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-RESEARCH ARTICLE-

GETTING LOST IN THE DIGITAL MARKETPLACE: POINTS, BENEFITS, AND PURCHASES

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This research delves into investigating the impact of gamification components on consumers' tendency towards impulsive purchasing actions within digital platforms. By addressing these gaps existing within the marketing literature, this study offers valuable insights that can aid in devising more efficient gamified encounters customized to the distinct attributes and inclinations of consumers. This research encompasses an exploration of alterations in purchasing conduct when consumers come across gamification components within digital shopping platforms. The data collection process involved the participation of 457 individuals actively engaged in digital shopping. This endeavor evaluated variables encompassing digital skills, perceived personalization, the desirability of scoring points, and the propensity for impulsive buying. Subsequently, the data underwent analysis through the utilization of the SmartPLS 4.0 software. The study's outcomes disclose the affirmative influence of digital skills and perceived personalization on impulsive buying inclinations. Moreover, the desirability of scoring points is shown to positively sway impulsive buying intentions, with this influence being mediated indirectly through digital skills and perceived personalization. This research brings to the fore the way gamification components wield influence over consumer conduct within the realm of digital shopping platforms. Ultimately, it underscores the potential for the constructive impact of incorporating gamification features within digital platforms on impulsive buying tendencies. Moreover, businesses can enhance impulsive buying behavior by creating more user-friendly digital platforms, offering personalized services, and providing opportunities for point accumulation. While this research contributes to understanding the interaction between gamification, digital skills, perceived personalization, and impulsive buying behavior, it acknowledges limitations such as sample selection and the use of cross-sectional data. For future research, it is recommended to explore causality through longitudinal and/or experimental designs, work with larger samples, and consider additional variables for a comprehensive understanding. In summary, this study stands as one of the pioneering research efforts investigating how gamification elements within digital platforms impact consumers' impulsive buying behavior. Personalized services aligned with individual preferences and personalized promotions can further reinforce gamification desire and impulsive buying behavior. Businesses can optimize the effectiveness of gamification efforts by tailoring their marketing strategies to target consumers with a strong inclination toward gamification.

Keywords: *Digital Skill, Impulsive Buying, Gamification, Perceived Personalization, Consumer Purchasing Behavior.*
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DİJİTAL PAZARDA KAYBOLMAK: PUANLAR, AVANTAJLAR VE SATIN ALIMLAR

Öz

Bu çalışma, dijital platformlardaki oyunlaştırma unsurlarının tüketicilerin dürtüsel satın alma davranışını nasıl etkilediğini araştırmaktadır. Çalışma, dijital yetenek, algılanan kişiselleştirme ve puan kazanma arzusu (oyunlaştırma) gibi değişkenlerin dürtüsel satın alma davranışı üzerindeki etkilerini incelemektedir. Pazarlama literatüründeki bu boşlukları ele alarak, tüketicilerin özelliklerine ve tercihlerine göre uyarlanmış daha etkili oyunlaştırılmış deneyimler tasarlamak için ön görüler sunmaktadır. Araştırma metodolojisi, tüketicilerin dijital alışveriş platformlarında oyunlaştırma unsurlarıyla karşılaştıklarında satın alma davranışlarındaki değişikliklerin araştırılmasını içermektedir. Dijital alışveriş yapan toplam 457 kişiden; dijital yeterlilik, algılanan kişiselleştirme, puan biriktirme (oyunlaştırma) arzusu ve impulsive satın alma eğilimi değişkenleri kullanılarak veriler toplanmıştır. Veri analiz sürecinde SmartPLS 4.0 programı kullanılmıştır. Çalışmanın bulguları, dijital yetkinliğin ve algılanan kişiselleştirmenin dürtüsel satın alma niyetini olumlu yönde etkilediğini göstermektedir. Ayrıca, puan kazanma arzusunun dürtüsel satın alma niyetini pozitif yönde etkilediğini, ancak bu etkinin dijital yetkinlik ve algılanan kişiselleştirme ile dolaylı olarak gerçekleştiğini göstermektedir. Bu çalışma oyunlaştırma unsurlarının dijital alışveriş platformlarında tüketici davranışını nasıl etkilediğine ışık tutmaktadır. Sonuç olarak, işletmelerin dijital platformlarında oyunlaştırma unsurlarını kullanmasının dürtüsel satın alma davranışı üzerinde olumlu bir etkisi olabileceğini göstermektedir. Ayrıca işletmeler, dijital platformlarını daha kullanıcı dostu hale getirerek, kişiselleştirilmiş hizmetler sunarak ve puan kazanma fırsatları sağlayarak dürtüsel satın alma davranışını artırabilirler. Bu araştırma, oyunlaştırma, dijital yetkinlik, algılanan kişiselleştirme ve dürtüsel satın alma davranışı arasındaki etkileşimin anlaşılmasına katkıda bulunurken, örneklem seçimi ve kesitsel veri kullanımı gibi sınırlılıkları bulunmaktadır. Gelecekteki çalışmalar için; boylamsal ve/veya deneysel tasarımlar kullanarak nedenselliği araştırması, daha büyük bir örneklem üzerinde çalışılması ve kapsamlı bir anlayış için ek değişkenlerin de dikkate alınması önerilmektedir. Genel olarak, bu çalışma, dijital platformlardaki oyunlaştırma unsurlarının tüketicilerin dürtüsel satın alma davranışını nasıl etkilediğini araştıran ilk çalışmalardan biridir. Bireysel tercihlere göre özelleştirilmiş hizmetler ve kişiye özel promosyonlar, oyunlaştırma arzusunun ve dürtüsel satın alma davranışının gücünü daha da artırabilir. İşletmeler, pazarlama stratejilerini oyunlaştırma konusunda güçlü bir istek duyan tüketicileri hedefleyecek şekilde uyarlayarak oyunlaştırma çabalarının etkinliğini en üst düzeye çıkarabilir.

Anahtar Kelimeler*: Dijital Yetenek, Plansız Satın Alma, Oyunlaştırma, Algılanan Kişiselleştirme, Tüketici Satın Alma Davranışı*
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"Bu çalışma Araştırma ve Yayın Etiğine uygun olarak hazırlanmıştır."

1. INTRODUCTION

In today's technologically advanced world, consumer behaviors and preferences have undergone significant transformation. The proliferation of digital technologies has not only altered the ways individuals interact with brands but has also opened up new avenues for understanding consumer behaviors. Companies seeking to maintain a

strong consumer-brand relationship have chosen to engage with consumers in digital environments, recognizing this as one of the avenues for interaction (Confos & Davis, 2016; Kujur & Singh, 2020).

