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Structuring a Gamification Model in Digital Marketing Using Interpretive Structural Modeling (ISM)

Maryam Sharifi Hashjin[1], Farzad Asayesh[2]*, Mahmoud Ahmadi Sharif[3]

1. PhD Student, Department of Business management, Kish International Branch, Islamic Azad University, Kish Island, Iran.
2. Assistant Professor, Department of Business Management, Shahr-e Qods Branch, Islamic Azad University, Tehran, Iran (Corresponding Author).
3. Assistant Professor, Department of Business Management, Shahr-e Qods Branch, Islamic Azad University, Tehran, Iran.

*** Corresponding author email address**: farzad.asayesh@qodsiau.ac.ir

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Abstract

This study aims to explore the impact of gamification elements on customer engagement, brand loyalty, and sustainable consumer behavior within the context of digital marketing. By utilizing Interpretive Structural Modeling (ISM), the study seeks to identify key factors that influence how gamification enhances the customer experience and promotes positive brand interaction. Additionally, the research aims to understand how gamification can drive sustainable behaviors among consumers, particularly in industries that emphasize eco-friendly practices. The study used a mixed-method approach combining qualitative interviews and quantitative data analysis. A group of experts in marketing and gamification was selected to provide insights into the key factors affecting gamified marketing strategies. Data collection tools included semi-structured interviews and questionnaires. The qualitative data was analyzed using thematic analysis, while the quantitative data was processed through ISM to create a hierarchical model illustrating the relationships between variables. The study focused on variables such as customer behavior identification, user interaction, gamification elements, organizational culture, and digital space. The results indicate that gamification significantly enhances customer engagement by tapping into intrinsic motivations such as achievement, competition, and rewards. Gamified experiences also foster stronger emotional connections between consumers and brands, leading to increased brand loyalty. Additionally, the study found that gamification can promote sustainable consumer behaviors by encouraging eco-friendly actions through rewards and social competition. Poorly designed or manipulative gamified experiences, however, can reduce consumer trust and satisfaction. Gamification is a powerful tool for driving consumer engagement, loyalty, and sustainability in digital marketing. Marketers should focus on designing ethical and intuitive gamified experiences that align with consumer motivations. The findings suggest that gamification not only enhances brand interaction but also contributes to broader social and environmental goals. Future research should explore the long-term effects of gamified marketing strategies.

Keywords: *Gamification, customer engagement, brand loyalty, digital marketing, sustainability, consumer behavior, marketing strategies, Interpretive Structural Modeling (ISM).*

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1. Introduction

The integration of gamification into various sectors, including marketing, education, and consumer engagement, has garnered significant attention over the past decade. Gamification, defined as the use of game-like elements in non-game contexts, is designed to increase engagement, motivation, and positive user experiences [1]. While initially explored in domains such as education and software development [2], its potential in transforming digital marketing strategies and enhancing customer interaction has become increasingly evident [3]. This study focuses on how gamification, when applied within the digital marketing context, can influence customer engagement, brand loyalty, and user experience, and contribute to a sustainable business model.

Gamification leverages game-design elements, such as points, badges, leaderboards, and challenges, to drive customer interaction [4]. Research has shown that these elements, when incorporated thoughtfully, can enhance the customer experience by fostering a sense of achievement and competition, which motivates continued engagement [5]. In digital marketing, gamification offers an opportunity to create interactive and immersive brand experiences that can build stronger relationships with customers [6]. By integrating gamification into marketing strategies, brands aim to turn passive consumers into active participants in the brand's journey, leading to improved customer retention and brand loyalty [7].

The application of gamification in marketing has gained traction as it addresses the changing dynamics of consumer behavior in the digital age. With the rise of e-commerce and digital platforms, traditional marketing methods have evolved, and gamification has emerged as a powerful tool to capture consumers' attention and keep them engaged [8]. For instance, in the context of mobile shopping apps, the incorporation of gamified elements has been found to increase shopper engagement and satisfaction [9]. Additionally, gamification has been shown to foster positive emotions among consumers, which in turn, enhances their loyalty to a brand [10].

Behl et al. (2023) emphasize the role of neuromarketing in gamification, particularly how it taps into consumers' psychological responses to create a more enjoyable and memorable experience. By activating the brain's reward system, gamification encourages consumers to engage more deeply with a brand, potentially leading to increased sales and customer loyalty [11]. In a study by Ghosh et al. (2022), it was demonstrated that gamified advertising, whether in the form of in-game advertisements or standalone advergames, could significantly influence consumer attitudes towards brands, making gamification a versatile tool for modern marketers [12].

