Branding fashion through gameplay: the branded gaming and the cool dynamics in the fashion markets. A game-theory approach

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Abstract

Purpose – The aim of this study was to investigate the role of immersive gaming on brand coolness and brand equity, with particular emphasis on fashion gaming collaborations. We used game theory as a theoretical framework to analyse immersive branding strategies and gain a deeper understanding of fashion consumers' decision-making process in gaming environments. Gender, as a significant factor affecting gamers, has been studied as a moderator that impacts the overall proposed framework.

Design/methodology/approach – A quantitative method was used to assess the significance of relationships within the proposed model empirically. The partial least squares structural equation modelling technique was implemented to assess the relationships of the framework with a sample size of 160 active Malaysian gamers.

Findings – The findings indicate that brand equity is positively associated with perceived brand coolness. Furthermore, of the three core values of online games, perceived enjoyment is most strongly associated with perceived brand coolness, ahead of the values of self-expression and perceived emotional challenge. The results of the multigroup analysis further suggest that in the fashion industry, building brand equity through online games is strongly related to perceived brand coolness among female respondents, the role of perceived brand coolness being weaker among male respondents.

Originality/value – The study contributes to the existing literature by providing a deeper understanding of the impact of immersive gaming branding practices on the overall equity of the fashion brand. The results provide insight for fashion brand managers into the significant effect on consumer behaviour outcomes of fashion-gaming collaborations.

Keywords Game-theory, Asia–Pacific, Brand coolness, Brand equity, In-game advertising, Advergames

Paper type Research paper

1. Introduction

According to the latest market reports, the global gaming market reached USD\$396.20bn in 2023, with a user base of nearly 3 billion gamers. In particular, Asia–Pacific accounts for 48% of these gamers (Statista Market Insights, 2023a), while in-game advertising is becoming more popular worldwide and is expected to reach USD\$23.95 m by 2027 in Malaysia alone (Statista Market Insights, 2023b). During the pandemic, fashion brands entered the gaming

industry (Hanson, 2022), resulting in 50% of gamers reacting more positively to brands they encounter in-game (Jakob and Meehan, 2023). Studies have shown that players spend more on gaming self-representation products (Li *et al.*, 2020), and the acquisition of virtual in-game assets is estimated to reach USD$74.4bn by 2025 (Clement, 2021), with an estimated Malaysian virtual assets market USD$55.56 per gamer in 2023 (Statista Market Insights, 2023c). Furthermore, a survey conducted by Business of Fashion (2022) revealed that 50% of fashion consumers intend to spend more on digital assets. These market statistics indicate the potential of immersive gaming as a branding avenue for fashion brands, while recent studies have correlated gaming experiences with individual values, such as enjoyment (Fernández-Ruano *et al.*, 2022), self-expression (Bogicevic *et al.*, 2021) and perceived challenges (Xi and Hamari, 2019).

From a branding perspective, brands have adopted gamification concepts to simulate consumer perceptions, attitudes and behaviour by leveraging the immersive storytelling abilities of games (Wünderlich *et al.*, 2020). Gaming platforms have disrupted traditional shopping touchpoints, affecting consumers' behavioural outcomes towards brands and their products (Wang, 2021; Yoo *et al.*, 2023). Fashion brands collaborate with the gaming industry through in-game advertising (branded elements within gaming platforms as an advertising strategy) and advergames (digital content that mimics gaming environments to promote brand core messages) (Ghosh *et al.*, 2021). Those collaborations aim mainly to promote and convey brand messages in a less aggressive form of advertising (Ghosh *et al.*, 2021). For instance, Balenciaga debuted their F/W21 collection through the advergame "*Afterworld: The Age of Tomorrow*". A year later they partnered with Epic Games to provide in-game skins for Fortnite's shopfront (Balenciaga Brings High Fashion to Fortnite-Epic Games, 2021). On the other hand, Gucci has reported the purchase of a virtual version of its signature bag in Roblox for $4,000, which is almost double the price of its physical version (Yoo *et al.*, 2023). Nike's acquisition of the gaming studio RTFKT and the launch of their Roblox game Nikeland have contributed to their ranking as one of the top 10 brands globally in 2022 and 2023, with Nikeland attracting 7 million visitors since its launch in 2022 (Brujó, 2022; Marr, 2022).