Consumers' digital competencies have become increasingly critical in shaping their behaviors within the digital marketplace. With the widespread adoption of smartphones, internet access, and social media platforms, consumers can now access information, products, and services at unprecedented speeds with just a few taps. Digital competencies encompass individuals' knowledge, skills, and comfort levels in using digital technologies, as well as their abilities to navigate and conduct transactions on online platforms (Carlisle et al., 2023; Livingstone et al., 2017; Van Laar et al., 2017). Understanding the influence of consumers' digital competencies on their purchase decisions holds significance for businesses seeking to devise strategies that meet changing consumer expectations.

As digitalization continues to advance, consumers tend to engage in either conscious, evaluation-based planned purchases (Agrawal et al., 2022; Eastman et al., 2021; Gould, 2019) or impulsive purchases triggered by emotional or situational factors (Atulkar & Kesari, 2018; Badgaiyan & Verma, 2015; Jung et al., 2010; Lee & Song, 2011). With the development and advancement of digital technologies, the path to impulsive buying has become more dynamic and intricate, presenting both challenges and opportunities for businesses (Azizah et al., 2022; Sun & Yazdanifard, 2015). In fact, approximately 20% of consumers attribute the ease of making impulsive buying online to the result of digitalization (Ipsos, 2022).

Contemporary businesses aiming to seize these opportunities increasingly opt to promote discounts, new products, campaigns, sweepstakes, contests, and similar activities through online platforms to reach consumers (Dolega et al., 2021; Fulgoni & Lipsman, 2014). Given that Generation Y and Z are more intensive users of technology, the concept of consumers is shifting towards online consumers (Eckleberry-Hunt & Tucciarone, 2011; Li et al., 2015; Turner, 2015). Businesses have not only engaged with consumers through social media but have also employed gamification methods to interact with consumers through their online participation. Gamification, now widely used in various domains, is considered a factor that can enhance the connection between consumers and businesses (Lucassen & Jansen, 2014; Tobon et al., 2020). A key factor in strengthening the interaction bond with consumers, gamification involves integrating game elements and mechanics into non-game contexts to increase user participation and motivation (Hsu & Chen, 2018; Insley & Nunan, 2014; Pour et al., 2021; Rather et al., 2022; Sheetal et al., 2022; Xi & Hamari, 2020). By combining elements such as points, challenges, rewards, and contests, gamification draws consumers' attention, encourages active participation, and supports positive brand experiences. In the context of consumer behavior, gamification strategies have gained attention as businesses attempt to create immersive online environments that promote impulsive buying and reinforce brand loyalty (Hsu & Chen, 2018; Wu & Santana, 2022; Y. Xu et al., 2020b). The importance of gamification extends not only in terms of consumer behavior but also

in terms of business performance. Research indicates that companies using gamification elements experience a 30% increase in performance (Whappy, 2019), and nearly 90% of employees believe that having a more game-like workplace would likely make them more productive and yield better results (TalentLMS, 2019).

Consumers now prefer businesses that not only exist in the physical world but also have a presence in digital environments. Companies that engage with potential or existing customers can utilize online communication tools (Fahy & Jobber, 2019). Modern communication technologies, such as social media, have transformed the way buyers and sellers interact. Rapp et al. (2015) argued that using social media can enhance consumer engagement, facilitate sales representatives' behaviors, and positively influence both communication processes and customer responsiveness (Fill & Turnbull, 2019). These circumstances have given rise to the concept of "online consumer engagement." Consumer engagement has become a subject of research in marketing literature in recent years. While some authors conceptualize consumer engagement as unidimensional (Algesheimer et al., 2005; Jaakkola & Alexander, 2014; Sprott et al., 2009), others approach it as a multidimensional structure characterized by cognitive, behavioral, and emotional levels in brand interactions, playing a central role in the relational exchange process (Nart et al., 2019). General factors guiding consumers' online engagement include consumer status, consumer inclination, personality traits, intrinsic motivation, extrinsic motivation and cultural dimensions (Vander Schee et al., 2020). At this point, the importance of delivering personalized messages tailored to consumer profiles instead of mass messages has drawn greater attention. Personalization refers to the adaptation of marketing messages, recommendations, and offers to meet individual consumers' needs and preferences (Dangi & Malik, 2017; Postma & Brokke, 2002). When consumers perceive higher levels of personalization in their interactions with brands, they tend to exhibit greater satisfaction, loyalty, and commitment (Ameen et al., 2022; Hsu & Kulviwat, 2006; Meyer-Waarden, 2013; Jackson, 2007).

While studies in the literature have explored the impact of gamification on consumer behaviors (Insley & Nunan, 2014; Rather et al., 2022; Wu & Santana, 2022; Y. Xu et al., 2020b), there is a notable gap in understanding the specific mechanisms through which gamified experiences stimulate impulsive buying. Previous research has focused on the positive effects of gamification on customer loyalty and satisfaction (Al-Zyoud, 2021; Hanus & Fox, 2015; Hwang & Choi, 2020; Sitthipon et al., 2022; Xi & Hamari, 2019) but has not provided a comprehensive understanding of how gamification strategies can lead to impulsive buying.

Existing research has acknowledged that gamification can enhance consumer motivation and enjoyment, consequently increasing overall interactions with products and services (Alsawaier, 2018; Feng et al., 2020; Raman, 2021; Tobon et al., 2020; Y. Xu et al., 2020a). However, the psychological processes bridging gamification and the emergence of impulsive buying remain largely unexplored. Identifying these mediating factors is crucial for gaining deeper insights into the cognitive and

emotional driving forces underlying consumer decision-making when exposed to gamified marketing efforts.

These gaps highlight the need for a comprehensive and integrative study of gamification and purchasing behaviors. This study aims to determine how gamification elements and consumers' characteristics can play a role in shaping impulsive buying intentions. To achieve this, consumers' digital competencies and their perceived personalization elements during the purchasing process have been examined as antecedents. Addressing these gaps in the marketing literature will not only enrich the perspective on the gamification-consumer behavior relationship but will also provide valuable insights for marketers aiming to design more effective gamified experiences tailored to consumers' characteristics, needs, and preferences.

1.1. Digital Competence

Socio-emotional digital skills have opened up new dimensions and opportunities for digital environments through the expansion of the internet and other digital communication platforms, knowledge-sharing groups, discussion groups, information communities, chat groups, and various collaborative learning forms (Rogers et al., 2009). Contemporary businesses have undergone specific digital transformations at different periods. However, these transformations have not been completed at the same pace for every organization. Some businesses, both their employees and top management, have played a significant role in determining these digital transformation processes. Additionally, entrepreneurs or university collaborations contribute to skill development in the digital field. This necessitates the development of methodological knowledge and collaboration with interdisciplinary teams, in addition to technical expertise (Lewrick et al., 2018).

