



The Brand Shield: How Brand Equity Moderates the Emotional Backlash of Gamification Failure

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ABSTRACT

As increasingly being an integral part of different e-commerce platforms, the aspect, namely gamification, has been showing more potential, especially in making the shopping experience more rewarding and interactive, although when relevant systems could not function at that specific moment or are being regarded as somehow manipulative, and with the inclusion of some playful design, it may generate some level of frustration among users, particularly among Generation Z. The examination was focused on how unsatisfactory experiences with gamification could shape the decision to boycott a brand by zooming into whether emotional discomfort could serve as a link between failed experiences and boycott intention, and also whether brand equity could help buffer the negative reaction. By referring to the cognitive appraisal theory, a quantitative design was implemented to collect data from 457 Gen Z customers in Vietnam using a structured online questionnaire, and reliability and validity were guaranteed by running Cronbach's alpha and confirmatory factor analysis, with hypotheses tested by performing structural equation modeling (SEM) on the AMOS 29 software. When the elements of gamification did not deliver the intended effects, two interrelated processes could be elicited, which would shape boycott intention, and one of the processes involved a cognitive judgment, wherein users would see the brand as rather unreliable or unfair, whereas, on the other hand, the second process included emotional reactions, in which feelings of anger and frustration could partially mediate the association. Brand equity was also discovered to be able to moderate the association by mitigating some of the impact of negative emotions on the boycott intention.

Keywords: Gamification, Brand Equity, Brand Boycott, Consumer Behaviour

JEL Classifications: M31, D91, L81

1. INTRODUCTION

1.1. Research Context: The Ubiquity and Risk of Gamification in Marketing

In general, gamification, or usually refers to incorporating the elements of a game design into non-game contexts (Deterding et al., 2011), has increasingly emerged as a more familiar strategy in modern marketing, in which it has been observed that quite a few firms have currently included features, especially badges, points, and leaderboards, into their respective platforms to help resonate more with the tendency of humans to strive for achievement and friendly competition, all of which serve to aid in reinforcing brand engagement and cultivating loyalty (Habachi et al., 2024).

Fundamentally, the notion is that having a playful design can help incentivise behaviours that can be advantageous to both brands and customers, although when looking at existing evidence, it seems like numerous gamification projects could not actually deliver their intended objectives, and one of the reasons is owing to some flaws in the conceptual design, which has sprang a new phrase from scholars, that is, gamification backlash (Juul, 2011), and it has also diverted academic attention towards the negative aspect of gamification. Also, when referring to recent research, the backlash could also be due to a psychological misunderstanding, when narrow gamification has been frequently used, which means there has been a lot of focus on external rewards, which might have inadvertently diminished intrinsic motivation, thereby

generating the perception of being manipulated and emotional fatigue (Hammedi et al., 2021). As such, it is important to better understand the reasons contributing to the negative experiences from gamification, and what consequences have been engendered.

In the current era, although there has been a growing interest in gamification, what actually happens in the minds of consumers when a gamified system could not offer a satisfying experience is, at the moment, not actually known, and thus, a gap has been created in understanding the psychological processes that will follow when there is a poorly designed or malfunctioning gamified feature, which was denoted, in the current investigation, as the failure gamification experience (FGE), and it is not just about a technical problem, but also includes a wider psychological state that users might have felt frustrated, being deceived, or treated unfairly by a system that has gone against the fundamental requirements for sufficient transparency and control (Nazifi et al., 2025). Even though in past studies, it was found that there were some negative aspects of gamification, the specific mechanisms of how negative experiences with gamified platforms would contribute to retaliatory behaviours, which could be boycotting a brand, were scarcely examined, not to mention that relevant investigations of the current topic would be much more critical among Generation Z (Gen Z) in Vietnam, as they represent to cohort of digital natives who, day-to-day, interact with gamified systems, and also always immediately discover a tiny sign of unfairness or manipulation, especially ine-commerce platforms, which have been actively incorporating gamified elements.

