

## **9ª Geração de Videogames e as dimensões que impactam a sua aquisição. Como os valores, risco e custo de mudança influenciam o comportamento de compra**

### **9<sup>th</sup> Generation of Videogames and the dimensions that impact their acquisition. How values, risk and switching cost influence the purchase**

Mario do Amaral Nascimento<sup>1</sup>

Cecília Lima de Queirós Mattoso<sup>2</sup>

Ettore de Carvalho Oriol<sup>3</sup>

**Resumo:** *Jogar videogame a princípio é só diversão, mas esse mercado movimenta por ano quase 2 trilhões de dólares. Porém, apesar dos números, não são muitos os estudos acadêmicos sobre esse mercado. Desse modo, essa pesquisa pretende ampliar um pouco esse conhecimento, particularmente, sobre as influências na intenção de compra de um videogame novo. Existem diversas teorias sobre os fatores que a influenciam direta, ou indiretamente, no qual para este estudo foi utilizado um modelo adaptado baseado na Theory of Consumption Values. Para adaptação da escala, foi realizada uma varredura sobre as gerações de videogames, mercado e particularidades desse produto, seguida de uma survey respondida por 403 jogadores e analisada por meio de SEM-PLS. Os resultados demonstraram que os valores utilitários e hedônicos, bem como o custo de mudança e risco percebido influenciam consideravelmente a intenção de compra.*

**Palavras-chave:** *Videogame; Intenção de Compra; Risco Percebido; Valores; Custo de Mudança; Jogos.*

1 Universidade Estácio de Sá (UNESA) Rio de Janeiro, RJ, Brasil.

<http://orcid.org/0000-0002-2682-1398> E-mail: marioamaral@gmail.com

2 Universidade Estácio de Sá (UNESA) Rio de Janeiro, RJ, Brasil.

<https://orcid.org/0000-0001-6573-9170> E-mail: cecilia.mattoso@estacio.br

3 Fundação Getúlio Vargas (FGV). São Paulo, SP, Brasil.

<http://orcid.org/0000-0002-3786-8917> E-mail: ettores.oriol@gmail.com

**Abstract:** *Playing video games is just fun at first, but this market moves almost 2 trillion dollars a year. However, despite the numbers, there are not many academic studies about this market. In this way, this research intends to expand a little this knowledge, particularly about the influences on the purchase intention of a new video game. There are several theories about the factors that influence it directly or indirectly, in which an adapted model based on the Theory of Consumption Values was used for this study. To adapt the scale, a scan was carried out on the generations of video games, market and particularities of this product, followed by a survey answered by 403 players and analyzed using SEM-PLS. The results showed that utilitarian and hedonic values, as well as switching cost and perceived risk considerably influence purchase intention.*

**Keywords:** *Video Game; Purchase Intent; Value; Perceived Risk; Cost of Change; Games.*

## Introduction

Video games on all platforms, which include the consoles, computers, portable consoles, tablets and smartphones, have become part of everyday leisure and social activities for many families (BASSIOUNI *et al.*, 2019). In 2017, this market moved U\$ 1.9 trillion worldwide, and the expectation is that by 2022 it will grow another 5.3%. It is worth mentioning that this growth is not restricted to the market, in bibliometrics carried out by García-Sánchez *et al.* (2019), there is a high growth trend, with an increase of 60% of articles published on the subject from 2013 to 2018. However, the gap persists in terms of the market since most of the works are related to Health, Psychology and Education (MARCHAND; HENNIG-THURAU, 2013; MARTINS, 2015).

The recently released ninth generation of videogames, object of this study, is an expensive technological product, with several attributes, with much expectation about a truly superior performance compared to previous generations. In this generation, Sony and Microsoft have brought great improvements in the attributes related to processing speed, graphics performance, memory and storage. There were also improvements in subscription programs, backward compatibility and in the forms of social interaction (SPENCER, 2020). Nintendo, so far, has not commented on the ninth generation, and has taken Switch as belonging to the ninth generation, following the previous strategy of searching for casual players, with a greater age spectrum, with its family-friendly games and greater interaction between players (ROUSSEL-TARBOURIECH *et al.*, 2019).

For Gammarano (2018) this is an aggressive market, dominated by only three companies that are increasingly trying to generate value for the users, adding to each generation more elements such as interaction, sociability, portability, convergence etc. This addition of several services, according to Parasuraman *et al.* (1985), is a way to obtain a key for success in competitive markets, where products are not easily differentiated. This market is also characterized by growth and revenue, and a high degree

of innovation and dynamics alongside other entertainment industries (CABRAS *et al.*, 2017).

On the other hand, videogame consumers, also known as gamers or players, today have an average of 34 years old, and have been playing for more than a decade (GUINS, 2016). As for gender, according to a survey by NEWZOO (2018), women represent 46% of the market, but there are differences in the forms of consumption. Women play more on their cell phones, leveraged by the famous game Candy Crush, than on the computer and the videogame. In videogames, the difference reaches 24% less than men, that is, in terms of consoles, males would have 62% of the share, and females 38%. This proportion result is widely discussed because it does not involve the types of games, or the time played, as some games, such as cell phone games, are often not considered “real” games. A survey of 270,000 players worldwide obtained a different percentage figure, according to which 18% were women. This survey also found that 70% of users of games like Candy Crush and Farm Ville, typically cell phone games, are of this gender, whereas in shooting, racing and sports games, they do not reach 8% (YEE, 2017).

