

Gamification in Digital Marketing: Proposing a Theoretical Framework Based on Uses and Gratifications Theory

BIMTECH Business Perspectives
5(1) 9–25, 2024
© 2024 Birla Institute of Management
Technology
DOI: 10.1177/25819542241246884
bsp.bimtech.ac.in



Shelleka Gupta¹, Ronnie Dutt¹ , Antra Sharma¹
and Bonia Sharma¹

Abstract

Gamification is one of the most popular and exciting digital marketing tools. The use of gaming aspects in sectors other than gaming is called 'Gamification'. Several well-known companies like Nike, MakeMyTrip, Amazon, Paytm, Zomato, One Plus and Flipkart use this innovative marketing tool to share their informational and entertaining marketing content with potential consumers. Using gamified content, brands tap into their consumers' competitive nature and accelerate their engagement by rewarding them with discount coupons and other shopping benefits. Hence, owing to the amplified popularity and increased usage of gamification in marketing, this review article deliberates in detail about gamification as a digital marketing tool. The article proposes a theoretical framework based on the theory of uses and gratifications in the gamification context. Additionally, it also highlights the several positive outcomes marketers can enjoy using gamification in their digital marketing campaigns. Implications and future research agendas are also discussed.

Keywords

Gamification, digital marketing, positive outcomes, uses and gratifications theory, theoretical framework

¹ The Business School, University of Jammu, J&K, India

Corresponding author:

Ronnie Dutt, The Business School, University of Jammu, J&K 180006, India.

E-mail: ronnie.dutt@jammuuniversity.ac.in



Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (<http://www.creativecommons.org/licenses/by-nc/4.0/>) which permits non-Commercial use, reproduction and distribution of the work without further permission provided the original work is attributed.

Introduction

The recent advancements in digital technologies have prompted business houses to utilise cutting-edge digital marketing techniques such as augmented reality, virtual reality and mixed reality to endorse their products and services (Dunakhe & Panse, 2022). In this vein, gamification is an emerging prominent tool that has taken the digital marketing world by storm (Mishra & Malhotra, 2021; Sharma et al., 2024). ‘Gamification’ refers to the use of gaming elements in the non-gaming business (Li et al., 2023). The various gaming elements include awards, point systems, medals, levels, quests, voting, ranking, betting, roles and virtual goods and avatars (Hewapathirana & Caldera, 2023; Pedreira et al., 2015; Seaborn & Fels, 2015). Gamification particularly utilises game design principles to create digital content and disseminate it via digital platforms such as websites, apps, emails and social media (Cook, 2023; Hwang & Choi, 2020). Famous brands like Nike, Starbucks, KFC, McDonalds, Goibibo, MakeMyTrip and Coca-Cola have launched fantastic gamification campaigns that have done tremendously well in keeping people engaged. According to Mordor Intelligence (2024), the global gamification revenue, which stands at USD 15.43 billion in 2024, is expected to grow to USD 48.72 billion by 2029. These financial figures are a testament to the fact that gamification is being practiced by marketers worldwide and is here to stay.

The impeccable performance and delivery of captivating results have positioned gamification as a crucial topic of scholarly interest. Many research studies have investigated its impact on noteworthy industries, such as education (Oliveira et al., 2023; Panigrahi et al., 2018; Skritsovali, 2023), health (Alahäivälä & Oinas-Kukkonen, 2016; Al-Rayes et al., 2022; Gajardo Sánchez et al., 2023), finance (Khan et al., 2023; Lai & Langley, 2023), tourism (Elgarhy et al., 2024; Moro et al., 2019; Pradhan et al., 2023; Yılmaz & Coşkun, 2016), crowdsourcing (Lin & Ding, 2023; Molasy et al., 2023; Morschheuser et al., 2017), marketing and advertising (Behl et al., 2023; Hewapathirana & Caldera, 2023; Xi & Hamari, 2019), and services (Ciuchita et al., 2023; Huotari & Hamari, 2012; Weber et al., 2024). These studies indicate that gamification has a ubiquitous presence across varied sectors. However, the present article elaborates on gamification from the viewpoint of marketing. The pervasiveness of cell phones, digital media and the internet has created a foundation for gamification in marketing (Hsu & Chen, 2018). It has become an enticing marketing tool for brands since it prompts customers to come back to their products or services (Charry et al., 2023; Yılmaz & Coşkun, 2016). Notably, gamification in marketing attempts to induce consumers to buy instead of other gamified contexts that try to modify people’s behaviour (Bousba & Arya, 2022; Thorpe & Roper, 2019). The reason for the phenomenal success of gamification in marketing lies in its ability to satisfy the most fundamental human desires: recognition and reward, status, accomplishment, competitiveness and collaboration, self-articulation and altruism (Koivisto & Hamari, 2019). Consumers have an insatiable appetite for these desires both in real life and over the internet (Eisingerich et al., 2019; Jang et al., 2018). Gamification certainly takes advantage of this and gives them what they want.

Over the years, research pertaining to gamification in marketing has bloomed at an exponential pace. However, there are specific research gaps that need to be addressed. First, Abou-Shouk and Soliman (2021) stated that there is a dire need to explore gamification and its relation to multiple theories and constructs. Second, Noorbehbahani et al. (2019) mentioned that additional research in the gamification domain is still needed to establish its acceptance as an excellent marketing tool for the future. Lastly, an in-depth review of the existing literature revealed that there is a dearth of research studies that explain the consumption of gamified content on digital platforms (Sharma et al., 2024; Zhang et al., 2021). Hence, to fill these gaps, the present study uniquely contributes in multi-fold ways: (a) it proposes a theoretical framework based on uses and gratification theory that elucidates the motivations behind the consumption of gamified content on digital platforms; (b) it jolts down the various positive outcomes of implementing gamification in marketing campaigns; and (c) it suggests future research avenues in the context of gamification.

