



Immersive gaming in the fashion arena; A scoping investigation on fashion brand coolness and its mediating role on brand equity

Journal:	<i>Journal of Research in Interactive Marketing</i>
Manuscript ID	JRIM-02-2023-0053.R3
Manuscript Type:	Research Paper
Keywords:	brand equity, fashion merchandising, online branding

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3 **Immersive gaming in the fashion arena: An investigation of brand coolness and its**
4 **mediating role on brand equity**
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12 **Abstract:**

13 **Purpose** – This study’s aim was to investigate the role of the perceived values of gaming on
14 consumers’ perceptions of brands as cool as well as the impacts on the consumer-brand equity
15 relationship. The study proposed a framework highlighting the influences of fashion-branded
16 games on brand coolness and building fashion brands’ overall equity. As significant factors
17 affecting gamers, gender and gaming have been studied as moderators affecting the overall
18 proposed framework.
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23 **Design/methodology/approach** – A quantitative method was used to assess the significance
24 of the relationships within the proposed model. Partial least squares structural equation
25 modelling technique was implemented to assess the framework’s relationships with a sample
26 size of 248 active online gamers.
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30 **Findings** – The findings indicate that brand equity is positively associated with perceived
31 brand coolness. Furthermore, of the three core online game values, perceived enjoyment was
32 most strongly associated with perceived brand coolness, with other values, such as self-
33 expression and perceived emotional challenge, having a weaker association. The multi-group
34 analysis results further suggest that in the fashion industry, building brand equity through
35 online games is strongly related to perceived brand coolness among female respondents, with
36 the role of perceived brand coolness affecting male respondents to a lesser degree.
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43 **Originality/value** – The contribution of this study to the existing literature consists in
44 providing a deeper understanding of the impact of branded-games on fashion brands’ overall
45 equity. The results provide insights for fashion brand managers into the significant effect of
46 fashion-gaming collaborations on consumers' behavioral outcomes.
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50 **Keywords:** Brand coolness; Online games; Brand equity; Fashion in-game collaborations.

51 **Paper type** – Research paper
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1. Introduction

Fashion brands have strategically adopted the gaming world as a shared backdrop against which to establish deeper connections with tech-savvy audiences (Wanick and Bazaki, 2023), thereby remaining at the forefront of interactive marketing trends. This innovative approach involves businesses collaborating with popular video games, or creating their own branded games, which improve the interaction between consumers and brands (Wang, 2023). Embracing the gaming world are brands such as Gucci, Louis Vuitton, and Nike, all of which have launched games or collaborated through virtual skins and 3D assets (Lee and Maolik, 2021). Such partnerships and acquisitions of game-design studios are shaping engagement in digital experiences and influencing consumer behavior (Balchandani et al., 2022; Tobon et al., 2020).

Prior literature on interactive marketing has illustrated that the integration of products and brands within video and computer games enables players not only to interact with brand logos but also to absorb embedded messages seamlessly, offering the potential to significantly influence consumers' memories, attitudes, and feelings of presence within the gaming environment (Hussain et al., 2023a; Vashisht, 2021). Brand avatar is another valuable tool in interactive marketing to engage customers and improve the effectiveness of brand customer interactions (Foster et al., 2022).

Brand coolness, a marketing concept that has recently attracted research attention, reflects consumer behavior in response to products or brands. It is gaining importance as an indicator of brand success as it improves interactivity between consumers and brands (Loureiro et al., 2020). Studying brand coolness will help managers determine whether their brands are relevant and attractive to both niche and mass consumers (Warren et al., 2019). However, few studies to date have contextualized the construct of fashion brand coolness within the gaming context. Understanding the concept of coolness is crucial for gaining insight into the connections between consumers and fashion brands in the gaming context. For example, a fashion brand may collaborate with a popular video game to design in-game outfits or skins. These digital attire items become coveted by players because they are perceived as cool within the gaming community. Gamers desire to outfit their avatars with these virtual fashion items because it enhances their in-game status and coolness. In this scenario, understanding what is considered cool in the gaming culture is pivotal for fashion brands to create products that resonate with players.

To obtain a clear picture of the role that online games play in shaping consumer behavior and perceptions of brand coolness, an understanding of consumer-level differences is needed, especially with regard to gender and gaming experience (Mosquera *et al.*, 2018).