Currently, companies even get a direct connection with players. Due to this condition, the industry has given greater preference to the online use of its products, thus allowing the collection of an array of data on the consumption of its clients. This data has provided the construction of more consistent relationships, enabling the promotion of additional content, promotions and targeted recommendations, based on algorithms and artificial intelligence based on the gamers’ profiles (CALDERON-VILCA *et al.*, 2020).

Considering the gaps presented, it is interesting to understand what values motivate the consumers in buying a videogame, in this case, the newly released ninth generation videogames, and the weight of switching costs and perceived risks, but for that, we need to better define what is a 9<sup>th</sup> generation videogame. A videogame is a dedicated hardware, that is, a hardware developed for a specific function (STOCCO *et al.*, 2015). This hardware is called a console. The consoles are designed

for players to have the best possible experience when they are playing (NAN *et al.*, 2022). Games are the software that runs on these consoles. As technology develops, new generations of hardware are successively released. During 2020 and 2021, the ninth generation consoles were released, which embed the most advanced technologies and provide an experience almost as if you were manipulating a movie (the lives of the characters) with each play.

Thus, to add another brick to this collective construction of knowledge, this study uses as a basis the study by Chunmei and Weijun (2017), which dealt with the same predictors for purchase intent and future purchase satisfaction, but in a market different from the one in this study. The justification for this choice lies in the fact that purchase satisfaction and intent are preconditions for survival in competitive markets such as the market of game consoles. Researches like this one have not yet been carried out for this market. Therefore, we pose as a research question: What is the influence of the utilitarian, hedonic and social values, as well as of the perceived risk and the switching cost in the purchase intent of these devices?

For this purpose, an explanatory and descriptive survey was carried out using Popper's (2002) hypothetical-deductive scientific method and employing structural equations modeling, as well as those used by Chunmei and Weijun (2017) in their model adapted from the Theory of Consumption Values by Sheth *et al.* (1991). The data were obtained from a questionnaire sent to all the main groups of Brazilian gamers on Facebook.

## Literature revision

The evaluation of a product and its attributes is usually the result of what it means, and not what it does. This meaning can have more to do with the performance expectations of the product and attributes, than with the product itself (SOLOMON, 2002). Some authors, like Zeithaml (1988), call this value. The utilitarian or functional value is the perceived utility of the product's ability to perform its functional purposes, usually

through the functional, utilitarian or physical attributes (SHETH *et al.*, 1991). It is related to the product's objective and concrete functionalities (LOVELOCK *et al.*, 2011). As for the hedonic value, it is subjective and symbolic, a status, an image, less functional and often associated with intangible aspects, it is something felt by costumers (ROCHA; BRANTES, 2012). For some people, a computer may have a high hedonic value, but for others, only the utilitarian value is perceived (HOLBROOK; HIRSCHMAN, 1982). A video game is a product that involves both natures, utilitarian and hedonic (BRIKEN *et al.*, 2017) and its attributes respond in a similar way, having a large number of intrinsic attributes, normally more connected to utilitarian values, and extrinsic ones, connected to hedonic values.

H1a: Utilitarian value positively affects satisfaction with video game consumption.

H1b: Utilitarian value positively affects the purchase intent of a video game.

H2a: Hedonic value positively affects the satisfaction with video game consumption

H2b: Hedonic value positively affects the purchase intent of a video game.

Sheth *et al.* (1991) designed a theoretical structure called Theory of Consumption Values, which also declares social value as a predictor of behavior. It is a perception of the product associated with the feeling of belonging to relevant primary and secondary reference groups, in demographic, socioeconomic, political, cultural or ethnic segments, positively or negatively identified. Consumers are driven by social value according to the groups to which they belong, identify themselves with or wish to belong to (LONG; SCHIFFMAN, 2000). In contrast to the opinion that playing video games is a solitary activity, this form of leisure is an intense source of social interaction. Sometimes it is even the reason to start playing them (van ROOIJ *et al.*, 2017).

The video game, since the first generations, was not something built to be played by only one person, but by two. With the improvement of technical capacities, especially in the eighth generation, there was an explosion of online games, allowing thousands of people (friends, acquaintances and strangers) (NASCIMENTO, 2013) not only to play, but also to share and chat within this virtual world of the platforms (LIU, 2017).

H3a: Social value positively affects satisfaction with video game consumption.

H3b: Social value positively affects the purchase intent of a video game.

