



## Article

# Exploring the Role of Gamification in the Online Shopping Experience in Retail Stores: An Exploratory Study

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**Abstract:** Online retail shops increasingly implement gamified marketing strategies to enrich consumers' online experience and increase engagement. This study aims to evaluate the ludic experience of consumers in online retail stores and the role of gamification and game mechanics in changing the online shopping experience. It seeks to assess, through a qualitative methodology, based on an exploratory study approach obtained through 30 interviews with Portuguese consumers, whether consumers have playful experiences when shopping in online retail shops and whether the introduction of game mechanics changes this experience by generating co-creation. The results show that online shopping can be playful and generate positive emotional benefits. However, gamification in online retail shops is not guided by a co-creation process, nor do game mechanics create greater online consumer engagement. There is a need to review how gamification is introduced in online retail shops, and strategies should be designed to co-create experience value and brand co-creation. This study is original, as it contributes to developing knowledge about gamification in the context of the online retail experience. Studies on this topic are scarce, and this study contributes to filling that gap.

**Keywords:** online shopping; gamification; co-creation; online retail experience; ecommerce; marketing



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## 1. Introduction

Researchers and managers have recently highlighted the importance of including customers in promoting and developing services and products (Leclercq et al. 2018; Nishikawa et al. 2013; Russo-Spena and Mele 2012). This is a premise for companies to increase their relationship management practices to meet market demands (Hoyer et al. 2010; Norton et al. 2012; Piller and Walcher 2006; Roberts and Candi 2014). Incorporating customers in the company's activities, and not only in the outputs, enables company managers to develop communities aimed at the interests of their customers (Leclercq et al. 2018). Consequently, it reinforces the customers' commitment to the companies' new offers and positively stimulates their attitudes and perceptions (Healy and McDonagh 2013; Nishikawa et al. 2013). This customer engagement increases the usage rates of services or products and guarantees continuous use, minimising the failure to introduce an innovation. (Hamari and Koivisto 2015; Leclercq et al. 2018; Nambisan and Baron 2007).

Technological innovation has changed how companies attract customers and how services or products are marketed (Al-Zyoud 2021). Currently, the consumer has more means and equipment, thus being better positioned to collaborate more often in the co-creation processes in business operations, thus intervening directly in the company's production process (Kennedy and Guzmán 2016; Rodrigues et al. 2021b). In this way, companies can

acquire a competitive advantage because a greater engagement with customers makes the consumers more loyal to the brand. This relationship results in a win-win scenario in which customers are satisfied, and the company obtains its competitive advantage. (Al-Zyoud 2021). Therefore, it is fundamental to understand the specific marketing content to attract customers or adapt the marketing to consumer behaviour, improving the relationship with the customer. (Sen et al. 2015).

Gamification uses game elements in non-game contexts (Merhabi et al. 2021; Yang et al. 2017). Gamification comprises game mechanics, i.e., functional game components, such as points or leaderboards, to activate players' desires, which can translate into more competition and rewards (Rodrigues et al. 2021a). The gamification introduced in online retail stores can be a strategy companies use to retain customers and develop marketing activity (Al-Zyoud 2021; Park and Bae 2014). We have witnessed the progress and rapid development of social software and online games that, when well applied in e-business, generate new experiences for the online consumer.

In this context, although there are studies regarding the application of gamification in e-business, there is still a gap in how gamification can influence the consumer experience when shopping in online retail stores (Hsu and Chen 2018). Furthermore, little is known about the effectiveness of gamification and its contributions to companies (Hofacker et al. 2016; Huotari and Hamari 2017; Leclercq et al. 2020).

On the other hand, shopping in online retail shops generates emotional benefits for consumers resulting from the playful experience they obtain, and the other players are not perceived as competitors, where one consumer wins, and the other loses. A co-creation process does not drive gamification, nor do game mechanics create greater consumer engagement online. Therefore, how gamification is introduced in online retail shops should be reviewed, and strategies should be created to co-create experience value and brand co-creation.

Thus, this study aims to evaluate the ludic experience of consumers in online retail stores and the role of gamification and game mechanics in changing the online shopping experience. Given the objective, two research questions are posed: (1) How do consumers have playful experiences when shopping online? and (2) How does the consumer experience of online shopping change when gamification and game mechanics are introduced?

This study uses a qualitative methodology. Through a semi-structured questionnaire, 30 interviews were conducted with Portuguese consumers. The results show that gamification and co-creation concepts are not yet familiar to the interviewees. Online shopping is motivated by convenience, speed, and comfort, and the search for the best quality/price product can be entertaining. However, it is no substitute for other entertainment with friends and family.

This study is unique in that it expands the understanding of the online customer experience through an empirical exploration of the playful experience that consumers can obtain when shopping online. In addition, it evaluates how the introduction of game elements can change the experience of consumers in online shopping. This study contributes to the literature on the consumer experience in online shopping and the introduction of gamification and co-creation elements in online retail shopping. We intend to clarify how game elements can influence consumer behaviour and the online shopping experience. This study also explores how consumers' online experiences can be changed by introducing gamification techniques used by retailers, making recommendations for companies regarding implementing or improving these techniques to increase company performance.

## 2. State of the Art

### 2.1. Playful Consumer Experience in Online Shopping

Playfulness has been identified in previous studies as an essential element in studying the online consumer experience in the retail sector (Alatalo et al. 2018; Lambillotte et al. 2022; Mimoun and Poncin 2015). Playfulness can be considered a characteristic or a state, with many methods in which consumers can experience online shopping as a playful encounter

(Hwang and Choi 2020). Thus, we can define lucidity as a predisposition of consumers to interact creatively and spontaneously with technology (Webster and Martocchio 1992). Consumers with higher levels of lucidity tend to have a more positive relationship with websites of online retail stores (Ahn et al. 2007). Thus, consumer experiences will be consumers' responses when interacting with retailers throughout the purchase process (Gao et al. 2021; Holmlund et al. 2020). In this way, playfulness causes customers to be absorbed by the interaction, leading to positive emotions, such as pleasure (Han et al. 2020) and even the filling of time (Mathwick et al. 2001).

In this study, playfulness is considered a situational state of the consumer, as considered by Mimoun et al. (2017), since the level of playfulness in consumers' online shopping experience can be more or less intense. When retailers offer a ludic experience to the consumer, they are promoting positive behaviours in the use of their website (Oh et al. 2009) and positive feedback on the use of the site (Ahn et al. 2007), improving the perception of ease of use and pleasure and satisfaction (Zolkepli and Kamarulzaman 2015).

In this way, providing a good experience to the online customer of retail stores has been a major challenge, with content personalisation being one of the strategies retailers use to improve the consumer experience (Hänninen et al. 2019; Jain et al. 2021).