Digital competencies and skills are essential for both effective and sustainable digital transformation in the public sector (OECD, 2021) and the foundation of the private sector. Successful digital transformation requires the development of digital competencies (Sharma et al., 2023). Consequently, businesses should take significant steps to enhance their digital competencies and place great importance on the training of their employees. This is because another aspect of digitalization is accessing global talents (Pingali et al., 2021). International digital competencies are critical strategic resources for countries to enhance their comprehensive national powers and global competitiveness (Tallón-Ballesteros & Santana-Morales, 2023).

Although digital competencies hold great importance for businesses and countries, disparities exist among countries or regions. This introduces the concept of digital inequality. Digital inequality is defined by the Organisation for Economic Co-operation and Development (OECD, 2021) as the gap in access and usage of information and communication technologies (ICTs) between individuals, households, firms, and states. Businesses' inability to achieve the same level of sustainability may be due to their failure to adapt to digitalization and recognize innovations, as well as infrastructure or human factors such as deficiencies stemming

from their geographical location. However, even if businesses accept the need to improve themselves digitally, employees must also embrace and adapt to digital transformation. Therefore, businesses need to prepare their workforce for digital competence transformation through courses and training programs.

1.2. Perceived Personalization

Perceived personalization is a marketing strategy aimed at providing consumers with personalized experiences. This strategy is used to understand consumers' preferences, desires, and needs and offer products accordingly. As a result, it strengthens the bond between the business and the consumer, making consumers feel more special. Personalization involves providing information to the user based on a model of that individual's behavior, needs, or preferences (Rosenfeld et al., 2015). The concept of perceived personalization refers to the customization of consumers' preferences, needs, and lifestyles to reflect specific cultural and geographical elements (Taşkın & Gülerhocaoğlu, 2018). Another definition suggests that perceived personalization is the perception among customers that products tailored to their preferences are available in companies' social media environments. Companies that personalize their e-commerce sites can offer a more individualized experience and increase brand closeness and loyalty to their e-commerce sites.

Consequently perceived personalization reduces customers' information search costs and time, ultimately enhancing their decision quality and superior e-shopping experience (Yadav & Rahman, 2018). In the digital era, customer clusters attach great importance to critiques directed towards individual and direct one-to-one sections, along with nature and personalization practices, in terms of making data-based predictions to analyze the past and the future and to accelerate marketing pace (Ok & Kağıtçı, 2023). Perceived personalization is often achieved through methods such as analyzing customers' past data, observing their behavior during purchases, and tracking their demographic information.

Perceived personalization also guides businesses in their communication activities with consumers. By focusing on communication activities that attract consumers' interests, businesses can be more attention-grabbing and gain a competitive advantage over other companies. Perceived personalization helps to identify profiles based on consumers' names, pictures, genders, and previous online activities such as movie-watching and website visits (Wang, 2023).

1.3. Impulsive Buying

Impulse buying is a significant aspect in terms of consumer behavior, particularly for marketers. Many authors have addressed the concept of impulse buying in the literature. Generally, impulse buying encompasses the purchases made by consumers without forming a specific intention beforehand. It is fundamentally an unplanned or spontaneous purchase (Prabhu, 2019). Another definition describes it as occurring when desire outweighs a person's willpower (Ratneshwar et al., 2003). Planned and regular purchases are often made in multiple units, while impulse purchases, occasional and spontaneous, are typically individual units (Kotler & Armstrong,

2016). Biophysical and psychological stimuli drive most consumer activities. An impulse is not consciously planned but arises immediately when confronted with a specific stimulus (Rook, 1987). Therefore, some sources also consider impulse buying as impulse purchasing, instinctive buying, or spontaneous buying.

According to Coley and Burgess (2003), impulse buying is closely related to reflexes or responses arising from internal stimuli as well as external or environmental stimuli. Factors influencing consumers' impulse buying are divided into internal and external factors. While internal factors encompass consumers' emotions, moods, emotional states, and personality traits, external factors are categorized under four headings: demographic, socio-economic, the company itself, and price-performance conditions related to the product (Beytulova & Yaşin, 2018). To encourage consumers to make impulse purchases, businesses need to implement marketing strategies that motivate them. Especially considering that consumers spend more time on online platforms, businesses should increase their activity in online environments and encourage consumers to add products to their shopping carts.

1.4. Gamification and Desirability of Scoring Points

Perceived control plays a significant role in consumer behavior. Consumers with a high desire for control tend to respond with negative emotions, while those with a low desire for control do not react negatively and may even respond positively (Van Rompay et al., 2008). This suggests that consumers who value control in their purchase decisions may be more cautious and selective, while those less concerned about control may be more open to trying new products or experiences. At this point, the concept of gamification, which involves incorporating game elements and mechanics into shopping processes, becomes crucial in attracting and motivating consumers (Hofacker et al., 2016).

Gamification positively influences hedonic and utilitarian shopping values, leading to desired consumer behaviors such as brand loyalty and resistance to negative information (Bauer et al., 2020). Additionally, gamification can create an atmosphere of entertainment in consumers' minds, allowing them to indulge in pleasant atmospheres (X. Xu et al., 2020).

In gamification, the desirability of scoring points can be a powerful tool for businesses to increase consumer engagement and direct desired behaviors. As a result, businesses can enhance motivation, participation, and loyalty among consumers. Moreover, by offering points or rewards for specific actions or achievements, businesses can create a sense of achievement, competition, and enjoyment for consumers (Hofacker et al., 2016). From a marketing perspective, this situation can be described as the " desirability of scoring points accumulation," and it can be associated with the allure and attractiveness of earning points or rewards in a gamified marketing context.

The desirability of scoring points touches upon consumers' intrinsic motivation because it provides a sense of achievement and progress toward a goal (Hofacker et al., 2016). It leverages psychological principles such as the need for achievement,

status, and recognition. When consumers earn points or rewards, they experience a sense of satisfaction and contentment, which can strengthen their loyalty to the brand or product (Mitchell et al., 2020; Torres et al., 2022). When games are combined with points and/or rewards, consumers may engage in play not only for intrinsic enjoyment but also for the extrinsic motivation of receiving discounts (Bauer et al., 2020).

