GAMIFICATION IN SOCIAL COMMERCE: A SYSTEMATIC LITERATURE REVIEW

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Abstract:

As social media and e-commerce increasingly converge, social commerce platforms have integrated gamification mechanisms to enhance user engagement, stimulate social interaction, and encourage behaviors such as information sharing and purchasing. While gamification has been extensively studied in domains such as education, health, and marketing, its application in social commerce remains fragmented and theoretically underdeveloped. To address this gap, this study conducts a systematic literature review of 15 peer-reviewed articles retrieved from Scopus and Web of Science as of May 2025. Guided by three research questions, the review examines which theoretical frameworks have been applied to gamification in social commerce, what methodological approaches dominate, and which gamification features are most frequently studied along with their behavioral outcomes. The findings reveal that quantitative surveys are the predominant methodology, with limited use of qualitative, experimental, or longitudinal designs, thus constraining the field's ability to capture evolving user experiences. Theoretical engagement is moderate, with Self-Determination Theory and Hedonic Motivation Theory most frequently employed, though often in isolation rather than within integrative models that connect psychological, social, and technological perspectives. In terms of design, research has focused heavily on achievement-based elements such as points, badges, and leaderboards, while immersive and social interaction features remain underexplored despite their potential to foster deeper and more sustainable engagement. This review contributes to theory by highlighting the need for multi-layered frameworks that integrate individual motivation with social influence and platform-level factors, to methodology by underscoring the importance of diversified research designs, and to practice by offering guidance for platform designers to move beyond extrinsic rewards toward layered gamification strategies that support intrinsic motivation, community building, and long-term user loyalty.

Introduction

The rise of social commerce as a mainstream digital business model has transformed how consumers interact, consume, and co-create value in online environments. By blending transactional features of e-commerce with the interactive affordances of social media, social commerce enables users not only to purchase goods but also to share content, influence peers, and participate in community-driven activities (Nguyen et al., 2024; Shao, 2024). Within this context, user engagement has become a decisive factor for platform success, prompting designers to experiment with innovative strategies to stimulate active participation in an increasingly saturated digital environment (Koivisto & Hamari, 2019; Xu et al., 2021).

Among these strategies, the use of game design elements in non-game contexts has emerged as a powerful approach to shape user behavior and experience (Deterding et al., 2011; Hamari, 2013). Previous research demonstrates that gamification can enhance motivation, enjoyment, and sustained participation across domains such as education, health, and marketing (Seaborn & Fels, 2015; Mora et al., 2022). In e-commerce, gamified features such as points, badges, and leaderboards have been linked to improved customer loyalty, higher purchase intention, and reduced shopping cart abandonment (Alhammad & Moreno, 2022; Fayola et al., 2024).

In social commerce, gamification plays an even more distinctive role. Platforms like Pinduoduo, Douyin Store, and Shopee Live integrate group-buying mechanisms, social tasks, and interactive live-streaming features to harness peer influence and collective participation (Chang & Yu, 2023; Yang et al., 2024). Achievement-based elements such as points and badges reinforce competence and task engagement (Xi & Hamari, 2020; Fayola et al., 2024), while interaction-based mechanisms like team challenges, referral incentives, and tie-strength indicators enhance relatedness and viral spread (Li et al., 2022; Uchańska-Bieniusiewicz, 2024). More recently, immersive features such as gamified live streaming, avatars, and narrative-driven experiences have shown potential to create hedonic value and deeper emotional attachment (Shao, 2024; Nguyen-Viet & Nguyen, 2024).

Despite these advances, scholarly research on gamification in social commerce remains fragmented and underdeveloped. Theoretically, most studies adopt frameworks such as Self-Determination Theory (SDT) or Hedonic Motivation Theory, but these are often applied in isolation and rarely integrated into multi-layered models that account for individual motivation, social influence, and platform design (Fayola et al., 2024; Koivisto & Hamari, 2023). Methodologically, the field is dominated by quantitative cross-sectional surveys, while qualitative, longitudinal, and experimental approaches are scarce, leaving limited understanding of the subjective experience of gamification or the sustainability of its effects over time (Riar et al., 2022; Chang & Yu, 2023). In terms of design, achievement-based features such as badges and leaderboards remain the most studied, while emerging immersive and collaborative mechanisms are underexplored.

