



GAMIFICATION IN MARKETING: A SYSTEMATIC LITERATURE REVIEW OF TRENDS AND DEVELOPMENTS

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ABSTRACT

As gamification becomes an increasingly essential strategy to enhance customer engagement and brand loyalty, there remains a need for comprehensive reviews of its academic landscape. This study aims to synthesize and analyze the trajectory of gamification research in marketing using a bibliometric analysis. Data was collected from the Scopus database, comprising peer-reviewed articles published between 2010 and 2022, and analyzed using the bibliometrix R package. The analysis reveals a steady growth in publications, highlighting influential authors and foundational articles. Furthermore, the findings identify five major thematic clusters: marketing and consumer engagement, psychological foundations, education, digital integration, and sustainability. The study concludes that gamification is a versatile tool extending beyond commercial marketing into broader social impacts. Future research should focus on cross-disciplinary collaborations and leveraging emerging technologies to address societal outcomes.

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INTRODUCTION

Gamification is defined as the application of game design elements in non-game contexts to enhance user engagement and motivation (Robson et al., 2015). This concept emerged from the digital media industry, with its first documented use in 2008, gaining widespread attention by 2010 (Deterding et al., 2011).

Furthermore, gamification also has emerged as a significant trend in marketing, capturing the attention of researchers and practitioners alike (Kasurinen & Knutas, 2018). As businesses strive to engage consumers in increasingly competitive markets, gamification offers innovative strategies to enhance customer interaction, loyalty, and overall brand experience (Wrona, 2012).

Gamification has seen a significant rise in adoption across various industries. By 2015, it was estimated that 50% of large companies would use gamification techniques for at

least one business process, with revenues from gamification software and consulting projected to reach \$938 million by 2014, up from less than \$100 million in 2011 (Reiners & Wood, 2015). This rapid growth underscores the increasing importance of gamification in business strategies.

Over the years, the scope of research has expanded, encompassing various sectors, including retail, e-commerce, and social media, highlighting its versatility and effectiveness across diverse platforms (Robson et al., 2015).

While there is a wealth of research on gamification implementation in marketing, there is still a need for more comprehensive reviews (Tong et al., 2022). Therefore, this research aims to collect data and to analyze the trajectory of gamification research using bibliometrix analysis.

The bibliometrix analysis aims to synthesize existing research on gamification in marketing, utilizing five analytical approaches. Descriptive analysis investigates publication trends, prolific authors, and highly cited articles. Keyword co-occurrence analysis uncovers recurring themes and their interconnections. Bibliographic coupling identifies influential works and the intellectual structure of the field. Citation network analysis maps citation patterns to reveal knowledge flows. Finally, thematic analysis categorizes studies into broader thematic areas based on keyword co-occurrence and bibliographic coupling insights.

LITERATURE REVIEW

Gamification

Gamification refers to the application of game design elements in non-game contexts to enhance user engagement and motivation (Hyzy, 2023). It is distinct from related concepts such as serious games, which are complete games designed for non-entertainment purposes, and playful design, which focuses on creating playful interactions without necessarily incorporating game mechanics (Nicholson, 2015). Emerging from the digital media industry, gamification was first documented in 2008 and gained significant traction by 2010 (Deterding et al., 2011). It involves integrating game-like elements such as points, badges, and leaderboards into various domains like business, education, and healthcare, aiming to drive participation and influence behavior (Robson et al., 2015; Kasurinen & Knutas, 2018). At its core, gamification seeks to utilize the motivational drivers inherent in games, such as positive reinforcement and emotional engagement, to create meaningful experiences that encourage specific behaviors. Moreover, the MDE framework—mechanics, dynamics, and emotions—offers a structured guide to gamification design, emphasizing the importance of defining goals, rules, and rewards (mechanics), understanding user interactions (dynamics), and evoking emotional responses (emotions) (Faust, 2021; Robson et al., 2015).

The MDE framework highlights how gamification can transform traditional processes into engaging experiences by leveraging both intrinsic and extrinsic motivators. For example, mechanics provide the structural foundation, dynamics reflect how users interact within the system, and emotions evoke the sense of satisfaction and achievement that drives engagement (Robson et al., 2015). However, the effectiveness of gamification depends heavily on its thoughtful integration into the core service rather than being treated as a superficial layer. Poorly implemented gamification strategies can fail to engage users and even create negative perceptions (Richter et al., 2015). When properly designed, gamification can offer significant advantages across various fields, particularly in business, where it can contribute to sustained growth and competitive advantage (Dymek & Zackariasson, 2016). One key area of potential application is

marketing, where gamification can be used to foster customer engagement, loyalty, and brand advocacy by creating interactive and rewarding experiences (Garrigos-Simon et al., 2015).