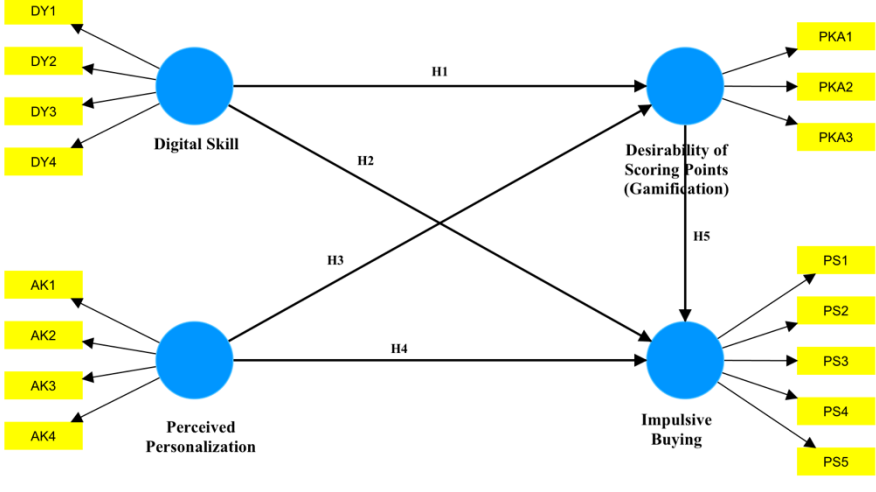
Furthermore, when points or rewards are visible to others, it can trigger a desire to outperform others or surpass them, leading to increased consumer engagement (Hofacker et al., 2016). Engaging in shopping-related games can increase consumers' satisfaction, positive word-of-mouth intentions, and loyalty to the firm (Bauer et al., 2020). This can be particularly effective in creating a sense of community and encouraging social interactions among consumers.

2. METHODOLOGY

2.1. Research Model and Hypotheses

The research model has been developed based on the variables commonly used in previous studies, as identified through a thorough literature review. The model and hypotheses, which are aligned with the research objectives, are presented below as a result of the literature review.

Figure 1. Research Model



H_1: Digital skill positively influences the desirability of scoring points (gamification).
H_2: Digital skill positively influences impulse buying.
H_3: Perceived personalization positively influences the desirability of scoring points (gamification).
H_4: Perceived personalization positively influences impulse buying.

H_5: Desirability of scoring points (gamification) positively influences impulse buying.
H_6: There is a mediating role of the desirability of scoring points (gamification) in the relationship between digital skill and impulse buying.
H_7: There is a mediating role of the desirability of scoring points (gamification) in the relationship between perceived personalization and impulse buying.

2.2. Sampling Process and Data Collection Method

This study was designed to investigate the changes in the purchasing behavior of consumers who encounter gamification elements in their shopping processes on digital platforms. Accordingly, ethical approval was obtained from the Sivas Cumhuriyet University Social Sciences Ethics Committee on 17.04.2023 with reference number 2023/28. All individuals who shop on digital platforms constitute the main population of this study. Due to the impossibility of reaching all users, data were collected after determining the sample. To determine changes in consumers' shopping behavior, data were collected only from employed individuals based on the criterion of having spending freedom. Data were collected through a questionnaire to examine the identified changes in terms of digital competence and perceived personalization when the desirability of scoring points (gamification) is included in consumers' shopping processes. For measuring digital competence and perceived personalization variables, the scales used in Lambillotte et al.'s (2022) study were employed, which consisted of four items each. For measuring the desirability of the scoring points (gamification) variable, the scale used in Kaiser et al.'s (2017) study was used, which consisted of three items. To measure the impulse buying tendency, the scale used in Weun et al.'s (1998) study was utilized, which consists of five items. In addition to these scales, a demographic information form was created using Google Forms. The data collection process was completed with responses received from a total of 480 participants between April 20 and April 28, 2023.

After conducting preliminary checks on the data, the analysis was performed with the responses of 457 individuals who met the criteria for analysis. Shapiro-Wilk test was conducted for the normality analysis, and it was found that the variables did not follow a normal distribution ($p < 0.001$). In research conducted in the fields of health, education, and social sciences, data are generally not normally distributed (Bauer & Sterba, 2011; Blanca et al., 2013; Lei & Lomax, 2005; Micceri, 1989). A notable benefit of SmartPLS lies in its capacity to alleviate assumptions regarding normal distribution and forecast intricate models with reduced sample sizes (Hair et al., 2022; Purwanto, 2021; Wong, 2013). SmartPLS is mainly used in the fields of information systems and marketing (Hair et al., 2012). PLS has an advantage over other types of models in detecting statistically significant relationships (Shackman, 2013). For these reasons, the analyses will be conducted using the SmartPLS 4.0 program.

2.4. Validity and Reliability Analysis of Scales

Before delving into an examination of the research framework, evaluations of the validity and reliability of the constructs within the study were executed. Within the

scope of validity and reliability studies, internal consistency reliability, convergent validity, and discriminant validity were evaluated. For internal consistency reliability, Cronbach's Alpha and composite reliability (CR) coefficients were examined. In determining convergent validity, average variance extracted (AVE) values, which are explained by factor loadings, were used. Factor loadings ≥ 0.70, Cronbach's Alpha, and composite reliability coefficients ≥ 0.70 were calculated. These results indicate a satisfactory level of internal consistency. Moreover, an AVE value ≥ 0.50 is expected (Hair et al., 2006; Hair et al., 2019). These findings (factor loadings and AVE values) indicate the establishment of satisfactory convergent validity and that the measurement outcomes are reliable for all adopted indicators. The results of the entire measurement model are presented in Table 1.

Table 1. Results of the Measurement Model

Variables	Items	Factor Loads	Cronbach's Alfa	CR	AVE
Perceived Personalization (Lambillotte vd., 2022)	**AK1**	0,954	0,913	0,924	0,729
	AK2	0,859			
	AK3	0,885			
	AK4	0,696			
Digital Skill (Lambillotte vd., 2022)	**DY1**	0,833	0,908	0,909	0,712
	DY2	0,832			
	DY3	0,878			
	DY4	0,830			
Desirability of Scoring Points (Gamification) (Kaiser vd., 2017)	**PKA1**	0,857	0,827	0,85	0,632
	PKA2	0,856			
	PKA3	0,655			
Impulsive Buying (Weun vd., 1998)	**PS1**	0,697	0,848	0,851	0,529
	PS2	0,692			
	PS3	0,730			
	PS4	0,798			
	PS5	0,717			

According to Hair et al. (2019), factor loadings should be ≥ 0.708. The authors recommend removing items with factor loadings below 0.40 from the measurement

model. Those with factor loadings between 0.40 and 0.70 should be removed from the measurement model if their AVE or CR values are below the threshold. Based on these criteria, no item was removed, and the analysis continued. The internal consistency reliability is considered to be established since the structures have Cronbach's Alpha coefficients ranging from 0.827 to 0.913, and CR coefficients ranging from 0.850 to 0.924. Furthermore, the convergent validity is ensured, as the factor loadings range from 0.655 to 0.954, and the AVE values range from 0.529 to 0.729.