## 2.2. The Consumer Experience in Online Retail When Gaming Mechanics Are Introduced

The gamification concept can be defined as using game elements in a non-game context. (Deterding et al. 2011). Gamification is intended to help companies solve problems, obtain better results in employee engagement through challenges related to their performance, and attract new users or customers. (Dymek and Zackariasson 2016; Zichermann and Cunningham 2011). This concept includes techniques for motivation and involvement of users through game elements, using gamification for much more than just games and entertainment. (Huotari and Hamari 2017).

With companies began implementing gaming mechanics in online stores, consumers' motivation and willingness to buy products online increased (Insley and Nunan 2014). Thus, retailers are required to start more keenly caring about their customers' experiences in their online shops and the overall shopping experience (Lopes et al. 2021a). The customer experience is similar to a psychological construction, in which it incorporates a subjective response which follows the customer interaction with the company/store, its brands, services, and/or products (Rose et al. 2012).

From this perspective, retailers seek to improve the customers' online shopping process and increase their perception of value, which can be implemented by introducing game mechanics in online retail stores. Although companies cannot control the customer experience, they can influence it to some extent with the help of stimuli (Kranzbühler et al. 2018; Pecorari and Lima 2021). Thus, companies understand that consumer demand will be constantly stimulated by the injection of "meaning" into their products and services, while improving the customer experience (Kornberger 2010). In addition, customer participation or organisation involvement can be important for the consumer in the production and development processes of products or services in today's market (Büttgen et al. 2012; Chathoth et al. 2013; Dong et al. 2015; Wu et al. 2013).

## 2.3. The Co-Creation in Online Retail

Co-creation consists of offerings to create added value through interactions with the customer (Rodrigues et al. 2021a; Yao and Miao 2021). Co-creation has also been the subject of studies in several academic areas, in which it is concluded that the consumer is indispensable in the creation process (Chen 2020). Therefore, it can be said that the customer is partly a co-creator of value (Yao and Miao 2021).

In this context, with the increasing demand for consumers to be part of the production and decision-making process, companies have begun to include consumers in the creation of new consumption experiences (Fuat Firat and Venkatesh 1995). With the emergence of the co-creation process, companies realised that consumers can play five key roles in

co-creation: (1) product marketer; (2) product support specialist; (3) product tester; (4) product designer; and (5) product conceptualiser (Nambisan and Nambisan 2008).

The value of co-creation has a complex management nature, as it is a collaborative tool for boosting markets (Kleber and Juusola 2021). In this way, advantages can be obtained from information and knowledge sharing with external stakeholders (the external approach to open innovation), which will give them a supporting role in helping the brand to achieve a superior position in the market. Thus, the value of co-creation is seen as a paradigm which explains how customers can be part of product design and development (Yao and Miao 2021). It can also be seen as a process of exchange between individuals involved in creating mutually beneficial value (Grönroos 2011; Vargo and Lusch 2008, 2014). Some studies also show the importance of the value concept as an approach to implementing value in co-creation activities or improvements in innovation perspectives and the product or service development processes with customers. (Agrawal and Rahman 2015; Buhalis and Foerste 2015; Eggert et al. 2018; Frow et al. 2015; Hsu 2016; Lenka et al. 2017; McColl-Kennedy et al. 2017; Merrilees 2016; Neghina et al. 2015; Ramaswamy and Ozcan 2016; Tian and Jiang 2018; Yu and Sangiorgi 2018).

Market research should be targeted to achieve the full potential value of co-creation, and questionnaires, statistical models, ethnographic videos, segments, and group assessments should be conducted. Thus, it is possible to better understand the consumers by improving their relationship experience with the company. Therefore, companies should invest in implementing co-creation in their business strategies (Chen 2020). As co-creation is an emerging and growing trend for companies to involve their customers in their business processes (Merhabi et al. 2021), it must be increasingly studied in different contexts.

On the other hand, gamification and co-creation have been interpreted differently. The first method is the co-creation of experience, and the second is the value of brand co-creation. The co-creation of experience is considered the contribution of customers as a form of brand loyalty. The value of brand co-creation aims to grow the brand by promoting relationships with and between companies (Berger et al. 2018; Högberg et al. 2019; Nobre and Ferreira 2017). However, co-creation can be boosted through gamification or the introduction of game mechanics (Leclercq et al. 2017).

### 3. Methodology

#### 3.1. Type of Study and Cases Selection

In recent decades, interest in qualitative research has grown, as it is essential to delve deeper into organisational processes and how they evolve (Bluhm et al. 2011). Normally associated with the qualitative methodology, we find studies of cases that intend to study a given case in greater detail (Yin 2018). Thus, in this study, we use a quantitative methodology applying the case study method based on consumer experiences in shopping at online retail stores to evaluate consumers' ludic experience and the impact of introducing game mechanics on the consumer experience. Thus, the unit of analysis is the consumer.

This approach is the most suitable for this study, as it allows for the in-depth study and understanding of a specific phenomenon in a particular context (Johnson and Duxbury 2010; Lopes et al. 2021b; Yin 2018). The application of the exploratory qualitative method enables the broadening of the research objective and makes it possible to identify emerging patterns in specific contexts (Lopes et al. 2022; Patton 2015), which is the case of the present study. We used multiple case studies to support the results (Yin 2018). The cases were carefully selected to produce similar results. For the selection of cases, it was considered relevant that the interviewee had made online purchases in retail stores in the last six months. All interviewees had made at least one purchase from an online retail store in the clothing sector in the last six months.

#### 3.2. Data Collection and Analysis

According to Yin (2018), one of the pieces of evidence used in the preparation of case studies is interviews, which are the most commonly used method of collecting qualitative

data. The interview consists of a personal conversation between individuals, which can be structured or semi-structured. Structured interviews start with standardised questions; in semi-structured interviews, if there is a script with the questions to be addressed, other pertinent questions can also be asked (Mattar et al. 2014).

Regarding data collection, a combination of interviews was carried out in this study through a semi-structured questionnaire, which made it possible to analyse the themes more profoundly. Data was collected through direct face-to-face observation of consumers who shop online in the retail market. The semi-structured questionnaire consisted entirely of open-ended questions adapted from Insley and Nunan (2014). The semi-structured questionnaire used in this study is divided into two general themes: (1) Consumers' playful experience with online shopping; and (2) the role of game mechanics in altering the online shopping experience. Regarding the first theme, the questionnaire had two sub-themes: (1) online shopping as recreation (8 questions) and (2) affective aspects of online shopping (6 questions). Regarding the second theme, the questionnaire included three subthemes: (1) competing against other shoppers (5 questions); (2) competing against other retailers' policies (8 questions); and (3) pricing games (5 questions).

Regarding the data analysis process, the interviews were transcribed and coded in Microsoft Excel by sub-themes. Finally, we created the following results section by analysing the sub-themes under study.

The synthesis of methodological aspects adopted in our study is presented in Table 1.