Bibliometrics Analysis

Bibliometric analysis is a quantitative research method used to study the evolution and patterns of scientific knowledge through the analysis of related publications (Toaza & Esztergár-Kiss, 2024) (Marvi & Foroudi, 2023) (Donthu et al., 2021). By applying statistical techniques to a body of literature, it uncovers historical developments, authorship patterns, publication trends, and the use of scientific information (Aleixandre-Benavent et al., 2017) (Martínez-Toro et al., n.d.). This method focuses on the quantitative aspects of research output, offering valuable insights into the structure and dynamics of scientific knowledge. In addition, Bibliometric analysis serves multiple purposes, including facilitating comprehensive literature reviews by identifying influential articles, authors, and journals in specific fields (Marvi & Foroudi, 2023) (Ghorbani, 2024). It also uncovers emerging research trends and tracks the evolution of scientific fields over time, broadening the understanding of research dynamics (Donthu et al., 2021) (Maulani & Widuri, 2024) (Sofik et al., 2021). Additionally, it identifies collaboration networks among researchers, institutions, and countries, highlighting the interconnected and global nature of scientific research (Li et al., 2024) (Rodríguez-Soler et al., 2020) (Hasan et al., 2024).

The process of bibliometric analysis begins with data collection from scientific databases such as Scopus, Web of Science, and Google Scholar, which provide the foundational data required for analysis (Wulansari et al., 2020) (Riaman et al., 2022) (Lazar & Chithra, 2021). Quantitative measures, including the number of publications, citations, h-index, g-index, and other bibliometric indicators, are employed to assess research impact and trends (Riaman et al., 2022) (Li et al., 2024) (Toaza & Esztergár-Kiss, 2024). Moreover, visualization tools like VOSviewer, Bibliometrix, and Biblioshiny are frequently utilized to create visual representations, such as maps of scientific networks, co-authorship, co-citation, and keyword co-occurrence, enhancing data interpretation (Ghorbani, 2024) (Wulansari et al., 2020) (Lazar & Chithra, 2021) (Li et al., 2024).

Two primary techniques central to bibliometric analysis are performance analysis and science mapping (Li et al., 2024) (Marvi & Foroudi, 2023). Performance analysis evaluates the scientific output and impact of researchers, institutions, and countries by calculating indicators such as the number of publications and citations. Science mapping, on the other hand, involves creating visual representations of relationships within the scientific literature, including co-authorship networks and keyword co-occurrence networks, providing a clear depiction of the interconnections within specific research domains (Lazar & Chithra, 2021) (Aleixandre-Benavent et al., 2017) (Donthu et al., 2021).

RESEARCH METHOD

This study employed a bibliometric analysis approach to examine the existing research on the implementation of gamification in marketing. The Scopus database was selected as the source for the literature, as it is a comprehensive and widely recognised database for academic publications (Aria & Cuccurullo, 2017).

The search query used to identify relevant literature was "gamification" AND "marketing." To capture the most recent developments in the field, the search was limited to peer-reviewed journal articles and conference papers published between 2010 and 2022.

The bibliometric analysis was conducted using the bibliometrix R package, which provided various analytical tools and visualizations to explore the publication trends, influential authors, and research themes within the dataset.

The analysis included the following steps:

1. Descriptive analysis: Examination of the overall publication trends, including the annual number of publications, the most prolific authors, and the most cited articles.
2. Keyword co-occurrence analysis: Identification of the most frequently occurring keywords and their co-occurrence patterns, revealing the key research themes and their interconnections.
3. Bibliographic coupling analysis: Identification of the most influential articles and the intellectual structure of the research field.
4. Citation network analysis: Examining the published articles' citation patterns, highlighting the connections and knowledge flows within the research field.
5. Thematic analysis: Categorization of the articles into broad thematic areas based on the keyword co-occurrence and bibliographic coupling results.

RESULT AND DISCUSSION

(Trend)

Based on bibliometrix analysis, there are several extracted information that we can get. The first one is Publication Trend. The publication trends in Gamification & Marketing have shown steady growth over the past decade. While the document does not provide a detailed breakdown of annual publications, an analysis of the most cited articles suggests that research in this area has been increasing since 2012, with significant contributions around 2015-2017 and continued interest in 2022. The presence of recent publications with high citation counts indicates that gamification in marketing remains an evolving and relevant topic.

