

GAMIFIED CORPORATE SOCIAL RESPONSIBILITY AND CONSUMER BEHAVIOR ON DIGITAL PLATFORMS: A CONCEPTUAL FRAMEWORK

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Abstract. This paper develops a conceptual framework to explain how corporate social responsibility (CSR) initiatives influence consumer behavior within the emerging context of gamified digital platforms. Drawing on Carroll's CSR Pyramid and the Stimulus–Organism–Response (SOR) framework, the study integrates CSR theory with the gamification literature to examine the psychological mechanisms underlying consumer engagement. Within this framework, CSR is conceptualized as environmental stimuli embedded in digital platform ecosystems. These stimuli are theorized to shape users' internal psychological states through gameful experiences, characterized by rewards, immersion, interactivity, and competition. Such psychological states subsequently translate into behavioral outcomes, including participation, engagement, loyalty, and advocacy. By positioning gameful experience as a central mediating mechanism, the framework highlights how digital platforms transform traditional CSR communication from passive information dissemination into interactive and experientially rich engagement processes. The proposed model contributes to the literature by bridging CSR, gamification, and consumer behavior research within a unified explanatory structure, thereby offering a systematic foundation for future empirical validation. Furthermore, the framework provides practical implications for organizations seeking to enhance stakeholder engagement, promote sustainable consumption, and design more effective platform-based CSR initiatives in digital environments.

Keywords: *gamified corporate social responsibility, consumer behavior, digital platforms, gameful experience*

Introduction

In the contemporary digital economy, Corporate Social Responsibility (CSR) has evolved from a peripheral corporate philanthropic activity into an essential basis for establishing long-term consumer trust, acceptance, and brand commitment (Paruzel et al., 2023). Concurrently, digital communication networks have completely reshaped the communication landscape between corporations and public stakeholders. Digitalization has transformed CSR from a predominantly one-way communication practice into an interactive and participatory process, allowing organizations to engage consumers in social and environmental initiatives through platform ecosystems (Cezarino et al., 2022). In this new scenario, gameful experience becomes a key psychological mechanism through which consumers engage with CSR initiatives implemented through gamified platforms (e.g., Alibaba's Ant Forest). As the first China-based company integrating CSR and gamified design on a large scale, Alibaba offers an ideal environment in which to explore whether the effect of CSR on consumer behavior is mediated by gameful experience.

The development of CSR theory and the advancement of consumer behavior research have increasingly converged. Carroll (1991) introduced the four-dimensional pyramid

model to establish a classification framework for CSR research; however, its hierarchical assumptions have shown limitations in explaining emerging platform-based CSR practices. At the same time, the Stimulus–Organism–Response (SOR) framework, originating from environmental psychology, provides a useful tool for behavioral analysis, yet its application to CSR contexts remains relatively limited. The emergence of digital platforms has brought these two theoretical perspectives together. Innovations such as Ant Forest demonstrate that philanthropic responsibility, traditionally regarded as a higher-level responsibility, may be activated simultaneously with economic responsibility. This not only challenges the static interpretation of Carroll’s pyramid but also provides an opportunity for the SOR framework to investigate how multiple CSR stimuli are processed simultaneously within digital environments.

Literature review and theoretical foundations

Corporate social responsibility in digital platform contexts

Corporate Social Responsibility (CSR) has traditionally been conceptualized as a firm’s voluntary commitment to social, environmental, and ethical responsibilities beyond legal compliance (Wang et al., 2024). Classic frameworks, such as Carroll’s CSR pyramid, emphasize economic, legal, ethical, and philanthropic responsibilities as core dimensions of corporate behavior. However, with the rise of digital platforms, CSR practices have undergone significant transformation. CSR communication is no longer limited to one-way dissemination through corporate reports or traditional media; instead, it has become interactive, participatory, and embedded within digital ecosystems. Digital platforms such as social media, e-commerce ecosystems, and mobile applications have reshaped how firms engage stakeholders in CSR-related activities (Yousefian et al., 2023). These platforms enable real-time interaction, user-generated content, and community-based participation, which collectively enhance transparency and accountability. Moreover, CSR in digital environments is increasingly co-created with consumers, who actively interpret, share, and evaluate corporate initiatives. This shift reflects a broader transition from firm-centric CSR to platform-based CSR, where value is jointly constructed by firms and users. Consequently, CSR effectiveness is no longer determined solely by corporate intention but also by user engagement and behavioral response within digital environments. This evolution provides the contextual foundation for integrating gamification mechanisms into CSR strategies.

