
LEVERAGING THE POWER OF GAMIFICATION IN CONSUMER DECISION MAKING: HEDONISM VS. UTILITARIANISM ¹

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ABSTRACT

Various studies have been conducted on the shopping behavior, which is a widespread phenomenon in consumer culture, in the field of consumer behavior. Researchers have identified that personal, environmental, and cultural variables, along with other factors, influence shopping behavior. Among these factors, there are hedonic and utilitarian shopping behaviors, which are two different forms of consumer behavior motivated by different desires and goals. Understanding these distinctions can assist companies and marketing professionals in adjusting their marketing efforts to align with the demands and preferences of their target customers. Furthermore, gamification is a powerful marketing strategy that can enhance customer engagement, motivate desired actions, and provide valuable consumer data. This study has been prepared to determine what kind of changes occur in consumers' purchasing behaviour when gamification elements are included in the shopping process. Within the scope of the study, three specific aspects of purchasing behaviour are examined: hedonic shopping, utilitarian shopping and gamification. Based on flow theory, this study addresses the differences between the presence and absence of gamification elements in terms of hedonic shopping value and utilitarian shopping value. A longitudinal study was designed to determine the changes in consumer purchasing behavior caused by gamification elements. Data was collected in two different periods. The "hedonic and utilitarian shopping value" scales were used during the data collection process, which was conducted through an online form. Analyses were conducted using the data obtained from a total of 408 participants who participated in both data collection periods. According to the analysis results, consumers who prioritize utilitarian value in their shopping when gamification elements are not present tend to engage in more hedonic shopping when gamification elements are introduced. These results indicate that when gamification elements are included in the shopping process, they lead to changes in consumer behavior, alter consumers' purchasing styles, and influence the consumer decision-making process. The integration of gamification elements into the shopping process will have an impact on consumers' behaviors, purchase decision-making processes, and shopping patterns. Considering that hedonic shopping behavior leads to increased purchases and higher payments by consumers, representatives of the sector operating in e-marketplaces should focus on gamification elements.

Keywords: *Gamification, Flow theory, Hedonic shopping, Utilitarian shopping, Behavioral changes.*

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TÜKETİCİ KARAR VERME SÜRECİNDE OYUNLAŞTIRMANIN GÜCÜNDEN YARARLANMAK: HAZCILIK FAYDACILIĞA KARŞI

ÖZ

Tüketici davranışı alanında, tüketim kültüründe yaygın bir olay olan alışveriş eylemi üzerine çeşitli arařtırmalar yapılmıřtır. Diđer faktörlerin yanı sıra kişisel, çevresel ve kültürel deęişkenlerin de alışveriş davranışını etkilediđi arařtırmacılar tarafından tespit edilmiřtir. Bu unsurlar arasında, farklı güdü ve hedeflerle motive olan iki farklı tüketici davranışı biçimi olan hancı ve faydacı alışveriş de yer almaktadır. Bu ayrımların anlaşılması, firmaların ve pazarlama profesyonellerinin, pazarlama çabalarını hedef müşterilerinin talep ve tercihlerine uyacak şekilde deęiřtirmelerine yardımcı olabilir. Ayrıca oyunlařtırma, müşteri katılımını artırabilecek, istenen eylemleri motive edebilecek ve önemli tüketici verileri sağlayabilecek güçlü bir pazarlama stratejisidir. Oyunlařtırma unsurlarının, alışveriş sürecine dahil edildiđinde tüketicilerin satın alma davranışlarında ne tür deęişiklikler meydana geldiđini belirlemek amacıyla bu çalıřma hazırlanmıřtır. Çalıřma kapsamında satın alma davranışının hedonik alışveriş, faydacı alışveriş ve oyunlařtırmadan oluşan üç özel yönü incelenmektedir. Akıř teorisini temel alan bu çalıřmada hedonik alışveriş deęeri ve faydacı alışveriş deęeri açısından, oyunlařtırma unsurlarının varlıđı ve yokluđu arasındaki farklara deęinilmektedir. Oyunlařtırma unsurlarının tüketicilerin satın alma davranışlarında ne tür deęişiklikler meydana getirdiđini belirlemek için iki farklı dönemde verilerin toplandıđı boylamsal bir çalıřma tasarlanmıřtır. Veri toplama sürecinde “hedonik ve faydacı alışveriş deęeri” ölçekleri kullanılmıřtır. Veriler çevrimiçi form aracılıđıyla toplanmıřtır. Her iki veri toplama sürecine katılan toplam 408 kiřiden elde edilen veriler üzerinden analizler yapılmıřtır. Analiz sonuçlarına göre; oyunlařtırma unsurlarının devrede olmadıđı durumda yapılan alışverişlerde faydacı deęeri ön planda tutan tüketiciler, oyunlařtırma unsurları devreye girdiđinde daha fazla hancı deęerlerle alışveriş yapmaktadır. Bu sonuçlar, oyunlařtırma unsurlarının alışveriş sürecine dahil edildiđinde, tüketicilerde davranış deęişikliđine yol açtıđını, tüketicilerin satın alma tarzlarını deęiřtirdiđini ve tüketici karar sürecini etkilediđini göstermektedir. Oyunlařtırma unsurlarının alışveriş sürecine entegre edilmesi, tüketicilerin davranışlarında, satın alma karar süreçlerinde ve satın alma tarzlarında deęişikliđine etki edecektir. Hancı alışveriş davranışının tüketicilerin daha fazla satın almasına ve daha fazla ödeme yapmalarına neden olduđu düşünüldüđünde, e-pazar yerlerinde faaliyet gösteren sektör temsilcilerinin, oyunlařtırma unsurlarına neden yođunlaşmaları gerektiđinin cevabını vermektedir.