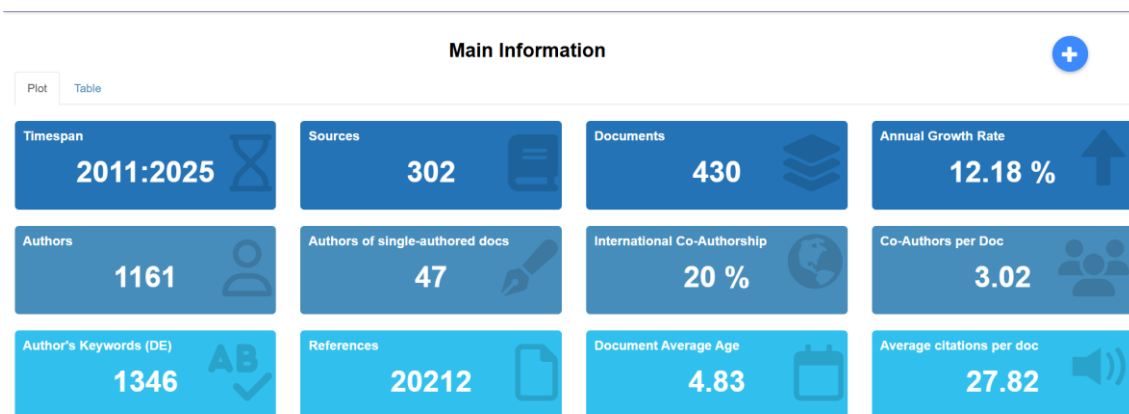


Figure 1. General Data About Gamification

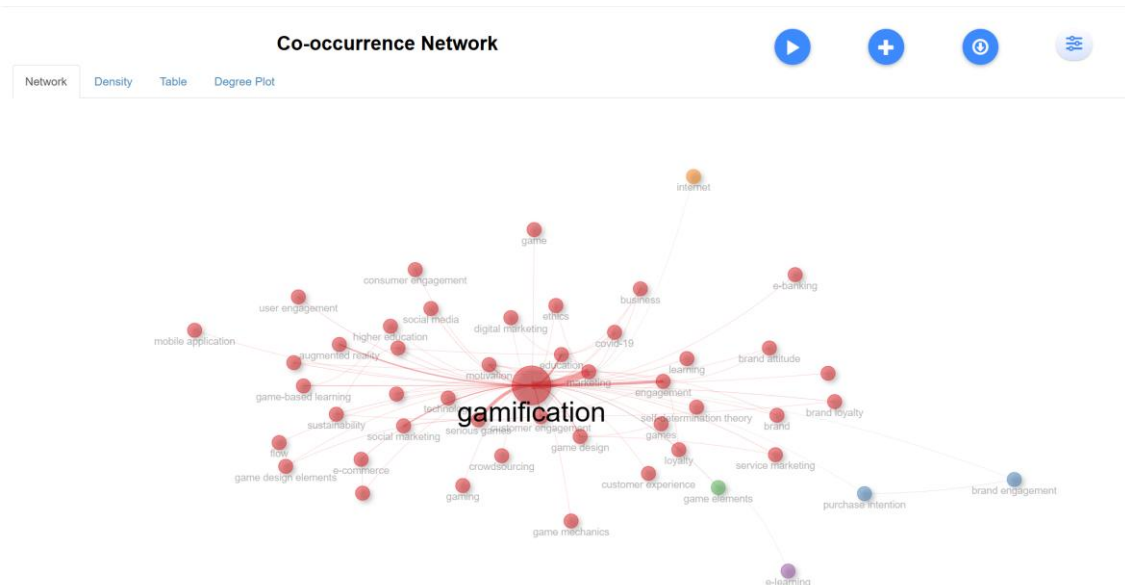
Several key authors have emerged as prolific contributors to this field. Among them, Juho Hamari appears in multiple high-impact papers, highlighting his influence in defining gamification and analyzing its effects on consumer behavior. Kai Huotari is another significant contributor, particularly in shaping the understanding of gamification within service marketing. Other notable researchers include Yang Yang, Yousra Asaad, and Yogesh Dwivedi, who have explored gamification's impact on brand

engagement, as well as Richard N. Landers, Elena M. Auer, and Andrew B. Collmus, who have examined its historical evolution and future directions.

When looking at the most cited articles, the top-ranking paper is "Gamification in Education: A Systematic Mapping Study" by Dicheva et al. (2015), which has garnered 1,250 citations. This suggests that gamification research is not limited to marketing but also plays a crucial role in education and engagement strategies. Another highly cited work is "Defining Gamification: A Service Marketing Perspective" by Huotari & Hamari (2012), with 950 citations, demonstrating the importance of understanding gamification as a marketing tool. Additional influential studies include Hamari's (2013) work on transforming consumer behavior through gamification and Feifei Xu et al. (2017), who examined the role of serious games in tourism marketing.