To assess discriminant validity, cross-loadings and the Heterotrait-Monotrait Ratio of Correlations (HTMT), as suggested by Fornell and Larcker (1981) and Henseler et al. (2015), respectively, were used. The cross-loadings are presented in Table 2, Fornell and Larcker results in Table 3, and HTMT coefficients in Table 4.

Table 2. Cross-Loadings

Items	Perceived Personalization	Digital Skill	Desirability of Scoring Points (Gamification)	Impulsive Buying
AK1	**0,954**	0,238	0,657	0,529
AK2	**0,859**	0,264	0,625	0,433
AK3	**0,885**	0,245	0,642	0,448
AK4	**0,696**	0,159	0,486	0,377
DY1	0,213	**0,833**	0,387	0,325
DY2	0,200	**0,832**	0,412	0,292
DY3	0,255	**0,878**	0,407	0,344
DY4	0,236	**0,830**	0,399	0,306
PKA1	0,592	0,391	**0,857**	0,530
PKA2	0,638	0,369	**0,856**	0,486
PKA3	0,447	0,384	**0,655**	0,338
PS1	0,407	0,206	0,401	**0,697**
PS2	0,409	0,190	0,402	**0,692**
PS3	0,327	0,314	0,450	**0,730**
PS4	0,425	0,292	0,459	**0,798**
PS5	0,348	0,360	0,379	**0,717**

When examining the cross-loadings table in Table 2, it indicates that there is no substantial overlap among the statements measuring the research variables.

Table 3. Discriminant Validity Results (Fornell and Larcker Criterion)

Variables	Perceived Personalization	Digital Skill	Desirability of Scoring Points (Gamification)	Impulsive Buying
Perceived Personalization	**(0,854)**			
Digital Skill	0,268	**(0,844)**		
Desirability of Scoring Points (Gamification)	0,710	0,476	**(0,795)**	
Impulsive Buying	0,526	0,376	0,575	**(0,728)**

According to the Fornell and Larcker (1981) criterion, the square root of the average variance extracted (AVE) values of the constructs in the study should be higher than the correlation coefficients among the constructs. The values in parentheses in the table represent the square root of AVE, while the other coefficients indicate the correlation values between the variables. Upon examination of the values in the table, it can be observed that the square root of the AVE for each construct is higher than the correlation coefficients with other constructs.

Table 4. Discriminant Validity Results (HTMT Criterion)

Variables	Perceived Personalization	Digital Skill	Desirability of Scoring Points (Gamification)	Impulsive Buying
Perceived Personalization				
Digital Skill	0,266			
Desirability of Scoring Points (Gamification)	0,711	0,487		
Impulsive Buying	0,526	0,375	0,576	

According to the criterion proposed by Henseler et al. (2015), the Heterotrait-Monotrait Ratio (HTMT) expresses the ratios of the average correlations of items related to all constructs in the study to the geometric mean of correlations of items belonging to the same construct. The authors state that the HTMT value should be below 0.90 for theoretically close constructs and below 0.85 for distant constructs. As seen in Table 4, the HTMT coefficients are below the threshold value. Therefore, it can be concluded that the constructs are distinct and different from each other.

Based on the cross-loadings, Fornell-Larcker criterion, and HTMT criterion, discriminant validity can be considered to be established.

3. RESULTS

3.1. Participant Demographic Characteristics

Frequency distributions of participants' demographic characteristics were conducted, and the results are presented in Table 5.

Table 5. Participant Information

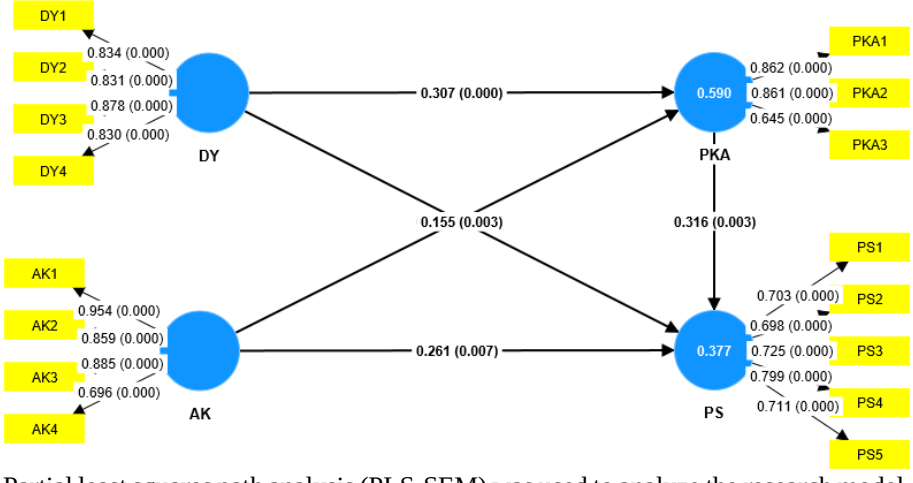
Gender	Freq.	Perc.(%)	Education	Freq.	Perc.(%)
Woman	269	58,86%	Primary education	1	0,22%
Male	188	41,14%	High School	54	11,82%
Total	457	100,00%	Undergraduate (or Associate Degree)	302	66,08%
			Postgraduate	100	21,88%
Age	**Freq.**	**Perc.(%)**	**Total**	**457**	**100,00%**
18-25 years old	221	48,36%			
26-35 years old	109	23,85%	**Income**	**Freq.**	**Perc.(%)**
36-45 years old	92	20,13%	I have less income than I spend	100	21,88%
46-55 years old	21	4,60%	I have an income equal to what I spend	256	56,02%
56 years and over	14	3,06%	I have more income than I spend	101	22,10%
Total	**457**	**100,00%**	**Total**	**457**	**100,00%**

It can be understood from the data presented in Table 5 that the majority of the participants in the study were females, graduates of undergraduate or associate degree programs, aged between 18 and 25, and had income proportional to their spending.

3.2. Testing the Research Model and Results

The structural equation model created to test the research hypotheses is shown in Figure 2.

Figure 2. Structural Equation Model



Partial least squares path analysis (PLS-SEM) was used to analyze the research model. The data were analyzed using the SmartPLS 4 statistical program (Ringle et al., 2015; Yıldız, 2021). To assess linearity, path coefficients, R^2, and effect size (f2) of the research model, the PLS algorithm was employed, and for calculating predictive relevance (Q^2), the PLSpredict analysis was conducted. The significance of PLS path coefficients was evaluated using bootstrapping with 5000 sub-samples to calculate t-values.