Chunmei and Weijun (2017), in their model, also mention the perceived risk, which is an expectation of uncertainty about possible unpleasant results of purchasing the product, and the fear of loss in that purchase (JACOBY; KAPLAN, 1972), when customers cannot predict the consequences to their decision to buy (NIKHIL; ANUP, 2016). Risk is an accumulation of various smaller facets, the main one being financial risk, but there are also performance, time and social risks (BAUER, 1960). Risk is especially relevant in products that are expensive, complicated or difficult to evaluate before consumption. In these cases, less experienced users are likely to face a greater uncertainty, and to mitigate this, seek recommendations or chose the company with the best reputation, so as not to purchase something that proves to be disappointing during use (ZEITHAML, 1988). In the case of video games, the first one to be mentioned is related to price, that is, the financial risk. This happens because this product has a high purchase value, since it is a modern technological product. The second one is related to performance, to the possibility of buying something that will perform less than expected, given the advertised performance characteristics, with high expectations about performance. At last, we have the psychological and social risks, since video games are a strong instrument of sociability (ARRUDA

FILHO; GAMMARANO, 2018), resulting in the risk of acquiring a new platform that is different, or discriminated by the group of customers to which they belong, thus influencing the decision making process.

H4a: Perceived risk significantly and negatively affects satisfaction with video games consumption.

H4b: Perceived risk negatively affects the purchase intent of a video game.

The switching cost is the cost that the consumer faces when changing from one supplier to another. It may be seen as the additional cost needed to end the current relationship and secure an alternative (PORTER, 1980). This switching cost acts as an exit barrier. In this case, the customer may remain in the relationship because the psychological and financial costs of changing are considered too high (KLEMPERER, 1987). A customer may want to avoid the psychological and emotional stress that ending a relationship, even if unsatisfactory, could bring, and therefore remains in the relationship (PING, 1993), especially when the available alternatives are limited. In the video game market, these costs are potentially important, since there are three dominant suppliers and the cost of acquiring a ninth generation video game is high, so the change needs to be really advantageous (GALLANGHER; PARK, 2003).

A clear cost of this migration is the loss of the library of games acquired over time, since not all games are cross-platform. Another point is the built network, which involves online friends, your persona and achievements in this network; there are also the complements, or accessories, which are additions of products and services to complement the most important ones (DHARGALKAR *et al.*, 2016) such as steering wheels, joysticks, avatars, movies and the applications purchased. Finally, there is the tacit knowledge of use, which involves familiarity with the joystick and the interfaces, although it is not as relevant as the



other items, given the easy usability and the fact that the target public is young and easily adaptable (GALLANGHER; PARK, 2003).

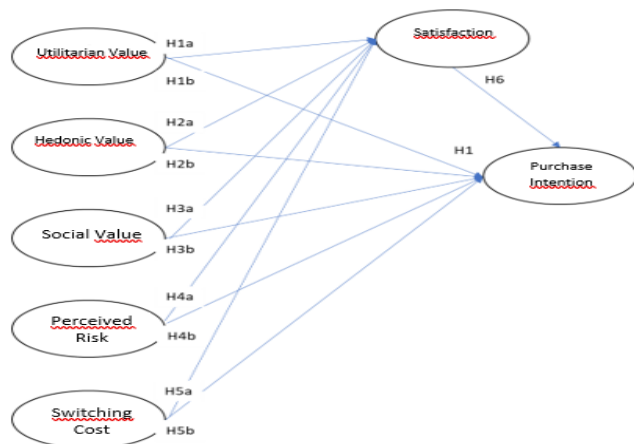
H5a: The switching cost negatively affects satisfaction with video games consumption.

H5b: The switching cost negatively affects the purchase intent of a video game.

We also have satisfaction as a pleasure resulting from a product's performance in relation to the expectation placed on the use of the product. This satisfaction can also be an expectation of future satisfaction, or anticipated satisfaction, as in the case of this study (KOTLER, 2000). For Oliver (1997), the expectation of satisfaction exists when the consumer aspires to quality and performance in producing companies. Satisfaction has already been extensively studied and positively tested by several authors, and is also considered an important determinant (GRONHOLDT *et al.*, 2000).

H6: The expectation of satisfaction positively affects the purchase intent.

Figure 1 – Proposed model with addition of the switching cost



Source: Author himself

## Methodology

The study was carried out by probabilistic sampling; the respondents were obtained randomly from the disclosure of the questionnaire in January, 2021, in the largest Brazilian gamer groups present on Facebook. This survey had 412 respondents which after a scrutiny of repeated answers, reached 403 valid responses.

The research instrument was composed of 26 objective questions, divided into 4 sessions. One of these questions made up the core of the research, the understanding of the model, with 29 items. This core obeyed a non-comparative ordered semantics differential scale of 5 points varying from “I Totally disagree” to “I Totally agree”. In this case, the possibilities of answers were reduced from the original with 7 points by Chunmei and Weijun (2017), to 5, with the aim of making the questionnaire more dynamic without losing its precision, being better than the 7-point scale (DALMORO; VIEIRA, 2014). In addition, the original scales of the model constructs were translated into Portuguese and adapted for the product in question, videogames.

For the validation of the semantic clarity of the questionnaire and the performance, following the orientation of Hair *et al.* (2009) and Malhotra *et al.* (2017), before the official submission, 10 regular and casual players were selected, and they proposed adjustments in the wording of the questions and other improvements, providing greater clarity in the reading.