In accordance, in the present study, the cognitive appraisal theory or CAT (Lazarus, 1991), which postulates that emotions do not directly emerge from events but from how people interpret the lived events by referring to personal well-being, was included as the primary conceptual framework, and as described by the theory, there will be an activating event (FGE), which can elicit a cognitive appraisal process and can in turn produce an emotional response, subsequently shaping a coping behaviour. As such, a moderation-mediation model was proposed to help identify how negative affect (or bad feeling, BF) could mediate the linkage between FGE and brand boycott intention (BBI), with brand equity (BE) playing a moderating role, or rather, a buffer for a brand against negative sentiments from consumers.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

2.1. Foundational Theory: Cognitive Appraisal Theory (CAT)

The CAT (Lazarus, 1991), which was incorporated in the present study as the main theoretical framework, posits that emotions are the product of a cognitive interpretation process or cognitive appraisal concerning how profound an event is in relation to the goals and well-being of an individual through two stages (Lazarus and Folkman, 1984), with the first as the primary appraisal, or the evaluation of the FGE done by an individual as to see how it does not match with the intended goal, which can be trying to obtain a reward or have better enjoyment, and the second as the

secondary appraisal, which includes assessing coping options available at the moment and the causal relationships between an event and the lived experiences. Zooming into the FGE, users might blame external factors (other-blame), especially the brand, for being mainly responsible for the negative experience, and during the process, anger might be elicited (Lazarus, 1991), which can contribute to the development of a coping behaviour, including the BBI, as a form of penalty against the external party that is believed to be at fault.

2.2. Hypothesis Development

First and foremost, by referring to the service failure theory, the present study conceptualised the FGE as a specific type of digital service failure, characterised by not meeting customer expectations, which might contribute to the emergence of negative behaviours among customers to attempt to punish the service provider, with boycotting a brand as one of the most powerful forms of negative behaviours to retaliate for not being trustworthy enough (Klein et al., 2004) following that, a hypothesis was developed:

H₁: The FGE has a positive impact on BBI.

To help reveal the psychological mechanism underpinning H₁, the CAT was included in the current study, that is, to explain why users would perform primary (goal incongruence) and secondary (brand-blame) appraisals when experiencing an FGE (the event) (Lazarus, 1991), and the end of the appraisal process would be the emergence of BF (negative emotions), especially anger, and the developed hypothesis also corresponded to the current literature on service failure, which has shown that bad experiences often serve as the main reasons for having negative affect:

H₂: The FGE has a positive impact on BF.

Also referring to the CAT, BF could also function as the main driver of a coping behaviour (Lazarus and Folkman, 1984), for example, anger seeks to penalise the party seen as mainly responsible for the negative experience (Bougie et al., 2003), with the BBI as a direct manifestation of the behaviour to retaliate:

H₃: The BF has a positive impact on the BBI.

By combining the logic of both H₂ and H₃, a complete mediation path could be derived, in which the impact of the FGE on the BBI was not entirely direct, as the impact would require eliciting negative affect to help deliver, suggesting that BF could act as a psychological mechanism, or a bridge, to help describe how a negative experience would be translated into a punitive behavioural intention:

H₄: The BF mediates the positive relationship between FGE and BBI.

A mediation process is rather unlikely to be uniform across all brands, and according to the brand equity theory (Aaker, 1991), higher BE could function as a psychological buffer or a form of forgiveness capital, reflecting that there is an intricate interaction, in which BE can come into the second stage of the mediation path, that is, the pathway from emotion (BF) to behaviour (BBI). In particular, loyalty and trust that have been acquired by a brand, which are reflected in the form of higher BE, can assist in alleviating any negative emotions, to help prevent them from

turning into retaliatory behaviours, even though higher BE cannot entirely prevent a customer from being angry (H₂), but at least, there is some buffer against the negative emotion, so it would not translate into a boycott action. In a similar vein, existing evidence has also shown that brand forgiveness could occur when there is a stronger relationship between customers and a brand (Alnawar et al., 2023; Papadopoulou et al., 2023):

H₃: The BE negatively moderates the positive relationship between the BF and BBI, such that the relationship is weaker when BE is higher.

The proposed research model is illustrated in Figure 1

3. RESEARCH METHODOLOGY

A quantitative and cross-sectional design was used, as the design was considered suitable for collecting data related to psychological variables, such as perceptions, emotions, and intentions, at a single point in time to help assess the hypothesised structural relationships by leveraging an online questionnaire, targeting Gen Z in Vietnam who had some experience with gamified features on major e-commerce platforms, which acquired a final valid sample of 457 respondents.

