| Construct | Items | Loadings | AVE | CR | CA |
|---|---|---|---|---|---|
| **Habit** | HAB1 | .813 | .81 | .90 | .77 |
| | HAB2 | .928 | | | |
| | HAB3 | .924 | | | |
| **Reactivity** | REA1 | .841 | .59 | .80 | .67 |
| | REA2 | .906 | | | |
| | REA3 | .501 | | | |
| **Agency** | AGE1 | .853 | .72 | .89 | .81 |
| | AGE2 | .827 | | | |
| | AGE3 | .879 | | | |
| **Escapism** | ESC1 | .771 | .62 | .83 | 0.69 |
| | ESC2 | .828 | | | |
| | ESC3 | .751 | | | |
| **Narrative** | NAR1 | .827 | .68 | .87 | .77 |
| | NAR2 | .841 | | | |
| | NAR3 | .816 | | | |
| **Pastime** | PAS1 | .867 | .69 | .87 | .78 |
| | PAS2 | .891 | | | |

| | | | | | |
|---|---|---|---|---|---|
| | PAS3 | .728 | | | |
| | PER1 | .832 | | | |
| **Performance** | PER2 | .870 | .72 | .88 | .80 |
| | PER3 | .842 | | | |
| | SOC1 | .698 | | | |
| **Social** | SOC2 | .806 | .57 | .80 | .62 |
| | SOC3 | .761 | | | |

*Source*. Elaborated by the authors, 2021.

**Table 4** shows the discriminant validity of the model, presenting the correlations between the dimensions and the square root of the constructs' AVE.

**Table 4**
Overall discriminant validity.

| | AGE | ESC | HAB | NAR | PAS | PER | REA | SOC |
|---|---|---|---|---|---|---|---|---|
| **AGE** | **.85** | | | | | | | |
| **ESC** | .32 | **.79** | | | | | | |
| **HAB** | .35 | .54 | **.9** | | | | | |
| **NAR** | .25 | .50 | .37 | **.82** | | | | |
| **PAS** | .16 | .37 | .34 | .17 | **.83** | | | |
| **PER** | .50 | .44 | .58 | .48 | .14 | **.85** | | |
| **REA** | .33 | .36 | .57 | .38 | .18 | .61 | **.77** | |
| **SOC** | .35 | .41 | .47 | .38 | .26 | .70 | .49 | **.75** |

*Note*. The diagonals show the square root of the AVEs and the rest exhibits the correlations between the dimensions.
*Source*. Elaborated by the authors, 2021.

After the assessment of validity and reliability, we furthered the data analysis process by bootstrapping the model to identify whether the t-values were significant to test the hypotheses. The correlation is significant at an t-value level of >1.96.

## HYPOTHESIS TESTING

The bootstrapping was carried out using the recommendations of the literature of performing with 5000 samples and the regressions are significant at an t-value level of >1.96 (Hair et al., 2014). **Table 5** shows the path coefficients of the model. All the regressions were significant at a level of t-value higher than 1.96 and the hypotheses were confirmed with the path coefficients showed below.

**Table 5**
Path coefficients.

| Hypothesis | Beta Value | Std. Error | T - Value | Decision |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| H1 | -0.2332 | 0.08 | 2.77 | Supported |
| H2 | 0.2010 | 0.06 | 3.47 | Supported |
| H3 | 0.3812 | 0.07 | 5.75 | Supported |
| H4 | 0.3812 | 0.06 | 6.45 | Supported |
| H5 | 0.2795 | 0.05 | 5.07 | Supported |
| H6 | 0.4123 | 0.05 | 7.70 | Supported |
| H7 | 0.2406 | 0.05 | 4.43 | Supported |

*Source*. Elaborated by the authors, 2021.

The last stage for the assessment of the model quality was the calculation of Predictive Validity ($Q^2$) and Effect Size ($f^2$). Predictive validity indicates how the dimension approximates from what is expected from it and effective size evaluates how useful each of the constructs are to the model (Ringle *et al*, 2014). $Q^2$ should be higher than 0 and the $f^2$ values of 0.02, 0.15, and 0.35 are considered as low, medium and high values (Hair et al., 2014). The **Table 6** shows the values obtained. The table includes the scale dimensions and the indicators we used to test the hypothesis.

**Table 6**
Predictive Validity and Effect Size.

| | CV RED ($Q^2$) | CV COM ($f^2$) |
|---|---|---|
| **Agency** | 0.727875 | 0.727875 |
| **Buying_Freq** | 0.038655 | 0.997071 |
| **Daily_Matches** | 0.078122 | 1.000000 |
| **Days_play** | 0.150113 | 0.996483 |
| **Escapism** | 0.585704 | 0.585704 |
| **Habbit** | 0.773642 | 0.773642 |
| **Hours_Discussing** | 0.059556 | 0.996878 |
| **Hours_Playing** | 0.172082 | 0.996835 |
| **Interest_Buy** | 0.145359 | 1.000000 |
| **Motivation** | 0.953493 | 1.000000 |
| **Narrative** | 0.685618 | 0.685618 |
| **Pastime** | 0.691424 | 0.691424 |
| **Performance** | 0.718984 | 0.718984 |
| **Reactability** | 0.576244 | 0.576244 |
| **Social** | 0.572107 | 0.572107 |
| **Time_Stopped** | 0.054401 | 1.000000 |

*Source*. Elaborated by the authors, 2021.