Anahtar Kelimeler: *Oyunlařtırma, Akıř teorisi, Hedonik alışveriş, Faydacı alışveriş, Davranışsal deęişimler.*

1. Introduction

Gamification is used in marketing to engage and motivate customers to participate in certain behaviors, such as purchasing products or engaging with a brand (Gatautis et al., 2021; Vitkauskaitė, 2021). It is gaining increasing popularity in marketing as a means to engage customers and enhance brand loyalty (Gupta & Gomathi, 2017; Mattke & Maier, 2021; Torres et al., 2022). It finds application across various industries, including retail (Insley & Nunan, 2014), healthcare (Hammedi et al., 2017; Muangsrinoon & Boonbrahm, 2019), education (Dicheva et al., 2015; Huang & Soman, 2013), and financial services (Bayuk & Altobello, 2019; Yang et al., 2023). Some instances of gamification in marketing encompass loyalty programs (Abou-Shouk & Soliman, 2021; Hwang & Choi, 2020), social media challenges (Nour et al., 2019; Safapour et al., 2019), and interactive digital advertisements (Ghosh & Dwivedi, 2022; Vashisht et al., 2019). Although not universally employed, it has emerged as a favored strategy for numerous companies seeking to enhance customer engagement. Gamification has experienced a surge in recent years as more companies recognize its potential in engaging customers and driving business outcomes. Within the marketing industry, it has become a popular approach for augmenting customer engagement, loyalty, and brand awareness. According to a report by Markets and Markets (2020), "the gamification market is projected to grow from \$9.1 billion in 2020 to \$30.7 billion by 2025, at a compound annual growth rate (CAGR) of 27.4% during the forecast period."

While games are standalone experiences with their own set of rules and objectives, gamification incorporates game elements into existing activities or processes to render them more captivating and motivating. For instance, in education, gamification is employed to enhance students' motivation, participation, and performance by adapting game elements to cater to their needs (Hallifax et al., 2019). This can involve adding elements such as points, levels, badges, and leaderboards to educational activities to make them more interactive and enjoyable (Nah et al., 2014). The relationship between games and gamification in marketing lies in the use of game elements to create a similar immersive and interactive experience that can captivate and motivate consumers. Gamification leverages the inherent entertainment and motivation found in games to encourage desired behaviors (Khaleghi et al., 2022; Park & Bae, 2014; Priesterroth et al., 2019), increase customer engagement (Harwood & Garry, 2015), and achieve desired outcomes in marketing contexts.

In the context of online shopping, gamification applications significantly influence users' experiences by encompassing utilitarian and hedonic attributes, thereby having the potential to alter their perceptions (Hamari & Koivisto, 2015; Hsu et al., 2017; Xu et al., 2017). Among the various strategies employed to capture customers' interest and retain their patronage, gamification has emerged as a potent tool (De Canio et al., 2021; Hofacker et al., 2016; Robledo et al., 2013; Trigo-De la Cuadra et al., 2020). Simultaneously, the concept of hedonic shopping, characterized by the

pursuit of pleasure and emotional satisfaction throughout the shopping process, has gained significant traction (Insley & Nunan, 2014; Shi et al., 2022; Xu et al., 2023). Gamification, by introducing elements that trigger pleasure and excitement, enhances the overall shopping experience (Al-Zyoud, 2021; Banerjee & Bhattacharya, 2022; Garcia-Jurado et al., 2019). Consequently, the emotions of joy and excitement associated with these experiences contribute to the realm of hedonic shopping. Notably, hedonic shopping thrives on exploration and novelty (Arnold & Reynolds, 2003). Gamified shopping experiences typically incorporate elements of surprise and discovery, thereby encouraging customers to explore new products or interact with the brand in innovative ways (Ho et al., 2022; Xu et al., 2020). This sense of novelty and exploration is congruent with the hedonistic pursuit of pleasure and excitement.

It can be said that this situation is related to the flow theory that forms the theoretical background of the study. Because flow refers to the integration of persons with the activity via immersion in the process and abandonment of the idea of time, as if there is nothing other than the tasks they are performing (Csikszentmihalyi, 2014). Therefore, it may be concluded that individuals who are concentrating on the current activity display more entertainment-oriented behaviors. Being in the flow includes characteristics such as setting clear goals, temporary unconsciousness, a distorted perception of time, actions combined with awareness and immediate feedback, a high level of focus on the task, a high level of control, achieving a balance between the individual's current abilities and task difficulties, and autotelic experiences (Csikszentmihalyi, 2020). According to flow theory, people are more fulfilled when they are completely engaged in a challenging and skill-appropriate task (Csikszentmihalyi, 1990). It is known that individuals are more likely to have happy emotions and be satisfied with their shopping when they are in a state of flow when shopping (Csikszentmihalyi, 2014). Several research (Bilgihan et al., 2014; Hamari, 2013; Koufaris, 2002; Ozkara et al., 2017; Wu et al., 2020) have examined the application of flow theory to online buying. Consumers who wish to shop via mobile applications build good views toward the products/company while in the flow (Korzaan, 2003) and have positive purchase intentions both at the moment of shopping (Ali, 2016) and in the future (Korzaan, 2003). (Kazancoglu & Demir, 2021). The most significant factor positively influencing purchase intent is the pleasure and enjoyment aspect of the book (Ozkara et al., 2017; Shahpasandi et al., 2020; To & Sung, 2015). When people are in a state of flow, they are less inclined to consider the practical ramifications of their activities and more likely to concentrate on their enjoyment of the activity (Urmston & Hewison, 2014). Literature indicates that shoppers experiencing high levels of flow are more likely to participate in hedonic activities (Bridges & Florsheim, 2008; Ozkara et al., 2017; Schmitt, 1999). Moreover, according to (Csikszentmihalyi, 1990), flow happens when a person's talents and abilities are a good fit for the demands of the activity at hand. In the context of shopping, this may imply that the individual is able to locate the necessary items without becoming overwhelmed or dissatisfied. Therefore, by understanding the psychological factors contributing to flow,

individuals can optimize their experience with utilitarian shopping value and enjoy this practical activity more.