The results of the study, including VIF, R^2, f^2, and Q^2 values, are presented in Table 6. The results related to direct effects are provided in Table 7, and the results related to indirect effects are shown in Table 8.

Table 6. Research Model Coefficients

Variables		VIF	R^2	f^2	Q^2
Digital Skill	Desirability of Scoring Points (Gamification)	1,077	0,592	0,215	0,462
Perceived Personalization		1,077		0,895	
Digital Skill	Impulsive Buying	1,307	0,378	0,030	0,257
Perceived Personalization		2,037		0,053	
Desirability of Scoring Points (Gamification)		2,440		0,066	

When examining the Variance Inflation Factor (VIF) values among the variables, it can be observed that the values are below the threshold value of 5, indicating that there is no multicollinearity issue among the variables (Hair et al., 2022). Upon examining the R^2 values obtained for the model, it was found that 59.2% of the

variance in the desire for point (gamification) variable and 37.8% of the variance in the impulsive buying variable are explained by this model.

Furthermore, it is important to assess whether exogenous constructs have a significant impact on endogenous constructs. The effect size coefficient (f^2) is considered low if it is 0.02 or above, medium if it is 0.15 or above, and high if it is 0.35 or above (Cohen, 2013). According to Hair et al. (2017), when the coefficient falls below 0.02, it is not possible to claim any significant effect. Upon examining the effect size coefficients (f^2), it is observed that the digital ability variable has a medium effect size on the desire for point (gamification) variable, and the perceived personalization variable has a high effect size. On the other hand, the desire for point (gamification), digital ability, and perceived personalization variables have small effect sizes on the impulsive buying intention variable.

The calculated values of the predictive relevance coefficient (Q^2) for the endogenous constructs being greater than zero indicate that the research model has predictive power (Hair et al., 2022). Considering that the Q^2 values in Table 6 are greater than zero, it can be stated that the research model has predictive power on the variables of impulsive buying intention and desire for points (gamification).

Table 7. Direct Effect Coefficients

Variables		Std. β	Std. Dev.	t value	Lower Limit Conf. Interval (LLCI)	Upper Limit Conf. Interval (ULCI)
Digital Skill	Desirability of Scoring Points (Gamification)	0,307	0,050	6,087	0,204	0,401
Perceived Personalization		0,627	0,042	14,841	0,541	0,706
Digital Skill	Impulsive Buying	0,155	0,052	2,998	0,057	0,259
Perceived Personalization		0,261	0,097	2,679	0,064	0,446
Desirability of Scoring Points (Gamification)		0,316	0,108	2,935	0,105	0,530

When examining the effects in Table 7, it is observed that the variables of digital ability (β=0.307; p<0.01) and perceived personalization (β=0.627; p<0.01) have positive effects on the desire for point (gamification) variable, while the variables of digital ability (β=0.155; p<0.01), perceived personalization (β=0.261; p<0.01), and desire for point (gamification) (β=0.316; p<0.01) have positive effects on the impulsive buying intention variable. Based on these results, hypotheses 1, 2, 3, 4, and 5 of the research are supported.

Table 8. Indirect Effect Coefficients

Variables			Std. β	Std. Dev.	t value	Lower Limit Conf. Interval (LLCI)	Upper Limit Conf. Interval (ULCI)
Perceived Personalization	Desirability of Scoring Points (Gamification)	Impulsive Buying	0,198	0,071	2,797	0,069	0,348
Digital Skill			0,097	0,037	2,632	0,034	0,181

According to the findings, it has been observed that the indirect effect of the desire for point (gamification) variable on the impulsive buying intention variable through perceived personalization ($\beta=0.198$; $p<0.01$) and the indirect effect of the desire for point (gamification) variable on the impulsive buying intention variable through digital ability ($\beta=0.198$; $p<0.01$) are statistically significant. Based on these results, hypotheses 6 and 7 of the research are supported. The hypotheses examined and their results within the scope of the study are summarized in Table 9.

Table 9. Hypotheses Results

Hypotheses	Result
H_1: Digital competence positively influences desirability of scoring points (gamification).	Supported
H_2: Digital competence positively influences impulse buying.	Supported
H_3: Perceived personalization positively influences desirability of scoring points (gamification).	Supported
H_4: Perceived personalization positively influences impulse buying.	Supported
H_5: Desirability of scoring points (gamification) positively influences impulse buying.	Supported
H_6: There is a mediating role of desirability of scoring points (gamification) in the relationship between digital competence and impulse buying.	Supported
H_7: There is a mediating role of desirability of scoring points (gamification) in the relationship between perceived personalization and impulse buying.	Supported

4. DISCUSSION and CONCLUSION

This study, aimed at determining the changes in purchasing behavior when consumers encounter gamification elements on digital shopping platforms, seeks to identify the effects of consumers' digital abilities and personalized perceptions on impulse buying behavior through the desirability of scoring points (gamification). The research

presents implications and recommendations for businesses, future researchers, and digital shopping platform implementers based on its findings.

Firstly, it is observed that a significant portion of the variance in desirability of scoring points (gamification) and impulse buying behavior variables (59.2% and 37.8%, respectively) is explained by the model examined in this study. Thus, it can be concluded that the model has considerable explanatory power in understanding the relationship between the variables under investigation.

When examining the effect size coefficients, it is evident that consumers' digital abilities have a moderate level of influence on the desirability of scoring points (gamification), whereas the perceived personalization variable exhibits a high level of influence. However, the impact of desirability of scoring points (gamification), consumers' digital abilities, and perceived personalization variables on impulse buying behavior remains relatively low. Consequently, it is understood that while consumers' digital abilities and perceived personalization significantly influence the desirability of scoring points (gamification), they also play an important role in directing impulse buying behavior in conjunction with all other variables.

The hypothesis tests formulated based on previous studies in the literature have shown that the specific effects of digital ability and perceived personalization variables on gamification desire were supported (H1 and H3). These results are in line with previous research (Adamczyk et al., 2023; Alahmari et al., 2023; Kaur et al., 2023; Koay et al., 2020; Polo-Peña et al., 2021) which demonstrated the impact of perceived personalization and digital abilities on gamification desire. Additionally, the current study confirmed H2, H4, and H5, indicating that these two variables and gamification desire itself positively influence impulsive buying behavior. This emphasizes the importance of integrating gamification elements, especially the desire for point accumulation, into shopping processes to encourage customer engagement and impulsive buying tendencies, which is consistent with literature findings (Khoi & Le, 2023; Phan et al., 2022; Schnack et al., 2021; Yadav & Sharma, 2022).