Given the growing importance of gamification in shaping user behavior, there is a pressing need to synthesize existing knowledge to understand how gamification has been conceptualized, theorized, and empirically studied in social commerce. This study conducts a systematic literature review (SLR) of peer-reviewed articles retrieved from Scopus and Web of Science as of May 2025. Guided by three research questions, it examines: (1) what theoretical frameworks have been used to study gamification in social commerce, and how they contribute to understanding user behavior; (2) what methodological approaches dominate current research; and (3) what gamification features are most commonly studied and how they affect user engagement and platform outcomes. By addressing these questions, the study contributes to a structured overview of current research, identifies recurring patterns and underexplored areas, and provides theoretical and practical guidance for scholars, platform designers, and marketers seeking to leverage gamification in social commerce environments.

Methodology

Search Strategy
To comprehensively collect a sample of relevant literature, we selected two major academic databases: Scopus and Web of Science. These two databases were chosen because of their extensive coverage of peer-reviewed journals in disciplines such as information systems, marketing, business, and human-computer interaction.

The search was conducted on May 1, 2025, using the following keyword string that combines terms related to gamification and social commerce:
("gamification" OR "gamified" OR "game mechanics" OR "game elements" OR "gamification features")AND("social commerce" OR "social shopping" OR "social e-commerce" OR "s-commerce" OR "social buying")

This search string was designed to capture a broad range of studies focused on gamification applications in the context of social commerce platforms, including features such as reward systems, social interactions, and immersive experiences.

Inclusion And Exclusion Criteria
To ensure the relevance and quality of the reviewed literature, this study applied clearly defined inclusion and exclusion criteria during the selection process. Articles were included if they were published in peer-reviewed journals or conference proceedings, focused specifically on gamification within the context of social commerce, written in English, and published in any year up to May 2025. Studies were excluded if they did not address either social commerce or gamification as a core focus, or if they were purely theoretical without empirical investigation, unless they offered substantial conceptual contributions to the field.

Screening Process
The initial search found a total of 24 articles. After removing duplicates, 18 unique records remained. The researchers screened these records by title and abstract, and ultimately excluded 3 articles that did not meet the inclusion criteria. Subsequently,we conducted a full-text review of the remaining 15 studies to confirm that they met the inclusion criteria and were relevant. The selection process is summarized in the PRISMA flow chart shown in Figure 1.
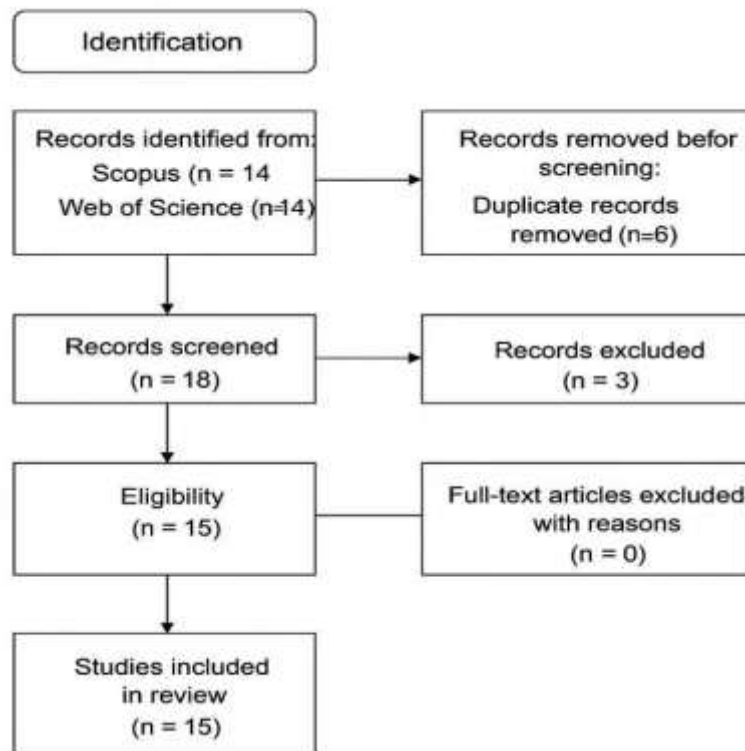
Figure 1 PRISMA Flow Chart