Although the studies in the literature consist of studies based on hedonic and utilitarian shopping in the light of flow theory (Chang et al., 2014; Ozkara et al., 2017; Sun et al., 2014), as well as gamification contextual studies (Behl et al., 2022; Bitrián et al., 2020; Hwang & Choi, 2020; Lavoie & Main, 2019), to the best of our knowledge, previous research has been insufficient to show what kind of behavior change occurs when gamification elements are included in the shopping process. To address this gap in the literature, this study aims to determine what changes occur in consumers' purchasing behavior when gamification elements are included in the shopping process. In other words, the main contribution of the current paper is to investigate the effect of gamification elements on consumer behavior through flow theory. The contribution of the current paper is threefold. In addition to behavioral changes, no study has found that gamification will lead to changes in consumers' purchasing decision processes and purchasing styles, and the results of this study contribute to eliminating this deficiency.

1.1. Gamification

Gamification, which is defined as the deliberate application of game components in non-game situations (Landers et al., 2018), is an engaging technique used to make mundane work more pleasurable (Gulinna & Lee, 2020). Gamification is a preferred method among academics and professionals in numerous fields, including education (Sailer & Homner, 2020), tourism (Xu et al., 2017), trade (Hamari, 2013), health (Sardi et al., 2017), psychology (Stansbury & Earnest, 2017), exercise and sports applications (Hamari & Koivisto, 2015b), and logistics (Hamari & Koivisto, 2015b) (Warmelink et al., 2020). Gamification (Conaway & Garay, 2014; Hamid & Kuppusamy, 2017), which has been the topic of marketing science study within the purview of service marketing, has become an efficient technique to contact customers in the realm of electronic commerce (Hogberg et al., 2019; Noorbehbahani et al., 2019). At the same rate as mobile marketing activities expand, so does interest in gamification (Hofacker et al., 2016). The benefits that Enpara, a Turkish bank, users receive as "Enpara of the month" based on their transactions, consumers who order using the Starbucks application earn free drinks by earning "stars" for each order, and Trendyol.com application users receive "1 in 3 hours flash discounts" are examples of gamification applications offered via mobile applications.

The employment of game features in non-game situations (Landers et al., 2018) as a persuasive technique to influence human behavior (Hamari & Koivisto, 2015b) is based on the human propensity to compete, challenge, and engage socially (Zichermann & Cunningham, 2011). Marketing professionals have employed scorecards, reward-earning memberships, and advanced degrees for years despite the growing popularity of gamification in recent years (Nelson, 2012). Using

game design aspects to produce non-game products by promoting value-creating behaviors such as higher customer loyalty and greater consumer engagement (Blohm & Leimeister, 2013; Huotari & Hamari, 2012). With the expansion of mobile marketing initiatives, everyday interest in gamification is growing (Marchand & Hennig-Thurau, 2013).

In a study conducted in Italy, 30% of the participants stated that gamification could improve business performance, while 27% indicated that it could positively impact companies' performance (Clement, 2019). In another study conducted in the US, employees said that gamification made them feel more productive (89%) and happier (88%) at work (Apostolopoulos, 2019). In the first quarter of 2022, the gamification-based language learning application Duolingo generated more than USD 81 million in revenue compared to the first quarter of 2021 (Duolingo, 2022). Gamification, which serves a functional purpose in terms of its advantages (Heijden, 2004), generally has utilitarian features. While only 17% of luxury consumers worldwide express that they are excited by brands' gamification efforts, this rate rises to 25% among young consumers (Vogue, 2021). 10% of global business executives pointed to gamification as a vital tool for companies to organize successful loyalty programs (Harvard Business Review, 2019). Despite these utilitarian and advantageous features, it has been determined that only 1 out of 5 individuals know about gamification (Clement, 2019). Digital technologies are hybrid systems that fulfill consumers' needs by helping them to be productive (utilitarian) and entertained (hedonic) (Koivisto & Hamari, 2019; Yu & Huang, 2022). Similarly, gamification not only helps to increase users' efficiency but also encourages them to perform a specific task in an enjoyable way (Gerdenitsch et al., 2020; Mitchell et al., 2020). The application of this magical motivational tool, which helps to perform tasks enjoyably in non-game contexts, has a significant impact on users' persuasion processes (Versteeg, 2013).

Gamification enhances the online retail environment by incorporating game elements to provide consumers with a more enjoyable shopping experience (Petkov et al., 2011). This can lead to increased loyalty, brand attitude, and purchase intention among consumers. Yang et al. (2017) found a positive impact of gamification on consumer engagement and brand attitude. Aparicio et al. (2021) emphasized that gamification can enhance consumer engagement and transform the shopping experience into a form of entertainment, ultimately leading to increased sales. Xu et al. (2020a) highlighted that when gamification is implemented in the context of online shopping, it can trigger the enjoyment by fulfilling consumers' need for autonomy. This can increase intrinsic motivation and result in a more pleasurable shopping experience. Raman (2020) conducted a study on young female online shoppers in India and determined that gamification influences behavioral intentions through social interaction and perceived enjoyment. In addition to enhancing the shopping experience, gamification can also impact consumer decisions and loyalty to the store brand. Tobon et al. (2020) found that when consumers interacted with a

mobile application containing gamification elements while shopping in a brick-and-mortar store, it influenced their purchase decisions.