All latent constructs, which included the FGE, BF, BBI, and BE, were assessed through scales that had been validated in the existing literature (Table 1), and all items were rated on a seven-point Likert scale, ranging from 1 as strongly disagree to 7 as strongly agree, with the collected data analysis run on the IBM SPSS Statistics 29 and IBM SPSS AMOS 29 software through a rigorous two-step approach, as recommended by Hair et al. (2019). In particular, the analysis concentrated on the descriptive statistics, Cronbach’s alpha reliability tests, and exploratory factor analysis (EFA) first, before going into SEM, which was run on the AMOS software, with confirmatory factor analysis CFA being done to check the fit of the measurement model, convergent validity, and discriminant validity, before moving to the full structural model assessment for direct hypothesis testing (H₁, H₂, H₃, and H₅), whereas the mediation hypothesis (H₄) was tested through bootstrapping at 5,000 resamples to help provide bias-corrected confidence intervals.

4. RESULTS

4.1. Descriptive Statistics

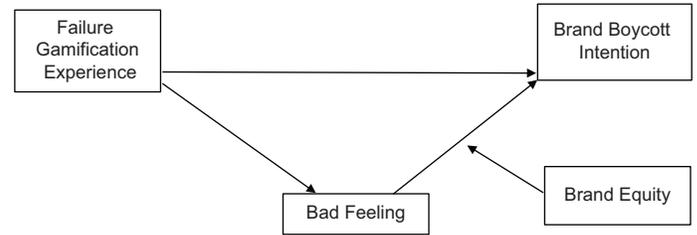
As depicted in Table 2, namely the demographic profile of respondents, there is a quite holistic overview of the demographic characteristics of respondents, indicating that the responses collected from the respondents were appropriate for analysis to help address the research objectives, as the respondents were mainly Gen Z. It matches the target population, wherein most of the respondents (73.1%) are aged between 19 and 22 years old, followed by between 23 and 25 (17.9%), reflecting the Gen Z cohort. Also, more than half of the respondents were females (58.6%), and in terms of monthly income, 67.0% of them earned below 5 million VND, aligned with the income level of being a student or in the early stages of a career. Importantly, there was a higher level of engagement with gamification, that is, 46.2%

actually engaged with the platforms for a few times each week, with another 20.6% every day.

4.2. Measurement Model Analysis

Before evaluating the structural model, it would be the measurement model first, in which EFA was run, which assisted in affirming that the collected data were suitable for factor analysis (KMO = 0.877; Bartlett’s Test P < 0.001), thereby extracting four distinct factors that could together explain 60.319% of the total variance, before running CFA to aid in verifying the four-factor measurement model. As demonstrated by the results, there was