Data Extraction and Coding
Each included article was thoroughly reviewed, key features were extracted and compiled into a coding table. The extracted data included: author and year, country, source, gamification features investigated, theoretical framework, research methods, and reported impacts. Studies were further categorized based on the type of gamification mechanism used, methodological approach, and underlying theoretical model guiding the study.

Results

Theoretical Frameworks of Gamification and Social Commerce
It can be seen in Table 1, among the 15 reviewed articles, 12 explicitly employed a theoretical framework, while 3 lacked theoretical underpinning. Theoretical application varied considerably in scope, depth, and consistency, reflecting both the interdisciplinary nature of the field and the ongoing conceptual fragmentation.

Table1. Theoretical Framework of Reviewd Studies

Theoretical Framework	Explanation of the Theory	References
Self-Determination Theory	Explains how intrinsic motivation is driven by satisfaction of three psychological needs: autonomy, competence, and relatedness. Commonly used to evaluate user engagement in gamified systems.	Fayola et al. (2024), Xi & Hamari (2020), Hamari (2013)
Hedonic Motivation Theory	Focuses on pleasure, enjoyment, and emotional gratification as key motivators in user decision-making and platform engagement.	Nguyen-Viet & Nguyen (2024), Shao (2024)

Social Tie Theory	Distinguishes between strong and weak social ties to understand their influence on emotional support, anxiety, and behavior in group-based gamification.	Li et al. (2022)
Attitude Models	Suggest that user behavior is influenced by beliefs, feelings, and attitudes toward gamified features, often linked to the Theory of Planned Behavior.	Nguyen et al. (2024)
Referral Incentive Theory	Examines how financial or social incentives drive user behavior in viral marketing and group-based referral systems.	Yang et al. (2024)
Presence Theory	Focuses on the user's sense of "being there" in a mediated environment, used to understand the effect of immersion and presence in gamified live commerce.	Chang & Yu (2023)
Social Recognition Theory	Explores how users seek validation, identity expression, and recognition from others through mechanisms such as badges and contributions.	Moro & Stellacci (2023)
Business Model Innovation	Investigates how novel combinations of value creation, delivery, and capture. Such as gamification can reshape business operations.	Uchańska-Bieniusiewicz (2024)
Dynamic Capability Theory	Describes how organizations or individuals adapt and reconfigure resources in changing environments, relevant for gamified entrepreneurship and learning.	Ho & Chen (2023)
None stated	No explicit theoretical framework was applied.	Sohanda et al. (2024), Haziri et al. (2019), Zhao et al. (2019)

The most used theory in the reviewed articles is self-determination theory (SDT), which was adopted in three studies (e.g., Fayola et al., 2024; Xi and Hamari, 2020; Hamari, 2013). The relevance of SDT lies in its ability to explain how gamification mechanisms can satisfy users' psychological needs for autonomy, competence, and relatedness, which influence users' motivation and engagement in social commerce platforms. Social-based gamification features such as team discounts and peer interactions are often associated with relatedness, while progress tracking and points support perceptions of competence. In contrast, studies applying hedonic motivation theory (e.g., Shao, 2024; Nguyen-Viet & Nguyen, 2024) emphasize the role of enjoyment, pleasure, and entertainment value in gamified shopping. These studies show that gamification is not only a motivational tool, but also enhances hedonic feelings, enriches the shopping experience, and creates emotional value. Social bond theory (Li et al., 2022) was uniquely applied to distinguish the effects of strong and weak social bonds in group-based gamification tasks. The framework sheds light on how relationship closeness mediates users' anxiety, emotional engagement, and participation in cooperative discounting activities, which is a highly relevant mechanism in platforms such as Pinduoduo.