Objectives of the Study

The research objectives of the study are:

1. To propose a theoretical framework based on the uses and gratification theory that explains the consumption of gamified content in the digital marketing context.
2. To list the positive outcomes marketers can enjoy by opting for gamification in digital marketing campaigns.
3. To put forth future research areas that can be explored to advance the literature related to gamification.

Research Methodology

To attain the stated objectives, the current study performs an extensive literature review. Moreover, to articulate the review process, the study follows a well-established methodology proposed by Jabareen (2009). The proposed methodology has proven to be instrumental in developing theoretical frameworks across multi-disciplinary research studies (Basu et al., 2019; Ringelstein & Patel, 2023; Van Der Waladt, 2020) and, hence, is deemed appropriate. The methodology includes various phases that are customised to match the requirements of the present study. The different methodological phases are explained as follows:

Phase I: Data Collection

The review process commenced with the selection of pertinent existing literature that aids in achieving the research objectives. The terms for the literature search

were related to ‘Gamification’ and ‘Marketing’. Specifically, peer-reviewed journal articles indexed in prominent databases such as Scopus, Web of Science, EBSCO, ProQuest, ACM Digital Library and Google Scholar were considered for the study. Furthermore, grey literature such as web articles and working papers was also retrieved to augment the review.

Phase 2: Extensive Reading and Shortlisting of Journal Articles

After collecting the journal articles from selected databases, extensive reading sessions were held to shortlist the articles for the study. These sessions enabled the authors to assess the suitability of each article for the review. Consequently, only those articles having the potential to meet the research objectives were shortlisted.

Phase 3: Analysis and Synthesis of Journal Articles

The shortlisted articles were then analysed based on the research objectives. The authors here adopted a deductive approach to conduct the review. As a result, the review attributed to the synthesis of the proposed theoretical framework based on uses and gratifications theory. The review also revealed favourable outcomes and future research avenues related to gamification.

Phase 4: Reporting of Results

The last step involved the reporting of results in different sections framed in accordance with the research objectives of the study.

Concept of Gamification

Gamification has emerged as one of the most anticipated and appealing trends in digital marketing (Stylos & Vassiliadis, 2023; Zhang et al., 2021). The strength of ‘gamification’ resides in revamping services and systems to replicate game-like experiences, leading people to be involved in a specific behaviour (Behl et al., 2023; Hamari et al., 2014). The concept of gamification is an equitable blend of utilitarian and hedonic information systems (Koivisto & Hamari, 2019), which cements its position as a promising futuristic marketing tool. Utilitarian information systems are designed to improve the efficiency of a given work and serve informational needs (Van Der Heijden, 2004). In contrast, hedonic information systems are designed to offer enjoyable experiences and are used for recreation, amusement and the delight of utilising the system itself (Ryan & Deci, 2000). Gamification represents an astonishing combination of both information systems, that is, it tends to increase productivity through entertainment-driven tasks and delivers the information to the desired audience by creating fun experiences,

ultimately facilitating engagement and sales (Charry et al., 2023; Hamari & Koivisto, 2015).

The term 'gamification' was first coined in a research article in 2010 and was defined as 'the use of game mechanics and dynamics in computer systems to alter user behaviour' (Morillas Barrio et al., 2016). Since its conceptualisation, gamification has grabbed the attention of academics and practitioners and has been elucidated by eminent scholars across different contexts. Vesa et al. (2017) and Deterding et al. (2011) defined gamification as 'a method of design that improves systems and services by offering chances for experiences that are inspired by games'. Kapp (2012) mentioned that gamification involves 'using game-based mechanics, graphics, and concepts to captivate audiences, motivate action, foster education, and solve issues'. From the standpoint of the service industry, Huotari and Hamari (2012) described gamification as 'a process of upgrading a service with opportunities for gameful experiences to increase value generation'. With gamified websites into focus, Raj and Gupta (2018) proposed gamification as 'a marketing technique used to enhance a website's visual appeal and design and raise customer engagement with the website and the businesses it is linked to'. Zichermann and Linder (2010) defined gamification as 'the art and science of converting routine interactions with clients into games that achieve your company objectives'. The synthesis of these definitions depicts that gamification is a universal marketing tool aiming to deliver a gameful experience to consumers along with informational and entertainment value. It holds the power to enhance the service experience, resulting in satisfied consumers for the business houses.

Explaining Gamification in Digital Marketing: A Uses and Gratifications Perspective

With the growing interest in gamification, academicians and practitioners delved deep into this field and investigated it through the lens of multiple theories. These theories belonged to various disciplines, such as psychology, sociology and consumer behaviour. Utilising these theories, scholars developed theoretical frameworks, conducted empirical and qualitative studies and thus advanced the literature related to gamification. Some of the prominent theories that have been applied in the context of gamification include Self-Determination Theory (Seaborn & Fels, 2015), Maslow's Need Hierarchy Theory (Kim, 2013; Lin & Zhu, 2012), Flow Theory (Hamari & Koivisto, 2014), Cognitive Evaluation Theory and Psychological Need Theory (Bostan & Catak, 2016) and Satisfaction Theory (Hamari & Keronen, 2017). However, the contemporary study by Abou-Shouk and Soliman (2021) professed that there is still a need to further explore gamification and its relation to novel theories and dimensions. Also, after a deep review of the literature, it has been observed that there is a paucity of research studies that explain the consumption of gamified content on digital platforms (Sharma et al., 2024; Zhang et al., 2021). Hence, to fill these gaps, the present study adopts the 'uses and gratifications theory' as a base to propose a

theoretical framework disclosing the major motivations that drive consumers to consume gamified content on digital platforms.