While gaming and its values are typically associated with younger consumers, research showed that brand coolness is also an emotionally driven construct closely linked to younger generations (Chen *et al.*, 2021; Loureiro *et al.*, 2020), with perceived coolness of a brand can lead to positive outcomes, such as brand love (Warren *et al.*, 2019). Brands can enhance consumer-brand bonding by adopting innovative interactive marketing practices that activate consumers' perceptions of brand coolness (Bogicevic *et al.*, 2021). Coolness can also catalyse purchase intentions, highlighting the significance of cool images in self-interested advertising appeal (Lu *et al.*, 2021). Building on this argument, younger consumers are more likely to be attracted to brands with a cool image. Additionally, brand equity can be a valuable asset in shaping consumer behaviour (Upadhyay *et al.*, 2022), as studies have linked brand equity to consumer awareness, associations, perceived quality, and loyalty, all of which contribute to favourable consumer behaviour towards branded products (Fernández-Ruano *et al.*, 2022). To understand the impact of gaming practices on brand equity, it is vital to study the interplay between physical and virtual branding practices, particularly for fashion branding. Although gamified retail experiences have been extensively researched, there is a lack of research on how gaming variables affect consumer attitudes towards overall brand equity, affecting physical brands.

This study aims to comprehensively examine the relationship between immersive gaming, brand coolness, and brand equity in the fashion industry. Using game-theory as a theoretical framework, we analysed immersive branding strategies and the decision-making processes of fashion consumers in gaming environments. We systematically explore the values and rewards that influence gamer choices when engaging with fashion brands during gameplay, while taking into account individual values and gender differences. Our study was guided by the following central research questions:

RQ1. How do individual game values affect consumers' perceptions of fashion brand coolness through gameplay interactions?

RQ2. What is the impact of branded gameplay on the overall equity of fashion brands?

This study contributes to the existing literature in four ways: (1) extending the understanding of gaming branding strategies in fashion markets as a prominent business model; (2) testing the model in light of game-theory to enhance the understanding of decision-making in virtual environments; (3) identifying potential factors that contribute to and result from brand coolness in immersive gaming environments; and (4) examining the possible moderating effect of gender on the relationships between antecedents and outcomes.

2. Review of the literature

Building on decision-making theory, game-theory was introduced by Morgenstern and Von Neumann in 1944 and has been applied across various scientific fields, including mathematics, economics, and behavioural and social sciences (Patra and Ghose, 2020). The orthodox structure of the theory comprises three main elements: (1) players/decision-making participants; (2) strategies; and (3) rewards (Abedian *et al.*, 2022; Samsura and van der Krabben, 2012). Players engage in conflicts and employ distinct strategies to attain optimal rewards within their game environment (Muggy and Heier Stamm, 2014; Samsura and van der Krabben, 2012). Game-theory from this perspective allows the examination and exploration of behavioural outcomes concerning various stakeholders; including consumers, brands and retailers, with a focus on capturing value (Abedian *et al.*, 2022; Samsura and van der Krabben, 2012).

Our study utilizes game-theory to analyse the variables and provide a rational explanation for branding decisions in immersive retail environments. The different immersive experiences offered through gaming platforms and virtual environments are studied as strategies through which consumers are exposed to branding activities. Players—in this case, fashion brands— use strategies to optimize their rewards or exchange value with consumers in the form of perceived coolness and brand equity (Figure 1). The theory will expand the understanding of fashion consumers' adoption and decision-making processes, as well as their behavioural considerations within the dynamic immersive retailing context (Abedian *et al.*, 2022; Hanley, 2021).

Marketing studies, on the other hand, emphasize that brands are initially perceived as cool within subcultures—gamers, in our case—as a means of distinguishing themselves from others, before this perception extends to mass consumers (Warren *et al.*, 2019). Brand coolness from this perspective is a significant emotionally driven construct that influences consumers' attitudes (Loureiro *et al.*, 2020; Lu *et al.*, 2021). As a term, coolness has been studied in the context of luxury fashion (Loureiro *et al.*, 2020), technology products (Tiwari *et al.*, 2021), sustainable products (Lu *et al.*, 2021), and consumer values (Truong *et al.*, 2021), among others, while cool brands are subjectively labelled by consumers as timely, fashionable, sophisticated, transformative, unique, aesthetically pleasing, entertaining, revolutionary, prestigious, useful, iconic, subcultural and/or desired (Jiménez-Barreto *et al.*, 2022; Loureiro *et al.*, 2020).