In both game and non-game contexts, the use of gamification aspects by businesses to achieve their marketing objectives has become an increasingly popular strategy (Hamari & Lehdonvirta, 2010). (Deterding et al., 2011; Zichermann & Cunningham, 2011). Gamification, which has been defined as "a new industrial revolution powered by game" (Dibbell, 2006), is a significant technique for engaging consumers in online buying procedures (Harwood & Garry, 2015).

Individuals sense to worry, rage, and irritation when they feel overworked, yet they suffer boredom when their responsibilities are inadequate (Novak et al., 1996). Since individuals believe that nothing else is significant except the actions they are performing, they persist regardless of the expense since they derive enormous joy from this activity (Csikszentmihalyi, 1990). Elements of gamification intentionally distract people from these stressful circumstances by maintaining their flow (Terlutter & Capella, 2013; Waiguny et al., 2012). In gamification, complete engagement in a game is optional. To get the desired results, it is sufficient to concentrate on the game's most crucial facets (Zichermann & Linder, 2010). Users' attempts to be known in social networks, accomplish tasks, and enter ranks are examples (Petriwskyj et al., 2014; Zichermann & Cunningham, 2011).

1.2. Hedonic shopping and utilitarian shopping

Gamified systems can be applied for motivational purposes in different fields, such as marketing, finance, education, health, and organizational behavior (Deterding et al., 2011). Motivations are the processes that cause consumers to behave a certain way (Solomon et al., 2006). There are two types of motivation: intrinsic and extrinsic (Ryan & Deci, 2000). When individuals are intrinsically motivated, the pleasure they will derive from an activity will encourage their performance while performing that task, and the motives that initiate such positive experiences are associated with intrinsic motivations (Csikszentmihalyi, 1990; Deci & Ryan, 2013). However, extrinsically motivated users prefer more utilitarian systems toward the goal they want to achieve (Heijden, 2004). Therefore, it can be said that shopping motivations stem from two basic motivations that can be expressed as utilitarian and hedonic motivation (Babin et al., 1994; Childers et al., 2001; Voss et al., 2003).

Hedonic consumption is defined as "*behavioral aspects related to multi-sensory, fantasy, and emotional consumption*" (Hirschman & Holbrook, 1982). This type of consumption, also referred to as hedonic consumption, suggests that a consumer is driven by the fun he/she has while using the product and that the success he/she will achieve at the end of the task is aesthetic (Holbrook & Hirschman, 1982). The motivation of hedonic shopping refers to consumers shopping for pleasure rather than utilitarian purposes during the purchase process (Arnold & Reynolds, 2003). This shopping style, which emphasizes enjoyment over genuine needs or functional aims, focuses on maximizing pleasure throughout the shopping experience (Alba & Williams, 2013). Motivated by psychological factors such as the pursuit of

adventure, the desire for social acceptance, the aspiration to demonstrate oneself to others, the need for self-identity creation, and the pursuit of gaining respect, hedonic shopping constitutes a consumer behavior driven by psychological incentives (Crowley et al., 1992; Jones et al., 2006; Kim, 2006; Ozen & Kodaz, 2012). Under such psychological factors, hedonic shopping motivations, which significantly impact consumers' purchasing behaviors, are also influenced by gamification elements such as rewards, incentives, and the desire to earn points (Hsu et al., 2017). By combining rewards and incentives like as loyalty points, discounts, and special offers, shopping experiences can become more engaging and entertaining (Hsu & Chen, 2018). Consequently, these rewards can instill a sense of accomplishment and progression within individuals, thereby heightening the overall enjoyment derived from the shopping process.

Utilitarian shopping, on the other hand, pertains to shopping activities that fulfill a purposeful, functional, or economic need (Babin et al., 1994). Like hedonic purchasing incentives, utilitarian shopping motivations can give a sense of accomplishment and advancement (Ribeiro Cardoso & Sara Carvalho, 2010; Sarkar, 2011; To et al., 2007; Voss et al., 2003). Those who finish the shopping job satisfy specific demands and experience a sense of accomplishment and fulfillment. In this element of consumer behavior, shopping is viewed as a task whose worth is contingent on its success or completion (Hirschman & Holbrook, 1982). Shopping for utilitarian purposes fulfills several vital tasks in the lives of humans, including addressing fundamental necessities, encouraging control and autonomy, and fostering success and advancement. Using gamification to promote utilitarianism is one method (Hamari, 2013). For instance, a business may design a rewards program that gives consumers points for purchasing "useful" things, which can then be used for discounts or other prizes. This gamification strategy encourages customers to consider the practicality of the things they purchase and concurrently rewards them for doing so. Consequently, by gamifying utilitarian shopping, businesses may assist in the formation of a community of customers who prioritize the functionality of the things they purchase over their emotional or aesthetic appeal.