The uses and gratifications theory (U&G) states that individuals actively choose media to meet specific needs and desires (Katz et al., 1973). It emphasises that people select media content that aligns with their interests and fulfils their diverse needs, including information, entertainment, social integration, or personal identity (Rubin, 1994; Ruggiero, 2000). This theory recognises that each person's psychological and social differences influence their media choices and how they engage with content (Alhabash & Ma, 2017; Falgoust et al., 2022). It also underlines that the more a media source satisfies an individual's needs, the more likely they will continue using it (Kircaburun et al., 2020; Phua et al., 2017). This perspective accounts for the active role of audiences in selecting, interpreting and interacting with media, offering insights into why and how people engage with different forms of media. In this line, by applying U&G theory in the gamification context, the present study answers why consumers consume and engage with gamified content on digital platforms. Moreover, as gamified content is an amalgamation of digital content and gaming elements, U&G studies related to digital content platforms, formats and online games were thoroughly reviewed while developing the theoretical framework (see Table 1).

The U&G studies (see Table 1) demonstrate that consumers have multifold motives to engage with digital content platforms, formats and online games. Hence, based on the deductive review method, our study proposes a theoretical framework guided by the uses and gratifications theory. The proposed framework coherently describes why consumers interact with gamified content on digital platforms such as social media, the company's website, online brand communities, vlog channels and blog pages. The theoretical framework elaborates on six pioneer motivations to consume and engage with gamified content: *Information-seeking*, *Entertainment*, *Achievement*, *Novelty-seeking*, *Social Interaction* and *Competition* (see Figure 1). Following is a detailed explanation of the six major motivations identified under U&G theory:

Information-seeking: In the context of gamification, 'information-seeking' refers to the process by which consumers actively look for knowledge in a gamified setting to accomplish their objectives, deepen their understanding and perform better (Arya et al., 2023; Panigrahi et al., 2018). It is a theoretical construct for understanding how consumers interact with information in gamified systems and incorporates elements from cognitive psychology, information science and game design (Arness & Ollis, 2023; Sharma et al., 2024). Information-seeking behaviour can take many different forms in gamification, including missions and quests, in-game resources, tutorials and manuals and feedback.

Entertainment: 'Entertainment' in gamification refers to the enjoyment, pleasure and satisfaction that consumers experience in a gamified environment (Arya et al., 2023; Li et al., 2015). This construct dwells on features like comedy, surprise and excitement (Chan-Olmsted & Wang, 2022), which improve emotional interactions and make gamified activities more appealing. By infusing entertainment elements

Table 1. Summarisation of U&G Studies.

Research Study	Context	Motivations for Content Consumption
Sherry et al. (2006)	Online games	Arousal, competition, challenge, diversion, fantasy and social interaction.
Wu et al. (2010)	Online games	Enjoyment, achievement and social interaction.
Yee et al. (2012)	Online games	Immersion, achievement and social interaction.
Whiting & Williams (2013)	Social media	Information-seeking, communication, amusement, information sharing, leisure, convenience utility, social engagement, surveillance/knowledge of others, passing the time and opinion expression.
Li et al. (2015)	Online games	Hedonic gratification (enjoyment, imagination and escape), utilitarian gratification (success) and social gratification (social engagement and social involvement).
Saridakis et al. (2016)	Social media	Information, personal identity, social interaction, entertainment, integration and empowerment.
Khan (2017)	YouTube	Entertainment, social interaction and information-seeking.
Hollebeek & Macky (2019)	Digital content platforms & formats	Functional, hedonic and authenticity.
Yoo et al. (2020)	OTT platforms	Enjoyment, social interaction, efficiency and information-seeking.
Machado et al. (2020)	Facebook and Instagram	Facebook—entertainment, rewards, social influence and information-seeking. Instagram—entertainment, social influence and rewards.
Menon (2022)	Instagram reels	Socially rewarding self-promotion, escapism, novelty, trendiness, entertainment, surveillance and recording.
Chan-Olmsted & Wang (2022)	Podcast	Information, entertainment and audio platform superiority.
Chen & Peng (2023)	Social media	Information-seeking and sharing, social interaction, escapism and relaxation, expression and exhibition and trendiness.
Arya et al. (2023)	Online games	Trendiness, novelty, entertainment, intimacy and interaction.
Arness & Ollis (2023)	Social media	Information-seeking, entertainment, surveillance, escapism, social connection and self-expression.