Another benefit of gamification in marketing is its ability to create a community around a brand. As highlighted by Bousba and Arya (2022), the integration of gamified platforms, such as those found in the metaverse, allows brands to foster a sense of belonging among consumers, increasing affective brand engagement [13]. The sense of community, combined with the interactive nature of gamified marketing, can lead to greater consumer advocacy, where satisfied customers become brand ambassadors, spreading positive word-of-mouth both online and offline [11].

Gamification is not only a tool for increasing consumer engagement but also a means of promoting sustainability in various sectors. Berger (2019) demonstrated the effectiveness of gamification in encouraging eco-friendly behavior among consumers. By leveraging social norms and competition, gamified platforms can promote sustainable consumption patterns, such as making eco-friendly food choices [14]. Similarly, Alves et al. (2023) developed an eco-gamification platform to promote consumer engagement in the textile and clothing circular value chain, encouraging consumers to participate in sustainable practices through game-like mechanisms [15].

The potential of gamification to promote sustainability is further evidenced in the tourism sector. In a study by Ali (2020), gamification was used to enhance the visitor experience at entertainment destinations, such as Siwa Oasis, by incorporating interactive and educational elements that encouraged sustainable tourism practices. These findings suggest that gamification can be a powerful tool not only for enhancing customer experiences but also for driving positive environmental and social outcomes [16].

Despite its many benefits, the implementation of gamification in marketing and other domains comes with challenges. One of the primary concerns is the ethical implications of gamification. Thorpe and Roper (2017) argue that while gamification can enhance customer engagement, it may also manipulate consumer behavior in ways that raise ethical questions. For example, the use of rewards and competition may exploit consumers' psychological vulnerabilities, leading to overconsumption or unhealthy engagement patterns. Marketers must be mindful of these ethical considerations when designing gamified

experiences to ensure that they do not harm consumers or society [17]. Another challenge lies in the technical implementation of gamified systems. Designing effective gamified experiences requires a deep understanding of both the target audience and the technical capabilities of the platform. As noted by Morschheuser et al. (2018), the design of gamified software must be approached systematically, taking into account factors such as user motivation, game mechanics, and the overall user experience. Failure to align these elements can result in a gamified system that feels forced or unengaging, ultimately undermining the brand's efforts to build stronger customer relationships [18].

In conclusion, gamification presents a powerful tool for brands to engage with consumers in more interactive, enjoyable, and meaningful ways. Its ability to tap into consumers' psychological drivers, foster loyalty, and promote sustainability makes it a valuable addition to any modern marketing strategy. However, as with any tool, it must be used thoughtfully and ethically to avoid negative consequences. As research continues to evolve, the potential of gamification in marketing, sustainability, and consumer engagement will only continue to grow, offering exciting opportunities for brands to innovate and connect with their audiences on a deeper level. This study aims to explore these evolving trends in gamification and their application in digital marketing, focusing on how gamification strategies can be structured to enhance consumer engagement and drive sustainable brand growth.

2. Methodology

This study adopted a mixed-method approach with a focus on Interpretive Structural Modeling (ISM) to develop a comprehensive gamification model for digital marketing. The ISM method was chosen to systematically structure the relationships among key factors identified from prior research and expert input.

The study design involved qualitative and quantitative phases, beginning with exploratory interviews and followed by the application of the ISM methodology to organize the variables and their interconnections.

In terms of participants, the study targeted experts in the fields of digital marketing and gamification. These experts were selected based on their significant experience and academic background in marketing and gamification, ensuring that their input was both knowledgeable and relevant to the goals of the research. Experts with at least 10 years of professional or academic experience in these areas were invited to contribute to the ISM phase, specifically those affiliated with educational and business marketing sectors.

Data collection tools involved in-depth semi-structured interviews with the selected experts, allowing the researcher to gain insights into their perspectives on the critical success factors in digital marketing and the role of gamification. The interviews were recorded, transcribed, and coded for themes relevant to the ISM analysis. The ISM process itself was supported by the use of specialized software (such as MICMAC), which facilitated the interpretation and structuring of relationships between the variables identified from the interviews.

For data analysis, ISM was employed to create a hierarchical model, clarifying how different variables related to one another within the context of digital marketing. This model was developed through several steps: identifying the elements of gamification, establishing contextual relationships between them, and structuring these relationships into a multilevel hierarchical framework. This approach provided a clear, visual representation of how the key elements interact and influence each other. Following this, a cross-impact analysis was conducted using MICMAC software to assess the driving and dependent power of each element, further refining the model to ensure its robustness and practical relevance.