The task orientation of hedonic purchasing incentives, such as enjoyment, fun, imagination, and sensory stimulation, is similar to that of utilitarian buying reasons (Babin et al., 1994). Since hedonic feelings are enhanced by experience purchasing, gamification may play a significant role in the development of hedonic impulses (Sun et al., 2019). The transformation of the gamification process into purchase intentions has been linked to utilitarian shopping motivations (Ryan & Deci, 2000) and, similarly, the experience of playing a game has been linked to hedonic shopping motivations (Ryan & Deci, 2000) in terms of intrinsic motivations (Huotari & Hamari, 2012). It's hard to classify gamification as either utilitarian or hedonic because it provides both utilitarian (productivity) and hedonic (enjoyment) motives (Hamari & Koivisto, 2015a).

Utilitarian shopping refers to the functional and practical benefits that consumers

seek to obtain from their shopping experiences (Vieira et al., 2018). It focuses on meeting specific needs and goals, such as finding the right product at the right price (Kang & Park-Poaps, 2010). However, in certain industries like fashion, online retailers face challenges in recreating the sensory experience of clothing shopping, which can discourage customers from making online purchases. To overcome this challenge, fashion retailers have embraced gamification strategies as a method to create effective customer experiences both online and offline (Insley and Nunan, 2014). Gamification can provide a sense of achievement and progress that motivates consumers to engage more in the shopping process and ultimately leads to increased satisfaction and loyalty (Bauer et al., 2020). Building on the literature reviewed, the following H_1 hypothesis is proposed:

H₁: *There is a statistically significant difference between the level of utilitarian shopping before the gamification elements were included in the shopping process and the level of utilitarian shopping after the gamification elements were included.*

Vieira et al. (2018) found that gamification positively influences hedonic shopping value. According to this research, incorporating game elements into the shopping experience will lead to increased satisfaction by enhancing emotional and aesthetic outcomes. A study conducted by Chung et al. (2017) demonstrates that the presence of gamification techniques enhances the impact on the hedonic aspects of shopping by increasing consumers' purchase impulses. Xu et al. (2020b) emphasize that gamification satisfies consumers' hedonic emotions and triggers their shopping motivations. Additionally, Krishna et al. (2023) have determined that enjoyable gamification techniques are particularly effective in enhancing the hedonic aspects of consumers' shopping experiences. Based on the evidence presented, the research puts forward the following H_2 hypothesis:

H₂: *There is a statistically significant difference between the level of hedonic shopping before the gamification elements are included in the shopping process and the level of hedonic shopping after the gamification elements are included.*

Research has shown that gamification can have a positive impact on consumer behavior and shopping value. For instance, a study found that experiencing gamified marketing activities positively influenced both hedonic and utilitarian shopping value and led to desired consumer behaviors (Bauer et al., 2020). Another study emphasized the significant role of gamification in influencing consumers' attitudes and intentions to continue using and recommending a service (Kusumawardani et al., 2023). Additionally, the use of gamification in online shopping can also benefit from consumers' impulse buying behavior. Research has indicated that gamification elements such as scarcity and randomness can encourage consumers towards hedonic shopping value and impulsive purchase behavior (Chung et al., 2017). Drawing from the aforementioned findings, H_3 and H_4 hypotheses are developed as follows:

H₃: *There is a statistically significant difference between the utilitarian and hedonic levels before gamification elements are included in the shopping process.*

H₄: There is a statistically significant difference between the utilitarian and hedonic shopping value levels after gamification elements are included in the shopping process.

2. Aim and Method

This study is a longitudinal study designed to investigate what kind of changes occur in the purchasing behavior of consumers when they encounter gamification elements in their shopping processes. Longitudinal studies are used to determine the tendency of the researched subject and to determine the changes in the sample participating in the research over time (Büyüköztürk et al., 2008). This approach allows researchers to collect data at regular intervals and analyze changes or trends in the data while researchers can understand a topic and its development over time more deeply (Carlson et al., 2004).

2.1. Variables of the Research

The current 12-item version of the 20-item "hedonic and utilitarian shopping value" scale created by Babin et al. (1994) was utilized in the study process, and Picot-Coupey et al. (2021) tested its validity in mobile apps. The information was collected using a Google Forms questionnaire. The questionnaire is divided into two phases. In the first stage, participants are asked a total of 12 questions on the hedonic and utilitarian shopping value scale, and in the second stage, they are asked a total of 4 questions to gather demographic information. In line with the research purpose, to examine the changes in consumer attitudes regarding hedonic and utilitarian shopping, firstly, ethics committee permission dated 28.01.2022 and numbered E-60263016-050.06.04-125675 was obtained from Sivas Cumhuriyet University Social Sciences Ethics Committee.

2.2. Sampling Process

Individuals purchasing coffee beans and filter coffee through mobile shopping applications or e-marketplaces constitute the main population of this study. Due to the impossibility of reaching all users, data were collected after sample selection. In accordance with the criterion that consumers have the freedom to spend to determine the changes in their shopping behavior, the research data were collected only from working individuals.

2.3. Data Collection Method

Data were collected twice from the same sample on different dates to examine the changes in terms of hedonic shopping and utilitarian shopping with and without gamification elements in consumers' shopping processes. Coffee consumption can be considered as hedonic consumption when it is associated with a multisensory experience related to customer satisfaction. However, it can be perceived as utilitarian when the outcome expected is stimulation after consumption (Batra & Ahtola, 1990). Considering the presence of both hedonic and utilitarian attributes based on preference, data was collected in this study focusing on the product

"coffee beans and filter coffee." Before starting the survey, the participants were shown an evoking photo product related to coffee consumption, such as "coffee beans and filter coffee" (randomly selected from Shutterstock images, Image 1.), and asked to give answers about their behavior in case of purchasing these products from mobile shopping applications. For the first study, a total of 536 individuals were interviewed between 05 April - 13 April 2022.