Notably, only a few studies adopted driven social interaction models, including presence theory and brand engagement theory, while some studies (Sohanda et al., 2024; Ho & Chen, 2023) lacked a theoretical framework. This suggests that social psychology and human-computer interaction theories have not been fully utilized, which could have better explained the community and experience of gamification in social interaction platforms. The theoretical community has increasingly relied on motivational and behavioral theories, but lacks thematic

integration. In the context of gamified social commerce, there is still a pressing need to integrate frameworks that can capture individual motivations and social influence.

Methodological Approach

From a methodological perspective, this field is dominated by quantitative methods, with 11 studies using cross-sectional surveys or experimental analysis and using statistical techniques such as structural equation modeling (SEM) or regression analysis for analysis. These studies mainly measure behavioral intentions, engagement, and satisfaction with gamification features.

Table 2. Methodological Approaches in Reviewed Studies

Methodology	Count	Description
Quantitative	11	Surveys
Qualitative	2	Interviews, thematic analysis
Mixed Methods	1	Survey + qualitative insights
Experimental	1	Field/lab testing of gamification features

Qualitative studies offer rich insights into user perceptions and contextual factors that influence gamification experiences, but these studies are relatively isolated. Chang and Yu (2023) used user interviews to explore how immersion and social presence influence purchase intention in gamified live shopping, providing a nuanced understanding that purely quantitative studies lack. In addition, only one study adopted a mixed-methods, reflecting a missed opportunity to triangulate the findings and explore causal relationships. Similarly, the lack of longitudinal designs in the reviewed literature limits the field's ability to assess how gamification effects evolve over time or whether game engagement persists beyond the novelty phase. In addition, although social commerce platforms typically operate in different markets, few studies consider cultural differences. This omission limits the generalizability of the findings and ignores how cultural values influence user responses to gamification.

Gamification Features and Their Behavioral Impacts

Gamification in social commerce platforms involves the proper implementation of experiential elements to pull user engagement, social interaction, and commercial behaviour. In accordance with 15 reviews of research, gamification attributes fall under the categories of achievement-based, social interaction-based, and immersion and presence-oriented. In the social network and business-driven atmosphere of social programs, these characteristics cater to various psychic needs and add value to them.

Table 3 Gamification Types, Features, and User Outcomes in Social Commerce

Gamification Type	Common Features	User Outcomes	Underlying Needs/Themes	References
Achievement	Points, badges, progress bars, competitions	Task engagement, app retention, motivation	Competence, extrinsic reward	Fayola et al. (2024), Xi & Hamari (2020), Hamari (2013), Chang & Yu (2023), Moro & Stellacci (2023), Ho & Chen (2023)
Social interaction	Group-buying, invites, teams, social mechanics, tie-strength indicators	Social sharing, viral engagement, collective participation	Relatedness, social pressure, peer influence	Fayola et al. (2024), Li et al. (2022), Yang et al. (2024), Zhao et al. (2019), Uchańska-Bieniusiewicz (2024), Xi & Hamari (2020)
Immersive and presence	Livestreams, pets, narratives, presence, gamified simulation	Enjoyment, hedonic value, emotional connection	Immersion, hedonic motivation	Fayola et al. (2024), Shao (2024), Chang & Yu (2023), Nguyen et al. (2024), Zhao et al. (2019)

The most frequently used components in social commerce platforms are achievement-based features like points, badges, leaderboards, progress bars, and contests (Fayola et al., 2024; Hamari, 2013; Xi and Hamari, 2020). These rewards are given to people who complete tasks like browsing, inviting buddies, or buying. These characteristics foster a sense of accomplishment and inspire users to keep participating because they are grounded in behavioural reinforcement and are in line with the professionalism requirements of self-determination theory. These characteristics in social commerce not only foster task-based behaviour but also foster a gamified loyalty loop that encourages repeat users to participate. However, too much of a user's long-term desire may be limited by their external enthusiasm. Although initial user activity can be encouraged by badges and leaderboards, excessive reliance on them without adaptability or meaningful progress (Chang & Yu, 2023; Moro & Stellacci, 2023) can result in user engagement fatigue.