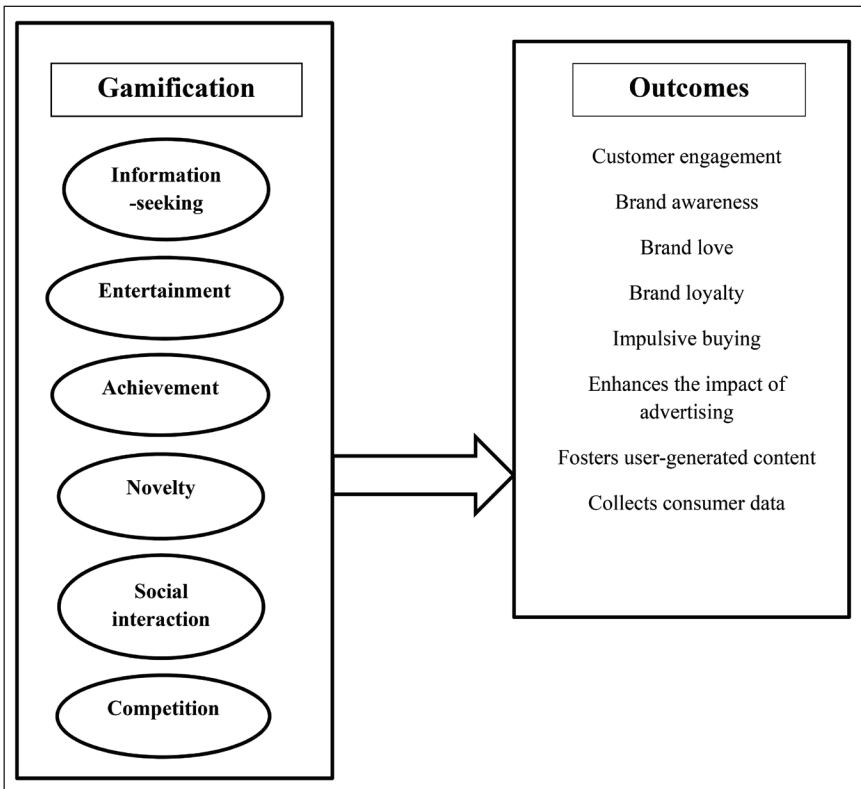


Figure 1. Proposed Theoretical Framework.

into gamified systems, marketers can build experiences that are not simply educational or utilitarian but also entertaining, intriguing and memorable (Lai & Langley, 2023; Wu et al., 2010). This helps to increase engagement, motivation and pleasure, resulting in more effective and successful gamification applications in a variety of contexts, including education, marketing, finance, healthcare and workplace productivity.

Achievement: ‘Achievement’ in the gamification environment encompasses ‘goal-setting, progress tracking, and rewards’ to inspire and involve consumers in attaining specific benchmarks or milestones inside a game (Yee et al., 2012). In gamification, achievement is a key tool for driving consumer behaviour and promoting valuable growth. It fosters a sense of progress and advancement as consumers work towards their objectives and accrue accomplishments (Li et al., 2015; Moro et al., 2019). Progression systems, such as levelling up, unlocking novel content, or gaining access to new features, give consumers a tangible depiction of their journey and encourage them to continue participating and investing in the gamified experience (Yılmaz & Coşkun, 2016).

Novelty: ‘Novelty’ in gamification denotes the incorporation of new, surprising and unique elements into a gamified system to grab attention, arouse curiosity and maintain engagement (Arya et al., 2023). In gamification, novelty is essential to boost consumers’ interest and motivation via new and interesting experiences that break away from monotony and repetition (Menon, 2022; Sherry et al., 2006). Novelty can be accomplished by using distinctive themes, locations and narratives that set a particular gamified system apart from others and yield an immersive experience.

Social Interaction: ‘Social interaction’ in gamification highlights the social qualities of a gamified system that allow for communication, cooperation, competitiveness and community development (Arya et al., 2023; Wu et al., 2010). Gamification platforms frequently include social networking features that enable consumers to communicate and establish relationships with others (Chen & Peng, 2023; Li et al., 2015). These features may include friend lists, messaging options and individual profiles, which enhance social interactions and help to create and manage social networks.

Competition: In the context of gamification, ‘competition’ symbolises the inclusion of competitive features and dynamics into a gamified system to imbibe a sense of challenge and accomplishment (Jaskari & Syrjälä, 2023; Sherry et al., 2006). In gamification, competition benefits from the innate human need for comparison and motivates consumers to strive for perfection, improve their skills and achieve their tasks (Xi & Hamari, 2019). Gamified systems regularly award victory badges, trophies, or accolades to consumers who exhibit excellent performance or proficiency in certain tasks or activities (Li et al., 2023). These prizes act as indicators of accomplishment and status, encouraging them to compete with one another and seek recognition and prestige.

This comprehensive description aptly demonstrates the importance of evoking and satisfying these six motivations that excite customers to consume and engage with gamified content on digital platforms, paving the way to several positive outcomes for the brands.

Positive Outcomes of Gamification as a Tool of Digital Marketing

The various positive outcomes that gamification as a tool of digital marketing yields for the brands in the current market scenario are explained as follows:

Customer Engagement (Bousba & Arya, 2022; Charry et al., 2023; Eisingerich et al., 2019)

Gamification can be a valuable digital marketing tool for business houses trying to increase and engage their customer base. By necessitating customer involvement and interaction, gamification establishes itself as an excellent tool for increasing

customer-brand engagement on digital platforms. Contemporary research has evidenced that gamified mobile applications and websites could strengthen customers' interactivity, passion and involvement with a specific brand and enable them to effectively participate and exchange ideas with others in brand community conversations and activities.

Brand Awareness (Abou-Shouk & Soliman, 2021; Eppmann et al., 2018)

With increased customer engagement, gamification offers an impactful foundation for business houses to raise awareness among consumers across a variety of digital channels, including social media, mobile applications and brand communities. Academics and professionals in the marketing field have concluded that companies should use immersive marketing techniques like gamification to boost consumer engagement, which raises brand awareness by instigating a sense of familiarity among the target audience.

Brand Love (Hsu & Chen, 2018)

Brand love may be described as 'the level of deep inner attachment a pleased consumer feels to a specific brand'. Previous research has proved that the capability of an online game to deliver hedonic values such as fun, excitement, entertainment and pleasure often promotes a feeling of love among users. Similarly, digital gamified content makes customers feel happy and entertained, rendering them to love the brands.