## **Presentation of results**

### **Sample Profile and Model Validation**

As a result of the descriptive statistics analysis, 88% of the respondents are males, 77% are between 20 and 39 years old, 69% have a higher education level or above, 72% play more than three times a week and 86% have been playing for over 10 years. Regarding the income of the interviewed, many of them (43%) are in the range of R\$ 1.000,00 to R\$ 3.000,00 per month. As for the multivariate analysis, we used the structural equations modeling based on partial least squares, as employed by Chunmei and Weijun (2017). About this, the SMARTPLS software was used for validations and tests of the model and structure (RINGLE *et al.*, 2014). It has the following constructs: Purchase Intent (PI); Perceived Risk (RK); Hedonic Value (HV); Social Value (SV); Satisfaction (ST) and Switching Cost (CM).

Initially, a confirmatory analysis was performed to evaluate the measurement model, and then the AVE of the constructs was evaluated. All the indicators were above the proposed minimum limits of 0,4, except for the observed variables UV2, RK2 e RK1. These were excluded from the model in order to increase its consistency.

Table 1 – results of several indicators of scale and model adjustments

	AVE <sup>a</sup>	CC <sup>b</sup>	R <sup>2</sup>	Cronbach's Alpha	Communality	Redundancy
CM	0,523	0,764		0,592	0,523	
PI	0,674	0,891	0,620	0,835	0,674	0,003
RK	0,576	0,730		0,271	0,576	
SV	0,562	0,836		0,754	0,562	
UV	0,616	0,826		0,682	0,616	
HV	0,660	0,886		0,829	0,660	
ST	0,663	0,855	0,597	0,751	0,663	0,107

<sup>a</sup>AVE – Average Variance Extracted <sup>b</sup>CC – Composite Reliability

Source: Author himself

The initial analysis of the model showed that the CM construct had an AVE < 0.5, or, 0.41. For correction without elimination of the latent variable, two observed variables (CM2 and CM5) that had the lowest factorial loads in this construct were removed, increasing to the minimum required. As for the Convergent Validity, based on the observation of the values of the Internal Consistency (Cronbach's alpha) and Composite Reliability (CC), we notice that all values are above the minimum required limits, > 0.6 and > 0.7 respectively. The exception is the Cronbach's Alfa of the perceived risk (RK), but because it has adequate AVE and Composite Reliability, it was kept in the model. The observed variables CM5 and CM2 were excluded from the model to ensure quality because they have the lowest factorial loads. Regarding the discriminant validity, following Chin's criterion, it is found that the factorial loads of the observed variables are always higher in the original constructs than in the others. And according to the criterion of Fornell and Larcker (1981), we also observe the discriminant validity, with all the square roots of the AVEs of each construct being greater than the other correlations.

Table 2 – Data to prove the discriminant validity test of Fornell and Larker (1981)

	CM	PI	RK	SV	UV	HV	ST
CM	0,724						
PI	-0,362	0,821					
RK	0,402	-0,172	0,760				
SV	0,091	0,256	0,158	0,750			
UV	-0,311	0,648	-0,152	0,271	0,785		
HV	-0,336	0,627	-0,023	0,237	0,632	0,813	
ST	-0,479	0,750	-0,240	0,204	0,664	0,655	0,815

Note: Diagonal values are the square root of the average variance extracted from each construct.

Source: Author himself

Regarding the evaluation of the paths, the R<sup>2</sup> was verified. As seen, PI (62%) and ST (59%) have values considered high (greater than 26%). The second one is the evaluation of significances based on the verification of values above 1.64, preferably 1.96. The relations between latent and observed variables were significant, with a p-value less than 0.05 (values greater than 1.96), except for the relations between RK -> PI and CM -> PI.

Table 3 – Values of Q<sup>2</sup> and f<sup>2</sup>

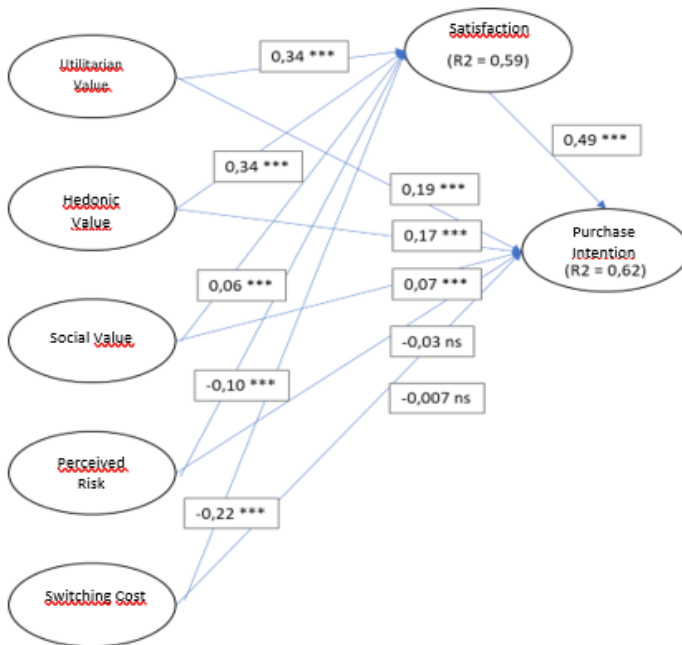
VL	Q <sup>2</sup>	f <sup>2</sup>
CM	0,104	0,104
PI	0,391	0,462
RK	-0,107	-0,107
SV	0,280	0,280
UV	0,249	0,249
HV	0,427	0,427
ST	0,381	0,327

Source: Author himself

Regarding model quality indicators, the predictive validity ( $Q_2$ ) and the effect size ( $f^2$ ) were evaluated, and both the  $Q_2$  and  $f^2$  values indicate that the model is accurate and that the constructs are important for the general adjustment of the model. This time the RK had a low, but valid accuracy. And finally, the evaluation of the GoF, a general indicator of the quality of the model, which must be greater than 0.36, in this case were greater than the required value.