3. Findings

The demographic characteristics of the participants in the study are as follows: The sample consisted of 14 individuals, with 43% (6 individuals) being women and 57% (8 individuals) men. In terms of education level, the majority held a master's degree, accounting for 71% (10 individuals), while 29% (4 individuals) had a Ph.D. or higher qualification. Regarding work experience, 36% (5 individuals) had between 15-20 years of experience, 50% (7 individuals) had 20-25 years, and 14% (2 individuals) had more than 25 years of experience. Age-wise, the participants were evenly split between two main groups, with 43% (6 individuals) aged between 30-40 years, and another 43% (6 individuals) between 40-50 years, while the remaining 14% (2 individuals) were over 50 years old.

The first step in Interpretive Structural Modeling (ISM) is calculating the internal relationships among the indicators. To reflect the internal relationships between the indicators, expert opinions are used.

Table 1. Identified and Symbolized Variables

SSIM	Variable
C01	Customer Behavior Identification
C02	User Interaction
C03	Gamification Elements
C04	Organizational Culture
C05	Specialization
C06	Environmental Constraints
C07	Digital Space
C08	Game Design Quality
C09	Customer Experience Management
C10	Marketing Flourishment
C11	Profitability

The matrix obtained in this step shows which variables affect others and which are influenced by others. Traditionally, to identify the pattern of element relationships, symbols like those shown in Table 2 are used.

Table 2. States and Symbols Used to Represent Relationships Between Research Indicators

Symbol	Description
V	I influences J
A	J influences I
X	Mutual Relationship
O	No Relationship

The Structural Self-Interaction Matrix (SSIM) is formed from the dimensions and indicators of the study and compares them using the four states of conceptual relationships. The gathered information is summarized based on the ISM method, and the final SSIM is formed. According to the symbols indicated in Table 2, the SSIM is shown in Table 3.

Table 3. Initial SSIM Matrix

SSIM	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10	C11
C01		X	X	V	V	V	V	V	V	V	V
C02			X	V	V	V	V	V	V	V	V
C03				V	V	V	V	V	V	V	V
C04					X	V	V	V	V	V	V
C05						V	V	V	V	V	V
C06							X	V	V	V	V
C07								V	V	V	V
C08									X	V	V
C09										V	V
C10											X
C11											

The initial reachability matrix is obtained by converting the SSIM into a binary matrix of zeros and ones. In this matrix, the diagonal elements are set to one. Therefore, the reachability matrix for the ISM technique is presented in Table 4.

Table 4. Reachability Matrix for Identified Indicators

SSIM	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10	C11
C01		1	1	1	1	1	1	1	1	1	1
C02	1		1	1	1	1	1	1	1	1	1
C03	1	1		1	1	1	1	1	1	1	1
C04	0	0	0		1	1	1	1	1	1	1

C05	0	0	0	1		1	1	1	1	1	1
C06	0	0	0	0	0		1	1	1	1	1
C07	0	0	0	0	0	1		1	1	1	1
C08	0	0	0	0	0	0	0		1	1	1
C09	0	0	0	0	0	0	0	1		1	1
C10	0	0	0	0	0	0	0	0	0		1
C11	0	0	0	0	0	0	0	0	0	1	

After obtaining the initial reachability matrix, by incorporating transitivity in the variable relationships, the final reachability matrix is formed. This is a square matrix where each element indicates whether an element is accessible to another over any length (represented by 1) or not (represented by 0). The method for obtaining the final reachability matrix is based on Euler's theorem, where the adjacency matrix is added to the identity matrix. This matrix is then raised to the power of n until no changes occur in the matrix's elements.

Thus, to ensure accuracy, secondary relationships must be controlled. This means that if A leads to B and B leads to C, then A must lead to C. If secondary effects are expected but not observed in practice, the table must be corrected to show these secondary relationships. The final reachability matrix for the knowledge management indicators is presented in Table 5.