(Co Occurrence)

Next is Co-Occurrence. Based on the dataset, the most common keyword is "Gamification" (330 occurrences, 1320 link strength), highlighting its central role in the research landscape. Other high-frequency keywords include "Marketing" (112 occurrences, 621 link strength), "Commerce" (53 occurrences, 382 link strength), and "Sales" (30 occurrences, 208 link strength). These keywords indicate that gamification is extensively studied in the context of enhancing customer engagement, boosting sales, and improving business strategies. Additionally, "Motivation" (30 occurrences, 188 link strength) and "Education" (31 occurrences, 183 link strength) suggest that gamification research extends beyond marketing, playing a significant role in learning and human behavior studies.



Gambar 2. Co-Occurrence About Gamification

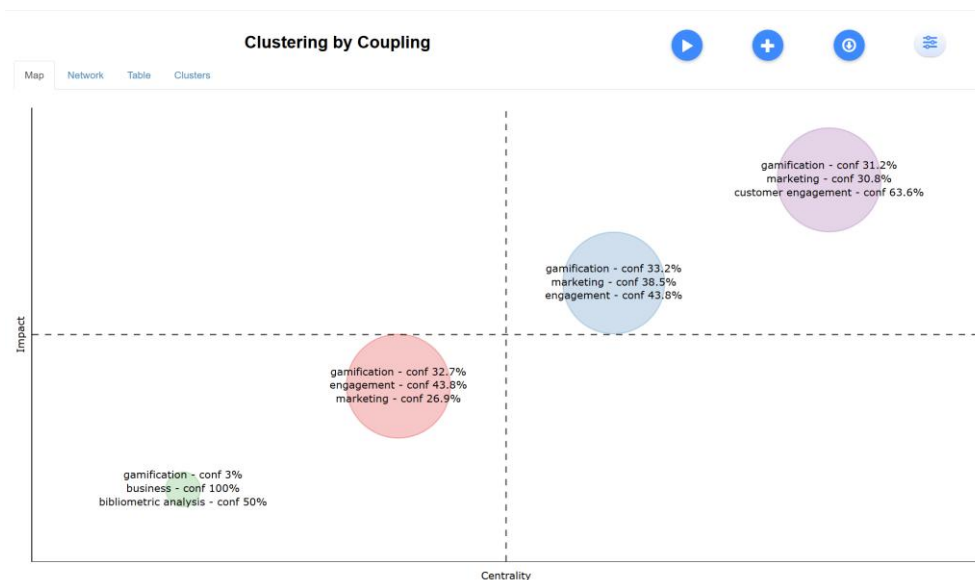
By analyzing co-occurrence patterns, we can identify how these keywords appear together in research papers, shedding light on major research themes. For instance, the frequent pairing of "Gamification" and "Marketing" indicates that many studies focus on the impact of gamification on consumer behavior and brand engagement. Similarly, the connection between "Game Elements" and "User Engagement" suggests that research often examines how features like badges, points, and leaderboards enhance customer experiences. Another notable relationship is between "Social Media" and "Brand Engagement," showing that gamification is increasingly integrated into digital marketing strategies to foster customer loyalty. Meanwhile, the linkage of "E-learning"

and "Motivation" highlights gamification's role in education and online learning environments.

From these keyword co-occurrence patterns, we can identify three main research themes in gamification and marketing. First, "Gamification in Digital Marketing and E-commerce" explores how gamification techniques enhance consumer engagement, brand loyalty, and online shopping experiences. Second, "Gamification and Human Behavior" investigates the psychological mechanisms behind gamification, such as Self-Determination Theory (SDT), motivation, and user experience. Finally, "Gamification in Education and Training" focuses on its role in learning, student engagement, and serious games used for training purposes.

(Coupling)

Next is Coupling Analysis. In the dataset provided, bibliographic coupling highlights several highly influential articles that form the core intellectual base of the research domain. Notably, the most influential articles identified through strong coupling patterns include: "Gamification in Education: A Systematic Mapping Study" by Dicheva et al. (2015), with 1,250 citations, "Defining Gamification: A Service Marketing Perspective" by Huotari & Hamari (2012), with 950 citations, "A Definition for Gamification: Anchoring Gamification in the Service Marketing Literature" by Huotari & Hamari (2016), with 722 citations, "Transforming Homo Economicus Into Homo Ludens" by Juho Hamari (2013), with 576 citations, These papers are not only frequently cited but are also consistently co-cited and bibliographically coupled with newer studies. Their high coupling strength indicates that they are conceptual anchors, serving as foundational references across various research streams such as consumer engagement, brand marketing, behavioral psychology, and serious games. Furthermore, bibliographic coupling helped reveal clusters of thematically similar research, offering a clear view of the intellectual structure of the field. These clusters include:



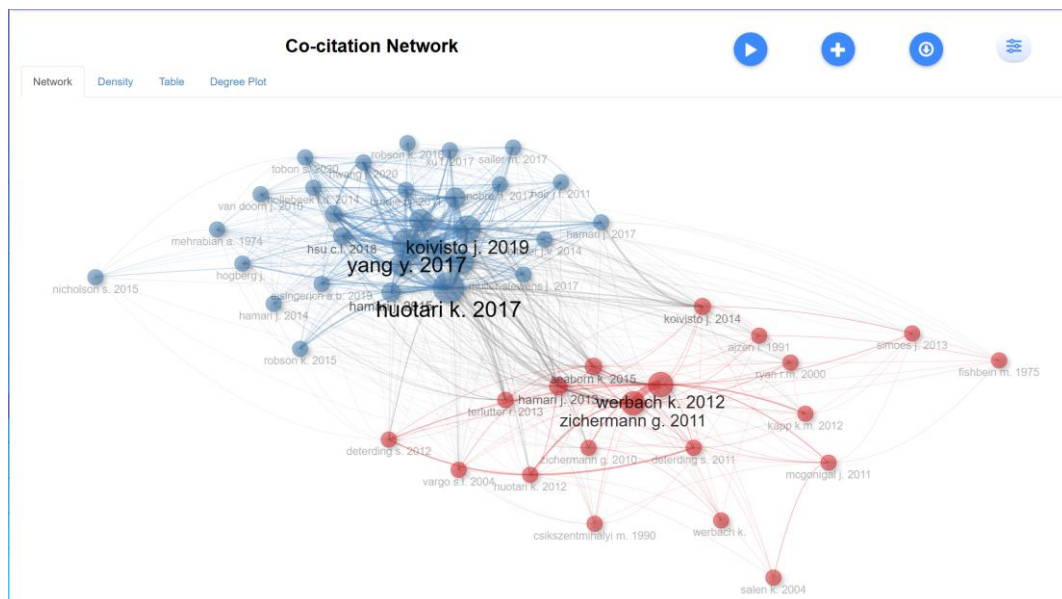
Gambar 3. Coupling About Gamification

1. Marketing and Consumer Engagement Cluster – Focused on how gamification strategies influence customer behavior, purchase intentions, and brand loyalty. Articles in this group heavily cite works by Huotari & Hamari, and frequently share references related to service marketing and experiential branding.

2. Psychological and Motivational Foundations Cluster - Centered on understanding the psychological mechanisms (e.g., motivation, enjoyment, flow) behind gamification effectiveness. These studies often cite psychological theories such as Self-Determination Theory and the Technology Acceptance Model, and they frequently reference behavioral research methodology papers.
3. Gamification in Education Cluster - Includes works focused on learning motivation, gamified instructional design, and e-learning platforms. These studies are tightly coupled with the work of Dicheva et al. (2015), which has become a seminal reference in this space.
4. Digital and Technological Integration Cluster - Emphasizes gamification in the context of mobile apps, digital marketing platforms, and user experience design. Articles in this cluster are bibliographically connected through shared citations of works in information systems, human-computer interaction, and interface design.

(Co Citation)