Brand Loyalty (Behl et al., 2023; Hwang & Choi, 2020)

Customers' level of commitment to a specific brand, or their likelihood of repurchasing it under different circumstances, is known as 'brand loyalty'. Prior research studies have shown that gamification can substantially escalate brand loyalty among consumers owing to the higher levels of engagement and trust it generates. Moreover, it has also been found that gamified applications and websites are known to have multiplying effects on consumer brand loyalty as compared to non-gaming ones.

Impulsive Buying (Jang et al., 2018; Zhang et al., 2021)

Gamification can act as an effective means for brands to promote impulsive buying among consumers who visit their websites and social media pages on a regular basis. Prominent brands such as Nykaa, Dominos and Earth Rhythm provide limited-time offers and discount vouchers to potential customers via gamified content valid for a few minutes. Consequently, consumers immediately make purchases to grab the limited-time deal, leading to increased sales and revenue for the brands.

Enhances the Impact of Advertising (Ghosh et al., 2021; Mishra & Malhotra, 2021)

The extant literature attests to the mitigating effect of gamification on the negative consequences of traditional advertising. In-game advertisements (IGA) are often viewed as an intrusion when interrupting the normal progression of an online game. Hence, marketers must design and develop in-game advertisements with greater significance to reap their great potential and optimise profits. To achieve this goal, the cultivation of the concept of ‘advergame’ is a welcoming step. These games are intentionally designed to serve as advertisements for brands, with entertainment content resembling traditional gaming forms. Advergames combine the fun gaming element with brand knowledge and, therefore, positively engage potential consumers without any feeling of interruptive advertising.

Fosters User-generated Content (Moro et al., 2019)

Business houses can use gamification to capitalise on low-cost user-generated content (UGC) that enhances brand engagement and awareness and attracts new consumers. For instance, Duolingo, a language-learning app, mobilises gaming elements such as progress metres and coins to create user-generated content. The app rewards users with coins for achieving benchmarks and motivates them to share their accomplishments on social media. Along with publishable UGC, Duolingo invites user feedback on the overall training experience, which leads to improved app visibility and promotion.

Collects Consumer Data (Cook, 2023; Noorbehbahani et al., 2019)

Companies can leverage gamified content to persuade customers to share their personal information, making future marketing campaigns more manageable and impactful. Surveys, quizzes and polls are excellent tools for gamifying customer data collection. This is especially true when participants may win incentives like in-app badges or discounts on specific products or offerings. Brands like The Derma Co. and Snitch tacitly design their promotional campaigns using gamification to collect consumers’ demographics and contact details to dispense future marketing offers.

Implications

The present study boasts of theoretical as well as practical implications. First, the study contributes to the extant body of literature related to gamification. It proposes a theoretical framework based on the theory of uses and gratifications. The literature review depicts that consumers have diverse motivations to consume digital content on digital platforms, formats and online game portals. Based on the deductive review methodology, this study put forward a theoretical framework

incorporating six pioneer motivations: information-seeking, entertainment, achievement, novelty-seeking, social interaction and competition. These motivations define why consumers consume and engage with gamified content on various digital platforms and, therefore, can also be studied as ‘sub-constructs of gamification’ (see Figure 1). Moreover, the present study also deliberates in detail on the role of gamification in modern-day marketing and how it benefits marketers in achieving customer-centric goals, such as engagement, awareness and loyalty.

Second, the study yields valuable insights for digital marketers who embed gamification in their digital marketing strategy. The current study professes the vitality of considering the six prime motivations while designing the gamified content. Ensuring the efficient and effective satisfaction of these motivations will multiply the impact of gamified content, reaping several advantages for the customers as well as marketers. The current article also lists the various positive outcomes marketers can enjoy using gamification. These outcomes include customer engagement and awareness, increased brand love and loyalty, impulsive buying, advertising effectiveness, user-generated content creation and consumer data collection. All these favourable outcomes attest to the growing spectrum of gamification in the marketing domain.

Limitations and Future Research Agendas


The study also unveils future research agendas for academics and practitioners. First, as the study is conceptual, an empirical investigation is suggested to validate its proposed theoretical framework. Future research scholars can test the theoretical framework in relation to multiple moderators, mediators and outcomes to enrich the gamification literature. Second, the study claims to be a literature review; however, it does not employ any particular literature review technique that might be able to capitulate answers to the research questions in a more presentable manner. Hence, future research scholars can apply well-known literature review techniques such as systematic literature review, bibliometric analysis, scoping review and framework-based literature review to explore the study’s research questions. Lastly, as gamification in marketing is a recent blooming trend, it will be interesting to note the impact of artificial intelligence on its design and delivery. Furthermore, future studies can also focus on studying gamification and its innovative presence in the virtual world of the metaverse.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iDRonnie Dutt  <https://orcid.org/0000-0002-3529-9538>**References**