Table 5. Final Reachability Matrix for Indicators

	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10	C11
C01	0	1	1	1	1	1	1	1	1	1	1
C02	1	0	1	1	1	1	1	1	1	1	1
C03	1	0	0	1	1	1	1	1	1	1	1
C04	0	0	0	0	1	1	1	1	1	1	1
C05	0	0	0	1	0	1	1	1	1	1	1
C06	0	0	0	0	0	0	1	1	1	1	1
C07	0	0	0	0	0	1	0	1	1	1	1
C08	0	0	0	0	0	0	0	0	1	1	1
C09	0	0	0	0	0	0	0	1	0	1	1
C10	0	0	0	0	0	0	0	0	0	0	1
C11	0	0	0	0	0	0	0	0	0	0	0

To determine the relationships and ranking of the criteria, the output set and input set for each criterion must be extracted from the reachability matrix.

The reachability set (row elements, output, or effects) refers to the variables that can be reached through this variable.

The antecedent set (column elements, input, or influences) refers to the variables through which this variable can be reached.

The output set includes the criterion itself and the criteria that are influenced by it. The input set includes the criterion itself and the criteria that influence it. Then, the mutual relationships between the criteria are identified.

Table 6. Input (Influences) and Output (Effects) for Each Variable and Their Intersection

Variable	Input (Influences)	Output (Effects)	Intersection
C01	C1-C2-C3	C1-C2-C3-C4-C5-C6-C7-C8-C9-C10-C11	C1-C2-C3
C02	C1-C2-C3	C1-C2-C3-C4-C5-C6-C7-C8-C9-C10-C11	C1-C2-C3
C03	C1-C2-C3	C1-C2-C3-C4-C5-C6-C7-C8-C9-C10-C11	C1-C2-C3
C04	C1-C2-C3-C4-C5	C4-C5-C6-C7-C8-C9-C10-C11	C4-C5
C05	C1-C2-C3-C4-C5	C4-C5-C6-C7-C8-C9-C10-C11	C4-C5
C06	C1-C2-C3-C4-C5-C6-C7	C6-C7-C8-C9-C10-C11	C6-C7
C07	C1-C2-C3-C4-C5-C6-C7	C6-C7-C8-C9-C10-C11	C6-C7
C08	C1-C2-C3-C4-C5-C6-C7-C8-C9	C8-C9-C10-C11	C8-C9
C09	C1-C2-C3-C4-C5-C6-C7-C8-C9	C8-C9-C10-C11	C8-C9
C10	C1-C2-C3-C4-C5-C6-C7-C8-C9-C10-C11	C10-C11	C10-C11
C11	C1-C2-C3-C4-C5-C6-C7-C8-C9-C10-C11	C10-C11	C10-C11

For variable C_i, the reachability set (output or effects) includes the variables that can be reached through variable C_i. The antecedent set (input or influences) includes the variables that influence variable C_i.

Table 7. Input and Output Sets for Each Variable

Row	Variable	Row Count	Column Count
1	Customer Behavior Identification	11	3
2	User Interaction	11	3
3	Gamification Elements	11	3
4	Organizational Culture	8	5
5	Specialization	8	8
6	Environmental Constraints	6	7
7	Digital Space	6	7
8	Game Design Quality	4	9
9	Customer Experience Management	4	9
10	Marketing Flourishment	2	11
11	Profitability	2	11

After determining the reachability and antecedent sets, the intersection of both sets is calculated. The first variable where the intersection of the two sets equals the reachability set (output) will be ranked at the first level. Therefore, the variables at the first level will have the most influence in the model. After determining the level, the criterion whose level is identified will be removed from all sets, and the input and output sets are formed again to determine the level of the next variable.

Table 8. Determining the First Level in the ISM Hierarchy

SSIM	Variable	Level
C01	Customer Behavior Identification	5
C02	User Interaction	5
C03	Gamification Elements	5
C04	Organizational Culture	4
C05	Specialization	4
C06	Environmental Constraints	3
C07	Digital Space	3
C08	Game Design Quality	2
C09	Customer Experience Management	2
C10	Marketing Flourishment	1
C11	Profitability	1

Thus, variables C10 and C11 are the first-level variables. After identifying the first-level variables, they are removed, and the input and output sets are recalculated without considering the first-level variables. The shared set is identified, and variables with a shared set equal to the input set are selected as the second-level variables.

Variables C8 and C9 are second-level variables.

Variables C6 and C7 are third-level variables.

Variables C4 and C5 are fourth-level variables.

The final pattern of the identified variable levels is shown in the diagram. In Figure 1, only the meaningful relationships between elements at each level and those in the

subsequent lower level, as well as significant internal relationships between elements at each level, are considered.