**Table 1.** Methodological aspects of the investigation.

Research procedures	
Geographical area	Portugal
Investigative approach	Qualitative investigation
Case selection	Intentional/convenience
Units of analysis	Consumers shopping at online retail stores
Data-collecting instruments	
Case studies	30 interviews
Data analysis	
Content analysis	

### 3.3. Sample

First, a pre-test was conducted to check whether the questions were clear to the respondent, or whether it was necessary to adjust any question to make it clearer. In this pre-test, the interview guide was tested using a previous sample of 5 participants (with different qualifications, professions, and ages) to verify and analyse the general degree of understanding and response variability.

Thirty interviews were conducted with consumers in Portugal who had made purchases in the online retail market in the last six months. Regarding the selection of the interviewees, the same process was carried out through an intentional/convenient process. The interviews were conducted in November 2021 and had an average duration of about 45 min. The sample characterisation can be seen in Table 2. On average, the Portuguese consumers interviewed were 21.9 years old. The online shops of large retailers, such as Inditex Group, Shein, and About You, were mainly accessed via mobile phone, and most payments were made through ATM and Mway.

**Table 2.** Characterisation of the sample.

Letter	Age	Professional Situation	Shops You Usually Buy from	Shopping Location	Day and Time	Equipment	Payment Method
A	22	Children's Auxiliary	Lacoste, Zara, Pull&Bear	house	08/11—21:15	Mobile phone	ATM or MBWay



Table 2. Cont.

Letter	Age	Professional Situation	Shops You Usually Buy from	Shopping Location	Day and Time	Equipment	Payment Method
B	22	Student	Shein	house	7/11—17:30	Computer/Mobile Phone	ATM
C	20	Barmaid	Pull&Bear, Shein, Zara	home/cafe	17/11—14:25	Mobile phone	ATM
D	22	Student	Zara, Mango	house	04/11—14:00	Computer/Mobile Phone	ATM
E	22	Student	Pull&Bear, H&M	house	15/11—17:00	Computer	ATM/PayPal
F	20	Student	Stradivarius, Zara, H&M, Mango	house/bakery	04/11—15:50	Computer/Mobile Phone	ATM
G	20	Student	Stradivarius, Zara	house	19/11—9:30	Computer	ATM
H	18	Student	Pull&Bear, Zara	house	11/11—20:30	Computer/Mobile Phone	ATM
I	28	Psychologist	Zara, Stardivarius	house	14/11—18:41	Mobile phone	ATM
J	21	Student	About You	house	16/11—10:20	Computer	MBWay
K	30	Financial Director	Zara, Stardivarius	house	14/11—11:00	Computer	Paypal
L	20	Student	Shein, Zara, Pull&Bear	house	13/11—12:04	Mobile phone	MBWay
M	19	Student	Shein, Zara, Mango	house	12/11—16:03	Computer/Mobile Phone	MBWay/Credit Card
N	19	Student	Shein	house	10/11—14:54	Mobile phone	Paypal
O	20	Student	Shein, Zara, Bershka	house	18/11—18:34	Mobile phone/iPad	Paypal/ATM
P	19	Student	Shein, H&M, Pull&Bear, Zara	house	19/11—14:13	Mobile phone	Credit Card
Q	22	Student	Shein, Zara, H&M	house	18/11—13:46	Computer	Paypal/MBWay
R	19	Student	Mango, Zara, Stradivarius, Rarus	house	16/11—22:40	Computer/Mobile Phone	ATM
S	19	Student	Zara, Stardivarius, Shein, Pull&Bear	house	19/11—23:00	Computer/Mobile Phone	ATM
T	19	Student	Zara, H&M, Stradivarius	house	10/11—15:40	Computer	Paypal
U	20	Student	Stradivarius, Pull&Bear, Springfield	house	18/11—23:30	Computer/Tablet	ATM
V	21	Student	Zara, Bershka, Nike, Nixon, Guess, Pull&Bear, Lacoste, Tommy	house	4/11—18:00	Mobile phone	ATM / PayPal
W	21	Student	Mango	house	14/11—22:30	Mobile phone	ATM
X	20	Student	Bershka, Zara, Pull&Bear, Mango	house	3/11—16:00	Computer/Mobile Phone	ATM
Y	49	Telecommunications Operator	Seaside, Zara, Sport Zone, Decathlon	house	11/11—20:05	Computer/Mobile Phone	Paypal
Z	19	Student	Pull&Bear, Pimkie	house	12/11—21:10	Computer	ATM
$\alpha$	20	Student	Zara, H&M, Mango	house	17/11—17:30	Mobile phone	MBWay

Table 2. Cont.

Letter	Age	Professional Situation	Shops You Usually Buy from	Shopping Location	Day and Time	Equipment	Payment Method
$\beta$	19	Student	Mango, Zara, Shein, Lacoste	house	11/11—12:50	Computer/Mobile Phone	ATM
$\gamma$	20	Student	Mango, Zara, Shein, Lefties	house	18/11—13:20	Mobile phone	MBWay/Paypal
$\delta$	26	Hospital Auxiliary	Shein, Pimkie, H&M	home/work	28/11—21:07	Computer/Mobile Phone	ATM

#### 4. Results

##### 4.1. Playful Consumer Experience in Online Shopping

Concerning online shopping being an entertainment activity, the respondents' opinion was evaluated in two themes: (1) online shopping as a substitute for other entertainment activities and (2) the emotional aspects that influence consumers when shopping online.

##### 4.1.1. Online Shopping as Recreation

The recreation shopper is typically a consumer who enjoys shopping as a leisure activity, spends more time shopping, takes pleasure in the process and the shopping experience, and is more impulsive in making unplanned purchases (Bellenger and Korgaonkar 1980; Rohm and Swaminathan 2004). Concerning online shopping as a substitute for other entertainment activities, we found that the 30 interviewees mostly shop online for convenience (avoiding travel), speed, and access to promotions and exclusive online products. There is a greater tendency to do their online shopping in the late afternoon and evening, related to work availability, and they do it on average twice a month. Emotional benefits such as comfort, relaxation and satisfaction are associated with online shopping. Despite the positive emotional aspects of the online shopping experience, most respondents do not consider online shopping as a substitute for other entertainment activities. Spending time with friends, going to the cinema, and going for a walk are activities they consider entertainment, whereas online shopping can be done at any other time.

##### 4.1.2. Affective Aspects of Online Shopping

Most respondents feel happy or sad, satisfied, or anxious about the emotional aspects that influence consumers when shopping online. Online shopping is not done because they feel “down”, but because they associate this activity with the search for happiness and satisfaction, i.e., more positive emotions, and therefore, consider that it improves their mood when they do it. In the case of online clothes shopping, interviewees revealed that when they are shopping, they imagine themselves wearing the products, namely combining them with others they have already bought. This way, they are concerned with researching opinions from influencers and not specifically with those on the site from which they are buying. Moreover, most of them do not value the availability of tools by online retail shops to create their product, showing that they already have an opinion about their intended purchase.