Brand equity as another construct, is recognized as a valuable intangible asset for brands that seek to establish a global reputation (Dang Lang *et al.*, 2022). Brand equity is defined as a collection of assets and liabilities experienced through brand names and logos that shape consumer behaviour (Upadhyay *et al.*, 2022). While brands are struggling with interactive strategies to position themselves within competing technology-driven global markets, fashion marketers are targeting immersive technologies as a futuristic disruptive approach to restructure fashion branding and leverage the business model (Reactive Reality, 2022;

Figure 1.
Game theory framework

Source(s): Figure denoted by authors

Salem *et al.*, 2023a, b). Through the integration of game-theory, brand coolness, and brand equity, we attempt to justify theoretically and empirically the decision-making process within immersive gaming platforms and how it may affect the equity of fashion brands and their market positioning. By adopting these theoretical grounds and focussing on the Asian market as a leader in the gaming market, the authors attempt to explore a path towards immersive technologies that can shape consumer behaviours within gaming platforms.

3. Development of hypotheses

3.1 Conceptual model

While game-theory is a refined decision-making theory in behavioural sciences, consumer involvement in immersive games is positively associated with brands and retailers (Gerdenitsch *et al.*, 2020; Syrjälä *et al.*, 2020). Similar findings have been demonstrated regarding brand coolness, which serves as a self-expressive motivator for fashion consumption (Loureiro *et al.*, 2020). Younger consumers, representing the largest segment of the gaming market, actively seek cool brands as constructive prosocial power that illustrates their social image within their peer groups (Chen *et al.*, 2021; Loureiro *et al.*, 2020). Meanwhile, their perceptions of brand values are influenced by brands that effectively identify their individual and social values (Alanadoly and Salem, 2021). By adopting innovative immersive gaming, brands can activate consumers' perceptions of brand coolness and enhance consumer-brand bonding (Bogicevic *et al.*, 2021). Considering the findings of

previous studies, we formulated a set of hypotheses regarding the relationships between the focal constructs. We propose that gaming and its associated values are related to how consumers perceive a brand as cool. Furthermore, we anticipate that the perception of brand coolness will contribute to higher brand values, as reflected in brand equity. Given the established gender differences in gaming consumption, we examined the potential variations between male and female respondents (Figure 2).

3.1.1 Perceived enjoyment of gaming. Gaming emerged as a branding tool in the fashion industry, encompassing luxury to fast fashion brands. Consumer enjoyment plays a critical role in gameplay, with emotional attachment to game characters being reported as a key reason for playing (Malik *et al.*, 2020). Immersive engagement in a playful gaming context is associated with individuals perceiving their interaction as motivational and enjoyable (Hwang and Choi, 2020; Tanouri *et al.*, 2019, p. 1208). Enjoyment from this perception is the third main variable explaining gameplay in addition to playfulness and game flow (Hamari and Keronen, 2017).

Gamers consider enjoyable games valid for acceptance and intention to play (Jang and Park, 2019). Prior research links enjoyable gamified experiences to consumer behavioural outcomes, such as loyalty, trust (Jang and Park, 2019), purchasing intentions (Bittner and Shipper, 2014), and brand equity (Fernández-Ruano *et al.*, 2022). Hwang and Choi (2020) applied social exchange theory, confirming that consumers perceived gamified loyalty programs as enjoyable and fun. Therefore, enjoyable gamification has the potential to create remarkable consumer experiences that can lead to long-term favourable behaviour towards a brand (Fernández-Ruano *et al.*, 2022). We anticipate that immersive, enjoyable gaming features will positively impact the perceived coolness of fashion brands, thus,

H1. Players' perceived enjoyment is positively associated with their perception of brand coolness on immersive gaming platforms.