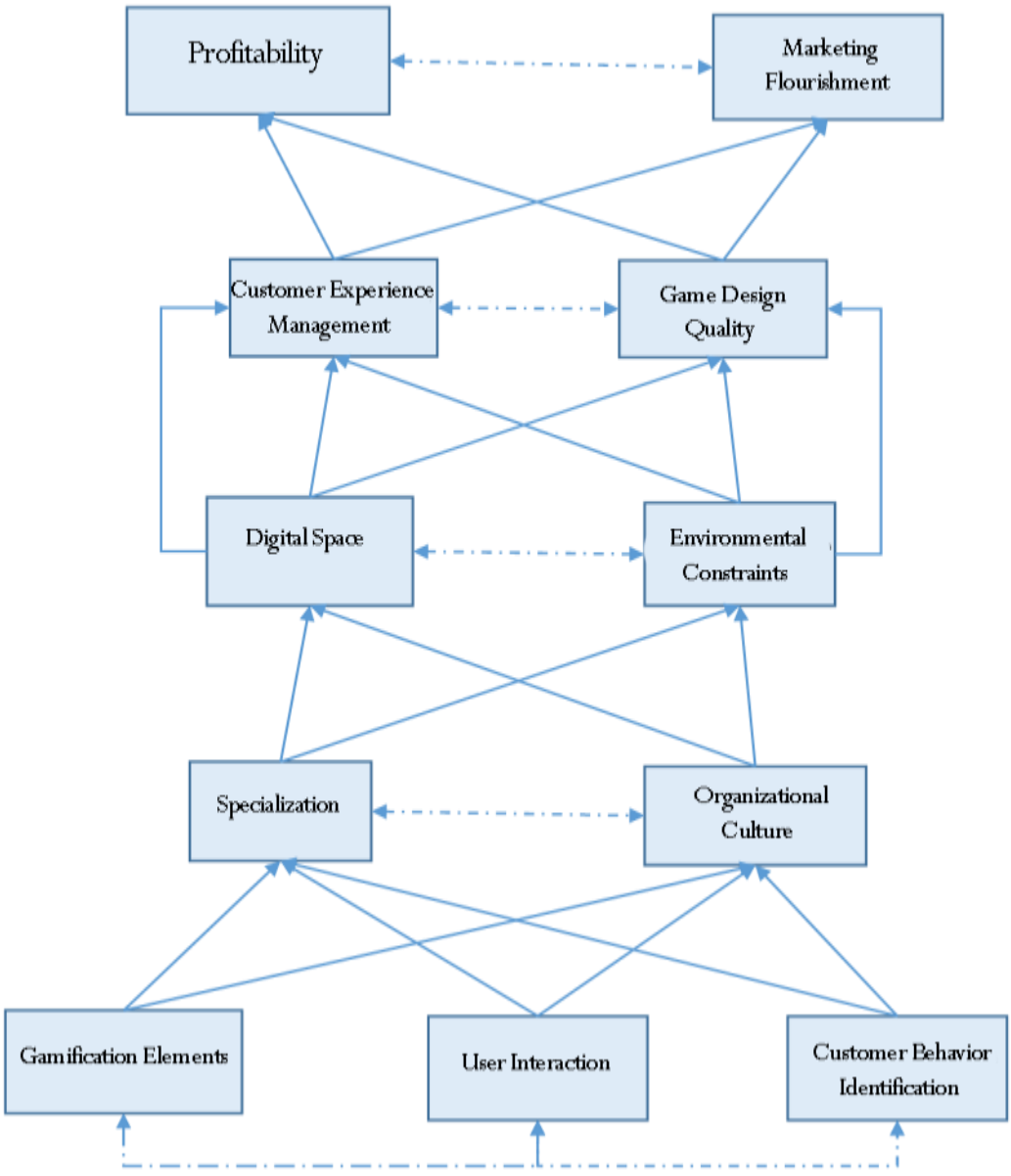

Figure 1. The Base Model Developed Using the ISM Method

In the ISM model, the mutual relationships and influences among the criteria and the connections between criteria at different levels are clearly demonstrated, which helps managers better understand the decision-making space. To determine the key criteria, the influence and dependence powers of the criteria are formed in the final reachability matrix. The power-dependence diagram for the studied variables is shown in Figure 2.