Gamification as a mechanism for enhancing CSR engagement

Gamified CSR represents the integration of gamification mechanisms into corporate social responsibility initiatives, enabling users to participate in socially beneficial actions in a more engaging and motivating manner (Jun et al., 2020). For instance, consumers may earn rewards for completing sustainability-related tasks, participating in charitable campaigns, or sharing CSR content within their networks. This process not only increases behavioral participation but also strengthens emotional involvement and perceived meaningfulness of CSR initiatives. Compared with traditional CSR communication, gamified CSR shifts the user experience from information reception to active involvement, thereby enhancing psychological ownership of CSR outcomes (Zhang et al., 2026). Existing studies suggest that gamification can stimulate both intrinsic motivation (e.g., enjoyment, competence, self-expression) and extrinsic

motivation (e.g., rewards, recognition), making it a powerful mechanism for behavioral activation in digital environments. Therefore, gamification serves as a critical bridge linking CSR initiatives and consumer behavioral responses.

Consumer behavior on digital platforms in CSR contexts

Consumer behavior in digital platform environments extends beyond traditional purchasing decisions and includes a wide range of interactive and participatory behaviors (Shen et al., 2024). These behaviors encompass content engagement, such as liking, commenting, and sharing; co-creation activities, such as contributing feedback or ideas; and advocacy behaviors, such as electronic word-of-mouth (eWOM). Within the CSR context, consumer behavior is particularly influenced by perceived corporate responsibility, trust, and emotional resonance with social or environmental causes (Alfadul and AlKubaisy, 2024). Digital platforms intensify the visibility and social influence of CSR-related consumer behavior. Consumers are not only passive recipients of CSR information but also active disseminators and evaluators of corporate initiatives (Mintah and Elmarzouky, 2024). As a result, CSR engagement becomes socially embedded, where individual actions are shaped by community norms, social comparison, and platform feedback mechanisms. Furthermore, gamified elements embedded in CSR initiatives can significantly alter consumer behavioral patterns by increasing participation frequency and depth of engagement. Prior research indicates that CSR-related consumer behavior is strongly associated with perceived authenticity, motivation alignment, and perceived value of participation (Ma et al., 2021). In digital contexts, these behavioral responses are further amplified by platform affordances such as interactivity, personalization, and real-time feedback systems. Therefore, understanding consumer behavior in this context requires an integrated view that considers psychological, social, and technological dimensions.

Theoretical foundations explaining gamified CSR effects

In addition, Social Exchange Theory (SET) suggests that consumer participation in CSR activities is driven by perceived reciprocal benefits (Ahmad et al., 2023). Gamified CSR introduces structured rewards, recognition, or social benefits that increase perceived value of engagement, thereby strengthening participation likelihood. Furthermore, the Elaboration Likelihood Model (ELM) explains how consumers process CSR-related information through central and peripheral routes. In this framework, gamification functions as a peripheral cue that increases attention and engagement, especially when consumers have low initial involvement in CSR issues. Collectively, these theoretical perspectives suggest that gamified CSR operates through both cognitive and motivational pathways. It not only increases behavioral incentives but also reshapes psychological engagement with CSR content. This multi-theoretical foundation provides a robust explanatory basis for understanding how gamified CSR influences consumer behavior in digital platform environments.

Conceptual framework

Direct effects of CSR on consumer behavior (S→R)

In a platform-based public welfare setting, philanthropic responsibility tends to be the most legible cue at first glance since it makes the social impact visible and connects

users' every day micro-actions with publicly meaningful results. According to Carroll's CSR pyramid, philanthropic responsibility can be described as being discretionary but socially expected, which is behaviorally relevant if actors perceive it to be substantial and sincere. This process is exacerbated in online environments since giving signals reoccur in the form of task feedback, progression displays, and social diffusion that help philanthropic meaning to materialize into continued participation and recommendation (Wekesa, 2024; Raza et al., 2023). Proposition 1: Philanthropic responsibility has the significant positive direct impact on consumers' behaviour. Ethics implies justice, honesty, and stewardship above the law, making ethics an effective catalyst of normative judgment and value alignment capable of supporting continued involvement. In platform-based public welfare, ethics responsibility is a behaviorally powerful claim not because it makes an abstract moral statement, but via users' cumulative assessments of procedural sincerity, rules fairness, and credibility of impact representation throughout continual interaction.