Gamification functions that foster peer interaction are especially important because social commerce is primarily a relationship-based business. (Yang et al., 2024, Li et al., 2022, Zhao et al., 2019) Mechanisms like group buying, team rewards, bargain discounts, and referral systems have received a lot of media attention. These features utilize social capital to intensify network effects, raise awareness, and create collective incentives for consumer behaviour. These elements are consistent with the important aspect of unique-driven considering and social influence theory, supporting behaviours such as social sharing, viral engagement, and community contribution. For instance, Pinduoduo's success is largely due to its gamified group buying and farm simulation features, which incorporate social dependence into buying decisions. However, using these features can cause social pressure, making users feel

compelled to participate or invite others to participate (Uchaska-Bieniusiewicz, 2024). Customers may lose interest in these mechanisms if they are misplaced as a result of a perceived force or deception.

More immersive forms of gamification that rely on immersion, presence, and hedonic participation have been discovered in recent research (Chang & Yu, 2023, Shao, 2024). People are drawn into emotionally rich interactive environments like gamified live shopping, virtual pet care, and narrative-driven commerce. In order to satisfy customers ' needs for entertainment, personal relationships, and identity expression, these traits are in line with hedonic motivation theory and presence theory. In social commerce, these interactive experiences go beyond just amusing; they also develop deeper emotional connections to the system and transform usage behaviour into a journey of meaning. Gamified live broadcasts mix real-time communication, restricted-time offers, and physical interactions to simulate a sense of urgency and presence, thus increasing purchase intent and user stickiness. However, there are still some studies that thoroughly examine long-term behavioural or psychological effects. Analysis of engaging gamification in social commerce is still in its early stages.

Discussion

Theoretical Gaps
This review confirms that gamification in social commerce is often examined through motivational frameworks such as Self-Determination Theory (SDT) and Hedonic Motivation Theory (HMT) (Fayola et al., 2024; Shao, 2024). Consistent with earlier studies in e-commerce and online communities (Hamari, 2013; Xi & Hamari, 2020), these frameworks explain how gamification satisfies psychological needs and creates hedonic value. However, our synthesis reveals that such theories are often applied in isolation, which limits their explanatory power in the complex social commerce environment.

For example, while SDT accounts for intrinsic motivation, it does not sufficiently address the peer influence and collective participation that drive social commerce behaviors (Li et al., 2022; Yang et al., 2024). Similarly, HMT explains immersive enjoyment but overlooks how gamification interacts with social norms or cultural contexts (Nguyen-Viet & Nguyen, 2024). Few studies have attempted theoretical integration. For instance, combining motivation, social interaction, and platform design perspectives to capture the layered nature of gamification effects. This lack of integrative modeling is consistent with Koivisto and Hamari's (2023) observation that gamification research remains theoretically fragmented. Future work should therefore bridge individual-level psychology with community-level dynamics by drawing on theories from social cognition, digital well-being, and cultural psychology.

Untapped Potential of Methodology
The dominance of quantitative surveys in this field echoes earlier findings in broader gamification research (Seaborn & Fels, 2015; Riar, Maier, & Laumer, 2022). While surveys and SEM analyses provide useful evidence of causal pathways, they often treat gamification as a static stimulus rather than a socialized, evolving experience. For instance, points, leaderboards, and group-buying discounts may initially stimulate participation but may also lose effectiveness over time due to novelty effects (Moro & Stellacci, 2023).

Only a handful of studies adopt qualitative or mixed-methods approaches. Chang and Yu (2023), for example, used interviews to reveal nuanced insights into immersion and social presence, but such approaches remain exceptions. Similarly, longitudinal designs are virtually absent, leaving unanswered whether gamification can sustain behavior in the long term. This methodological gap is particularly critical for social commerce, where relationships and collective experiences evolve continuously. Future research should therefore diversify its methodological toolkit by combining longitudinal, experimental, and ethnographic approaches. Such methods could unpack not only what works, but also why and for whom gamification succeeds or fails in social commerce.