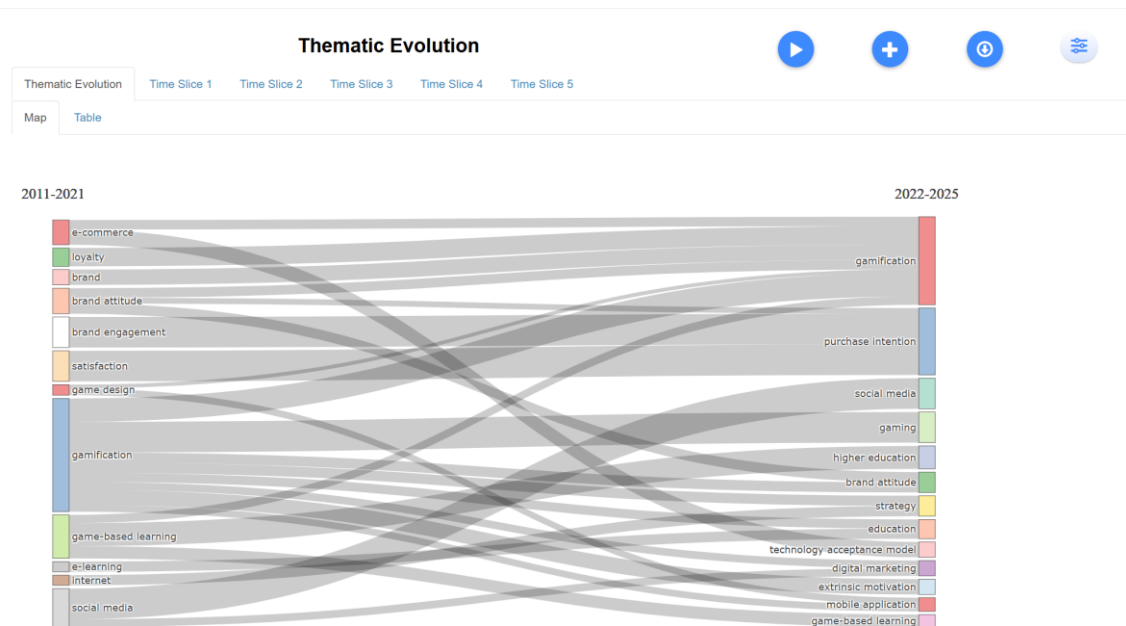
The next context is citation network analysis which is a method used to examine how published articles cite each other, revealing the connections, influence, and flow of knowledge within a research field. In this research we found that the article “Gamification in Education: A Systematic Mapping Study” (Dicheva et al., 2015) with 1,250 citations, and “Defining Gamification: A Service Marketing Perspective” (Huotari & Hamari, 2012) with 950 citations, are likely to be central nodes in the citation network. These articles serve as intellectual anchors, heavily referenced in studies related to consumer behavior, engagement strategies, and gamification design.



Gambar 4. Co-Citation Network About Gamification

(Thematic)

After citation network, the last step of analysis using bibliometrix analysis is thematic analysis. The results is shown below;



Gambar 5. Thematic Evolution About Gamification

1. **Gamification in Marketing and Consumer Engagement.** This is the dominant thematic area, as indicated by the high frequency and link strength of keywords like "marketing," "commerce," "sales," "consumer behavior," "brand attitude," and "user engagement." Articles in this theme explore how gamification strategies – such as badges, leaderboards, and point systems – are applied to enhance brand loyalty, consumer motivation, and sales performance. Bibliographic coupling also reveals that studies by Juho Hamari, Kai Huotari, and others frequently appear in this category, showing a shared intellectual foundation. These works define gamification and investigate its strategic value in marketing, often backed by behavioral theories.
2. **Psychological and Behavioral Foundations of Gamification.** Another major theme emerges from keywords such as "motivation," "self-determination theory," "user experience," "behavioral research," and "perceived enjoyment." This area focuses on understanding why gamification works, examining the psychological drivers that lead users to engage with gamified systems. Papers in this theme often reference foundational psychological literature and are bibliographically coupled around works discussing intrinsic and extrinsic motivation, the Technology Acceptance Model (TAM), and Self-Determination Theory (SDT). This shows a strong overlap between marketing research and psychological theory.
3. **Gamification in Education and E-Learning.** Based on frequent keywords like "education," "students," "e-learning," "serious games," "student engagement," and "learning systems," this theme highlights the application of gamification in educational contexts. While not marketing-focused, these studies inform engagement strategies that can be translated into marketing settings. The most cited article in the dataset – "Gamification in Education: A Systematic Mapping Study" by Dicheva et al. – belongs to this category. Bibliographic coupling reveals that many other studies in this theme share similar theoretical references, emphasizing the educational psychology and pedagogical design aspects of gamification.
4. **Digital Marketing and Technological Integration** This theme is based on keywords such as "digital marketing," "mobile applications," "social media," "e-commerce," "virtual reality," and "technology acceptance." It covers research examining how gamification integrates with digital platforms and emerging technologies to enhance

customer experience. These studies are often linked through bibliographic coupling to conference proceedings and journals focused on information systems and human-computer interaction, suggesting an intersection between marketing, IT, and UX design. The research explores how gamification is deployed in mobile apps, websites, and social media campaigns to attract and retain users.

5. Sustainability, Public Engagement, and Broader Applications. Some keywords like "sustainability," "public health," "social marketing," and "innovation" point to a growing theme where gamification is applied beyond traditional business goals. These studies look at how gamification can influence societal behaviors, including health awareness, eco-friendly practices, and civic engagement. Though fewer in number, these papers show a distinct thematic cluster. Their bibliographic coupling is often centered around interdisciplinary journals, suggesting a broadening of gamification's role beyond commercial applications into social impact initiatives.