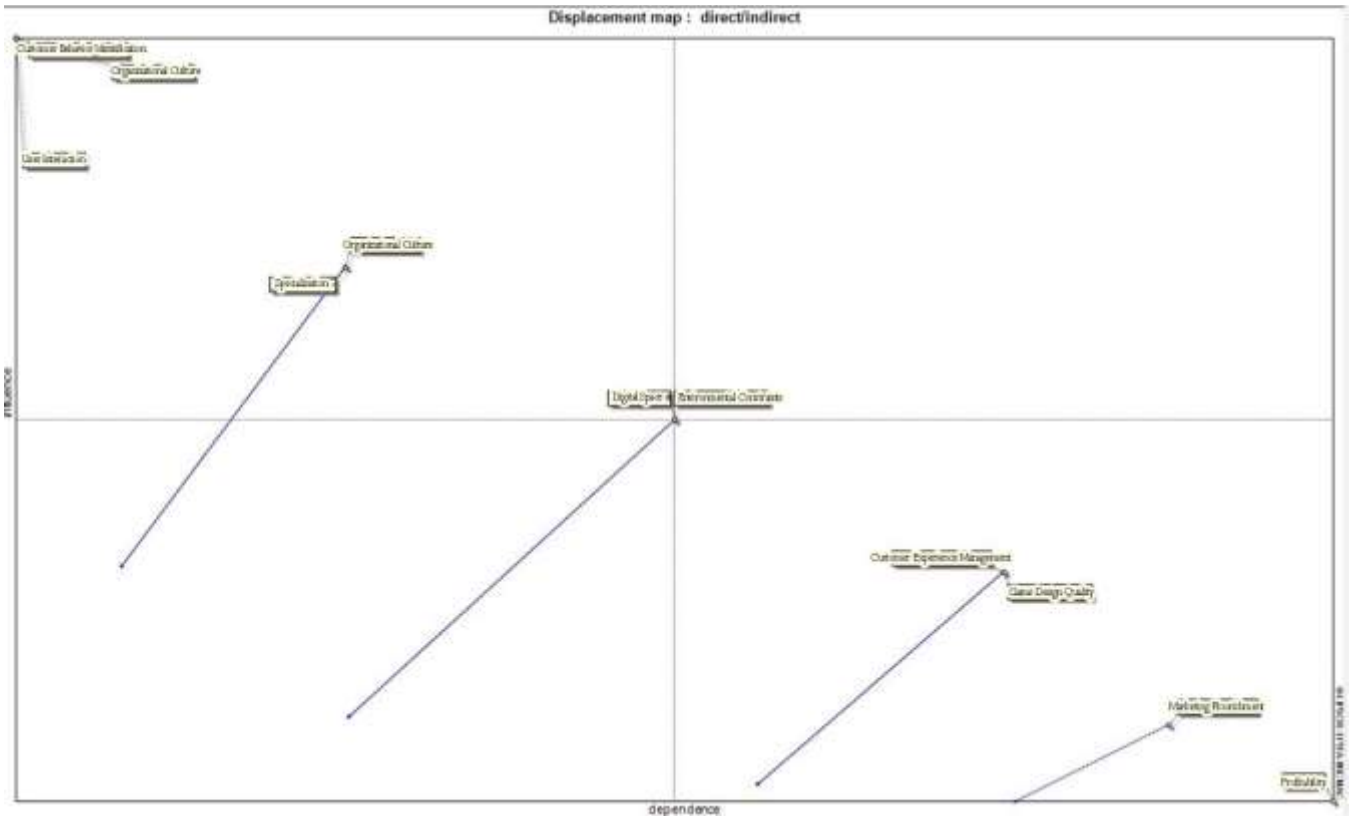

Figure 2. Influence Power and Dependence Diagram (MICMAC Output)

Based on the influence and dependence of the variables, a coordinate system can be defined and divided into four equal parts. In this study, a group of variables fell into the driver category, characterized by high influence power and low dependence. Another group, called the dependent variables, are the result of the product development process and are less likely to drive other variables.

In this analysis, the variables are divided into four groups: autonomous, dependent, linkage, and independent.

Autonomous: Autonomous variables have low dependence and low driving power. These criteria are generally detached from the system as they have weak connections with the system. A change in these variables does not significantly affect the system.

Dependent: Dependent variables have high dependence and low driving power. These variables are highly influenced by the system but have little influence on the system. Variables C8, C9, C10, and C11 are dependent.

Independent: Independent variables have low dependence and high driving power, meaning they have a high impact and are less influenced by other variables. According to the influence-dependence diagram, variables C1, C2, and C3 have high influence power and low dependence and are categorized as independent variables.

Linkage: Linkage variables have high dependence and high driving power, meaning they both influence and are influenced by other criteria significantly. Any small change in these variables causes substantial changes in the system. Variables C4, C5, C6, and C7 are linkage variables.