Direct effect of gameful experience on consumer behavior ($O \rightarrow R$)

The distinction between having game elements, versus feeling a game is becoming more prominent in gamification studies. Reviews of gamification effects also find that gamified interventions do not always work well since it is how they are experienced by users and not just their design elements which determines outcome (Malik and Pradhan, 2025; Habachi et al., 2024). Gamification-based features aligned with Ant Forest are associated with sustainable actions via interaction experiences, suggesting that the greater the gameful experience is then it will produce a greater responsive support, advocacy, and participation reaction. Proposition 5: Gameful experience will have a significant positive effect on consumer behaviour.

Effects of CSR on gameful experience ($S \rightarrow O$)

The philanthropy responsibility offers salient impact cues that could increase the sense of meaning and contribution, so does the reward, immersion, and socialized engagement more likely to be experienced as lived experience rather than as an abstraction of appreciation (Chen et al., 2022). This virtual-to-real promise is an important interpretive cue for understanding how the activity should be experienced and why doing so feels motivating enough to continue. Proposition 6: Philanthropic responsibility has a significant positive effect on gameful experience. Ethics: Experiential processing may be influenced by ethics since users perceive morality, authenticity, and congruency with values as part of the ethical climate, which facilitates greater immersion and higher internal engagement. Proposition 7: Ethical responsibility has a significant positive effect on gameful experience. Accountability may improve gameful experience by mitigating the perception of danger and unpredictability associated with ongoing online engagement, which stabilize the conditions in which users may immerse, interact, and receive feedback without distrust interrupting engagement. Proposition 8: Legal responsibility has a significant positive effect on gameful experience. Economic responsibility might affect gameful experience because the perception of ability, and being able to afford resources reinforce perceptions that participation makes sense and that rewards, progress, and impacts are credible and sustainable. Proposition 9: Economic responsibility has a significant positive effect on gameful experience

The mediating role of gameful experience ($S \rightarrow O \rightarrow R$)

Gamification theory claims that it is the subjectivity of experiences how gamified services have an impact, making experience a natural mediator between CSR cues and behavior (Habachi et al., 2024). The evidence on the adoption of Ant Forest indicates that users are interpreting the virtual to real philanthropic promise using motivational reasoning processes, reinforcing mediation logic in this setting. Proposition 10: The gameful experience is a mediator of the effect of philanthropic responsibility on consumer's behaviour. CSR communication work treats CSR as a context clue whose effect depends on interpretation. Research on gameful experience gives us direct proof for experience as mediator of the relation between gamified situation and organizationally relevant outcome. Proposition 11: Gameful experience is a mediator of the link between ethical responsibility and consumer behaviour. Legal accountability may be a facilitative factor that contributes to stability in user's engagement, thus supporting the hypothesis that legal signals first contribute to the quality of experience but also are carried over into behavior. Proposition 12: Gameful experience is a mediator of the link between legal responsibility and consumer behaviour. Feasibility and ability are signalled through economic accountability, which could increase the trust in the gamified process and give a sense that rewards and progression matter. Proposition 13: Gameful experience mediates the relation of economic responsibility to consumer behaviour. The conceptual framework of the research is displayed in *Figure 1*.

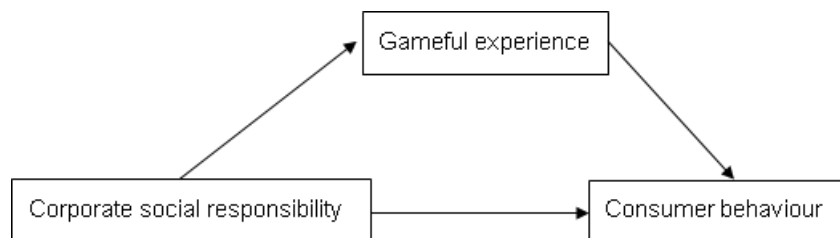


Figure 1. Conceptual framework of the research.