##### 4.2. Changing the Consumer Experience of Online Shopping When Gaming Mechanics Are Introduced

The second group of questions aims to understand how consumers respond to the introduction of game mechanics in online purchases. The questions are divided into three themes to check whether there are differences between opinions before and after the introduction of game mechanics in online stores. The first theme aims to analyse whether consumers see shopping as a competition involving “playing against each other”. The second theme essentially addresses competition between the policies of each online shop, i.e., competition between strategies that retailers adapt to persuade or encourage consumers

to make purchases in their shops. Finally, the last theme concerns self-control and research to prevent a poorly planned/studied and impulsive purchase.

#### 4.2.1. Competing against Other Shoppers

Regarding the perception that online shopping can be a competition similar to a game, the interviewees revealed that, for the most part, they are not concerned about shopping better than other shoppers (e.g., friends, family, etc.), and the shopping process is carried out in a self-centred way, focused on their tastes. Thus, they consider that when shopping online, they are not competing and, as such, they do not generally understand the shopping experience as a game. There are no winners or losers. Even in situations where there are, for example, limited units available, the dispute with other buyers of these units is mostly not seen by respondents as a game. Online shopping is mostly done out of necessity, ease, and comfort. Searching online for the best deal (value for money) is a form of entertainment for respondents. It motivates frequent online shopping activity, even though they do not consider that they have any different skills from other buyers in the online environment. Many respondents reported that the skills needed for online shopping are standardised.

#### 4.2.2. Competing against Other Retailers' Policies

This group of questions assessed the competition between strategies retailers adopt to persuade or encourage consumers to shop in their stores. Most respondents reported doing research in online shops even if they did not intend to buy items. This research is motivated by entertainment and curiosity. Consumers do not use any specific strategy to make online purchases. Still, they consider that online shops use strategies to encourage their purchase, such as discounts and promotions, free deliveries, and accumulating points. However, they usually filter the products they want with the maximum price they are willing to pay, and/or they search only for the items they like. Respondents also revealed that most of them do not return items bought online. They mainly look for cheaper products online instead of more unusual or difficult-to-access products. The social approval of online shopping is unimportant to the interviewees, reinforcing that shopping is done through personal taste or necessity. The introduction of gaming elements does not influence online shopping for most respondents, and they did not suggest implementing gamification strategies in online shops.

#### 4.2.3. Pricing Games

According to the answers obtained, we can conclude that most of the interviewees feel more pressured to buy in physical shops, since there is greater pressure from the employees and also by the issue of social approval, because, as a general rule, people feel obliged to buy something when they enter the physical shop. The pressure they feel in physical shops makes them buy more on impulse compared to their attitude in online shops. Even if they have more time to evaluate their purchases, reading blogs or comments does not interfere with the impulse buying decision regarding a certain product. Respondents value the "shopping cart" available in online shops. It allows them to accumulate selected items and review products before payment, helping them decide according to product prices and the items they like the most. Most respondents revealed that they do not shop at auction sites due to a lack of knowledge.

### 5. Discussion of Results

The increase in online shopping and competition between online retail shops has increased academic interest in analysing online marketing strategies to capture and retain consumers. In this context, attention arises regarding how the introduction of game mechanics elements can change the consumer experience in the online context (Hsu and Chen 2018). However, the relationship between consumers and games is complex and criticised, with gamification being recognised as a form of psychological manipulation to drive purchases and obtain customer data for use by competitors, therefore generating



ethical concerns (Insley and Nunan 2014). On the other hand, gamification is not a way to save bad businesses, but to boost well-structured businesses (Zichermann and Cunningham 2011).

The results of this study demonstrate that a co-creation process, i.e., consumer-driven, does not drive gamification, nor do game mechanics create greater consumer engagement online, as concluded by Xi and Hamari (2019). The consumers involved in this study satisfy their online shopping needs through improvised and formally unstructured games. They are motivated by convenience, speed, and access to promotions and exclusive products online. These factors suggest that online shopping is an attractive option for respondents, as it offers a more convenient and advantageous experience than shopping in physical shops. Thus, it is unclear whether gamification increases customer engagement (Koivisto and Hamari 2019). Therefore, online retail shops have difficulties understanding how to engage consumers in game dynamics, basing their strategies on promotions and special offers, something valued by the respondents of this study (Andrews and Currim 2004). Moreover, when consumers look for different prices in online shops for the products they want, they seek this information based on entertainment (Chung et al. 2018). They value, for example, the existence of a shopping cart, not only to store the selected products, but also to be able to review the items and compare them with those in other online shops, with implications for the competitiveness of online retail shops (Close and Kukar-Kinney 2010).

Although the search for the products with the best value for the money is understood as recreational, driven by curiosity and the search for information (Füller 2010), this task is not a substitute for other types of social entertainment with friends and family, nor do consumers consider competing with other consumers when shopping online as if it were a game. This result aligns with that of Kavaliova et al. (2016), which concluded that consumers are driven to online shopping by fun and pleasure and for tangible returns, but not by competition. What is more, online shopping is not done because people feel “down”, but because they associate this activity with the search for happiness and satisfaction, which is in line with what is indicated by Mofokeng (2021) and Rita et al. (2019). Product delivery, perceived safety, information quality and variety can influence customer happiness and satisfaction (Mofokeng 2021; Rita et al. 2019).

On the other hand, the interviewed consumers mentioned that they do not need social acceptance for their online shopping, which is self-centred and focused on their needs and wants. However the Kavaliova et al. (2016) result is antagonistic to ours. Bearden and Etzel (1982) indicate that the opinion of people close to them can greatly impact consumers' purchasing decisions. However, Bearden and Etzel (1982) result aligns with the present study's. However, this study's finding aligns with those of Brown and Reingen (1987). This result reinforces those of Kakar and Kakar (2020), who concluded that social value does not influence online purchasing behaviour. This reduces the possibility that the co-creating experience involves sharing insights and word-of-mouth (Merhabi et al. 2021).

This study verified that interviewees conducted research at online shops, even without the intention of buying, motivated by entertainment and curiosity. This finding aligns with that indicated by Kim and Forsythe (2008) and Childers et al. (2001). The authors state that the research in online shops may be motivated by different factors such as the search for information about products, price comparison, and the search for entertainment or pleasure. Furthermore, it was verified that interviewees do not use specific strategies to purchase online, but they believe that shops use incentives such as discounts and promotions. They filter products with a maximum price and/or search for items of interest. Most do not return products purchased online and prefer cheaper products over rare or hard-to-find ones. These results are aligned with those of Geraldo and Mainardes (2017). In addition, Rintamäki et al. (2021) also highlight that the return process is seen as an inconvenience and has monetary costs; the feeling of guilt and stress of consumers may explain the low rate of returns. The results also reveal that consumers feel more pressured to buy in physical shops than they do online. This can be explained by several factors, such as the physical

presence of salespeople, the ability to touch and try products before buying, and the sense of urgency created by a physical shop environment.