To fill these research gaps, we drew on comprehensive theoretical considerations to develop and test a predictive model for how the core game values of perceived enjoyment, online self-expressive value, and perceived emotional challenge predict brand coolness and illustrate how brand coolness influences brand equity in the fashion industry. This study makes three main contributions to the interactive marketing literature. First, we empirically identify potential antecedents and outcomes of brand coolness for fashion products in the online gaming context. Second, we investigate whether gender and gaming experience have any effect on the pathways between these antecedents and outcomes. Finally, the study provides some practical suggestions for fashion brand managers to make better use of game strategy to effectively interact with and attract consumers.

2. Theoretical background and hypotheses development

Coolness, in the realm of consumer behavior and marketing research, is a concept that encapsulates the expression of positive emotions and attraction towards specific products or brands. This expression is often associated with notions of high-status, distinctiveness, and appeal, particularly within specific consumer groups or subcultures, and is notably conspicuous among younger generations (Napalai and Khamwon, 2023). From this perspective, the subjective perception of being cool contributes significantly to bolstering self-esteem and social recognition.

The significance of coolness in shaping consumer behavior has been a focal point of marketing research across diverse domains, including luxury (Loureiro and Blanco, 2021), technology (Tiwari *et al.*, 2021), and consumer values (Truong *et al.*, 2021). Studies have underscored that brand coolness is an emotionally driven construct associated with enjoyment and excitement (Biraglia *et al.*, 2017; Loureiro *et al.*, 2020). It also exhibits links with utilitarian, hedonic, and symbolic values, and has an impact on consumer decision-making processes (Aleem *et al.*, 2022).

As postulated by Warren *et al.* (2019), the multidimensionality of brand coolness is characterized by a set of attributes. A brand is considered cool when it exhibits attributes such as authenticity (signifying consumer values), functionality (indicating high quality), attractiveness (encompassing appealing design), originality (representing creativity), energy (portraying youthfulness), rebelliousness (deviating from mainstream norms), high-status

(reflecting prestige), subcultural associations (with particular groups or cultures), popularity (denoting trendiness), and iconography (symbolizing personal values). While the presence of all these attributes is not a strict necessity, amplifying any of these dimensions tends to accentuate the perception of the brand as cool (Jiménez-Barreto *et al.*, 2022). Moreover, it is worth noting that while some prior research has highlighted individual dimensions of coolness (e.g. Guerreiro *et al.*, 2023 and Napalai and Khamwon, 2023), others have examined coolness as a first-order construct cumulatively influencing consumer behaviors (e.g. Bogicevic *et al.*, 2021).

Conversely, brand equity is a concept related to the subjective intangible value that consumers attribute to a brand in comparison to its competitors (Hao and Chon, 2022). Recent research by Park and Namkung (2022) has demonstrated the role of digital media in enhancing brand equity through brand image promotion. In this context, immersive channels have emerged as potent tools to create consumer experiences and thereby promote engagement within digital environments (Faria and Cunha, 2023).

The evolution of interactive marketing has transformed passive marketing communication into highly immersive virtual experiences, reshaping consumers' shopping experiences (Wang, 2021 ; Liao *et al.*, 2023) For example, the fashion industry has embraced collaborations with the gaming realm, utilizing strategies such as "in-game advertising," whereby brands insert non-gaming elements within gaming environments to simulate real-life advertising means (Hussain *et al.*, 2023). Another approach involves the use of "advergaming," which blend branded gaming elements with gaming environments to convey brand messages (Vashisht, 2023). For instance, Balenciaga introduced its Fall/Winter 2021 collection through the popular advergaming 'Afterworld: The Age of Tomorrow' and partnered with Epic Games to offer in-game skins within the Fortnite marketplace ("Balenciaga | Fall 21", n.d.; "Balenciaga Brings High Fashion to Fortnite - Epic Games", 2021).

In conclusion, while innovative marketing practices have activated perceptions of brand coolness (Bogicevic *et al.*, 2021), recent studies have also established a connection between gaming experiences and various individual values, including enjoyment (Fernández-Ruano *et al.*, 2022), self-expression (Bogicevic *et al.*, 2021), competence, achievement, and perceived challenges (Xi and Hamari, 2019). The interaction between brand coolness, brand love, and brand engagement reveals that coolness enhances both love and engagement, ultimately contributing to more satisfying outcomes and increased well-being (Attiq *et al.*, 2022). These findings support the notion that innovative gaming experiences influence consumer awareness,

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3 associations, and loyalty, fostering brand equity in a competitive marketplace. Fashion brands
4 can gain a competitive edge by strategically using immersive experiences to create enjoyable,
5 pleasurable, and loyal consumer relationships (Figure 1).
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9 **Figure 1 - Conceptual framework -about here-.**