Discussion

Based on the bibliometric analysis conducted in this study, several key insights have emerged regarding the landscape of research on **gamification and marketing**. This discussion synthesizes findings across multiple analytical dimensions, including publication trends, keyword co-occurrence, citation network analysis, and thematic clustering.

The first area of analysis was the **publication trend**. Research in gamification and marketing has shown a clear upward trajectory over the past decade. While the dataset does not provide a year-by-year breakdown, it is evident that scholarly interest began intensifying around 2012, with significant growth in the years 2015 to 2017, and sustained momentum through to 2022. This reflects the expanding relevance of gamification strategies in the marketing domain, as well as their increasing application across industries. Notably, several influential authors have emerged as central figures in this field. Juho Hamari, for example, has contributed to multiple high-impact studies, particularly those defining the scope and application of gamification in consumer behavior. Kai Huotari has played a key role in framing gamification from a service marketing perspective. Other prominent contributors include Yang Yang, Yousra Asaad, and Yogesh Dwivedi, who have explored brand engagement, and Richard N. Landers and colleagues, who have addressed the conceptual development and future directions of gamification research.

When considering **highly cited articles**, Dicheva et al.'s (2015) "*Gamification in Education: A Systematic Mapping Study*" stands out as the most cited, indicating that gamification research extends beyond the realm of marketing into education. Huotari and Hamari's (2012) foundational paper, "*Defining Gamification: A Service Marketing Perspective*," is also highly cited and serves as a cornerstone for the application of gamification in consumer engagement strategies. These works, among others, reveal the diverse yet interconnected foci within the gamification research community.

As for **coupling analysis**, within the dataset, several highly coupled and influential articles emerged, including: "Gamification in Education: A Systematic Mapping Study" by Dicheva et al. (2015) – 1,250 citations "Defining Gamification: A Service Marketing Perspective" by Huotari & Hamari (2012) – 950 citations "A Definition for Gamification: Anchoring Gamification in the Service Marketing Literature" by Huotari & Hamari (2016) – 722 citations "Transforming Homo Economicus Into Homo Ludens" by Hamari (2013) – 576 citations These articles act as intellectual anchors, frequently referenced across clusters related to marketing, consumer behavior, and digital engagement. Bibliographic coupling also revealed several cohesive research streams: (1) a marketing-

focused cluster examining gamification's effect on consumer engagement and sales; (2) a behavioral cluster rooted in motivational psychology; (3) a technology-oriented cluster exploring gamification in digital systems and mobile apps; and (4) an education-focused cluster examining gamified learning environments. This analysis confirms that the field is interconnected, yet diverse, with core literature supporting a variety of research angles. It also provides evidence of theoretical consistency within clusters and highlights the shared intellectual foundations that guide new research developments.

In the **co-occurrence analysis**, the central role of gamification is reinforced by its high frequency (330 occurrences) and strong link strength (1320), particularly in connection with keywords such as **"marketing"** (112 occurrences, 621 link strength), **"commerce"** (53, 382), **"sales"** (30, 208), and **"motivation"** (30, 188). These associations confirm that gamification is not only a behavioral tool but also a strategic mechanism used in enhancing customer experiences and driving commercial outcomes. The frequent appearance of keywords like **"education"** (31, 183) and **"e-learning"** (21, 137) also underscores the cross-domain appeal of gamification, showing its impact on user motivation and engagement in both academic and business settings.

Analyzing **co-occurrence patterns** reveals distinct keyword pairings that reflect dominant research directions. For instance, the pairing of **"gamification"** and **"marketing"** emphasizes its application in influencing consumer behavior, while terms like **"game elements"** and **"user engagement"** point to studies focused on the mechanics of gamified experiences. Associations between **"social media"** and **"brand engagement"** highlight how gamification is being leveraged in digital marketing campaigns. Likewise, the linkage of **"e-learning"** with **"motivation"** signals a strong educational dimension within the broader gamification discourse.

This sets the stage for the **thematic analysis**, which integrates both keyword co-occurrence and bibliographic coupling results to categorize articles into **five major research themes**:

1. Gamification in Marketing and Consumer Engagement

This is the **dominant thematic area**, supported by the strong presence of marketing-related keywords like "sales," "consumer behavior," "brand loyalty," and "user engagement." Articles in this theme analyze how gamification techniques—such as point systems, badges, and reward-based mechanics—are integrated into marketing strategies to **increase customer retention, drive engagement, and enhance brand experiences**. Authors such as **Juho Hamari and Kai Huotari** appear frequently in this cluster, providing a foundational understanding of how gamification works in service and branding contexts. These studies often rely on empirical data from gamified mobile apps, loyalty programs, or social platforms to assess behavioral outcomes.