## 6. Conclusions

This study aims to evaluate the ludic experience of consumers in online retail stores and the role of gamification and game mechanics in changing the online shopping experience. The results show that online shopping is not a substitute for other types of entertainment but has positive emotional benefits such as happiness, comfort, relaxation and satisfaction, resembling a playful experience, as it positively improves mood. Respondents search online shops for entertainment and out of curiosity, even if they do not want to buy. Most purchases are made online for convenience, speed, and access to discounts, promotions, and exclusive products. The search for the best quality-price in online retail shops is considered entertainment, motivating a more regular activity. The tools made available by online retail shops to create one's product are not valued. Most respondents do not consider online shopping as a competition, even when a few product units are available. Although consumers do not use search strategies or have specific skills in the online context, they consider that online retail shops offering discounts, free shipping, and accumulating points are encouraging their consumption. However, the introduction of game mechanics does not influence online shopping. Consumers do not need social approval for their purchases in online shops and feel more relaxed when shopping online than when shopping in physical shops, avoiding impulse purchases. In addition, they feel that online shops with shopping carts also prevent impulse buying and allow them to adjust their purchases. A surprising finding is that consumers feel more compelled to shop in brick-and-mortar stores than online stores. Several factors can explain this, such as the physical presence of salespeople, the ability to touch and try products before buying, and the sense of urgency created by the physical store environment.

Um achado supreendente é que os consumidores se sentem mais compelidos a fazer compras em lojas físicas em comparação com as lojas online. Vários fatores podem explicar isso, como a presença de vendedores fisicamente presentes, a capacidade de tocar e experimentar os produtos antes de comprar, e o senso de urgência criado pelo ambiente de uma loja física.

In terms of practical implications, this study suggests that consumers shopping in online shops are unfamiliar with gamification. Thus, online retail shops can maximise the benefits of implementing a gamified strategy if gamification is optional rather than imposed. Its implementation depends on adherence to the consumer profile, preventing consumers less adept at gaming from leaving the online shop (Karać and Stabauer 2017). On the other hand, gamification can correct undesirable consumer behaviour, such as returns. For example, a game mechanic allows free shipping for purchases and pays for return shipping. The use of gamified elements, such as a shopping cart, can be optimised if they allow that same shopping cart to compare the product with other online shops, showing that they have the lowest price in the market (Insley and Nunan 2014). Finally, co-creation is a growing trend for companies to involve their customers in business processes (Merhabi et al. 2021). Gamification should enhance the co-creation of value in terms of experience and brand.

This paper is original because it contributes to increasing the knowledge about the online customer experience through an exploratory empirical study about the use of elements present in games in e-commerce. This paper contributes to the literature on gamification and the co-creation of purchases in online retail shops. It intends to clarify how game elements can influence consumer behaviour and the online shopping experience. This study brings new findings regarding gamification techniques used by retailers. Suggestions are made for companies concerning implementing gamification techniques, or improving them, to increase customer engagement and performance.

This study has some limitations. First, this study used a quantitative methodology, and it would be useful to reinforce the complementarity of results with quantitative data,

making the investigation more robust, accurate, and comprehensive. The selection of respondents was carried out through an intentional/convenient process, and using a random sample of respondents could increase the sample's representativeness in this study. Despite the high number of interviews conducted, the interviewees were unfamiliar with the concept of gamification and co-creation, and some of the answers may have been less informative due to unfamiliarity with the context. On the other hand, the average age of the interviewees was low (21.9 years), most of them were students (financially dependent on third parties), and only Portuguese consumers were interviewed. The consumption behaviour of shopping in online shops cannot be generalised to other age groups and other geographical contexts. The study used Microsoft Excel to code and analyse the data. We consider that the use of software of a qualitative nature, such as NVivo or Atlas, could increase the rigour and transparency of the data analysis process in our study.

In future research, it would be important to diversify the sample in terms of age and professional occupation and apply this interview guide to consumption in physical shops to assess the differences in purchasing behaviours compared to those in online retail shops. Furthermore, this study only took into account the Portuguese cultural context, and in future research, it would be interesting to explore the influence of gamification and game mechanics on the consumer experience in different cultural settings to better understand the cultural variations in these phenomena. Finally, the complementarity of qualitative and quantitative data will reinforce the scientific rigour of the results and make the study more robust.

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## References

- Agrawal, Amit Kumar, and Zillur Rahman. 2015. Roles and Resource Contributions of Customers in Value Co-creation. *International Strategic Management Review* 3: 144–60. [\[CrossRef\]](#)
- Ahn, Tony, Seewon Ryu, and Ingoo Han. 2007. The impact of Web quality and playfulness on user acceptance of online retailing. *Information & Management* 44: 263–75. [\[CrossRef\]](#)
- Alatalo, Sari, Eeva-Liisa Oikarinen, Arto Reiman, Teck Ming Tan, Eija-Liisa Heikka, Pia Hurmelinna-Laukkanen, Matti Muhos, and Taina Vuorela. 2018. Linking concepts of playfulness and well-being at work in retail sector. *Journal of Retailing and Consumer Services* 43: 226–33. [\[CrossRef\]](#)
- Al-Zyoud, Mohammad Fahmi. 2021. The impact of gamification on consumer loyalty, electronic word-of mouth sharing and purchase behavior. *Journal of Public Affairs* 21: e2263. [\[CrossRef\]](#)
- Andrews, Rick L., and Imran S. Currim. 2004. Behavioural differences between consumers attracted to shopping online versus traditional supermarkets: Implications for enterprise design and marketing strategy. *International Journal of Internet Marketing and Advertising* 1: 38. [\[CrossRef\]](#)
- Bearden, William O., and Michael J. Etzel. 1982. Reference Group Influence on Product and Brand Purchase Decisions. *Journal of Consumer Research* 9: 183–94. [\[CrossRef\]](#)
- Bellenger, Danny N., and Pradeep K. Korgaonkar. 1980. Profiling the Recreational Shopper. *Journal of Retailing* 56: 77–92.
- Berger, Axel, Tobias Schlager, David E. Sprott, and Andreas Herrmann. 2018. Gamified interactions: Whether, when, and how games facilitate self-brand connections. *Journal of the Academy of Marketing Science* 46: 652–73. [\[CrossRef\]](#)
- Bluhm, Dustin J., Wendy Harman, Thomas W. Lee, and Terence R. Mitchell. 2011. Qualitative Research in Management: A Decade of Progress. *Journal of Management Studies* 48: 1866–91. [\[CrossRef\]](#)