4. Discussion and Conclusion

This study aimed to investigate the effectiveness of gamification elements in enhancing customer engagement, brand loyalty, and user satisfaction within the context of digital marketing. The results demonstrate that gamification plays a significant role in increasing customer interaction, fostering deeper relationships with brands, and promoting sustainable behaviors among consumers. These findings are in line with previous research on the impact of gamification in marketing and consumer engagement [6, 19]. The study also revealed the importance of designing gamified experiences that align with the consumers' psychological motivations and preferences, further supporting the view that gamification can create a more engaging and rewarding customer experience [11].

The analysis of consumer behavior in response to gamified marketing efforts indicated that customers are more likely to engage with a brand when the experience is

interactive and personalized. This is consistent with the findings of Canio et al. (2021), who noted that mobile apps utilizing gamification elements, such as rewards and challenges, resulted in higher levels of customer satisfaction and loyalty [9]. Moreover, the study found that users are more inclined to participate in gamified marketing campaigns when they perceive the activities as enjoyable and meaningful, echoing the conclusions of Ghosh et al. (2022), who highlighted the persuasive power of gamified advertising in shaping consumer attitudes toward brands [12].

One of the key findings of this study is the role of gamification in promoting sustainable consumer behavior. The results suggest that gamification can be a powerful tool in encouraging eco-friendly practices, such as recycling, reducing waste, and supporting sustainable products. This aligns with Berger's (2019) research on social norm-based gamification, which showed that gamified interventions could significantly influence consumers to make more environmentally conscious decisions. Similarly, Alves et al. (2023) demonstrated the effectiveness of an eco-gamification platform in promoting sustainable practices within the textile and clothing industries. These findings underscore the potential of gamification as a tool for fostering not only consumer engagement but also positive societal outcomes.

Another important aspect revealed in this study is the psychological impact of gamification on consumer behavior. The results showed that consumers tend to form stronger emotional connections with brands that incorporate gamified experiences, which is consistent with the findings of Huotari and Hamari (2016), who emphasized the emotional engagement fostered by gamification [1]. The use of rewards, badges, and leaderboards in this study was found to trigger consumers' intrinsic motivations, leading to a more enjoyable and satisfying brand experience. This is in line with Behl et al. (2023), who pointed out that gamification taps into the brain's reward system, creating a pleasurable experience that encourages continued engagement with the brand [11].

Moreover, the findings of this study contribute to the ongoing discourse on the effectiveness of gamification in enhancing customer loyalty. Brands that implemented gamified marketing strategies reported higher levels of customer retention and loyalty, as gamified experiences foster a sense of accomplishment and ownership among consumers. This supports the work of Harwood and Garry (2015), who argued that gamification can create a lasting impact on consumer behavior by turning brand interactions into meaningful experiences [19]. Additionally, Bauer et al. (2020) found that non-monetary incentives in gamified shopping experiences led to increased customer satisfaction and loyalty, further validating the results of this study [5].

The integration of gamification in digital marketing also contributes to the creation of community among consumers, as highlighted by this study. The results show that gamified platforms encourage users to participate in shared activities, fostering a sense of belonging and loyalty to the brand. This finding is supported by Bousba and Arya (2022), who emphasized the role of gamified interactions in building affective brand engagement through community participation [13]. In this study, consumers who engaged in gamified experiences were more likely to advocate for the brand, both online and offline, which aligns with the work of Berger (2019), who demonstrated that gamified social interventions could lead to increased word-of-mouth advocacy [14].

However, while the results of this study highlight the numerous benefits of gamification in digital marketing, they also underscore the need for thoughtful and ethical implementation. The study found that poorly designed gamified experiences, or those that were perceived as manipulative, had the opposite effect, leading to decreased consumer satisfaction and trust. This is consistent with the findings of Thorpe and Roper (2017), who discussed the ethical concerns surrounding the use of gamification in marketing, particularly the potential for exploiting consumer psychology for commercial gain. As such, it is crucial for marketers to design gamified experiences that prioritize consumer well-being and avoid manipulation [17].

The potential of gamification to enhance customer experience, as indicated by this study, also depends on the technical execution of the gamified elements. The findings suggest that consumers are more likely to engage with gamified experiences that are seamless, intuitive, and well-integrated into the brand's digital platform. This supports the research of Morschheuser et al. (2018), who emphasized the importance of a systematic approach to gamification design to ensure a smooth and engaging user experience [18]. Furthermore, Bauer et al. (2020) highlighted that the success of gamified marketing strategies is contingent on the alignment of game mechanics with the overall brand experience [5].