Image 1. The coffee photo was shown to the individuals participating in the first study

Ref.: shutterstock.com

Between 13 June and 26 June 2022, people who participated in the first data collection process were contacted again and invited to participate in the study's second phase. In the second stage, participants were shown the Starbucks star campaign advertisement posters (Image 2.) to evoke the products related to coffee consumption mentioned in the first application. By adding gamification elements to the products related to coffee consumption, participants were asked to give answers about their behavior in case they purchased these products from mobile shopping applications. For the second study, 408 responses were received. At the end of the data collection process, the answers given by the individuals who participated in both data collection processes were analyzed.



Image 2. Gamification-themed photographs shown to the individuals participating in the second study

Ref.: starbucks.com.tr

At the end of both data collection processes (Study 1 and Study 2), participants were asked the question "What is your reason for shopping for coffee?" The responses provided by consumers who chose between options such as "flavor, caffeine need, hot beverage need, etc." and "taking advantage of promotions, earning points, etc." were interpreted as exhibiting either hedonic or utilitarian shopping behavior. Coffee, through the experience of aroma and taste, serves as a source of stimulation and is considered as an experienced outcome of consuming coffee (Desmet & Schifferstein, 2008). Therefore, responses provided by participants who selected the first option were evaluated as "utilitarian." On the other hand, responses provided by those who chose the second option were considered as "hedonic" due to the inclusion of game-like elements such as points, levels, badges, and leaderboards, which make the shopping experience more interactive and enjoyable (Bauer et al., 2020).

In two distinct phases of the study, two different sampling methods were employed. During the data collection process, individuals who participated in the initial phase were recontacted for the second stage. Therefore, the convenience sampling method was employed as the same individuals were easily accessible for the second round of data collection. Simultaneously, purposive sampling was utilized, as participants were intentionally selected based on specific criteria related to the desired product category and gamification criteria, focusing the study on the participants who align with the research objectives.

3. Findings

3.1. Normality and Reliability Analyses of the Scales

Shapiro-Wilk test was performed for normality analysis, and it was calculated that the variables were not suitable for normal distribution ($p < 0.001$). In the analysis process, it was decided to use the "Wilcoxon Signed Rank" test, one of the non-parametric tests, to determine whether there was a difference between the measurement results obtained from a total of 408 people participating in both data collection processes, and the "Mann-Whitney U" test, one of the non-parametric tests, to look at the mean difference between two independent groups. SPSS v22 software was used to analyze the data.

After the normality tests, the Cronbach's Alpha values of the scales used in the research are shown in Table 1.

Table 1. Cronbach's Alpha values of the scales

		Cronbach's Alpha	Item
Hedonic Shopping	Study 1	0.949	8 item
	Study 2	0.924	
Utilitarian Shopping	Study 1	0.863	4 item
	Study 2	0.857	

According to the Cronbach's Alpha test results in Table 1, it was observed that the scale items were consistent with each other for both studies. While the test result of the hedonic shopping value scales for Study 1 was 0.949, this result was calculated as 0.924 for Study 2. For utilitarian shopping value, the reliability ratio was calculated as 0.857 in Study 2 and 0.863 in Study 1.

3.2. Demographic Characteristics of the Participants

Descriptive analyses were performed to determine the demographic characteristics of 536 participants in Study 1 and 408 participants in Study 2, as shown in Table 2.

Table 2. Frequency table of demographic data

		Study 1		Study 2	
		Participant	Percentage (%)	Participant	Percentage (%)
Gender	Woman	288	53.70%	232	56.86%
	Male	248	46.30%	176	43.14%
Age	25-30 years old	343	64.00%	267	65.44%
	31-40 years old	142	26.50%	112	27.45%
	41-50 years old	28	5.20%	17	4.17%
	51-60 years old	18	3.40%	9	2.21%
	60 years and older	5	0.90%	3	0.74%
	Primary school graduate	17	3.20%	6	1.47%
Education Level	High school graduate	226	42.20%	152	37.25%
	Associate Degree Graduate	54	10.10%	36	8.82%
	Bachelor's degree	84	15.70%	72	17.65%
	Postgraduate graduate	155	28.90%	142	34.80%
Income	Less than I spent	387	72.20%	302	74.02%
	Equivalent to what I spent	120	22.40%	87	21.32%
	More than I spent	29	5.40%	19	4.66%

When the demographic data in Table 2 are analyzed, it is seen that the individuals who participated in Study 1 have different genders, the majority of them are high school graduates, and the majority have less income than they spend. When the information about the ages of the participants is analyzed, it is seen that the majority of the participants are between the ages of 25-30. 2. It was observed that approximately 57% of the study participants were female, and 65% were between the ages of 25-30. Approximately 3/4 of the participants stated that they have less income than they spend. In terms of educational status, it was determined that the participants in Study 2 were predominantly high school graduates and postgraduate graduates.

3.3. Hypothesis Tests

Table 3 shows the results of the different analyses of the means of the scales in Study 1 and Study 2.