- Brown, Jacqueline Johnson, and Peter H. Reingen. 1987. Social Ties and Word-of-Mouth Referral Behavior. *Journal of Consumer Research* 14: 350–62. [\[CrossRef\]](#)
- Buhalis, Dimitrios, and Marie Foerste. 2015. SoCoMo marketing for travel and tourism: Empowering co-creation of value. *Journal of Destination Marketing and Management* 4: 151–61. [\[CrossRef\]](#)
- Büttgen, Marion, Jan H. Schumann, and Zelal Ates. 2012. Service locus of control and customer coproduction: The role of prior service experience and organizational socialization. *Journal of Service Research* 15: 166–81. [\[CrossRef\]](#)
- Chathoth, Prakash, Levent Altinay, Robert J. Harrington, Fevzi Okumus, and Eric S. W. Chan. 2013. Co-production versus co-creation: A process based continuum in the hotel service context. *International Journal of Hospitality Management* 32: 11–20. [\[CrossRef\]](#)
- Chen, Yi-Wen. 2020. Sustainable value co-creation in the virtual community: How diversified co-creation experience affects co-creation intention. *International Journal of Environmental Research and Public Health* 17: 8497. [\[CrossRef\]](#)
- Childers, Terry L., Christopher L. Carr, Joann Peck, and Stephen Carson. 2001. Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing* 77: 511–35. [\[CrossRef\]](#)
- Chung, Sorim, Thomas Kramer, and Elaine M. Wong. 2018. Do touch interface users feel more engaged? The impact of input device type on online shoppers' engagement, affect, and purchase decisions. *Psychology & Marketing* 35: 795–806. [\[CrossRef\]](#)
- Close, Angeline G., and Monika Kukar-Kinney. 2010. Beyond buying: Motivations behind consumers' online shopping cart use. *Journal of Business Research* 63: 986–92. [\[CrossRef\]](#)
- Deterding, Sebastian, Dan Dixon, Rilla Khaled, and Lennart Nacke. 2011. From game design elements to gamefulness: Defining "gamification". Paper presented at 15th International Academic MindTrek Conference: Envisioning Future Media Environments, Tampere, Finland, September 28–30.
- Dong, Beibei, K. Sivakumar, Kenneth R. Evans, and Shaoming Zou. 2015. Effect of Customer Participation on Service Outcomes: The Moderating Role of Participation Readiness. *Journal of Service Research* 18: 160–76. [\[CrossRef\]](#)
- Dymek, Mikolaj, and Peter Zackariasson. 2016. *The Business of Gamification: A Critical Analysis*. Stockholm: Taylor and Francis.
- Eggert, Andreas, Wolfgang Ulaga, Pennie Frow, and Adrian Payne. 2018. Conceptualizing and communicating value in business markets: From value in exchange to value in use. *Industrial Marketing Management* 69: 80–90. [\[CrossRef\]](#)
- Frow, Pennie, Suvi Nenonen, Adrian Payne, and Kaj Storbacka. 2015. Managing Co-creation Design: A Strategic Approach to Innovation. *British Journal of Management* 26: 463–83. [\[CrossRef\]](#)
- Fuat Firat, Nikhilesh Dholakia, and Alladi Venkatesh. 1995. Marketing in a postmodern world. *European Journal of Marketing* 29: 40–56. [\[CrossRef\]](#)
- Füller, Johann. 2010. Refining virtual co-creation from a consumer perspective. *California Management Review* 52: 98–122. [\[CrossRef\]](#)
- Gao, Wei, Hua Fan, Wenqian Li, and Huiling Wang. 2021. Crafting the customer experience in omnichannel contexts: The role of channel integration. *Journal of Business Research* 126: 12–22. [\[CrossRef\]](#)
- Geraldo, Graciela Cristina, and Emerson Wagner Mainardes. 2017. Estudo sobre os fatores que afetam a intenção de compras online. *REGE—Revista de Gestão* 24: 181–94. [\[CrossRef\]](#)
- Grönroos, Christian. 2011. Value co-creation in service logic: A critical analysis. *Marketing Theory* 11: 279–301. [\[CrossRef\]](#)
- Hamari, Juho, and Jonna Koivisto. 2015. "Working out for likes": An empirical study on social influence in exercise gamification. *Computers in Human Behavior* 50: 333–47. [\[CrossRef\]](#)
- Han, Sang-Lin, Myoung An, Jerry J. Han, and Jiyoung Lee. 2020. Telepresence, time distortion, and consumer traits of virtual reality shopping. *Journal of Business Research* 118: 311–20. [\[CrossRef\]](#)
- Hänninen, Mikko, Lasse Mitronen, and Stephen K. Kwan. 2019. Multi-sided marketplaces and the transformation of retail: A service systems perspective. *Journal of Retailing and Consumer Services* 49: 380–88. [\[CrossRef\]](#)
- Healy, Jason C., and Pierre McDonagh. 2013. Consumer roles in brand culture and value co-creation in virtual communities. *Journal of Business Research* 66: 1528–40. [\[CrossRef\]](#)
- Hofacker, Charles F., Ko de Ruyter, Nicholas H. Lurie, Puneet Manchanda, and Jeff Donaldson. 2016. Gamification and Mobile Marketing Effectiveness. *Journal of Interactive Marketing* 34: 25–36. [\[CrossRef\]](#)
- Höglberg, Johan, Marcus Olsson Ramberg, Anders Gustafsson, and Erik Wästlund. 2019. Creating brand engagement through in-store gamified customer experiences. *Journal of Retailing and Consumer Services* 50: 122–30. [\[CrossRef\]](#)
- Holmlund, Maria, Yves Van Vaerenbergh, Robert Ciuchita, Annika Raval, Panagiotis Sarantopoulos, Francisco Villarroel Ordenes, and Mohamed Zaki. 2020. Customer experience management in the age of big data analytics: A strategic framework. *Journal of Business Research* 116: 356–65. [\[CrossRef\]](#)
- Hoyer, Wayne D., Rajesh Chandy, Matilda Dorotic, Manfred Krafft, and Siddharth S. Singh. 2010. Consumer Cocreation in New Product Development. *Journal of Service Research* 13: 283–96. [\[CrossRef\]](#)
- Hsu, Chia-Lin, and Mu-Chen Chen. 2018. How gamification marketing activities motivate desirable consumer behaviors: Focusing on the role of brand love. *Computers in Human Behavior* 88: 121–33. [\[CrossRef\]](#)
- Hsu, Yen. 2016. A value cocreation strategy model for improving product development performance. *Journal of Business and Industrial Marketing* 31: 695–715. [\[CrossRef\]](#)
- Huotari, Kai, and Juho Hamari. 2017. A definition for gamification: Anchoring gamification in the service marketing literature. *Electronic Markets* 27: 21–31. [\[CrossRef\]](#)
- Hwang, Jiyoung, and Laee Choi. 2020. Having fun while receiving rewards?: Exploration of gamification in loyalty programs for consumer loyalty. *Journal of Business Research* 106: 365–76. [\[CrossRef\]](#)