Moreover, the study revealed significant indirect effects. Both perceived personalization and digital ability exerted a significant indirect effect on impulsive buying intention through gamification desire, thus supporting H6 and H7. These findings highlight the mediating role of gamification desire in shaping the relationship between perceived personalization, digital abilities, and impulsive buying behavior. Therefore, the results of the study support the significance of integrating gamification elements, particularly the desire for point accumulation, to enhance consumer engagement and encourage impulsive buying behavior. Consumers' digital usage abilities and perceived personalization variables have positive effects on the desirability of scoring points and are essential tools for customer retention.

It is well-known that developing user-centric applications and utilizing user-friendly interfaces in digital platform design contribute positively to customer satisfaction (Hassenzahl & Tractinsky, 2006). Moreover, user experiences are crucial in digital

marketing, and the need for interfaces with ease of use continues to grow (Khatri, 2021). Hassenzahl et al. (2010) emphasized the significance of "experience design" in the process of digital application design and highlighted the considerable advantages for businesses in creating designs tailored to consumers' desires and needs. Our study, in line with previous research, establishes the positive effect of digital abilities on gamification desire, thereby emphasizing the significance of technological advancements in digital platforms. Businesses should invest in user-friendly interfaces, smooth navigation, and advanced functionalities to provide a seamless and satisfying user experience. By investing in advanced functionalities, businesses can offer innovative features and capabilities that exceed user expectations, thereby enhancing user loyalty and commitment. This, in turn, contributes to increased user engagement and, ultimately, an increase in gamification desire.

Daqar and Smoudy (2019) suggest that businesses should offer more personalized services to customers, as it positively impacts their overall experience with the company. Similarly, Tong et al. (2020) emphasize in their study that personalized mobile applications strengthen the bond between consumers and firms. As seen in previous research, prioritizing individual consumer preferences is crucial for companies. Therefore, digital platforms should leverage consumer data and behaviors to provide personalized experiences tailored to individual preferences. Implementing personalized product recommendations, exclusive offers, and targeted promotions can further enhance gamification desire and encourage impulsive buying behavior.

Gummesson (1997) views relationship marketing as a paradigm shift in marketing thought and behavior, emphasizing the need for a customer-centric approach. Thus, considering the findings related to indirect effects in this study, marketers should target consumers who exhibit a strong desire for gamification. Segmenting the customer base according to gamification preferences can assist in tailoring marketing strategies, product offerings, and promotional activities to specific groups, thereby maximizing the effectiveness of gamification in directing impulsive buying behavior.

Customer-centricity and personalized promotions have been found to have positive effects on consumers' impulse buying (Gulfraz & Wei, 2019; Hosseini et al., 2020) and customer loyalty (Aburayya et al., 2020; Brady & Cronin Jr, 2001; Hennig-Thurau, 2004). The focus of this study on impulsive buying behavior opens new avenues to investigate the long-term impact of gamification on customer loyalty. By fostering gamification desire and incentivizing repeat purchases, businesses can establish stronger relationships with their customers and cultivate brand loyalty over time. However, while establishing a positive relationship between gamification desire and impulsive buying behavior, businesses should also be cautious about potential negative outcomes such as excessive buying or unsustainable purchasing habits.

The contribution of this study lies in its comprehensive examination of the interaction between gamification, digital ability, perceived personalization, and impulsive buying behavior. However, it is essential to acknowledge some limitations that may impact the generalizability of the results. The research focused on the direct and indirect

effects of digital ability, perceived personalization, and gamification variables without considering potential moderating factors and did not account for all potential factors that influence consumer behavior. Future studies may include other variables, such as socio-demographic factors, cultural factors, personality traits, or product-related attributes, to gain a more comprehensive understanding of consumer behavior within the context of gamified digital platforms. The study utilized cross-sectional data collected at a single point in time, which limits the establishment of causal relationships between variables. Longitudinal studies or experimental designs could provide more robust evidence regarding causality. Additionally, alternative methods such as tracking actual purchase behavior or physiological responses may offer a more comprehensive assessment of impulsive buying tendencies.

DİJİTAL PAZARDA KAYBOLMAK: PUANLAR, AVANTAJLAR VE SATIN ALIMLAR

1. GİRİŞ

Bu çalışma, günümüzün gelişmiş dünyasında dijital teknolojilerin tüketici davranışları ve tercihleri üzerindeki etkisini tartışmaktadır. Dijitalleşmenin yükselişiyle birlikte, tüketicilerin dijital yetkinlikleri, dijital pazardaki davranışlarını şekillendirmede hayati önem kazanmıştır. Tüketiciler ya bilinçli, değerlendirmeye dayalı planlı satın alımlar ya da duygusal veya durumsal faktörlerin tetiklediği dürtüsel satın alımlar gerçekleştirmektedir. Oyun unsurlarını oyun dışı bağlamlara entegre eden oyunlaştırma, tüketici-işletme etkileşimlerini geliştirmek, kullanıcı katılımını artırmak ve olumlu marka deneyimlerini desteklemek için bir strateji olarak ortaya çıkmıştır. Bu çalışma, oyunlaştırılmış deneyimlerin dürtüsel satın almayı nasıl teşvik ettiğini anlama konusundaki boşluğa odaklanmaktadır; mevcut araştırmalar öncelikle oyunlaştırmanın müşteri sadakati ve memnuniyeti üzerindeki olumlu etkilerini araştırmaktadır. Oyunlaştırma ve dürtüsel satın alma arasındaki aracı faktörlerin belirlenmesi, oyunlaştırılmış pazarlama çabalarına yanıt olarak tüketicinin karar verme sürecini anlamak için gereklidir. Bu çalışma, oyunlaştırma unsurlarının ve tüketicilerin dijital yetkinliklerinin ve algılanan kişiselleştirmenin dürtüsel satın alma niyetlerini şekillendirmedeki rolünü belirlemeyi amaçlamaktadır. Pazarlama literatüründeki bu boşlukların giderilmesi, tüketicilerin özelliklerine ve tercihlerine göre uyarlanmış daha etkili oyunlaştırılmış deneyimler tasarlamak için değerli bilgiler sağlamaktadır.