Table 3. Descriptive statistics and difference analysis results of the scales

	N	Min.	Max	Mean	Std. Deviation
Hedonic Shopping Value (Study 1)	536	1	5	3.0424	0.9101
Hedonic Shopping Value (Study 2)	408	1.88	5	4.3967	0.74486
Utilitarian Shopping Value (Study 1)	536	1.5	5	4.1158	0.96442
Utilitarian Shopping Value (Study 2)	408	1	5	3.2785	0.81459
p (Hedonic Study 1 & Study 2)				<0.001 (18.408) ^a	
p (Utilitarian Study 1 & Study 2)				<0.001 (-19.744) ^a	
p (Study 1 Hedonic-Utilitarian)				<0.001 (21.202) ^b	
p (Study 2 Hedonic-Utilitarian)				<0.001 (-14.416) ^b	

^a: Wilcoxon Test Z Results
^b: Mann_Whitney U Test Results

Mann-Whitney U test was conducted to determine the difference between Study-1 and Study-2 for utilitarian shopping value. When the data in Table 3 are examined, as a result of the different tests, it is seen that there is a significant difference ($p < 0.001$) between the level of utilitarian shopping before the gamification elements were included in the shopping process and the level of utilitarian shopping after the gamification elements were included. According to these results, hypothesis H_1 was supported. Mann-Whitney U test was conducted to determine the difference between Study-1 and Study-2 for hedonic shopping value. Similarly, there is a statistically significant difference ($p < 0.001$) between the hedonic shopping level before the gamification elements were included in the shopping process and the hedonic shopping level after the gamification elements were included. According to these results, the H_2 hypothesis is supported.

Wilcoxon Rank test was conducted for the analysis between hedonic shopping value and utilitarian shopping value. When the data in Table 3 are examined, it is seen that before the gamification elements are included in the shopping process, the average utilitarian shopping value is 4.116, while the average hedonic shopping value is 3.042. In other words, the utilitarian shopping value has a statistically greater mean than the hedonic shopping value before the addition of gamification features. The difference between the utilitarian shopping value level and the hedonic shopping value level is statistically significant. According to this result, hypothesis H_3 is supported. After the gamification elements are included in the shopping process, the mean of hedonic shopping value is 4.397, while the mean of utilitarian shopping value is 3.279. In other words, after gamification elements are included in the shopping process, hedonic shopping value has a statistically

higher mean than utilitarian shopping value. Consequently, there is a statistically significant distinction between the hedonic and utilitarian levels of shopping value. In light of these observations, the H_4 hypothesis can be stated to be validated.

Figure 1 depicts the change in hedonic shopping value and utilitarian shopping value, which is the focus of the study.

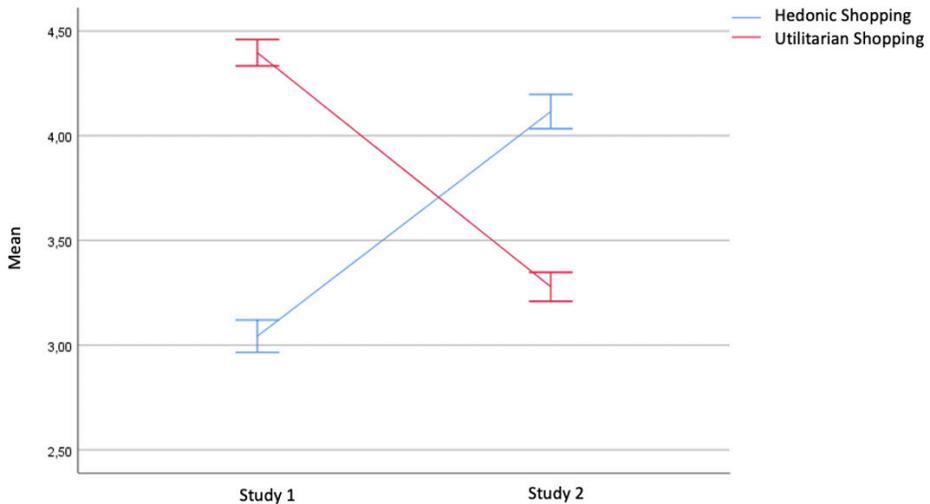


Figure 1. Level changes of hedonic shopping value and utilitarian shopping values

According to the Wilcoxon Rank test results, hedonic shopping value increased from 3.042 to 4.397 after the inclusion of gamification in the shopping process. On the other hand, as a result of the same analysis, utilitarian shopping value decreased from 4.116 to 3.279 after the inclusion of gamification in the shopping process. These changes are shown with blue and red lines in Figure 1. According to the Man-Whitney U test results, it is evident in Figure 1 that utilitarian shopping value has a higher mean than hedonic shopping value before the inclusion of gamification in the shopping process (Study 1), whereas after the inclusion of gamification in the shopping process, hedonic shopping value has a higher mean than utilitarian shopping value (Study 2).

4. Conclusion and Discussion

In this study, which was prepared to determine what kind of changes occur in the purchasing behaviors of consumers when gamification elements are included in the shopping process, a comparison was made based on the data collected in two different periods on hedonic shopping value and utilitarian value. It was concluded that consumers who engaged in utilitarian shopping behavior during the purchase process without gamification elements made purchases with a higher rate of hedonic shopping value after the gamification elements were included in the shopping process.

The first contribution to the marketing literature with the results of the study is that when gamification elements are included in the shopping process, it leads to behavioral changes in consumers. Gamification elements in the shopping process led consumers to experience psychological changes between two opposite states, such as hedonism and utilitarianism. One of the ways to achieve the goals of increasing demand and sales (Kotler & Armstrong, 2016; Solomon, 2002), which are among the general marketing objectives, is behavioral changes, which are changes in an individual's interest in, use or tendency to purchase a product or service (Mothersbaugh & Hawkins, 2015). Behavioral changes are very important for brands to influence the target audience (Schumann et al., 2010; Wang & Groene, 2020) to create customer loyalty (Bougie et al., 2003; Gomez et al., 2006; Sari & Ardiansari, 2019) and to increase their sales (Agarwal et al., 2011; Cachon & Swinney, 2009). Therefore, the result obtained in this study, which leads to a change in consumer behavior when gamification elements are included in the shopping process, is a very valuable result in terms of marketing literature.