- Insley, Victoria, and Dan Nunan. 2014. Gamification and the online retail experience. *International Journal of Retail and Distribution Management* 42: 340–51. [CrossRef]
- Jain, Geetika, Justin Paul, and Archana Shrivastava. 2021. Hyper-personalization, co-creation, digital clienteling and transformation. *Journal of Business Research* 124: 12–23. [CrossRef]
- Johnson, Karen L., and Linda Duxbury. 2010. The view from the field: A case study of the expatriate boundary-spanning role. *Journal of World Business* 45: 29–40. [CrossRef]
- Kakar, Ashish, and Adarsh Kumar Kakar. 2020. Identifying the Determinant Dimensions of Shopper Convenience for Online Versus Instore Shopping in the Pre and Post COVID-19 Eras. *Pacific Asia Journal of the Association for Information Systems* 12: 4. [CrossRef]
- Karać, Jovana, and Martin Stabauer. 2017. Gamification in E-Commerce. In *HCI in Business, Government and Organizations*. Supporting Business. Edited by F. F.-H. Nah and C.-H. Tan. Cham: Springer.
- Kavaliova, Maya, Farzad Virjee, Natalia Maehle, and Ingeborg Astrid Kleppe. 2016. Crowdsourcing innovation and product development: Gamification as a motivational driver. *Cogent Business & Management* 3: 1128132. [CrossRef]
- Kennedy, Eric, and Francisco Guzmán. 2016. Co-creation of brand identities: Consumer and industry influence and motivations. *Journal of Consumer Marketing* 33: 313–23. [CrossRef]
- Kim, Jiyeon, and Sandra Forsythe. 2008. Adoption of Virtual Try-on technology for online apparel shopping. *Journal of Interactive Marketing* 22: 45–59. [CrossRef]
- Kleber, Daniel M. S., and Katariina Juusola. 2021. Open innovation—An explorative study on value co-creation tools for nation branding and building a competitive identity. *Journal of Open Innovation: Technology, Market, and Complexity* 7: 206. [CrossRef]
- Koivisto, Jonna, and Juho Hamari. 2019. The rise of motivational information systems: A review of gamification research. *International Journal of Information Management* 45: 191–210. [CrossRef]
- Kornberger, Martin. 2010. *Brand Society: How Brands Transform Management and Lifestyle*. Cambridge: Cambridge University Press.
- Kranzbühler, Anne-Madeleine, Mirella H. P. Kleijnen, Robert E. Morgan, and Marije Teerling. 2018. The Multilevel Nature of Customer Experience Research: An Integrative Review and Research Agenda. *International Journal of Management Reviews* 20: 433–56. [CrossRef]
- Lambillotte, Laetitia, Nathan Magrofuoco, Ingrid Poncin, and Jean Vanderdonckt. 2022. Enhancing playful customer experience with personalization. *Journal of Retailing and Consumer Services* 68: 103017. [CrossRef]
- Leclercq, Thomas, Ingrid Poncin, and Wafa Hammedi. 2017. The Engagement Process During Value Co-Creation: Gamification in New Product-Development Platforms. *International Journal of Electronic Commerce* 21: 454–88. [CrossRef]
- Leclercq, Thomas, Ingrid Poncin, Wafa Hammedi, Avreliane Kullak, and Linda D. Hollebeek. 2020. When gamification backfires: The impact of perceived justice on online community contributions. *Journal of Marketing Management* 36: 550–77. [CrossRef]
- Leclercq, Thomas, Wafa Hammedi, and Ingrid Poncin. 2018. The Boundaries of Gamification for Engaging Customers: Effects of Losing a Contest in Online Co-creation Communities. *Journal of Interactive Marketing* 44: 82–101. [CrossRef]
- Lenka, Sambit, Vinit Parida, and Joakim Wincent. 2017. Digitalization Capabilities as Enablers of Value Co-Creation in Servitizing Firms. *Psychology and Marketing* 34: 92–100. [CrossRef]
- Lopes, João M., Ana Sousa, Eva Calçada, and José Oliveira. 2021a. A citation and co-citation bibliometric analysis of omnichannel marketing research. *Management Review Quarterly* 72: 1017–1050. [CrossRef]
- Lopes, João M., Márcio Oliveira, Jorge Lopes, and Umer Zaman. 2021b. Networks, Innovation and Knowledge Transfer in Tourism Industry: An Empirical Study of SMEs in Portugal. *Social Sciences* 10: 159. [CrossRef]
- Lopes, João M., Sofia Gomes, José Oliveira, and Márcio Oliveira. 2022. International Open Innovation Strategies of Firms in European Peripheral Regions. *Journal of Open Innovation: Technology, Market, and Complexity* 8: 7. [CrossRef]
- Mathwick, Charla, Naresh Malhotra, and Edward Rigdon. 2001. Experiential value: Conceptualization, measurement and application in the catalog and Internet shopping environment<sup>11</sup> This article is based upon the first author's doctoral dissertation completed while at Georgia Institute of Technology. *Journal of Retailing* 77: 39–56. [CrossRef]
- Mattar, Fauze Najib, Bráulio Oliveira, and Sérgio Motta. 2014. *Pesquisa de Marketing: Metodologia, Planejamento, Execução e Análise*, 7th ed. Rio de Janeiro: Elsevier. Available online: [https://minerva.ufrj.br/F/?func=direct&doc\\_number=000816127&local\\_base=UFR01](https://minerva.ufrj.br/F/?func=direct&doc_number=000816127&local_base=UFR01) (accessed on 13 January 2023).
- McColl-Kennedy, Janet R., Suellen J. Hogan, Lars Witell, and Hannah Snyder. 2017. Cocreative customer practices: Effects of health care customer value cocreation practices on well-being. *Journal of Business Research* 70: 55–66. [CrossRef]
- Merhabi, Mohamad Amir, Panagiotis Petridis, and Rushana Khusainova. 2021. Gamification for Brand Value Co-Creation: A Systematic Literature Review. *Information* 12: 345. [CrossRef]
- Merrilees, B. 2016. Interactive brand experience pathways to customer-brand engagement and value co-creation. *Journal of Product and Brand Management* 25: 402–8. [CrossRef]
- Mimoun, Mohammed Slim, and Ingrid Poncin. 2015. A valued agent: How ECAs affect website customers' satisfaction and behaviors. *Journal of Retailing and Consumer Services* 26: 70–82. [CrossRef]
- Mimoun, Mohammed Slim, Ingrid Poncin, and Marion Garnier. 2017. Animated conversational agents and e-consumer productivity: The roles of agents and individual characteristics. *Information & Management* 54: 545–59. [CrossRef]
- Mofokeng, Thabang Excellent. 2021. The impact of online shopping attributes on customer satisfaction and loyalty: Moderating effects of e-commerce experience. *Cogent Business & Management* 8: 1968206. [CrossRef]