Figure 1: Proposed research model



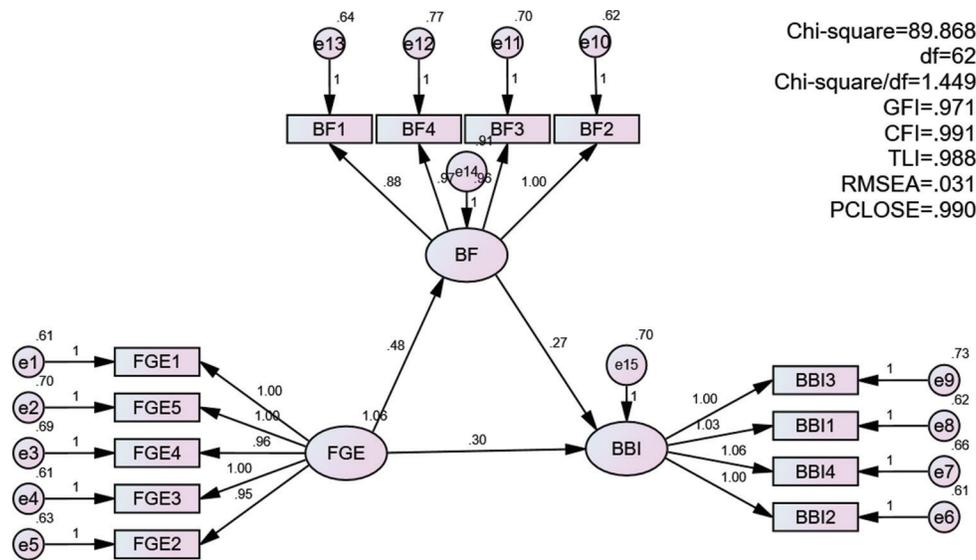
Source: Authors’ own work

Table 1: Scales and reference sources

Encryption	Observational variable	References
Failure gamification experience		
FGE1	The rules of this gamification activity are unclear and unfair	Murtarelli et al. (2024); Ratuliu and Hayu (2025)
FGE2	This game is designed to waste my time/money for nothing	
FGE3	The reward I might get is not worth the effort I put in	
FGE4	I often encounter technical errors (freeze, lag) when playing this game	
FGE5	I feel cheated by the brand’s promises of rewards	
Bad feeling		
BL1	I feel angry when experiencing this gamification	Romani et al. (2012);
BL2	I feel frustrated with gamification	Murtarelli et al. (2024)
BL3	I feel frustrated when I participate in the game	
BL4	I regret joining	
Brand boycott intention		
BBI 1	I will stop using this brand’s products/services in the future	Klein et al. (2004);
BBI 2	I will actively look for other alternative brands	Murtarelli et al. (2024)
BBI 3	I will advise my friends and relatives not to use this brand	
BBI 4	If given the chance, I will share my negative experiences with this brand on social media	
Brand equity		
BE1	Even if there are other brands, I still believe this brand is the best choice for me	Ma et al. (2020); Brady et al. (2008)
BE2	I consider myself a loyal customer of this brand	
BE3	This brand is one of my favourites	
BE4	Overall, I have a very good impression and respect for this brand	

Source: Authors’ own work

Figure 2: The structural model analysis results



Source: Authors' own work

Table 2: Descriptive statistics of respondents

Demographic variable	Category	Frequency (n=457)	Percentage
Gender	Male	189	41.4
	Female	268	58.6
Age group (Years old)	19-22	334	73.1
	23-25	82	17.9
	26-28	41	9
Monthly income/Financial source	Below 5 million VND	306	67
	5-10 million VND	79	17.3
	10-20 million VND	34	7.4
	Above 20 million VND	38	8.3
Participation frequency in gamified activities (per month)	Daily	94	20.6
	A few times per week	211	46.2
	A few times per month	56	12.3
Monthly spending on E-commerce platforms	Rarely	96	21
	Below 1 million VND	256	56
	1-3 million VND	132	28.9
	3-5 million VND	33	7.2
	Above 5 million VND	18	3.9
	Above 10 million VND	18	3.9

Source: Authors' own work

a good model fit (CMIN/DF = 1.350; CFI = 0.989; TLI = 0.987; RMSEA = 0.028), with all indices fulfilling the recommended thresholds, which helped offer a rather robust foundation for validity assessment (Table 2). At the same time, all measurement scales were also found to have higher internal consistency, wherein all Cronbach's alpha values were well above 0.83, and convergent validity was also confirmed, with all composite reliability (CR) values being higher than 0.83, also higher than the threshold of 0.70, and all average variance extracted (AVE) values higher than 0.56, also higher than the threshold of 0.50, plus satisfactory discriminant validity was also ascertained through the Fornell and Larcker (1981) criterion, wherein the square root value of the AVE for each construct (bolded diagonally in Table 3) was higher compared to all its inter-construct correlations, hence suggesting that the four constructs were statistically distinct.

4.3. Structural Model and Hypothesis Testing

With the measurement model validated, the full structural model was tested (Figure 2), and it was also demonstrated that the structural model had an excellent fit to the data (CMIN/DF = 1.449; GFI = 0.971; CFI = 0.991; RMSEA = 0.031), thus indicating that the proposed theoretical framework accurately reflected the relationships within the data, with the hypothesis testing results for H₁, H₂, H₃ (direct effects), and H₄ (indirect effect) presented in Table 4, all of which were statistically significant and in the predicted direction. In particular, the FGE exerted a strong and positive influence on BF (H₂: β = 0.458, P < 0.001), and the BF, in turn, had a significant positive impact on the BBI (H₃: β = 0.297, P < 0.001). At the same time, the direct cognitive path from the FGE to the BBI (H₁) was also strongly supported (β = 0.318, P < 0.001), and the bootstrap analysis with 5,000 samples also assisted in affirming the mediation hypothesis, that is, H₄, showing that the indirect influence of the FGE on the BBI through the BF was statistically significant (β = 0.136, P = 0.001) within the 95% bias-corrected confidence interval (0.077, 0.193) without any value of zero, thereby corroborating the mediating role of the BF. Also, the simultaneous statistical significance of both the direct (H₁) and indirect (H₄) effects helped validate a partial mediation mechanism, reflecting that the FGE would impact the BBI through two parallel pathways, that is, cognitive (direct) and affective (indirect).