Figure 2 presents the results of the paths' coefficients and their respective confidence levels. The explained variances of purchase intent and satisfaction are 0.62 and 0.59, respectively; that is, the constructs used represent approximately 60% of the influence, both in purchase intent and satisfaction.

Figure 2 – Model and coefficients of the paths and confidence levels



Source: Author himself

Table 4: Result of the hypothesis tests

Relation	Significance		Hypothesis	Status
UV -> ST	7,1918	***	H1a	Confirmed
UV -> PI	4,0923	***	H1b	Confirmed
HV -> ST	7,2831	***	H2a	Confirmed
HV -> PI	3,5552	***	H2b	Confirmed
SV -> st	2,0962	***	H3a	Confirmed
SV -> PI	2,1282	***	H3b	Confirmed
RK -> ST	2,8406	***	H4a	Confirmed
RK -> PI	1,0006	ns	H4b	Not Confirmed
CM -> ST	5,7274	***	H5a	Confirmed
CM -> PI	0,2382	ns	H5b	Not Confirmed
ST -> PI	10,7455	***	H6	Confirmed

Note: ns =  $p > 0,05$ ; \*\*\* =  $p < 0,01$

Source: Author himself

## Discussion and conclusion

This study explored the effects of values, switching cost and perceived risk on satisfaction and purchase intent. The result showed that both utilitarian and hedonic values have the greatest positive and significant impacts on satisfaction expectation and purchase intent, a result similar to the work of Chunmei and Weijun (2017), and compatible with specific studies on video games. Video games strongly involve both natures, utilitarian and hedonic (HIGUCHI, 2018). For Venkatesh (2012), both kinds are important when it comes to technology. However, the purchase intent is slightly more influenced by the utilitarian value. Perhaps it is just a logical justification for the acquisition. On the other hand, video games indeed have several functional attributes related to the utilitarian view, such as Blu-ray, access to the internet and running various applications (VAN ROOIJ *et al.*, 2017).

The social value did not prove to be very influential both in the purchase intent and in the satisfaction expectation, which contradicts

several studies that praise video games and the sociability inherent to this product, since it was built to be played with at least two people, and currently with the explosion of online games, it was expected that there would be a greater influence (WANG; GOH, 2017). According to Grant (2010) and Jimenez (2019) this is an important factor when choosing a video game and its related products. Perhaps this low significance is due to the prevalence of other values that end up outshining social relevance, as video games have notorious characteristics more associated with hedonic and utilitarian values, such as high processing capacity and the number of games, which already have existed in this product for some generations (ARRUDA FILHO; GAMMARANO, 2018).

Regarding the switching cost, it had a great negative influence on the satisfaction expectation, however, its direct relationship with the purchase intent was not significant. As for its high and negative impact on satisfaction, it corroborates what Hauser et al (1994) and Yen (2010) said. Remembering that in the case of video games, the switching cost is related to the possible loss of games and accessories purchased, and to losses related to items and scores, since it is not always possible to transport them to those of the same brand as the current video game. Some studies also highlight that the more complex the product, the greater this influence (FORNELL *et al.*, 1996).

As for the perceived risk, this had a reasonably negative influence on the satisfaction expectation, however, less than the switching cost. In terms of purchase intent, the direct effect was also not noticed, as well as the switching cost. The same occurred in the research by Chunmei and Weijun (2017). It can be understood that risk is evaluated by the consumer, and it causes expectation and dissatisfaction, however, it is possible that the notorious knowledge, trust and parity between the brands means that there is no impact on purchase intent itself (LOVELOCK *et al.*, 2012). And finally, satisfaction has a high impact on purchase intent, being decisive, as expected, and seen in many previous studies (AAKER *et al.*, 2004).



## Implications

From a theoretical point of view, this work was aimed at researching a topic that has been little studied, the video games market, more specifically the dimensions that influence satisfaction and purchase intent of a ninth generation video game. About this, the high impact of hedonic and utilitarian values was confirmed in both, however the other dimensions were not as significant. Nevertheless, these results tend to assist and update knowledge about the consumption of video games. Furthermore, a great benefit was the 23-item scale, an adaptation to the video games market of an already established scale, which obtained high quality rates in this study, and can now be replicated in other countries, to compare the results, as well as in similar products such as computers, laptops and mobiles, which are also products competing with video games.