3.1.2 Online self-Identities. Brands are interested in how consumers create their self-identity (Tiwari *et al.*, 2021). Research has shown that consumers' digital self-presentation is important for their decision-making journey (Carton *et al.*, 2016; Hernández-Serrano *et al.*, 2022; Hoyer *et al.*, 2020). Gamers also consider their in-game self-represented avatars to be crucial for a positive gaming experience (Ko and Park, 2021; Li *et al.*, 2020).
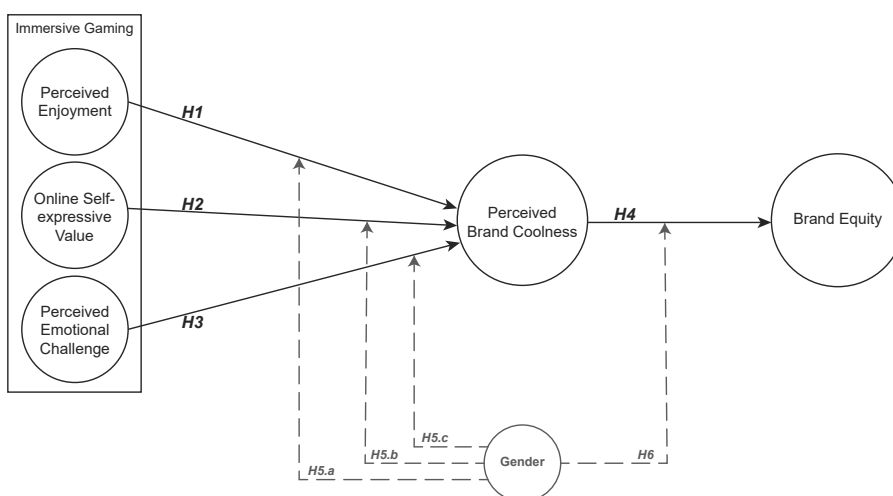
Source(s): Figure denoted by authors

A recent report by Herrera *et al.* (2022) found that 47% of Gen Z Roblox users used avatars for self-expression, positively contributing to their self-perception. Of these, 70% said that their real-life fashion choices were influenced by Roblox avatars. Other studies have shown that being virtually unique and distinguishable from others affects gamers' buying intentions (Li *et al.*, 2020), while Ko and Park (2021) highlighted the willingness of gamers to spend on self-image-represented characters.

Fashion brands consider consumers' ability to self-express themselves in social settings as a crucial factor in their decision-making process (Loureiro *et al.*, 2020), and studies have shown that fulfilling consumers' self-expression needs through brand products motivates consumers' purchasing intentions (Ajitha and Sivakumar, 2019; Hoyer *et al.*, 2020). We hypothesize that the presence of fashion brands on gaming platforms through advergames or in-game collaborations, where consumers can acquire branded fashion items, will influence the communication of their online identity and lead to perceiving these brands as cool. Thus,

H2. Players' perceived online self-expressive value is positively associated with their perception of brand coolness on immersive gaming platforms.

3.1.3 Emotional challenge. Emotional engagement in digital gaming is essential. Kou and Gui (2020) found that gamers adapt their in-game behaviour based on the emotions they experience. Positive emotions from socializing, teamworking, and competition motivate gamers to participate. However, negative emotions, such as tension, anxiety, and anger, can also enhance gamers performance (Denisova *et al.*, 2021; Gowler and Iacovides, 2019). The term "emotional challenge" from this perspective relates to players' experiences with curious emotional ambiguity that elicits a range of emotional, and reflective cognitive experiences (Peng *et al.*, 2020).

Beyond the realm of gaming, studies of consumer behaviour have emphasized the importance of emotional experiences in stimulating consumer behaviour and influencing cognitive decision-making processes (Heffner and FeldmanHall, 2022; Tyack and Mekler, 2021). These experiences have significant value in branding, where gamified emotional experiences have been linked to favourable affective behavioural responses (Razzaq *et al.*, 2017). Considering these findings, we propose that the psychological response to perceived brand coolness is influenced by emotional challenges presented in gaming. Thus:

H3. The players' perceived emotional challenge is positively associated with their perception of brand coolness within immersive gaming platforms.