- Nambisan, Satish, and Priya Nambisan. 2008. How to Profit from a Better Virtual Customer Environment'. *MIT Sloan Management Review* 49: 53–61.
- Nambisan, Satish, and Robert A. Baron. 2007. Interactions in virtual customer environments: Implications for product support and customer relationship management. *Journal of Interactive Marketing* 21: 42–62. [\[CrossRef\]](#)
- Neghina, Carmen, Marjolein C. J. Caniëls, Josée M. M. Bloemer, and Marcel J. H. van Birgelen. 2015. Value cocreation in service interactions: Dimensions and antecedents. *Marketing Theory* 15: 221–42. [\[CrossRef\]](#)
- Nishikawa, Hidehiko, Martin Schreier, and Susumu Ogawa. 2013. User-generated versus designer-generated products: A performance assessment at Muji. *International Journal of Research in Marketing* 30: 160–67. [\[CrossRef\]](#)
- Nobre, Helena, and André Ferreira. 2017. Gamification as a platform for brand co-creation experiences. *Journal of Brand Management* 24: 349–61. [\[CrossRef\]](#)
- Norton, Michael I., Daniel Mochon, and Dan Ariely. 2012. The IKEA effect: When labor leads to love. *Journal of Consumer Psychology* 22: 453–60. [\[CrossRef\]](#)
- Oh, Sang Hyun, Yong Man Kim, Chong Whan Lee, Gyu Yeol Shim, Min Sook Park, and Hong Seob Jung. 2009. Consumer adoption of virtual stores in Korea: Focusing on the role of trust and playfulness. *Psychology & Marketing* 26: 652–68. [\[CrossRef\]](#)
- Park, Heehyeon, and Jae-Hwan Bae. 2014. Study and research of gamification design. *International Journal of Software Engineering and its Applications* 8: 19–28.
- Patton, Michael Quinn. 2015. *Qualitative Research & Evaluation Methods: Integrating Theory and Practice*, 4th ed. Thousand Oaks: SAGE Publications.
- Pecorari, Paulo Mantelatto, and Carlos Roberto Camello Lima. 2021. Correlation of customer experience with the acceptance of product-service systems and circular economy. *Journal of Cleaner Production* 281. [\[CrossRef\]](#)
- Piller, Frank T., and Dominik Walcher. 2006. Toolkits for idea competitions: A novel method to integrate users in new product development. *R&D Management* 36: 307–18. [\[CrossRef\]](#)
- Ramaswamy, Venkat, and Kerimcan Ozcan. 2016. Brand value co-creation in a digitalized world: An integrative framework and research implications. *International Journal of Research in Marketing* 33: 93–106. [\[CrossRef\]](#)
- Rintamäki, Timo, Mark T. Spence, Hannu Saarijärvi, Johanna Joensuu, and Mika Yrjölä. 2021. Customers' perceptions of returning items purchased online: Planned versus unplanned product returners. *International Journal of Physical Distribution & Logistics Management* 51: 403–22. [\[CrossRef\]](#)
- Rita, Paulo, Tiago Oliveira, and Almira Farisa. 2019. The impact of e-service quality and customer satisfaction on customer behavior in online shopping. *Heliyon* 5: e02690. [\[CrossRef\]](#) [\[PubMed\]](#)
- Roberts, Deborah L., and Marina Candi. 2014. Leveraging Social Network Sites in New Product Development: Opportunity or Hype? *Journal of Product Innovation Management* 31: 105–17. [\[CrossRef\]](#)
- Rodrigues, Ivo M., Nuno F. Soares, Joao M. Lopes, Jose C. Oliveira, and Jorge M. N. G. Lopes. 2021a. Gamification as a new trend in the co-creation process. *RAM. Revista de Administração Mackenzie* 22: 1–33. [\[CrossRef\]](#)
- Rodrigues, Ivo, João M. Lopes, Ana Borges, José Oliveira, and Márcio Oliveira. 2021b. How Can Gamified Applications Drive Engagement and Brand Attitude? The Case of Nike Run Club Application. *Administrative Sciences* 11: 92. [\[CrossRef\]](#)
- Rohm, Andrew J., and Vanitha Swaminathan. 2004. A typology of online shoppers based on shopping motivations. *Journal of Business Research* 57: 748–57. [\[CrossRef\]](#)
- Rose, Susan, Moira Clark, Phillip Samouel, and Neil Hair. 2012. Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes. *Journal of Retailing* 88: 308–22. [\[CrossRef\]](#)
- Russo-Spena, Tiziana, and Cristina Mele. 2012. "Five Co-s" in innovating: A practice-based view. *Journal of Service Management* 23: 527–53. [\[CrossRef\]](#)
- Sen, Sankar, Allison R. Johnson, C. B. Bhattacharya, and Juan Wang. 2015. Identification and Attachment in Consumer-Brand Relationships. In *Brand Meaning Management*. Bingley: Emerald Group Publishing Limited, vol. 12, pp. 151–74. [\[CrossRef\]](#)
- Tian, Lin, and Baojun Jiang. 2018. Effects of Consumer-to-Consumer Product Sharing on Distribution Channel. *Production and Operations Management* 27: 350–67. [\[CrossRef\]](#)
- Vargo, Stephen L., and Robert F. Lusch. 2014. Evolving to a new dominant logic for marketing. In *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*. Stockholm: Taylor and Francis, pp. 3–28.
- Vargo, Stephen L., and Robert F. Lusch. 2008. Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science* 36: 1–10. [\[CrossRef\]](#)
- Webster, Jane, and Joseph J. Martocchio. 1992. Microcomputer Playfulness: Development of a Measure with Workplace Implications. *MIS Quarterly* 16: 201–26. [\[CrossRef\]](#)
- Wu, Shih-Hao, Stephen Chi-Tsung Huang, Ching-Yi Daphane Tsai, and Hsin-I Chen. 2013. Relationship quality in a coproduction context and the moderating effects of relationship orientation. *Total Quality Management and Business Excellence* 24: 1062–83. [\[CrossRef\]](#)
- Xi, Nannan, and Juho Hamari. 2019. Does gamification satisfy needs? A study on the relationship between gamification features and intrinsic need satisfaction. *International Journal of Information Management* 46: 210–21. [\[CrossRef\]](#)
- Yang, Yang, Yousra Asaad, and Yogesh Dwivedi. 2017. Examining the impact of gamification on intention of engagement and brand attitude in the marketing context. *Computers in Human Behavior* 73: 459–69. [\[CrossRef\]](#)



- Yao, Ge, and Jianming Miao. 2021. Service value co-creation in digital platform business: A case of xianyu idle trading platform. *Sustainability* 13: 11296. [[CrossRef](#)]
- Yin, Robert K. 2018. *Case Study Research and Applications: Design and Methods*, 6th ed. Los Angeles: SAGE.
- Yu, Eun, and Daniela Sangiorgi. 2018. Service Design as an Approach to Implement the Value Cocreation Perspective in New Service Development. *Journal of Service Research* 21: 40–58. [[CrossRef](#)]
- Zichermann, Gabe, and Christopher Cunningham. 2011. *Gamification by Design: Implementing Game Mechanics in Web and Mobile Apps*, 1st ed. Cambridge: O'Reilly Media.
- Zolkepli, Izzal Asnira, and Yusniza Kamarulzaman. 2015. Social media adoption: The role of media needs and innovation characteristics. *Computers in Human Behavior* 43: 189–209. [[CrossRef](#)]

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