Conceptual synthesis and discussion

The synthesized conceptual framework highlights that platform-based CSR actions do not automatically translate into sustained consumer behavior. Instead, the boundary conditions and behavioral momentum are heavily contingent upon the quality of the gameful experience (Zhang et al., 2026; Malik and Pradhan, 2025; Habachi et al., 2024). The conceptual framework suggests that CSR perception is meaningfully related with both gameful experience and consumer behaviour, and that gameful experience acts as a strong indicator for consumer behaviour (Malik and Pradhan, 2025; Habachi et al., 2024; Jun et al., 2020). CSR for platform ecologies functions as a comprehensible indicator of platform purpose and accountability, while gamified experience provides an attractive psychological route which turns the interpreted responsibility into behavioural momentum (Zhang et al., 2026; Chen et al., 2022; Jun et al., 2020). This mechanism is particularly plausible in platform-based public welfare as the CSR is operationalized via the routine of interactions (Wang et al., 2024; Cezarino et al., 2022). In terms of CSR dimensions predicting gameful experience, economic responsibility has the highest standardized relationship to gameful experience, followed by philanthropic

responsibility and ethical responsibility, whereas legal responsibility was weaker. This pattern suggests that users' gameful experience is especially sensitive to signals indicating platform efficacy, value generation, and real gains, and signals for the provision of visible social good. In terms of CSR dimensions that predict customer behavior more or less directly, we find the highest standardized effect for ethical responsibility, followed by economic responsibility, legal responsibility, and philanthropic responsibility. The relatively smaller direct effect of the variable for philanthropic responsibility should not be interpreted as indicating that philanthropy is unimportant, rather, it suggests that philanthropic cues might be working more powerfully via meaning engagement. The second important finding is that gameful experience has high direct relationship to consumer behavior, supporting our proposition that psychological engagement due to gamification could act as a proximal antecedent for behavior (Malik and Pradhan, 2025; Habachi et al., 2024).

This study presents a comprehensive conceptual framework proposing that CSR dimensions influence consumer behavior both directly and indirectly via gameful experience (Zhang et al., 2026; Raza et al., 2023; Jun et al., 2020). Economic & philanthropic responsibility is more important in influencing gameful experience, although moral obligation plays a special role in motivating action. The gameful experience is an important mediator between perception of CSR and behavior (Zhang et al., 2026; Jun et al., 2020). Taken together, these results suggest a unified picture of platform based CSR in which signaling of responsibility, experience design, and users' segment also together influence the behavior of the digital sustainable program (Zhang et al., 2026; Wang et al., 2024; Chen et al., 2022). As for Ant Forest, the implication is that responsible practice needs to be made visible as credible signals, but also needs to be experienced as engaging and meaningful by means of interaction design (Zhang et al., 2026; Chen et al., 2022).

Research implications and future agenda

This study contributes theoretically by integrating a multidimensional CSR framework with the stimulus–organism–response logic in a platform-based sustainability context. The findings show that CSR dimensions have differentiated roles rather than functioning as a single undifferentiated construct (Carroll, 1991). The second, and perhaps more important, theoretical contribution resides on framing gameful experience as an underlying, key organismic mechanism connecting CSR perception to behavior response (Zhang et al., 2026; Malik and Pradhan, 2025; Habachi et al., 2024). Third, the heterogeneity results expand upon the theory in pointing out demography corner solutions. The differential effect of CSR means that platforms need to communicate both credibility and effectiveness in their messages and interfaces (Wang et al., 2024; Cezarino et al., 2022). Second, our mediation results suggest that better gamification design is more than just aesthetics—it is also a way to improve CSR's behavioral efficacy (Zhang et al., 2026; Malik and Pradhan, 2025; Habachi et al., 2024). Third, these heterogeneity implications suggest that segmentation will inform both messaging as well as design. Sustainability initiatives based in platforms raise policy relevant questions of governance, transparency and responsible innovation (Wang et al., 2024; Mintah and Elmarzouky, 2024). Our results indicate that users respond both due to gamification engagement as well as due to perceived ethics/governance credibility (Malik and Pradhan, 2025; Mintah and Elmarzouky, 2024;

Habachi et al., 2024). Second, policymakers may see platform-based CSR as a supplement to more conventional environmental policy instruments.