3.1.4 Perception of brand coolness. Brand coolness has been studied with respect to various marketing constructs. Jiménez-Barreto *et al.* (2022) conducted qualitative and quantitative studies and found that niche cool brands have high value, popularity, exclusivity, and authenticity, which induce consumer's loyalty. Tiwari *et al.* (2021) demonstrated that 78% of brand love could be attributed to perceived brand coolness. In the fashion industry, Loureiro *et al.* (2020) reported a positive association between brand desire and perceived coolness of luxury brands. Similarly, Truong *et al.* (2021) found a positive relationship between hedonic and utilitarian coolness and product value perceptions in fashion retail. Positive brand experiences from this perspective enhance fashion brand coolness (Napalai and Khamwon, 2023). Guerreiro *et al.* (2023) affirmed marketing practitioners must consider brand coolness for strong positive consumer responses.

From a technological perspective, virtual reality in online gaming is often seen as *"cool,"* where perceived coolness drives digital product usage for specific consumer groups (Li *et al.*, 2021). We expect fashion brands collaborating with gaming environments to be perceived as cool, while boosting overall brand equity as a favourable outcome. Thus:

H4. Fashion brand equity is positively associated with consumers' perceptions of brand coolness on immersive gaming platforms.

3.1.5 Modifying the effects of gender. The gaming literature has extensively considered sociodemographic variables, including age and gender, in examining various gaming constructs, such as self-efficacy (Polo-Peña *et al.*, 2021), gameplay intention (Jang *et al.*, 2021), new game adoption (Wang, 2014), and team member selection (Lou *et al.*, 2020). Jang *et al.* (2021) found that female gamers exhibit more resilience and less risk-taking behaviour compared to male gamers when engaging with new games. Males are less motivated to participate in gamified self-efficacy and workplace health programs (Lier and Breuer, 2020; Polo-Peña *et al.*, 2021), but they are more willing to engage with new technologies (Alshurideh *et al.*, 2021; Gumz and Fettermann, 2021). Lou *et al.* (2020) also found that female gamers are less likely to actively participate in social bonding through team collaboration in online games. As gender is a significant factor impacting fashion consumption through different behavioural responses, therefore, we expect gender to moderate the relationships between the study's constructs, thus.

H5. Gender moderates the influence of (a) perceived enjoyment, (b) perceived online self-expressive value, and (c) perceived emotional challenges from gaming on perceived brand coolness.

H6. Gender moderates the influence of perceived brand coolness on brand equity.

4. Methodology
4.1 Data collection and sample collection
Data were collected using online questionnaires distributed through Google Forms. A pilot study was conducted to assess the validity and reliability of the measures, and two experts in the field were consulted to comment on the instrument with no changes deemed necessary. The questionnaire was distributed from January to May 2022 using purposive sampling, which is effective for target samples with specific characteristics and inclusion criteria (Etikan, 2016). Only people with experience in online gaming and those who lived in Malaysia were eligible for participation. After eliminating missing data, unengaged responses, outliers, and participants with no online gaming experience, 160 completed questionnaires were collected. The sample size was determined to be sufficient based on G*Power analysis, with a minimum sample size of 129 needed for a power of 0.95 (Hair *et al.*, 2017a, b), indicating that the sample size requirement was met. Demographic characteristics of the participants are presented in Table 1.

Variable	Frequency	Percentage (%)
Gender		
Male	81	50.6
Female	79	49.4
Age		
15–25	138	86.3
26–41	21	13.1
42–57	1	0.6
The number of playing games in past 12 months		
Few times	55	34.4
A lot	105	65.6
Source(s): Table denoted by authors		

4.2 Method and measures design

The survey began with a brief definition of the study's goals and an introduction to branded games, with examples to establish basic knowledge. A filtering question was then used to categorize the respondents according to their gaming experience. The survey consisted of two sections, the first gathered demographic data such as gender, age, nationality, and the amount of gameplay in the past 12 months. The second section measured each variable in the research framework.

The constructed variables were measured using five-point Likert scale questions ranging from 1 (strongly disagree) to 5 (strongly agree). The items were adapted from the literature, including perceived enjoyment (De Canio *et al.*, 2021), online self-expressive value (Yoo and Park, 2016), emotional challenges (Denisova *et al.*, 2020), brand coolness (Chen and Chou, 2019), and brand equity (Ebrahim, 2020).