The moderation analysis results, as presented in Table 5, provided strong support for H5, and the interaction term (BF *BE) had a negative (β = -0.259) and highly statistically significant (P < 0.001) impact on the BBI, which helped confirm the moderating role of BE, signifying that as BE increased, the positive impact of the BF on the BBI would be significantly weakened. Conversely, at low levels of BE, the impact of the BF on the BBI was stronger, showing a nuanced finding, that is, the direct effect of BE on the BBI (Z_BE → Z_BBI) was not statistically significant at the α = 0.05 level (P = 0.055), which implied that BE would not, by itself, help lower boycott intentions; but rather, the main function was serving as an interactive shield, activated to mitigate damage only when the customer was already experiencing negative affect.

Table 3: Summary of scale reliability, validity, and correlation matrix

Construct	Item	Standard loading	Cronbach's alpha	CR	AVE	1	2	3	4
FGE	FGE1	0.796	0.887	0.887	0.612	0.782			
	FGE2	0.777							
	FGE3	0.796							
	FGE4	0.765							
	FGE5	0.776							
BBI	BBI1	0.791	0.861	0.861	0.608	0.454***	0.780		
	BBI2	0.782							
	BBI3	0.756							
	BBI4	0.790							
BF	BF1	0.762	0.860	0.860	0.605	0.458***	0.443***	0.778	
	BF2	0.806							
	BF3	0.775							
	BF4	0.768							
BE	BE1	0.791	0.839	0.839	0.566	-0.089	-0.044	0.051	0.752
	BE2	0.741							
	BE3	0.735							
	BE4	0.740							

CR: Composite reliability, AVE: Average variance extracted. Note: Diagonally bolded values are the square root values of AVE. Off-diagonal values are inter-construct correlations. Standard loadings from CFA. ***P<0.001. Source: Authors' own work

Table 4: Hypothesis testing results: direct and indirect effects

Path	Hypothesis	Standard estimate (β)	CR	P-value	Conclusion
Direct effect					
FGE→BF	H ₂	0.458	8.486	***	Supported
BF→BBI	H ₃	0.297	5.131	***	Supported
FGE→BBI	H ₁	0.318	5.536	***	Supported
Indirect effect					
FGE→BF→BBI	H ₄	0.136	CI (0.077-0.193)	0.001*	Supported

CI: Confidence interval. *P<0.01, **P<0.001

Table 5: Moderation effect of BE on the pathway from BF to BBI

Path	Hypothesis	Standard estimate (β)	CR	P-value	Result
Z _{BF} →Z _{BBI}		0.360	8.638	***	Significant
Z _{BE} →Z _{BBI}		-0.080	-1.917	0.055	Not significant
BF*BE→Z _{BBI}	H5	-0.259	-6.180	***	Supported

**P<0.001. Source: Authors' own work

5. DISCUSSION

In the current study, a moderation-mediation model was empirically validated, describing which psychological mechanisms were involved in translating the FGE into the BBI among Gen Z in Vietnam, with all five hypotheses (H₁ to H₅) supported, thereby helping affirm a rather intricate dual-pathway mechanism of retaliatory behaviours in the digital space.

5.1. The Affective Pathway to Retaliation (H₂, H₃, and H₄)

According to the current results, FGE was shown to be a quite powerful factor for eliciting negative emotions (H₂, $\beta = 0.458$), corresponding to the key postulation of the CAT (Lazarus, 1991), that is, users would interpret an FGE as both a breach of fairness and a disruption of personal goals, and when the users saw the system did not actually treat them fairly, there would be a higher tendency to direct blame towards the brand, thereby leading to feelings of frustration and anger, which could, in turn, become potent predictors of the BBI (H₃, $\beta = 0.297$), corroborating earlier results on discovering moral outrage and anger as critical emotional triggers towards retaliatory behaviours among

customers (Hino, 2023; Sameeni et al., 2024). In particular, when consumers perceive that they have been, somehow, manipulated or deceived by a system, they feel compelled not only to disengage from the brand but also to take some action against the brand, which validates the conventional assertion that dissatisfied customers do not just leave, but they will get back in the end (Bougie et al., 2003). On the other hand, there were also important results, showing the significant partial mediation role of the BF (H₄, $\beta = 0.136$, which might help strengthen the centrality of the affective pathway, suggesting that consumers would not just evaluate the experience through rational ways but would also feel wronged, and the emotions would serve as a psychological bridge, translating the feeling of frustration into a conscious intention to punish the brand for not being responsible for helping them achieve personal goals.