Conclusion

This study develops a conceptual framework to explain how CSR dimensions in platform-based public welfare environments translate into consumer behavior through the mediating role of gameful experience (Zhang et al., 2026; Jun et al., 2020). Drawing on Carroll's CSR Pyramid and the Stimulus–Organism–Response (SOR) framework, the model conceptualizes CSR dimensions as multidimensional stimuli, gameful experience as the organismic psychological mechanism, and consumer behavior as the behavioral response (Carroll, 1991). The central argument is that CSR does not influence consumer behavior in a purely direct manner; instead, its behavioral effects are substantially shaped by how users experience CSR through gamified digital interactions (Zhang et al., 2026; Malik and Pradhan, 2025; Habachi et al., 2024). The conceptual findings suggest that CSR dimensions exert both direct and indirect effects on consumer behavior (Raza et al., 2023; Ma et al., 2021). Philanthropic, ethical, legal, and economic responsibilities function as distinct but interrelated stimuli that shape users' perceptions of platform legitimacy, value creation, and social impact (Carroll, 1991). Among these, ethical and economic responsibility appear particularly influential in driving direct behavioral responses, while philanthropic responsibility is more strongly associated with experiential engagement. This indicates that different CSR dimensions operate through differentiated psychological pathways rather than a uniform mechanism. A key contribution of this study lies in identifying gameful experience as a central mediating mechanism linking CSR perceptions to consumer behavior (Zhang et al., 2026; Jun et al., 2020). Gameful experience acts as a psychological bridge that transforms CSR signals into sustained engagement and participation (Malik and Pradhan, 2025; Habachi et al., 2024). The results of the conceptual integration suggest that CSR stimuli are most effective when they are experienced as meaningful, interactive, and rewarding within platform environments (Zhang et al., 2026; Chen et al., 2022). In this sense, gamification does not merely enhance user engagement but fundamentally shapes the behavioral effectiveness of CSR communication (Zhang et al., 2026; Malik and Pradhan, 2025; Habachi et al., 2024).

From a theoretical perspective, this study extends CSR literature by moving beyond direct-effect explanations and incorporating a process-oriented mechanism grounded in the SOR framework. It also contributes to gamification research by positioning gameful experience not as a peripheral outcome but as a core explanatory construct in platform-based behavioral models (Zhang et al., 2026; Malik and Pradhan, 2025; Habachi et al., 2024). In addition, the integration of Carroll's CSR Pyramid with SOR theory provides a more nuanced understanding of how different CSR dimensions function as heterogeneous stimuli in digital ecosystems (Carroll, 1991). From a practical perspective, the findings suggest that platform-based CSR strategies should not rely solely on enhancing CSR visibility or communication intensity (Wang et al., 2024; Cezarino et al., 2022). Instead, firms should focus on designing meaningful gamified experiences that translate CSR initiatives into sustained user participation (Zhang et al., 2026; Malik and Pradhan, 2025; Jun et al., 2020). Specifically, strengthening the experiential quality of reward systems, interactive mechanisms, and progress feedback may enhance the behavioral effectiveness of CSR initiatives (Zhang et al., 2026;

Habachi et al., 2024; Chen et al., 2022). Moreover, the differentiated effects of CSR dimensions imply that organizations should carefully balance credibility-oriented signals (such as ethical and legal responsibility) with engagement-oriented signals (such as philanthropic outcomes and economic value creation) (Carroll, 1991).

This study also has implications for policy and platform governance. As gamified CSR becomes increasingly embedded in digital ecosystems, ensuring transparency, authenticity, and ethical alignment becomes essential for maintaining user trust and long-term participation (Wang et al., 2024; Mintah and Elmarzouky, 2024). Policymakers may consider platform-based CSR as a complementary mechanism to traditional sustainability governance, particularly in promoting large-scale behavioral change through digital participation (Wang et al., 2024; Cezarino et al., 2022). Finally, several limitations should be acknowledged. As a conceptual study, the proposed framework requires empirical validation across different platform contexts and cultural settings. Future research may further examine boundary conditions such as user heterogeneity, cultural differences, and platform design variations. Longitudinal and multi-platform studies would also help to better capture the dynamic nature of gameful experience and its evolving role in shaping CSR-related behavior.

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Conflict of interest

The authors confirm that there is no conflict of interest involved with any parties in this research study.

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