Innovation And Oversight of Gamification Design

Our review also shows that most studies focus on achievement-based features such as points, badges, and leaderboards (Hamari, 2013; Fayola et al., 2024). These tools effectively boost engagement in the short term but risk overemphasizing extrinsic rewards, potentially leading to user fatigue or disengagement (Riar et al., 2022). In contrast, social interaction mechanisms like team challenges, referral incentives, group discounts have proven highly effective in driving viral spread and collective engagement (Li et al., 2022; Yang et al., 2024). This aligns with findings from collectivist contexts such as China, where peer influence and network effects strongly shape consumer behavior (Uchańska Bieniusiewicz, 2024).

Emerging immersive and presence-oriented features, such as gamified live-streaming, avatars, and virtual pets are beginning to attract scholarly attention (Shao, 2024; Nguyen-Viet & Nguyen, 2024). These features offer richer emotional engagement, identity expression, and entertainment value. However, their long-term impacts on trust, loyalty, and well-being remain underexplored. Moreover, very few studies consider the negative or ethical implications of gamification in social commerce. Competitive features may foster stress or exclusion, repetitive tasks may create boredom, and overuse of extrinsic incentives may erode intrinsic motivation (Koivisto & Hamari, 2023). Ethical issues such as manipulation, psychological burden, or data privacy are largely absent from current debates highlighting an urgent area for future inquiry.

Implications For Theory, Practice, And Research

In theoretical terms, this review emphasizes the necessity of constructing an integrated model that connects intrinsic motivation, social influence, and platform design. Existing studies often apply frameworks such as Self-Determination Theory or Hedonic Motivation Theory in isolation, which limits their ability to explain the multi-layered dynamics of social commerce. A more comprehensive approach would integrate psychological, social, and technological dimensions to account for both individual motivations and collective participation (Koivisto & Hamari, 2023).

From a practical perspective, platform designers must move beyond static, reward-heavy strategies and adopt layered gamification mechanisms that evolve with users' needs and community dynamics. For instance, combining achievement-based incentives with collaborative features and immersive narratives could sustain both short-term engagement and long-term loyalty. Furthermore, cultural customization is crucial: mechanisms that resonate in collectivist cultures (e.g., group-buying, referral incentives) may not have the same impact in individualistic contexts (Uchańska Bieniusiewicz, 2024).

Future research should aim for more comprehensive theoretical frameworks encompassing psychological, social, and technological dimensions. Additionally, mixed methods and longitudinal designs are recommended to better capture the complexity and evolution of gamified user experiences. In practice, designers should adopt user-centered gamification strategies to foster intrinsic motivation, community, and sustained engagement.

Conclusion and Future Research Directions

This systematic literature review synthesized 15 peer-reviewed studies on gamification in social commerce, aiming to clarify how the field has developed and where gaps remain. Guided by three research questions, the review examined the theoretical frameworks adopted, the methodological approaches employed, and the gamification features most frequently investigated.

The findings highlight several key patterns. First, although motivational frameworks such as Self-Determination Theory and Hedonic Motivation Theory are increasingly applied, theoretical engagement remains fragmented. Few studies integrate individual-level psychological needs with social and platform-level dynamics, limiting the explanatory power of existing models. Second, the methodological landscape is dominated by quantitative surveys, with little diversity in qualitative, longitudinal, or experimental approaches. This reliance on static designs constrains our understanding of how gamification effects evolve over time or across cultural contexts. Third, research has disproportionately focused on achievement-based features such as points, badges, and leaderboards, while immersive and social interaction mechanisms which may offer deeper and more sustainable engagement remain underexplored.

The review contributes to theory by identifying the need for more comprehensive and integrative models that combine motivational, social, and technological perspectives. Practically, it offers guidance for platform designers to move beyond extrinsic rewards and adopt layered gamification strategies that foster intrinsic motivation, community, and long-term loyalty. Ethically, it raises awareness of potential risks such as fatigue, stress, and over-reliance on external incentives, which should be addressed in future gamification design.

Acknowledgement

References

Alhammad, M., & Moreno, A. (2022). Systematic literature review of gamification in e-commerce: Drivers and outcomes. Electronic Commerce Research, 22(4), 1241–1269.