- Abou-Shouk, M., & Soliman, M. (2021). The impact of gamification adoption intention on brand awareness and loyalty in tourism: The mediating effect of customer engagement. *Journal of Destination Marketing & Management, 20*, 100559.
- Alahäivälä, T., & Oinas-Kukkonen, H. (2016). Understanding persuasion contexts in health gamification: A systematic analysis of gamified health behavior change support systems literature. *International Journal of Medical Informatics, 96*, 62–70.
- Alhabash, S., & Ma, M. (2017). A tale of four platforms: Motivations and uses of Facebook, Twitter, Instagram, and Snapchat among college students? *Social Media + Society, 3*(1), <https://doi.org/10.2056305117691544>.
- Al-Rayes, S., Al Yaqoub, F. A., Alfayez, A., Alsalman, D., Alanezi, F., Alyousef, S., AlNujaidi, H., Al-Saif, A. K., Attar, R., Aljabri, D., Al-Mubarak, S., Al-Juwair, M. M., Alrawiai, S., Saraireh, L., Saadah, A., Al-umran, A., & Alanzi, T. M. (2022). Gaming elements, applications, and challenges of gamification in healthcare. *Informatics in Medicine Unlocked, 31*, 100974.
- Arness, D. C., & Ollis, T. (2023). A mixed-methods study of problematic social media use, attention dysregulation, and social media use motives. *Current Psychology, 42*(28), 24379–24398.
- Arya, V., Sambyal, R., Sharma, A., & Dwivedi, Y. K. (2023). Brands are calling your AVATAR in Metaverse—A study to explore XR -based gamification marketing activities & consumer-based brand equity in virtual world. *Journal of Consumer Behaviour. <https://doi.org/10.1002/cb.2214>*
- Basu, S., S. E. Bale, C., Wehnert, T., & Topp, K. (2019). A complexity approach to defining urban energy systems. *Cities, 95*, 102358.
- Behl, A., Pereira, V., Jayawardena, N., Nigam, A., & Mangla, S. (2023). Gamification as an innovation: A tool to improve organizational marketing performance and sustainability of international firms. *International Marketing Review. <https://doi.org/10.1108/IMR-05-2022-0113>*
- Bostan, B., & Catak, G. (2016). Explorations in player motivations: Gamer profiles. In B. Bostan (Ed.), *Gamer psychology and behavior* (pp. 137–153). Springer International Publishing.
- Bousba, Y., & Arya, V. (2022). Let's connect in metaverse. brand's new destination to increase consumers' affective brand engagement & their satisfaction and advocacy. *Journal of Content Community and Communication, 15*(8), 276–293.
- Chan-Olmsted, S., & Wang, R. (2022). Understanding podcast users: Consumption motives and behaviors. *New Media & Society, 24*(3), 684–704.
- Charry, K., Poncin, I., Kullak, A., & Hollebeek, L. D. (2023). Gamification's role in fostering user engagement with healthy food-based digital content. *Psychology & Marketing. <https://doi.org/10.1002/mar.21892>*
- Chen, M., & Peng, A. Y. (2023). Why do people choose different social media platforms? Linking use motives with social media affordances and personalities. *Social Science Computer Review. <https://doi.org/10.1177/089443932111049120>*
- Ciuchita, R., Heller, J., Köcher, S., Köcher, S., Leclercq, T., Sidaoui, K., & Stead, S. (2023). It is really not a game: An integrative review of gamification for service research. *Journal of Service Research, 26*(1), 3–20.

- Cook, H. (2023). How to use gamification for digital marketing. Hurrdat Marketing. <https://hurrdatmarketing.com/digital-marketing-news/how-digital-marketers-can-use-gamification/>
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). *From game design elements to gamefulness: Defining 'gamification'*. [Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments], pp. 9–15. <https://doi.org/10.1145/2181037.2181040>
- Dunakhe, K., & Panse, C. (2022). Impact of digital marketing—A bibliometric review. *International Journal of Innovation Science*, 14(3/4), 506–518.
- Eisingerich, A. B., Marchand, A., Fritze, M. P., & Dong, L. (2019). Hook vs. hope: How to enhance customer engagement through gamification. *International Journal of Research in Marketing*, 36(2), 200–215.
- Elgarhy, S. D., Abdel Rahieem, W. M. A. N., & Abdulmawla, M. (2024). Influences of gamification on repurchase intention and intrinsic motivations in Egyptian hotels and travel agencies: The mediating role of customer engagement. *Journal of Quality Assurance in Hospitality & Tourism*, 25(2), 397–419.
- Eppmann, R., Bekk, M., & Klein, K. (2018). Gameful experience in gamification: Construction and validation of a gameful experience scale [GAMEX]. *Journal of Interactive Marketing*, 43, 98–115.
- Falgoust, G., Winterlind, E., Moon, P., Parker, A., Zinzow, H., & Chalil Madathil, K. (2022). Applying the uses and gratifications theory to identify motivational factors behind young adult's participation in viral social media challenges on TikTok. *Human Factors in Healthcare*, 2, 100014.
- Gajardo Sánchez, A. D., Murillo-Zamorano, L. R., López-Sánchez, J., & Bueno-Muñoz, C. (2023). Gamification in health care management: Systematic review of the literature and research agenda. *Sage Open*, 13(4). <https://doi.org/10.1177/21582440231218834>
- Ghosh, T., S., S., & Dwivedi, Y. K. (2021). Examining the deferred effects of gaming platform and game speed of advergames on memory, attitude, and purchase intention. *Journal of Interactive Marketing*, 55, 52–66.
- Hamari, J., & Keronen, L. (2017). Why do people play games? A meta-analysis. *International Journal of Information Management*, 37(3), 125–141.
- Hamari, J., & Koivisto, J. (2014). Measuring flow in gamification: Dispositional Flow Scale-2. *Computers in Human Behavior*, 40, 133–143.
- Hamari, J., & Koivisto, J. (2015). Why do people use gamification services? *International Journal of Information Management*, 35(4), 419–431.
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work?—A literature review of empirical studies on gamification. *2014 47th Hawaii international conference on system sciences* (pp. 3025–3034). <https://doi.org/10.1109/HICSS.2014.377>
- Hewapathirana, N. T., & Caldera, S. (2023). A conceptual review on gamification as a platform for brand engagement in the marketing context. *Sri Lanka Journal of Marketing*, 9(1), 41–55.
- Hollebeek, L. D., & Macky, K. (2019). Digital content marketing's role in fostering consumer engagement, trust, and value: Framework, fundamental propositions, and implications. *Journal of Interactive Marketing*, 45, 27–41.
- Hsu, C. -L., & Chen, M. -C. (2018). How gamification marketing activities motivate desirable consumer behaviors: Focusing on the role of brand love. *Computers in Human Behavior*, 88, 121–133.
- Huotari, K., & Hamari, J. (2012). *Defining gamification: A service marketing perspective* [Proceeding of the 16th International Academic MindTrek Conference], pp. 17–22.
- Hwang, J., & Choi, L. (2020). Having fun while receiving rewards?: Exploration of gamification in loyalty programs for consumer loyalty. *Journal of Business Research*, 106, 365–376.