4.3 Preliminary analyses

4.3.1 Common method bias mitigation and testing. To minimize common method variance (CMV), the study used self-reported questionnaires, and steps were taken to ensure confidentiality and anonymity. The questionnaire was developed to ensure that the items were clear to the respondents. Maxwell and Harman (1968) single-factor test was conducted and showed no serious issue. Five factors were extracted; the first factor explained 38.44% of the variance, lower than 50%, indicating no CMV issue.

4.3.2 Tests for the reliability and validity of the measurement model. The reliability and validity of the reflective measurement model were assessed and the results are presented in Table 2. The composite reliability values were above the recommended threshold of 0.7, indicating model reliability (Hair *et al.*, 2017). The Average Variance Extracted (AVE) was analysed to confirm convergence validity, which was greater than 0.5, indicating adequate validity. The heterotrait-monotrait (HTMT) correlation ratios, calculated as per Henseler *et al.* (2015) to gauge discriminant validity, were below the critical value of 1, confirming discriminant validity (Table 3).

Construct	Item	Loading	AVE	VIF	Composite reliability
Perceived enjoyment (PE)	PE1	0.854	0.864	1.829	0.950
	PE2	0.882		2.122	
	PE3	0.821		1.626	
Online self-expressive value (SEV)	SEV1	0.881	0.799	2.108	0.923
	SEV2	0.895		2.475	
	SEV3	0.905		2.669	
Perceived emotional challenge (PEC)	PEC1	0.760	0.594	1.615	0.897
	PEC2	0.823		1.994	
	PEC3	0.820		2.186	
	PEC4	0.816		1.976	
	PEC5	0.750		1.676	
Perceived brand coolness (PBC)	PBC1	0.837	0.705	2.299	0.923
	PBC2	0.764		1.749	
	PBC3	0.878		2.870	
	PBC4	0.878		2.908	
	PBC5	0.835		2.380	
Brand equity (BE)	BE1	0.920	0.727	3.066	0.889
	BE2	0.931		3.527	
	BE3	0.937		3.755	

Source(s): Table denoted by authors

5. Results

5.1 Estimation of the structural model

After conducting preliminary analyses, the structural model was evaluated for collinearity using the variance inflation factor (VIF) to confirm the absence of multicollinearity issues. The VIF for each item was less than the recommended threshold of 5. The R-squared values and the significance of the path coefficients were used to evaluate the model (Hair *et al.*, 2017a, b). The model had considerable explanatory power since perceived enjoyment, self-expressive value, and emotional challenge combined explained 58.3% of the variance in perceived brand coolness, which in turn explained 44.2% of the variance in brand equity (Table 4). A partial least squares (PLS) algorithm was used to estimate the path coefficients, and a bootstrapping method was used to test their statistical significance (Hair *et al.*, 2017a, b). The results support the direct hypotheses (H1, H2, and H4); however, (H3) was not supported (Table 5).

5.2 Moderation analysis

To examine moderation effects, we treated gender as a categorical moderator with values of 'male' and 'female.' We employed PLS multigroup analysis (MGA) to determine the variations in path coefficients for both genders (Sarstedt *et al.*, 2011). The results in Table 6 demonstrate significant gender differences in the path coefficients between online self-expressive value, perceived emotional challenge, and perceived brand coolness (supporting H5b and H5c). However, the gender differences in the path coefficients between perceived enjoyment and perceived brand coolness and between perceived brand coolness and brand equity were not significant, thereby failing to support H5a and H6 (Table 6).