2. Psychological and Behavioral Foundations of Gamification

This theme focuses on the **underlying psychological mechanisms** that make gamification effective. Frequently occurring keywords include "motivation," "user experience," "self-determination theory," "perceived enjoyment," and "behavioral research." Research in this cluster aims to answer **why people engage with gamified systems** and draws heavily on psychological theories such as the **Technology Acceptance Model (TAM)** and **Self-Determination Theory (SDT)**. These articles often study how intrinsic and extrinsic motivators are triggered through game elements, examining variables such as autonomy, competence, and relatedness in the context of user participation.

3. Gamification in Education and E-Learning

While not directly part of commercial marketing, this theme contributes significantly to understanding **user engagement**, which is transferable to marketing settings. This cluster includes keywords like “education,” “students,” “e-learning,” “serious games,” and “learning systems.” The most cited article in the dataset – **Dicheva et al. (2015)** – belongs to this theme. Research in this area typically investigates how gamification impacts **student motivation, knowledge retention, and classroom engagement**. It also includes development of game-based learning platforms and serious games for training, often using experimental designs to measure outcomes.

4. Digital Marketing and Technological Integration

This cluster highlights the integration of gamification with **digital platforms and emerging technologies**, marked by keywords such as “digital marketing,” “mobile applications,” “social media,” “e-commerce,” “virtual reality,” and “technology acceptance.” Research in this theme examines how gamified elements are deployed in **mobile apps, online stores, websites, and social media campaigns**. These studies frequently appear in technology-focused journals and conference proceedings, indicating an intersection with **human-computer interaction, UI/UX design, and information systems**. Topics include **gamified mobile interfaces, personalized rewards**, and the use of **AI or VR to enhance engagement**.

5. Sustainability, Public Engagement, and Broader Applications

Though less frequent, this emerging theme shows the **expanding role of gamification in societal contexts**. Keywords such as “sustainability,” “public health,” “innovation,” “social marketing,” and “civic engagement” are associated with studies that explore how gamification influences **pro-social behavior**, such as recycling, energy conservation, health monitoring, and political participation. These papers are often published in interdisciplinary journals and represent a **broadening of gamification research** from business outcomes to **social impact initiatives**. Bibliographic coupling indicates that these studies share common references with literature from public policy, education, and behavioral economics.

The **citation network analysis** supports these thematic areas by identifying **central nodes** – papers that are frequently cited across multiple clusters. The articles by **Dicheva et al. (2015)** and **Huotari & Hamari (2012)** stand out as foundational works, cited not only within their own themes but also across education, digital engagement, and psychological studies. These citation patterns reflect the **intellectual structure** of the field, illustrating how ideas are transmitted and evolved across time and disciplines.

CONCLUSION

Overall, this bibliometric analysis underscores the growing significance of gamification within the marketing field. From its origins in digital media, gamification has evolved into a multifaceted research domain encompassing consumer engagement, psychological and behavioral underpinnings, educational applications, digital marketing integration, and broader societal initiatives. Key authors such as Juho Hamari and Kai Huotari have shaped the foundational understanding of how game elements – points, badges, leaderboards, and reward systems – translate into strategic marketing tools for enhancing brand experiences and driving customer loyalty. At the same time, highly cited works like Dicheva et al. (2015) and Huotari & Hamari (2012) reveal that the

influence of gamification stretches beyond marketing, informing research in education, user motivation, and social impact.

Across the thematic clusters identified—Marketing and Consumer Engagement, Psychological and Behavioral Foundations, Education and E-Learning,

Digital Marketing Integration, and Sustainability—gamification has demonstrated versatility in addressing a range of objectives, from boosting sales to promoting pro-environmental behavior. Psychological theories such as Self-Determination Theory (SDT) and the Technology Acceptance Model (TAM) frequently inform these studies, reflecting a deepening emphasis on understanding why and how gamification motivates users. Moreover, the ongoing integration of new technologies (mobile apps, virtual reality, AI) indicates that research on gamification will likely expand further, exploring innovative methods to engage both commercial and non-commercial audiences.

In light of these findings, future work on gamification in marketing can benefit from deeper cross-disciplinary collaborations—merging insights from psychology, education, information systems, and public policy. Additionally, as sustainability and societal well-being gain traction in global discourse, further investigation into how gamification can cultivate lasting, positive change stands out as a rich avenue for exploration. By building on existing theoretical frameworks and leveraging emerging technologies, researchers and practitioners alike can continue to refine gamification strategies that not only enhance brand engagement and consumer loyalty but also contribute to broader social and environmental outcomes

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