5.2. The Direct Cognitive Backlash (H₁)

There were profound results for H₁, showing that the strength of the direct effect from the FGE to the BBI (H₁, $\beta = 0.318$), which was even larger compared to the indirect affective path, as the effect was larger than the size of the indirect affective path, implying

that a cognitive process might be operating alongside emotional reactions, or in other words, even when consumers would not feel angry, the consumers might still come out with a rational decision to distance themselves from the brand or to boycott the brand altogether, wherein the FGE would function as a mental cue about how competent and integrity the brand was, and for Gen Z, who are rather digitally literate, any type of failures experienced on digital platforms could symbolise as telltales of deeper issues, rather than as harmless technical glitches. In such cases, when there is a poorly functioning gamified system, it might actually signal that the brand does not have good capability and fails to deliver its promises, or, in some cases, it can suggest that the brand intentionally manipulates users by including gamified features that cannot help the users to win rewards. As a result, any subsequent reaction from users always goes beyond disappointment with the game itself, as the users may, in the end, reject the brand totally, which represents, as described by Juul (2011), a gamification backlash, showing that the very feature intended to engage customers has become the main reason turning them away.

5.3. The Brand Shield (H₅): The Buffering Role of BE

As demonstrated by the results for H₅ ($\beta = -0.259$), there was rather concrete evidence about how BE served as a form of a psychological buffer, or, in other forms, a form of forgiveness capital, that is if customers had a strong and positive perception of a brand, there would be a lower likelihood to let personal frustration to become retaliatory actions. For instance, even when there was a FGE and, somehow, it elicited the feeling of anger, if there was a higher level of BE, the mechanism of converting emotion to action would be weaker, suggesting the direct impact of BE on the BBI was actually not statistically significant ($P = 0.055$), that is, BE did not silently suppress negative responses but rather, it played some protective role only when negative emotions emerged, containing the feelings before they were translated into punitive behaviours, hence empirically supporting the concept of brand forgiveness (Alnawas et al., 2023; Papadopoulou et al., 2023) for minor experiential mistakes.

6. CONCLUSION AND IMPLICATIONS

Through the current investigation, there was an empirical scrutiny on how the FGE would actually influence behavioural intentions, especially customers' tendency to boycott brands. By collecting data from 457 Gen Z consumers in Vietnam and running SEM, the results helped affirm that an FGE could contribute to higher BBI through two interconnected mechanisms, which are cognitive and emotional, partially mediated by negative emotions and moderated by BE, serving as a form of psychological buffer that could assist in mitigating the influence of negative emotions on increasing the likelihood to show retaliatory behaviours. On the other hand, looking at the theoretical aspects, there were a few contributions from the present study, and one of them was aiding in further expanding the discourse of the "dark side of gamification" by developing one of the first empirical models that helped examine failure instead of success (Hammedi et al., 2021). At the same time, the present study also helped corroborate the relevance of the CAT in better understanding emotional and cognitive reactions within contemporary digital service failures, wherein

the discovery of a partial mediation process helped describe how an FGE functioned not only as an emotional trigger but also as a cognitive signal, through which consumers could appraise the competence and integrity of a brand. Also, by revealing that BE indeed moderated the association between emotion and behaviour ($BF \rightarrow BBI$), instead of functioning as a direct antecedent, the present study introduced a more refined view of BE as a form of forgiveness capital.

Practically, there were a few implications from the present study, and one of those was that managers should see gamification both as an opportunity and a risk, in which, on the one hand, poorly designed systems not only could be ineffective in entertaining the audience but could also jeopardise the reputation of the brand through the perception of unfairness or manipulation among users, as transparency, fairness, and genuine reward systems should be seen as design priorities instead of afterthoughts. On top of that, any investment in BE should be regarded not only as a marketing effort but also as a strategy for risk mitigation, as brands with stronger BE would have a better buffer to mitigate the damage resulting from design or technical failures and vice versa, and, at the same time, if a gamified experience is not effective, there should also be an effective recovery strategy to help address the cognitive path (fixing the error or clarifying the implemented rules) and the affective path (offering a sincere apology). In the meantime, there are some limitations in the present study, as a cross-sectional design was used, and even though the design was suitable for SEM, it would restrict any inferences of causality. Aside from that, with the sole focus on Gen Z in Vietnam, the results might not actually apply to other age cohorts or cultural contexts. In such cases, in the future, scholars can consider running experiments or performing longitudinal research to help determine how the relationships assessed in the current study may develop in the long term, and other moderating variables, such as personality traits or prior attitudes towards digital gaming environments, can also be included in the investigation scope.

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