In practical and organizational terms, this research has helped to better understand the Brazilian gamer audience, and knowing the consumer is a key factor for any type of market. In this case, the audience is mostly composed of young and adult males, with higher education levels, who have been playing for more than ten years, quite different from the popular concept which indicates that video games are for children only (CHESS *et al.*, 2016). The results of the model, in which utilitarian and hedonic values stand out, are compatible with the highly competitive and equivalent scenario among competitors, in which the latest generation video games are quite similar (*Xbox* and *Playstation*) and loaded with both values. And this has implications since, as for the common consumer, it makes it difficult to distinguish offers, investment in social values can be a differential; although the impact of other dimensions is currently low, it may become relevant in the future, if properly stimulated by the market. This idea is reinforced by the current context of the successes of online games and the culture aimed at the socialization of gamer content by the influencers (TÖRHÖNEN *et al.*, 2019).

Special attention can also be given by the industry in relation to the result seen in the perceived risk. It is interesting to evaluate strategies related to its reduction, given the impact that is caused, including directly on the purchase intent. People with lower incomes, for example, are more affected by the risk in more expensive products, such as video games; more practical consumers tend to suffer more from performance risk; and those who are more insecure tend to be more affected by social risk. Knowing this, the industry can create a strong and favorable perception of the risks, either assuming and praising certain attributes, such as guarantees, or stimulating quality assessments to obtain a good reputation (NIKHIL; ANUP, 2016).

And even though the study was focused on the platforms, the present results may help in different ways with insights to all the players in this huge industry, which involves not only platform providers, but also game developers, software publishers, hardware manufacturers and distribution channels (BRIKEN *et al.*, 2017).

### **Limitations and suggestions for future research**

Because this is a study on a market which has been little explored academically, there are few specific references to the subject, and even less when searching for more recent sources. The use of online questionnaires also has some disadvantages, such as the impossibility of solving doubts, and it was noticed, after feedback from some respondents, that some questions might not have been fully understood. And finally, it is hard to find consistent discussions in recent social sciences literature about criteria that could be used by researchers to make decisions about how justifiable it is to vindicate the reality of attributes and constructs in models.

As for future research, since there are few academic studies in this area, the possibilities are many, some of them related to limitations presented earlier, such as the application of this model and scale in different regions for comparison. In addition to the suggestions based on limitations, it is also interesting to evaluate the permanence of a player

with the same brand for generations, the loyalty to the brand, and the influence of exclusive games on this decision. These are two notorious aspects that are often mentioned in gamer communities and promoted by the market itself.

## References

- AAKER, D. A.; KUMAR, V.; DAY, G. S. *Pesquisa de marketing*. São Paulo: Atlas, 2004.
- ARRUDA FILHO, E. J. M.; GAMMARANO, I. J. For every game over there is a play again: Analysis of user preferences regarding 7th- and 8th-generation video games consoles. *The Journal of High Technology Management Research*, v. 29, n. 1, p. 46-56, 2018.
- BASSIOUNI, D. H.; HACKLEY, C.; MESHREKI, H. The integration of videogames in family-life dynamics: An adapted technology acceptance model of family intention to consume video games. *Information Technology & People*, v. 32, n. 6, p. 1376-1396, 2019.
- BAUER, R; A. Consumer Behavior as Risk-Taking, In: Hancock, R.S., Ed., *Dynamic Marketing for a Changing World*, Proceedings of the 43rd. Conference of the American Marketing Association, p. 389-398, 1960.
- BRIKEN, K.; CHILLAS, S.; KRZYWDZINSKI, M.; Marks, A.; Teipen, C. Macro, Meso and Micro Level Determinants of Employment Relations in the Video Games Industry. *The New Digital Workplace*, p. 218-237, 2017.
- CABRAS, I.; GOUMAGIAS, N. D.; FERNANDES, K.; COWLING, P. P.; F. LI, F.; KUDENKO, D.; NUCCIARELLI, A. Exploring survival rates of companies in the UK video-games industry: An empirical study". *Technological Forecasting and Social Change*, v. 117, p. 305-314, 2017.
- CALDERON-VILCA, H.; CHAVEZ, N. M.; GUIMAREY, J. M. R. Recommendation of Videogames with Fuzzy Logic. 27th Conference of Open Innovations Association (FRUCT), p. 27-37, 2020.
- CHESS, S.; EVANS, N. J.; BAINES, J. J. What Does a Gamer Look Like? Video Games, Advertising, and Diversity. *Television & New Media*. v. 8, p. 1, p. 37-57, 2016.
- CHUNMEI, G.; WEIJUN, W. The influence of perceived value on purchase intention in social commerce context. *Internet Research*, v. 27, n.4, p. 772-785, 2017.
- DALMORO, M.; VIEIRA, K. Dilemas na construção de escalas Tipo Likert: o número de itens e a disposição influenciam nos resultados? *Revista Gestão Organizacional*. Edição Especial - Epistemologia e Métodos de Pesquisa em Administração e Contabilidade. v. 6, n. 3, p. 161-174, 2014.
- DHARGALKAR, K.; SHINDE, K.; ARORA, Y. A universal new product development and upgradation framework. *Journal of Innovation and Entrepreneurship*, v. 5, n. 27, p. 1-16, 2016.