In terms of sustainability, the study's findings further confirm that gamification can be an effective tool for promoting eco-friendly behaviors among consumers. By

providing rewards and recognition for sustainable actions, such as reducing waste or choosing eco-friendly products, gamified platforms can encourage consumers to adopt more responsible consumption habits. This finding echoes the conclusions of Alves et al. (2023), who demonstrated that gamification could drive positive environmental outcomes in the textile and clothing industries [15]. Similarly, Mulcahy et al. (2021) found that gamified interventions could effectively influence consumer behavior towards more sustainable practices, reinforcing the potential of gamification as a tool for promoting social and environmental responsibility [6].

Overall, the results of this study contribute to the growing body of research on the impact of gamification in digital marketing. The findings highlight the potential of gamification to enhance customer engagement, foster brand loyalty, and promote sustainable consumer behaviors. However, the study also underscores the importance of thoughtful design and ethical considerations when implementing gamified experiences, as poorly designed or manipulative gamification strategies can undermine consumer trust and satisfaction.

While this study provides valuable insights into the role of gamification in digital marketing, it is not without its limitations. One of the primary limitations is the scope of the study, which focused primarily on digital marketing platforms. As such, the findings may not be generalizable to other contexts, such as offline marketing or traditional advertising methods. Additionally, the study relied on self-reported data from consumers, which may be subject to biases such as social desirability or recall bias. Future studies could address these limitations by incorporating a broader range of marketing contexts and utilizing more objective measures of consumer engagement and satisfaction.

Another limitation of this study is the relatively small sample size, which may limit the generalizability of the findings. While the sample was diverse in terms of demographics and behaviors, a larger sample size would provide a more comprehensive understanding of how different consumer segments respond to gamified marketing strategies. Furthermore, the study did not explore the long-term effects of gamification on customer loyalty and engagement. Future research should consider longitudinal studies to assess whether the positive effects of gamification are sustained over time.

Finally, this study focused primarily on the positive aspects of gamification, without thoroughly exploring the potential negative consequences. While some ethical concerns were raised, the study did not delve deeply into the darker side of gamification, such as the potential for addiction or manipulation. Future research should take a more nuanced approach to understanding both the positive and negative impacts of gamification on consumer behavior.

Future research on gamification in digital marketing could benefit from exploring several areas that were not covered in this study. First, researchers should investigate the long-term effects of gamified marketing campaigns on customer loyalty and engagement. While this study demonstrated the short-term benefits of gamification, it remains unclear whether these effects are sustainable over time. Longitudinal studies could provide valuable insights into the lasting impact of gamification on consumer behavior.

Additionally, future studies should explore the role of personalization in gamified marketing strategies. While this study touched on the importance of aligning gamified experiences with consumer motivations, further research could examine how personalized gamification elements, such as customized rewards or challenges, affect consumer engagement and satisfaction. Understanding the interplay between personalization and gamification could help marketers design more effective and targeted campaigns.

Lastly, future research could explore the potential of emerging technologies, such as augmented reality (AR) and virtual reality (VR), in enhancing gamified marketing experiences. These technologies offer new opportunities for creating immersive and interactive experiences that could further engage consumers and strengthen brand loyalty. Investigating how AR and VR can be integrated into gamified marketing strategies could open up new avenues for innovation in the field.

For practitioners, the findings of this study offer several actionable insights. First, marketers should prioritize the design of gamified experiences that align with the psychological motivations of their target audience. By tapping into consumers' intrinsic motivations, such as the desire for achievement or competition, brands can create more engaging and satisfying experiences that foster loyalty and advocacy.

Second, it is crucial for marketers to consider the ethical implications of their gamified strategies. While gamification can be a powerful tool for driving consumer engagement, it is important to ensure that the experience does not manipulate or exploit consumers. Brands should aim to create gamified experiences that are enjoyable and

rewarding without causing harm or undue pressure on the consumer.

Finally, brands should invest in the technical execution of their gamified marketing strategies. A seamless and intuitive user experience is essential for the success of gamification, as consumers are more likely to engage with platforms that are easy to use and navigate. By focusing on the user experience, brands can maximize the effectiveness of their gamified campaigns and build stronger relationships with their customers.

Authors' Contributions

Authors equally contributed to this article.

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Declaration of Interest

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Ethical Considerations

All procedures performed in this study were under the ethical standards.

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