Construct	BE	PBC	PEC	PE	SEV
BE					
PBC	0.780				
PEC	0.723	0.708			
PE	0.631	0.762	0.713		
SEV	0.714	0.745	0.863	0.658	

Note(s): BE, Brand equity; PBC, Perceived brand coolness; PEC, Perceived emotional challenge; PE, Perceived enjoyment; SEV, Online self-expressive value
Source(s): Table denoted by authors

Table 3.
Discriminant validity
HTMT ratio

Endogenous	R^2
Perceived brand coolness	0.583
Brand equity	0.442

Source(s): Table denoted by authors

Table 4.
R^2

Hypothesis	Path	Path coefficient(β)	SE	T-statistics	p-values	Decision
H1	PEà PBC	0.436	0.083	5.279	0.000	Supported
H2	SEV à PBC	0.328	0.087	3.764	0.000	Supported
H3	PEC à PBC	0.101	0.106	0.951	0.342	Not Supported
H4	PBC à BE	0.665	0.056	11.908	0.000	Supported

Note(s): PE, Perceived enjoyment; PBC, Perceived brand coolness; SEV, Online self-expressive value; PEC, Perceived emotional challenge; BE, Brand equity
Source(s): Table denoted by authors

Table 5.
Hypothesis testing

Hypothesis	Path	PC difference (male vs female)	*p*-value PLS-MGA	*p*-value parametric	*p*-value Welch-Satterthwait	Decision
H5a	PEàPBC	0.050	0.761	0.749	0.751	Not Supported
H5b	SEV à PBC	−0.371	0.032	0.028	0.030	Supported
H5c	PEC à PBC	0.434	0.025	0.024	0.026	Supported
H5d	PBC à BE	−0.190	0.087	0.028	0.030	Not Supported

Note(s): In Henseler's MGA method, the *p*-value lower than 0.05 or higher than 0.95 indicates the 5% level significant differences between specific path coefficients across two groups; p < 0.10
PC, Path coefficient; PE, Perceived enjoyment; PBC, Perceived brand coolness; SEV, Online self-expressive value; PEC, Perceived emotional challenge; BE, Brand equity
Source(s): Table denoted by authors

Table 6.
Results of the gender multigroup analysis hypothesis testing

6. Discussion

Asia–Pacific is a vital market in the gaming industry due to its large gaming consumer base, while retailers invest in immersive gaming experiences to expand consumers' stays in physical and digital stores and increase their engagement and, potentially, their purchases (Salem and Alanadoly, 2023; Yoo *et al.*, 2023). Meanwhile, McKinsey's 2022 report emphasized the importance of virtual branded fashion and in-game collaborations to engage fashion consumers in the coming five years (Balchandani *et al.*, 2022). On the other hand, Taylor *et al.* (2019) highlighted game-theory as a formal approach to conceptualize decision-making processes in gaming environments. In this emerging research topic, identifying how gaming influences fashion branding strategies and brand reach is an urgent research gap.

This study aims to explore the effects of gaming constructs, including enjoyment, self-expression, and emotional challenges, on consumers' perceptions of brand coolness and its impact on brand equity. The results showed that players of branded games perceived these brands as cool when they experienced enjoyment, self-expression, and emotional challenges. Additionally, the study found that consumers are more likely to be attached to and satisfied with fashion brands when they perceive them as cool, reflecting on their consumption of these brands. These findings align with previous research on luxury brands, which found that a positive perception of brand coolness is related to enjoyable interactions with consumers (Loureiro *et al.*, 2020). On the other hand, brand equity was found to be influenced by consumers' perceptions of brand coolness. Consumers develop awareness, satisfaction, and loyalty towards fashion brands they perceive as cool (Salem *et al.*, 2023a), which impacts their virtual—and maybe physical—consumption of those brands.

Drawing upon game-theory, fashion brands -practically those catering to the younger generations-can enhance consumers' experiences using gameplay strategies, thereby cultivating a perception of 'coolness' around their brands. A closer examination of the Asian market, considering the recent inclination of fashion brands to update their targeting strategies, reveals that integrating immersive gaming into a market characterized by intensive gameplay can profoundly engage consumers, tapping into their preferences, and cultivating lasting loyalty. The burgeoning gaming market in Malaysia, following the lead of the Chinese, Korean, and Japanese markets, presents an opportune landscape for gaming collaborations to emerge, offering compelling branding strategies that resonate with and captivate the Malaysian consumer base. This phenomenon fosters a mutually beneficial

dynamic wherein fashion brands thrive amidst competing markets, while consumers reveal enriched and gratifying immersive brand experiences.