- FORNELL, C.; JOHNSON, M. D.; ANDERSON, E. W.; BRYANT, B. E. The American customer satisfaction index: nature, purpose and findings. *Journal of Marketing*, v. 60, n. 4, p. 7-18, 1996.
- FORNELL, C.; LARCKER, D. F. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, v. 18, n. 1, p. 39-50, 1981.
- GALLANGHER, S.; PARK, S. H. Scoring video games' standard contributions. *IEEE Potentials*, v. 22, n. 2, p. 4-14, 2003.
- GAMMARANO, I. J. L. Segunda chance só no videogame: competição mercadológica e valores envolvidos no processo de consumo de videogames. *Revista Contribuciones a la Economía*, 2018.
- GARCÍA-SÁNCHEZ, P.; ANTONIO, M. M.; CASTILLO, P.; PÉREZ, P. P. A bibliometric study of the research area of videogames using dimensions ai database. *Procedia Computer Science*. v. 162, p. 737-744, 2019.
- GRANT, R. M. *Cases to Accompany Contemporary Strategy Analysis*. 7ª ed. Chichester, United Kingdom, John Wiley and Sons Ltd., 2010.
- GRONHOLDT, L.; MARTENSEN, A.; KRISTENSEN, K. The relationship between customer satisfaction and loyalty: Cross-industry differences. *Total Quality Management*, v. 11, n. 4-6, p. 509-514, 2000.
- GUINS, R. Video and Computer Games. *Oxford Bibliographies*, 2016. Estados Unidos, 06 maio. 2016. Disponível em: <https://www.oxfordbibliographies.com/view/document/obo-9780199791286/obo-9780199791286-0063.xml>. Acesso em: 15 jul. 2020.
- HAIR, J. F.; BLACK, W.; BARRY J. B. *Análise multivariada de dados*. 6. ed. Porto Alegre: Bookman, 2009.
- HALL, Z.; LEE, N. Taking the measure of measurement in sales research: introduction to the special issue. *Journal of Personal Selling & Sales Management*, v. 39, n. 3, p. 201-206, 2019.
- HAUSER, J. H.; SIMESTER, D. I.; WERNERFELT, B. Customer satisfaction incentives. *Marketing Science*, v.13, p. 327-350, 1994.
- HIGUCHI, M. M. Digital Games Platforms: a literature review, na empirical assessment of quality and exclusivity in video-game. Market and a study on Project management, 2018, 122 f. Dissertação (Mestrado em Ciências) Poli-USP, São Paulo, 2018.
- HOLBROOK, M. B.; HIRSCHMAN, E. C. The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, v. 9, n. 2, p. 132-140, 1982.
- JACOBY, J.; KAPLAN, L. The Components of Perceived Risk, in *SV - Proceedings of the Third Annual Conference of the Association for Consumer Research*, eds. M. Venkatesan, Chicago, IL: Association for Consumer Research, p. 382-393, 1972.
- JIMENEZ, N.; SAN-MARTIN, S.; CAMARERO, C.; CABEZUDO, R. What kind of video gamer are you? *Journal of Consumer Marketing*, v. 36, n. 1, p. 218-227, 2019.
- KLEMPERER, P. P. The competitiveness of markets with switching costs. *Journal of Economics*, v.18, p. 138-150, 1987.

- KOTLER, P. *Marketing Management: The Millennium Edition*. Person Prentice Hall, Upper Saddle River. 2000.
- LIU, C. C. A model for exploring players flow experience in online games. *Information Technology & People*. v. 30, n. 1, p. 139–162, 2017.
- LONG, M. M.; SCHIFFMAN, L. G. Consumption values and relationships: Segmenting the market for frequency programs. *Journal of Consumer Marketing*, v. 17, n. 3, p. 214–232, 2000.
- LOVELOCK, C.; WIRTZ, J.; HEMZO, M. A. *Marketing de serviços: pessoas tecnologia e estratégia*. 7 ed. São Paulo: Pearson Prentice Hall, 2011.
- MALHOTRA, N. K.; NUNAN, D.; BIRKS, D. F. *Marketing research: An applied approach*. 5ª. ed, Pearson/USA, 2017.
- MARCHAND, A.; HENNIG-THURAU, T. Value Creation in the Videogame Industry: Industry Economics, Consumer Benefits, and Research Opportunities. *Journal of Interactive Marketing*, v. 27, n. 3, p. 141–157, 2013.
- MARTINS, S.; MONTEIRO, J.; CALDEIRA, D.; OLIVEIRA, L. R. Games and learning – a bibliometric analysis of the scientific production. *ICER2015 Proceedings*, p. 1909-1916, 2015.
- NAN, D.; LEE, H.; KIM, Y.; KIM, J. H. My video game console is so cool! A coolness theory-based model for intention to use video game consoles. *Technol. Forec. Soc. Change*, v. 176, 2022.
- NASCIMENTO, A. *A microeconomic analysis of the competition in the home console videogame industry*, 2013. Tese (Doutorado em Administração). Massachusetts Institute of Technology, Boston -USA, 2013.
- NEWZOO. A Regional breakdown of the \$99.6 bn. global games market. *Newzoo*, 2016. Estados Unidos, 6 jul. 2018. Disponível em: <https://newzoo.com/insights/infographics/brazil-games-market-2018/>. Acesso em: 09 nov. 2020.
- NIKHIL, C. S.; ANUP, C. Enterprise Agility on Consumption Value: Bringing Satisfaction in New Product. *European Business & Management*. v. 2, n. 1, p. 8-16. 2016.
- PARASURAMAN; A.; ZEITHAML, V.; BERRY, L. L. A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, v. 49, n. 4, p. 41-50, 1985.
- OLIVER, L. R. *Satisfaction a behavioral perspective on the consumer*. New York: Ed. The McGraw-Hill Companies. Inc., 1997.
- PING, R. The effects of satisfaction and structural constraints on retailer exiting, voice, loyalty, opportunism, and neglect. *Journal of Retailing*, v. 69, n. 3, p. 321-49, 1993.
- POPPER, K. *The Logic of Scientific Discovery*. 1ªed. London: Routledge Classics, 2002.
- PORTER, M. E. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press, 1980.
- RINGLE, C.; SILVA, D.; BIDO, D. S. Modelagem de Equações Estruturais com utilização do Smartpls. *Revista Brasileira de Marketin*, v. 13, n. 2, p. 54-71, 2014.