2. YÖNTEM

Çalışma, dijital platformlarından yapılan alışveriş süreçlerinde oyunlaştırma unsurlarıyla karşılaşan tüketicilerin satın alma davranışlarındaki değişimleri araştırmayı amaçlamaktadır. Etik onay alınmış ve veriler harcama özgürlüğüne sahip çalışan bireylerden toplanmıştır. Veriler, dijital yetkinlik, algılanan kişiselleştirme, puan kazanma arzusu (oyunlaştırma) ve anlık satın alma eğilimi gibi değişkenleri ölçen bir anket aracılığıyla toplanmıştır. Toplam 457 katılımcı analiz kriterlerini

karşılamıştır. Değişkenler, normal bir dağılım göstermemiştir. Bu nedenle, analiz için normal dağılmayan verileri işleme ve daha küçük örneklemlerle karmaşık modelleri tahmin etme becerisiyle bilinen SmartPLS 4.0 seçilmiştir. Çalışma, dijital platformlarda alışveriş yapan harcama özgürlüğüne sahip çalışan tüketicilere odaklanmış ve oyunlaştırmanın satın alma davranışlarını nasıl etkilediğini araştırmıştır. Dijital yetkinlik, algılanan kişiselleştirme, oyunlaştırma arzu edilirliği ve anlık satın alma eğilimini ölçmek için çeşitli ölçekler kullanılmıştır. 457 katılımcıdan elde edilen veriler, değişkenler sağlık, eğitim ve sosyal bilimler gibi araştırma alanlarında tipik olan normal dağılıma uymadığı için SmartPLS 4.0 kullanılarak analiz edilmiştir. SmartPLS'nin normal dağılmayan verileri işleme ve anlamlı ilişkileri tespit etme gibi avantajları, onu analiz için uygun hale getirmektedir.

3. BULGULAR

Katılımcı Bilgileri bölümünde sunulan verilerden, araştırmaya katılanların çoğunluğunun kadın, lisans veya ön lisans mezunu, 18-25 yaş aralığında ve harcamalarıyla orantılı gelire sahip oldukları anlaşılmaktadır. Çalışmada incelenen yapıların 0,827 ile 0,913 arasında değişen Cronbach Alfa katsayılarına ve 0,850 ile 0,924 arasında değişen CR katsayılarına sahip olması nedeniyle iç tutarlılık güvenilirliğinin sağlandığı düşünülmektedir. Ayrıca, faktör yükleri 0,655 ile 0,954 arasında ve AVE değerleri 0,529 ile 0,729 arasında değiştiği için yakınsak geçerlilik sağlanmıştır. Dijital yetenek (β=0,307; $p<0,01$) ve algılanan kişiselleştirme (β=0,627; $p<0,01$) değişkenlerinin puan kazanma arzusu (oyunlaştırma) değişkeni üzerinde; dijital yetenek (β=0,155; $p<0,01$), algılanan kişiselleştirme (β=0,261; $p<0,01$) ve puan kazanma arzusu (oyunlaştırma) isteği (β=0,316; $p<0,01$) değişkenlerinin ise plansız satın alma niyeti değişkeni üzerinde pozitif etkiye sahip olduğu görülmektedir. Bu sonuçlara göre araştırmanın 1, 2, 3, 4 ve 5 numaralı hipotezleri desteklenmektedir. Elde edilen bulgulara göre puan kazanma arzusu (oyunlaştırma) değişkeninin algılanan kişiselleştirme (β=0,198; $p<0,01$) aracılığıyla plansız satın alma niyeti değişkeni üzerindeki dolaylı etkisinin ve puan puan kazanma arzusu (oyunlaştırma) değişkeninin dijital yetenek (β=0,198; $p<0,01$) aracılığıyla plansız satın alma niyeti değişkeni üzerindeki dolaylı etkisinin istatistiksel olarak anlamlı olduğu görülmüştür. Bu sonuçlara göre araştırmanın 6. ve 7. hipotezleri desteklenmektedir.

4. TARTIŞMA ve SONUÇ

Çalışma, tüketicilerin dijital alışveriş platformlarında oyunlaştırma unsurlarıyla karşılaştıklarında satın alma davranışlarındaki değişiklikleri araştırmayı amaçlamıştır. Tüketicilerin dijital yeteneklerinin ve algılanan kişiselleştirmenin, puan kazanmanın (oyunlaştırma) arzu edilirliği yoluyla dürtü satın alma davranışı üzerindeki etkileri araştırılmıştır. Araştırma bulgularının işletmeler, gelecekteki araştırmacılar ve dijital alışveriş platformu uygulayıcıları için çıkarımları vardır. Çalışma, oyunlaştırma arzusu ve anlık satın alma davranışı değişkenlerindeki varyansın önemli bir kısmının model tarafından açıklandığını ve modelin açıklayıcı gücünü gösterdiğini gözlemlemiştir. Tüketicilerin dijital yetenekleri oyunlaştırma arzusunu orta düzeyde etkilerken, algılanan kişiselleştirme yüksek bir etkiye sahiptir. Ancak, bu

değişkenlerin anlık satın alma davranışı üzerindeki etkisi nispeten düşük olup, diğer faktörlerin de rol oynadığını göstermektedir. Araştırma, dijital yeteneklerin ve algılanan kişiselleştirmenin oyunlaştırma arzusu ve anlık satın alma davranışı üzerindeki olumlu etkilerine ilişkin önceki çalışmaların bulgularını desteklemiştir. Ayrıca, oyunlaştırma arzusunun bu değişkenler ile anlık satın alma davranışı arasındaki ilişkiyi şekillendirmedeki aracılık rolünü de vurgulamıştır. Çalışma, müşteri memnuniyetini ve oyunlaştırma arzusunu artırmak için kullanıcı dostu arayüzlere sahip kullanıcı merkezli dijital platform tasarımının önemini vurgulamıştır. Kişiselleştirilmiş hizmetler ve bireysel tercihlere göre uyarlanmış promosyonlar, oyunlaştırma arzusunu ve dürtüsel satın alma davranışını daha da güçlendirebilir. İşletmeler, oyunlaştırma konusunda güçlü bir istek duyan tüketicileri hedefleyerek, pazarlama stratejilerini oyunlaştırmanın etkinliğini en üst düzeye çıkaracak şekilde uyarlayabilirler. Araştırma, oyunlaştırma, dijital beceri, algılanan kişiselleştirme ve dürtüsel satın alma davranışı arasındaki etkileşimin anlaşılmasına katkıda bulunmaktadır. Bununla birlikte, tüketici davranışını etkileyen diğer potansiyel faktörlerin dikkate alınmasındaki ve kesitsel verilerin kullanılmasındaki sınırlamalar kabul edilmelidir. Gelecekteki çalışmalar, boylamsal veya deneysel tasarımlar kullanarak nedenselliği araştırabilir ve daha kapsamlı bir anlayış için ek değişkenleri dikkate alabilir.

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