7. Study's implications

7.1 Theoretical implications

This study extends the theoretical conceptualization of brand coolness by connecting it to Web3 immersive experiences. The findings highlight three main theoretical implications through a comprehensive framework based on game theory. First, the results found that the core values of enjoyment, self-expression, and emotional challenge accounted for nearly 58.3% of the variance in perceived fashion brand coolness. This suggests that creating engaging gaming experiences could enhance brand coolness and significantly drive positive consumer perceptions. Raman (2021) has connected gaming and gamified enjoyment to various marketing constructs, but the present study's novel contribution is linking gameplay enjoyment to brand coolness as a behavioural outcome of brand communication efforts.

Second, the results indicate that brand coolness is directly related to core gaming values and overall fashion brand equity. Gaming values, as strategies in fashion-branded gaming, are significant drivers of brand coolness, and these variables collectively explain 44.2% of brand equity.

Thirdly, female online gamers were found to have a stronger relationship between brand coolness and brand equity as gaming payoffs compared to their male counterparts. Although this finding contradicts those of some studies that have highlighted a higher impact on male gamers (Lier and Breuer, 2020; Polo-Peña *et al.*, 2021), it can be readily understood in the field of fashion, which is mostly dominated by female interests (Ajitha and Sivakumar, 2019; Michon *et al.*, 2007; Raman, 2021). According to our results, female online gamers responded more strongly than male online gamers in terms of their overall equity towards fashion brands.

7.2 Practical implications

This study offers four key insights for practitioners in developing effective marketing and branding strategies. First, the results indicated that all three core values of online games are crucial. However, enjoyment has the most significant impact on brand coolness, followed by self-expression, and emotional challenges. To make their brand appear cool, fashion brands should incorporate online games into their marketing strategies and focus on enhancing enjoyment for their target audience in game development. Additionally, fashion brands can use interactive video games to showcase their collections (Barnett, 2020), which can positively influence brand perceptions.

Second, the relationship between online self-expressive value and brand coolness was proved significant and positive, indicating that brands are likely to be considered cool when consumers can display and reflect their self-image through a game. Games can evoke pleasant feelings and curiosity (Wu *et al.*, 2022) as well as customizing avatars and characters with stylish outfits can boost player enjoyment. Practitioners should collaborate with games that feature different levels of character customizations (outfits, accessories, and beauty attachments) that gamers can relate to, as these strategies can also impact the emotional challenge involved in playing the games, which this study shows can make a large contribution to perceived brand coolness.

Third, the study reveals that gamers' perception of a brand's coolness influences their connection and loyalty to it. Fashion brands can leverage online games to enhance their brand equity by creating and promoting games as a channel to reach target consumers and communicate brand coolness. This can lead gamers to connect with the brand emotionally, spread positive word-of-mouth, and consider the brand a priority option when looking to buy fashion products.

8. Conclusion

In conclusion, this study reveals that interactive/immersive branding, such as in-game collaboration or advergames, affects consumers' perceptions of brand coolness. By providing enjoyable experiences, self-expression opportunities, and emotional involvement through cooperative gaming, fashion brands can enhance perceived coolness, uniqueness, and fun. Gender differences were observed, particularly in female self-expression and emotional challenges in fashion-branded games. These results help understand the coolness of brands in Web3 immersive experiences and have a practical impact on fashion brands' positioning and equity in competitive gaming and fashion markets.

9. Limitations and further research

Despite the valuable contributions of this study, some primary limitations warrant attention in future research. First, while core gaming features were examined with regard to perceived brand coolness, it is essential to recognize that this relationship may be subject to variation when considering other game characteristics. Future research should explore the effects of these features on branded and brand-integrated games, including interface design, usefulness, and ease of use, as proposed by the technology acceptance model.

Second, this study did not cover brand-level factors, such as luxury to mass market segmentation, which could encompass a range of brands from couture to activewear. Future studies could evaluate the influence of branded gaming in different market segments. Third, while the current study focused on Asian consumers, a cross-cultural examination would benefit brands by considering the global presence of both fashion and gaming brands. Fourth, the small sample size may have affected the generalizability of the findings. Future research may consider larger and more diverse samples, representing a wider range of fashion consumers and gaming enthusiasts.

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