- Jabareen, Y. (2009). Building a conceptual framework: Philosophy, definitions, and procedure. *International Journal of Qualitative Methods*, 8(4), 49–62.
- Jang, S., Kitchen, P. J., & Kim, J. (2018). The effects of gamified customer benefits and characteristics on behavioral engagement and purchase: Evidence from mobile exercise application uses. *Journal of Business Research*, 92, 250–259.
- Jaskari, M.-M., & Syrjälä, H. (2023). A mixed-methods study of marketing students' game-playing motivations and gamification elements. *Journal of Marketing Education*, 45(1), 38–54.
- Kapp, K. M. (2012). *The gamification of learning and instruction: Game-based methods and strategies for training and education*. Pfeiffer.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *Public Opinion Quarterly*, 37(4), 509.
- Khan, M. L. (2017). Social media engagement: What motivates user participation and consumption on YouTube? *Computers in Human Behavior*, 66, 236–247.
- Khan, S., Charissis, V., & Harrison, D. K. (2023). Utilising gamification and virtual environments to present digitally enhanced advanced services (DEAS) for the financial sector. In K. Arai (Ed.), *Proceedings of the future technologies conference (FTC) 2022* (Vol. 561, pp. 802–814). Springer International Publishing.
- Kim, S. (2013). Recent advances in gamification application. Retrieved from https://www.researchgate.net/publication/310465687_Recent_Advances_in_Gamification_Application
- Kircaburun, K., Alhabash, S., Tosuntaş, Ş. B., & Griffiths, M. D. (2020). Uses and gratifications of problematic social media use among university students: A simultaneous examination of the big five of personality traits, social media platforms, and social media use motives. *International Journal of Mental Health and Addiction*, 18(3), 525–547.
- Koivisto, J., & Hamari, J. (2019). The rise of motivational information systems: A review of gamification research. *International Journal of Information Management*, 45, 191–210.
- Lai, K. P. Y., & Langley, P. (2023). Playful finance: Gamification and intermediation in FinTech economies. *Geoforum*, 103848.
- Li, H., Liu, Y., Xu, X., Heikkilä, J., & Van Der Heijden, H. (2015). Modeling hedonic is continuance through the uses and gratifications theory: An empirical study in online games. *Computers in Human Behavior*, 48, 261–272.
- Li, Q., Yin, X., Yin, W., Dong, X., & Li, Q. (2023). Evaluation of gamification techniques in learning abilities for higher school students using FAHP and EDAS methods. *Soft Computing*. <https://doi.org/10.1007/s00500-023-08179-9>
- Lin, R., & Zhu, X. (2012). *Leveraging social media for preventive care—A gamification system and insights | Request PDF*. https://www.researchgate.net/publication/230637510_Leveraging_social_media_for_preventive_care_-_A_gamification_system_and_insights
- Lin, Y. L., & Ding, N. D. (2023). Competitive gamification in crowdsourcing-based contextual-aware recommender systems. *International Journal of Human-Computer Studies*, 177, 103083.
- Machado, J. C., Martins, C. C., Ferreira, F. C., Silva, S. C., & Duarte, P. A. (2020). Motives to engage with sports brands on Facebook and Instagram—The case of a Portuguese football club. *International Journal of Sports Marketing and Sponsorship*, 21(2), 325–349.
- Menon, D. (2022). Factors influencing Instagram Reels usage behaviours: An examination of motives, contextual age and narcissism. *Telematics and Informatics Reports*, 5, 100007.