Another result of using gamification elements in the shopping process is that it leads to changes in consumers' purchasing decision processes. When gamification elements were not activated, it was observed that the hedonic shopping value and utilitarian shopping value of consumers acted similarly. This high correlation is expected to continue when gamification elements are activated. This is seen in the utilitarian shopping value in Table 4 ($r=0.916$). However, the hedonic shopping value was weak ($r=0.165$) in the comparison of Study 1 (where gamification elements were not activated) and Study 2 (where gamification elements were activated). The decrease in the correlation between hedonic shopping value and utilitarian shopping value ($r_{\text{Study1HedonicUtilitarian}}=0.792$; $r_{\text{Study2HedonicUtilitarian}}=0.228$) indicates that gamification alone has a changing effect on consumers' purchase decision processes. Understanding consumers' purchase decision process is important for businesses as it allows firms to tailor their marketing efforts to each stage and influence the consumer's decision-making process (Solomon, 2002). Therefore, the results of this study contribute to the literature to learn more about the "black box" of consumers and to better understand how consumers make decisions.

The incorporation of gamification components throughout the buying process alters customers' purchase preferences, according to another finding of the research. While consumers favored utilitarian buying behavior when gamification aspects were absent from the shopping process (Study 1), it was determined that they preferred the product supplied to them with greater hedonistic reasons when gamification elements were included in the process (Study 2). From this perspective, the incorporation of gamification components in the buying process has caused customers' hedonic shopping value to outweigh their utilitarian shopping value. This scenario pertains to the shift in customer purchasing preferences. Understanding a consumer's purchasing behavior may

assist businesses in reaching their target audience, communicating with them effectively, and increasing brand loyalty and sales (Belch & Belch, 2012). By integrating reward, competition, and advancement, gamification can enhance the entire hedonic buying experience by making customers' purchasing routines more fun and engaging. Considering the impact of hedonic shopping motivations on purchase intention (Delafruez et al., 2011; Hirschman & Holbrook, 1982; Holbrook & Hirschman, 1982), the conclusion that gamification can increase the hedonic shopping values of individuals, regardless of their current situation, has both theoretical and practical value.

According to the findings of the study, the addition of gamification components to the shopping process enhances the influence on hedonic shopping value while decreasing utilitarian shopping value. The findings of the study illustrate that the incorporation of gamification elements into the shopping process can induce behavioral changes and enhance hedonic shopping value. This suggests that businesses can leverage gamification strategies to cultivate more captivating and enjoyable shopping experiences for consumers. By integrating gamified elements like interactive features, rewards, challenges, and competitions, companies can capture consumers' attention, elevate their engagement, and ultimately foster a stronger connection between consumers and their products or services. Comprehending the influence of gamification on consumer behavior and purchase decision-making empowers firms to develop more effective marketing strategies. By recognizing the potential for gamification to influence consumer choices, businesses may align their messaging, product positioning, and promotional efforts with changing consumer wants and requirements. Consequently, targeted campaigns that leverage the emotional and experiential dimensions of consumer behavior can heighten brand loyalty and customer retention. The implementation of gamification in the shopping process can confer a competitive advantage upon companies. By proficiently harnessing gamified elements, businesses can differentiate themselves from competitors and forge a distinctive and memorable shopping experience. This, in turn, can lead to heightened customer satisfaction, word-of-mouth marketing, and repeat purchases, thus aiding companies in attaining a stronger market position and greater profitability. Gamification elements possess the potential to extend beyond commercial applications and contribute to societal benefits. For instance, businesses can employ gamified approaches to promote positive behaviors such as sustainable purchasing, healthy lifestyles, or social causes. By incorporating gamification elements that align with societal goals, companies can influence behavior change on a broader scale and have a positive impact on society. In conclusion, the findings of this study can make valuable contributions to both the industry and society by shedding light on the significance of gamification in consumer behavior.

Future research will contribute to the marketing literature by establishing how gamification will influence the evolution of customers' other innate behaviors.

Also, in a study like this, posing a question regarding "which image is more persuasive" when using both an image that does not contain any competitive element and an image that can evoke a desire to win and make the person feel engaged in a competition can help generate meaningful results.

This study was solely assessed in terms of hedonistic and utilitarian purchasing value. Consequently, these two variables are used to analyze the change in shopping behavior that results from the incorporation of gamification features. By repeating the study with opposing variables such as risk perception and trust, satisfaction, and discontent, the gamification-induced shift in behavior will be better understood. Among the limitations of the study were the photographs used to determine participants' hedonic and utilitarian behaviors. In future studies, the presentation of videos or the use of VR/AR headsets to display visuals may assist consumers in experiencing more realistic encounters. In the research process, consumer attitudes have been examined based on responses obtained through a scenario created, rather than real shopping experiences. In future studies, data collected through gamification experiences implemented in the actual shopping process will contribute to obtaining more robust results. The selection of the study's samples is another limitation. To identify the changes in consumer buying behavior during the data-collecting process, the freedom to spend was established as a criterion, and only data from employed persons were gathered. Due to this, all participants in the study are at least 25 years old. This limitation will be eliminated as a consequence of future research that encompasses a range of ages and a bigger sample size that allows for more generalizable findings.

The take-home message of this article is that the more gamification elements are included in the shopping process, the more changes will occur in consumers' behaviors, purchasing decision processes, and purchasing styles.

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