- ROCHA, A.; BRANTES, J. Administração de Marketing: Conceitos, Estratégias e Aplicações. *Atlas Humanas Didático*, 2012.
- ROUSSEL-TARBOURIECH, G.; MENARD, N.; TRUE, T. Methodically Defeating Nintendo Switch Security, 2019. Disponível em: <https://arxiv.org/abs/1905.07643> Acesso em: 15 mar. 2021.
- SHETH, J.; NEWMAN, B.; GROSS, B. Why We Buy What We Buy: A Theory of Consumption Values. *Journal of Business Research*, v.22, p. 159-170, 1991.
- SOLOMON, R. *O comportamento do consumidor: comprando, possuindo e sendo*. 5ª ed. Porto Alegre: Bookman, 2002.
- SPENCER, P. Xbox Series S and Xbox Series X Launch November 10. *Xbox Wire*, 2020. Estados Unidos, 9 set. 2020 Disponível em: <https://news.xbox.com/en-us/2020/09/09/xbox-series-x-and-xbox-series-s-launching-november-10>. Acesso em: 10 out. 2020
- STOCCO, E. C.; SILVA, G. J.; MELO, T. M. Nintendo: das cartas ao pioneirismo dos consoles - um estudo evolucionário. *Revista Iniciativa Econômica*, v. 2, n. 2, p. 1-11, 2015.
- TÖRHÖNEN, M.; SJÖBLOM, M.; HASSAN, L.; HAMARI, J. Fame and fortune, or just fun? A study on why people create content on video platforms. *Internet Research*, v. 30 n. 1, p. 165-190, 2019.
- VAN ROOIJ, A. J.; DANEELS, R.; LIU, S.; ANRIJ, S.; van LOOY, J.. Childrens Motives to Start, Continue, and Stop Playing Videogames: Confronting Popular Theories with Real-World Observations. *Current Addiction Reports*. v. 4, n. 3, p. 323–332, 2017.
- VENKATESH, T. Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, v. 36, n. 1, p. 157-178, 2012.
- WANG, X.; GOH, D. H. L. Videogame Acceptance: A Meta-Analysis of the Extended Technology Acceptance Model. *Cyberpsychology, Behavior, and Social Networking* v. 20, n. 11, p. 662–671, 2017.
- YEE, N. Beyond 50/50: Breaking Down The Percentage of Female Gamers by Genre. *Quantic Foundry*. 19 jan. 2017. Disponível em: <https://quanticfoundry.com/2017/01/19/female-gamers-by-genre/>. Acesso em: 15 mar. 2021.
- YEN, Y. Can perceived risks affect the relationship of switching costs and customer loyalty in e-commerce? *Internet Research*, v.20, n. 2, p. 210-224, 2010.
- ZEITHAML, V. Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, v. 52, n. 3, p. 2-22, 1988.

## About the authors

*Mario do Amaral Nascimento* – Computer technician, graduated in Industrial Administration, post-graduated in Business Marketing and Master in Business Development. He works as a content teacher for *Sebrae*, *Liga Educacional* and *Yduqs* on topics related to Projects Management, Entrepreneurship, Data Analysis and Process Mapping. The article is the result of the author's Master's thesis. In the present article, he was the main text editor.

*Cecília Lima de Queirós Mattoso* – PhD and Master in Business Administration from UFRJ – COPPEAD. Graduated in Business Administration from FGV-EBAPE-RJ. Assistant Professor in the Marketing area of the Professional Master's Degree in Business Administration and Business Development (MADE) at UNESA. She is a researcher in the area of Consumer Behavior. In this article, the author contributed with indication and discussion of the scope definition, problematization and literary revision of the article.

*Ettore de Carvalho Oriol*– Doctoral student in Public Administration and Government from EAESP-FGV, with a Master's Degree in Business Administration from MADE-UNESA, postgraduate degree in Higher Education Teaching from SENAC-SP and graduation in Accounting from FSA. Visiting Professor at *Fundação Dom Cabral*, content professor and tutor at *Universidade UVA/Uniforge*, and content professor at *YDUCS/Ensine-me*. He contributed to the revision of the article and collaborated in statistical calculations.

---

Submission date: 06/27/2022

Acceptance date: 07/07/2022