It is possible to identify that the model has a satisfactory explanatory power, thus it has achieved predictive validity and can be used to investigate the relations we presented and the model has and the constructs are relevant to the understanding of the phenomenon.

## DISCUSSION AND IMPLICATIONS

The results we obtained while performing this research can provide some interesting insights to the field of consumer behavior. Our sample was mostly from man players (78%). This result can be explained by the small sample size but can also arise discussions about the female players of League of Legends, since the survey was shared in places where all the players had access, however we were still not able to assess a significant number of female players, one possible reason for this is because the female public may be apprehension to participate in these researches since even the female participation has grown, the game community still seen as a male domain (Shaw, 2012).

When it comes to the motives that lead League of Legends players to play the game, the constructs of Pastime, Performance, Habit and Agency were the ones that showed the highest mean scores, indicating that were the most important motives that lead them to play the game. This discovery is relevance since it reaffirms the motives introduced by De Grove et al. (2014) and indicates that they can be applied to the League of Legends player. For the Brazilian players, it is important to play as a way to fulfill the empty moments of the day and use the game as an entertainment tool, as the game has become part of the routine of these players and they play as a daily habit. Furthermore, the game is used by the players to display their abilities and to show other players what they are able to do inside the game, what corroborates with Greenberg et al. (2010) and *Qian* et al. (2019) since the individuals want to be recognized in the game. This aspect is combined with the dimension of agency witch the players seek inside the game to play according with what they want.

The perspective of pastime is relevant to show that there are new configurations of entertainment and companies have to adapt to this market to stay competitive and providing services that the customers were interested. However, it is necessary paying attention about pastime, by reason of it can lead to addiction (Khang et al., 2013). We it comes to the performance dimension, it is important to the video game companies to invest more in new games and modes inside they own game to enhance the competitive and performance driven aspects to the game, for the players seek to develop they performance inside the game and to get better on it. Applied to the context of League of Legends, there are hard rotted game modes that can be used to the players to show the others that they are capable of playing it and to develop more skills inside the game.

The results of the structural model showed a significance relationship between motivation and the number of hours the player spends on the game daily, the number of matches they play daily, the interest they have in buying game items with real money and the number of matches they play daily. These discoveries are significant and show that the eight dimensions of the DGMS are impactful to the players of League of Legends and can help to understand what those players want and why they play the game.

In a managerial perspective, the understanding of these factors and how they can affect the players of League of Legends can help companies to enhance the understanding of the target audience providing an opportunity to develop the most effective strategies and since technology transforms the market, the comprehension of the player of the games can provide insights to fully understand the consumption phenomenon.

## CONCLUSIONS

The purpose of this article was to understand who is the Brazilian League of Legends by comprehending their motives to playing the game. In addition, topics such as strategies of companies that make games to profit, how digital influencers can induce the purchase of virtual products, and the behavior of

players to receive that range of information that interfere in the way the player enjoys their leisure time.

Regarding the main findings, it was noticed that the constructs Hobby, Performance, Habit and Agency obtained the highest mean scores, therefore, it is noticed that, in the course of the development of the technology of the games, the people are beginning to use the virtual environment as a hobby and leisure. In this sense, industries have begun to move from the real mode to the virtual mode, seeking to generate the highest income possible through sales of virtual or "non-physical" items. In this sense, companies can use the results to develop the best strategies to please their customers .

Using PLS-SEM we were able to identify how the motivation to play League of Legends and how could the motives to play the game affect some behaviors, such as the number of hours the player spends on the game daily, the number of matches they play daily, the interest they have in buying game items with real money and the number of matches they play daily. This finding is useful to help companies to delivers the value that the player seeks and encourage players to play more and buy more game items with real money.

Regarding the limitations of the research, we can point out the scarce research on motivation to play MOBA games. Furthermore, due to the exploratory nature of this research, the sample size was not representative of the population, being limited mostly to the Ceará region. Future research can focus on expand the sample geographically. Our sample was still mainly of male players, other studies can investigate if the motivations for playing League of Legends differentiate between genders, using different approaches, including quantitative methodology; especially netnography, since the players of this game are highly connected to social media.

Concerning the research contribution, the intention was to show the exponential growth the video games market and what motivate individuals to play. The number of this research, especially considering the League of

Legends context is still very limited, therefore this research has the potential to raise some questions and provide insights to the development of future studies that can help consumer behavior scholars to better understand this growing market.

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