- Mishra, S., & Malhotra, G. (2021). The gamification of in-game advertising: Examining the role of psychological ownership and advertisement intrusiveness. *International Journal of Information Management*, 61, 102245.
- Molasy, M., Rosienkiewicz, M., Helman, J., & Cholewa, M. (2023). Gamification-based crowdsourcing as a tool for new product development in manufacturing companies. In A. Burduk, A. Batako, J. Machado, R. Wyczółkowski, K. Antosz, & A. Gola (Eds.), *Advances in Production* (Vol. 790, pp. 368–379). Springer Nature.
- Mordor Intelligence. (2024). *Gamification market—Industry trends, size & report*. Retrieved from <https://www.mordorintelligence.com/industry-reports/gamification-market>
- Morillas Barrio, C., Munoz-Organero, M., & Sanchez Soriano, J. (2016). Can gamification improve the benefits of student response systems in learning? An experimental study. *IEEE Transactions on Emerging Topics in Computing*, 4(3), 429–438.
- Moro, S., Ramos, P., Esmerado, J., & Jalali, S. M. J. (2019). Can we trace back hotel online reviews' characteristics using gamification features? *International Journal of Information Management*, 44, 88–95.
- Morschheuser, B., Hamari, J., Koivisto, J., & Maedche, A. (2017). Gamified crowdsourcing: Conceptualization, literature review, and future agenda. *International Journal of Human-Computer Studies*, 106, 26–43.
- Noorbahani, F., Salehi, F., & Jafar Zadeh, R. (2019). A systematic mapping study on gamification applied to e-marketing. *Journal of Research in Interactive Marketing*, 13(3), 392–410.
- Oliveira, R. P., Santos, I. L., De Souza, C. G., Reis, A. D. C., & De Souza, W. M. (2023). A study on the relation between industry 4.0 technologies and gamification in e-learning. *Interactive Technology and Smart Education*, 20(4), 449–474.
- Panigrahi, R., Srivastava, P. R., & Sharma, D. (2018). Online learning: Adoption, continuance, and learning outcome—A review of literature. *International Journal of Information Management*, 43, 1–14.
- Pedreira, O., García, F., Brisaboa, N., & Piattini, M. (2015). Gamification in software engineering—A systematic mapping. *Information and Software Technology*, 57, 157–168.
- Phua, J., Jin, S. V., & Kim, J. (Jay). (2017). Gratifications of using Facebook, Twitter, Instagram, or Snapchat to follow brands: The moderating effect of social comparison, trust, tie strength, and network homophily on brand identification, brand engagement, brand commitment, and membership intention. *Telematics and Informatics*, 34(1), 412–424.
- Pradhan, D., Malik, G., & Vishwakarma, P. (2023). Gamification in tourism research: A systematic review, current insights, and future research avenues. *Journal of Vacation Marketing*. <https://doi.org/10.1177/13567667231188879>
- Raj, B., & Gupta, D. (2018). Factors influencing consumer responses to marketing gamification. *2018 International conference on advances in computing, communications and informatics (ICACCI)* (pp. 1538–1542).
- Ringelstein, D., & Patel, K. (2023). A conceptual framework for informatics. *E-journal of Business Education and Scholarship of Teaching*, 17(1), 9–14.
- Rubin, A. M. (1994). Media uses and effects: A uses-and-gratifications perspective. In *Media effects: Advances in theory and research* (pp. 417–436). Lawrence Erlbaum Associates, Inc.
- Ruggiero, T. E. (2000). Uses and Gratifications Theory in the 21st Century. *Mass Communication and Society*, 3(1), 3–37.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.

- Saridakis, C., Baltas, G., Oghazi, P., & Hultman, M. (2016). Motivation recipes for brand-related social media use: A boolean—fsQCA approach. *Psychology & Marketing, 33*(12), 1062–1070.
- Seaborn, K., & Fels, D. I. (2015). Gamification in theory and action. *International Journal of Human-Computer Studies, 74*(C), 14–31. <https://doi.org/10.1016/j.ijhcs.2014.09.006>
- Sharma, W., Lim, W. M., Kumar, S., Verma, A., & Kumra, R. (2024). Game on! A state-of-the-art overview of doing business with gamification. *Technological Forecasting and Social Change, 198*, 122988.
- Sherry, J. L., Lucas, K., Greenberg, B. S., & Ken, L. (2006). *Video game uses and gratifications as predictors of use and game preference*. Retrieved from https://www.researchgate.net/publication/259583577_Video_game_uses_and_gratifications_as_predictors_of_use_and_game_preference
- Skritsovali, K. (2023). Learning through playing: Appreciating the role of gamification in business management education during and after the COVID-19 pandemic. *Journal of Management Development, 42*(5), 388–398.
- Stylos, N., & Vassiliadis, C. A. (2023). Gamification design: Toward developing image perception scales for generation Z consumers. *International Journal of Contemporary Hospitality Management*. <https://doi.org/10.1108/IJCHM-12-2022-1616>
- Thorpe, A. S., & Roper, S. (2019). The ethics of gamification in a marketing context. *Journal of Business Ethics, 155*(2), 597–609.
- Van Der Heijden. (2004). User acceptance of hedonic information systems. *MIS Quarterly, 28*(4), 695.
- Van Der Waldt, G. (2020). Constructing conceptual frameworks in social science research. *The Journal for Transdisciplinary Research in Southern Africa, 16*(1). <https://doi.org/10.4102/td.v16i1.758>
- Vesa, M., Hamari, J., Harviainen, J. T., & Warmelink, H. (2017). Computer games and organization studies. *Organization Studies, 38*(2), 273–284.
- Weber, S., Kordyaka, B., & Niehaves, B. (2024). Leveraging gamification to facilitate information sharing in the service industry: An empirical study. <https://hdl.handle.net/10125/106543>
- Whiting, A., & Williams, D. (2013). Why people use social media: A uses and gratifications approach. *Qualitative Market Research: An International Journal, 16*(4), 362–369.
- Wu, J.-H., Wang, S.-C., & Tsai, H.-H. (2010). Falling in love with online games: The uses and gratifications perspective. *Computers in Human Behavior, 26*(6), 1862–1871.
- Xi, N., & Hamari, J. (2019). *The relationship between gamification, brand engagement and brand equity* [Hawaii International Conference on System Sciences].
- Yee, N., Ducheneaut, N., & Nelson, L. (2012). *Online gaming motivations scale: Development and validation* [Proceedings of the SIGCHI Conference on Human Factors in Computing Systems] pp. 2803–2806.
- Yılmaz, H., & Coşkun, İ. O. (2016). New toy of marketing communication in tourism: Gamification. In E. Sezgin (Ed.), *E-consumers in the era of new tourism* (pp. 53–71). Springer.
- Yoo, J., Lee, J., & Lee, D. (2020). A verification of motivations for over-the-top binge and short viewing of audio-visual content. *New Review of Hypermedia and Multimedia, 26*(3–4), 93–122.
- Zhang, L., Shao, Z., Li, X., & Feng, Y. (2021). Gamification and online impulse buying: The moderating effect of gender and age. *International Journal of Information Management, 61*, 102267.
- Zichermann, G., & Linder, J. (2010). *Game-based marketing: Inspire customer loyalty through rewards, challenges, and contests*. John Wiley & Sons.