Chang, S. E., & Yu, C. (2023). Exploring gamification for live-streaming shopping—influence of reward, competition, presence and immersion on purchase intention. IEEE Access, 11, 57503–57513.

Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining "gamification." In Proceedings of the 15th International

Academic MindTrek Conference: Envisioning Future Media Environments (pp. 9–15). ACM.

Fayola, F., Graciela, V., Chandra, V., & Sukmaningsih, D. W. (2024). Impact of gamification elements on live streaming e-commerce (live commerce). Procedia Computer Science, 245, 1065–1074.

Hamari, J. (2013). Transforming homo economicus into homo ludens: A field experiment on gamification in a utilitarian peer-to-peer trading service. Electronic Commerce Research and Applications, 12(4), 236–245.

Haziri, F., Nwaiwu, F., & Chovancová, M. (2019). Assessing the dissimilarities of game mechanics on Albanian working-class consumers. In 15th Annual International Bata Conference for Ph.D. Students and Young Researchers (DOKBAT). Tomas Bata University in Zlín.

Ho, S. C., & Chen, J. L. (2023). Developing the e-commerce competency for entrepreneurship education from a gamified competition. The International Journal of Management Education, 21(1), 100737.

Koivisto, J., & Hamari, J. (2019). The rise of motivational information systems: A review of gamification research. International Journal of Information Management, 45, 191–210.

Koivisto, J., & Hamari, J. (2023). Gamification research in 2020s: Trends, gaps, and opportunities. Computers in Human Behavior Reports, 10, 100291.

Li, M., Xu, D., Ma, G., & Guo, Q. (2022). Strong tie or weak tie? Exploring the impact of group-formation gamification mechanisms on user emotional anxiety in social commerce. Behaviour & Information Technology, 41(11), 2294–2323.

Mora, A., Riera, D., González, C., & Arnedo-Moreno, J. (2022). Gamification: A systematic review of design frameworks. Telematics and Informatics, 65, 101717.

Moro, S., & Stellacci, S. (2023). The role of badges to spur frequent travelers to write online reviews. Journal of Hospitality and Tourism Technology, 14(2), 69–82.

Nguyen, H. H., Nguyen-Viet, B., & Hoang Nguyen, Y. T. (2024). Attitudes towards gamification advertising in Vietnam: A social commerce context. Behaviour & Information Technology, 43(5), 845–861.

Nguyen-Viet, B., & Thi Hoang Nguyen, Y. (2024). Understanding gamification advertising effectiveness in an s-commerce context: A study in an emerging market. Journal of Promotion Management, 30(4), 552–582.

Riar, M., Maier, C., & Laumer, S. (2022). Why do users discontinue gamified information systems? A systematic review and synthesis. Journal of Information Technology, 37(2), 101–127.

Seaborn, K., & Fels, D. I. (2015). Gamification in theory and action: A survey. International Journal of Human-Computer Studies, 74, 14–31.

Shao, Z. (2024). Revealing consumers' hedonic buying in social media: The roles of social status recognition, perceived value, immersive engagement and gamified incentives. Journal of Research in Interactive Marketing.

Sohanda, M. K., Gupta, M., & Kalpana, A. V. (2024, April). Interactive e-commerce: Addressing cart abandonment through gamified user engagement. In 2024 International Conference on Communication, Computing and Internet of Things (IC3IoT) (pp. 1–5). IEEE.

Uchańska-Bieniusiewicz, A. (2024). Innovations with sustainability potential within the ultra-fast business model. Corporate Governance: The International Journal of Business in Society.

Xi, N., & Hamari, J. (2020). Does gamification affect brand engagement and equity? A study in online brand communities. Journal of Business Research, 109, 449–460.

Yang, L., Jin, C., & Shao, Z. (2024). Help-and-haggle: Social commerce through randomized, all-or-nothing discounts. Management Science, 70(9), 6026–6044.

Zhao, W., Wang, A., & Chen, Y. (2019). How to maintain the sustainable development of a business platform: A case study of Pinduoduo social commerce platform in China. Sustainability, 11(22), 6337.