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11 *2.1 Development of hypotheses*

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13 *2.1.1 Perceived enjoyment of gaming*

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15 Gamers' engagement with gameplay activities is closely linked to the concept of 'enjoyment'
16 (Jang and Park, 2019). High levels of enjoyment indicate increased gamer participation (Zaib
17 Abbasi *et al.*, 2023), leading to enhanced loyalty to the game (Teng, 2018). Enjoyment
18 encompasses the mental state of players experiencing joy, entertainment, and fun during their
19 participation in gaming activities. Previous research has established a connection between
20 enjoyable gamified experiences and positive consumer behavior outcomes, including trust
21 (Harwood and Garry, 2015), purchasing intentions (Bittner and Shipper, 2014), and brand
22 equity (Fernández-Ruano *et al.*, 2022). Thus, consumers who find brand gaming activities
23 enjoyable are more likely to trust the brand and express their intentions to purchase its products,
24 thereby influencing their overall perception of brand equity.
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33 Enjoyable gaming experiences have the potential to create significant engagement that
34 can foster enduring consumer-brand relationships (Fernández-Ruano *et al.*, 2022). In light of
35 these considerations, we anticipate that the establishment of enjoyable in-game collaborations
36 and advergames from fashion brands will positively influence consumers' perceptions of the
37 brand's coolness. Thus, the first hypothesis is as follows:
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41 *H1. The perceived enjoyment (PE) of gamers is positively associated with the perceived*
42 *coolness (PBC) of fashion brands with online gaming elements.*
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46 *2.1.2 Online self-expression*

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48 The concept of self-presentation encompasses an individual's desire to construct an idealized
49 self in social contexts (Gong *et al.*, 2023). In the context of avatar-based gaming, self-
50 expression plays a pivotal role for gamers, as it enables them to convey their 'self-identification'
51 and communicate their self-concept to others (Li *et al.*, 2020). Therefore, the avatar functions
52 as a representation of the identity, which is projected during virtual social interactions (Foster
53 *et al.*, 2022), thereby facilitating self-exploration (Triberti *et al.*, 2017). Gamers have the
54 opportunity to engage in the enjoyable process of customizing their avatars to align with their
55 preferences, effectively utilizing it as a sort of 'identity laboratory' (Gong *et al.*, 2023). Recent
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3 research has underscored the relationship between in-game purchases and avatar customization
4 as a means of digitalized self-expression (Teng, 2018), while other studies have linked the
5 sense of presence in virtual-reality gaming to heightened purchasing intentions (Hussain *et al.*,
6 2023).
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10 Brand coolness involves consumers associating themselves with a sense of coolness
11 and uniqueness through brands (Aleem *et al.*, 2022), especially among younger generations
12 (Biraglia *et al.*, 2017). In the context of fashion, cool brands help shape individuals' self-concept
13 and identity (Napalai and Khamwon, 2023). With the growing impact of the gaming industry
14 on fashion, it is crucial for fashion brands to understand how consumers' digital self-
15 presentations influence their decisions and behaviors (Jonassen and Hernandez-Serrano, 2002).
16 Accordingly, we anticipate the following hypothesis:
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22 *H2. The perceived online self-expressive value (SEV) of gamers is positively associated*
23 *with the perceived coolness (PBC) of fashion brands with online gaming elements.*
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26 2.1.3 Emotional challenge

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28 Emotional engagement is a foundational aspect of the digital gaming experience, closely
29 intertwined with curiosity and profoundly affecting gamers' enjoyment and sustained
30 participation in game activities (Teng, 2018). Games that elicit potent emotional responses
31 have been observed to lead to more frequent gameplay (Zaib Abbasi *et al.*, 2023). Both positive
32 and negative emotions stemming from in-game interactions – including socialization,
33 teamwork, competition, tension, anxiety, and anger – have been demonstrated to exert a
34 positive influence on gamers' behavior (Gowler and Iacovides, 2019). Conversely, the concept
35 of 'challenge' is a pivotal component of the gaming experience, referring to the subjective level
36 of difficulty associated with playing a game; gamers who perceive an insufficient level of
37 challenge are less likely to engage with the game (Bopp *et al.*, 2018). Recently, the notion of
38 'emotional challenge' has emerged to describe a unique player experience characterized by
39 emotionally ambiguous situations, resulting in a broad spectrum of emotional, enjoyable, and
40 reflective-cognitive experiences (Peng *et al.*, 2020).
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51 Researchers have highlighted the role of emotional experiences in influencing
52 consumer behavior (Tyack and Mekler, 2021). Positive emotions, triggered by game-like
53 technologies such as beauty AR apps, influence consumer decision-making (Pogorzelski,
54 2018). Emotions are valued in branding as consumers seek products that offer benefits beyond
55 functionality. Gamified emotional experiences have shown favorable effects on consumers,
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connecting with them emotionally through remarkable experiences with cool brands (Suzuki and Kanno, 2022). Considering these findings, we anticipate the following hypothesis:

H3. The perceived emotional challenge (PEC) of gamers is positively associated with the perceived coolness (PBC) of fashion brands with online gaming elements.

2.1.4 Perceived brand coolness

Previous research has established a positive connection between gaming behavior and the coolness of games (Malik *et al.*, 2020). The concept of coolness, encompassing trendiness, admiration, and acceptance, aligns with the fashion domain, in which timely changeability, acceptance, and public appreciation are vital factors defining fashion products (Sproles, 1981). Fashion consumers actively seek fashion items to establish self-positioned values within their communities, and it has been demonstrated that "hedonic coolness" positively influences consumers' perceptions of the value of fashion products (Truong *et al.*, 2021).

Warren *et al.* (2019) introduced the concept of "niche cool," which expands consumer acceptance over time, transforming into "mass cool." This concept mirrors the leadership/fellowship behavior observed in Sproles' fashion cycle theory (1981). Expanding on this notion, Tiwari *et al.* (2021) found that perceived brand coolness accounted for 78% of brand love. Additionally, Loureiro *et al.* (2020) confirmed a positive relationship between brand desire and the perceived coolness of luxury brands, with consumers affirming the coolness of brands they highly value. From a technological perspective, virtual reality (VR) technologies, integral to online gaming, are often regarded as "cool."

Within the context of creating remarkable experiences through technology, Huang *et al.* (2019) demonstrated that consumers' ability to express their unique identities, connect with their hedonic and emotional sensations, and satisfy their social belongingness needs, results in pleasant experiences (perceived coolness). These experiences are essential in promoting brand equity.

In light of these arguments, fashion brands that create exceptional, enjoyable, and trendy experiences (e.g. through immersive technologies such as in-game collaborations or advergames) facilitate consumers' perceptions of self-expression, uniqueness, fun, belonging, and trendiness (their perception of coolness). Consequently, this leads consumers to develop loyalty, awareness, and association (equity) toward the brand. Based on these considerations, we posit the following hypothesis:

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3 *H4. The perceived coolness (PBC) of fashion brands with online gaming elements is*
4 *positively associated with brand equity (BE).*

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6 The examination of coolness as a mediating construct in consumer behavior has been
7 relatively limited in previous research (Lucia-Palacios and Perez-Lopez, 2023). However, a
8 study by Zhang et al. (2023) focused on augmented reality (AR) in online retail environments
9 and found that perceived coolness played a significant mediating role. Indeed, it was found that
10 coolness influenced store attractiveness, particularly for hedonic products such as fashion
11 items. Additionally, the study revealed that the coolness of smart devices fully mediated the
12 relationship between device autonomy and consumer experiential value, encompassing
13 hedonic, utilitarian, and social aspects. This mediation ultimately influenced adoption
14 decisions (Lucia-Palacios and Perez-Lopez, 2023).

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16 Immersive experiences were found to fully mediate consumers' social presence as well
17 as their positive consumption behaviors (Huang et al., 2023). Wichmann et al. (2022)
18 confirmed that gaming mechanisms effectively create unpredictable experiences that prolong
19 consumer engagement, potentially deepening the relationship. Additionally, Andò et al. (2023)
20 highlighted the ability of immersive experiences to transform fashion narratives into
21 multisensory encounters, conveying essential information and transcending cultural barriers,
22 which is particularly relevant for global brands that are expanding into broader markets.

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24 Moreover, the entertainment and attractiveness elements of brand-generated content
25 were shown to fully mediate the relationship between social media marketing activities and
26 brand love as well as loyalty, ultimately fostering behavior engagement (Samarah et al., 2022).
27 Aesthetically appealing digital content leads to emotional connections with the fashion brand,
28 contributing to behavioral loyalty (Khandai et al., 2023), where consumer loyalty is assumed
29 to be a defined dimension of brand equity. In light of these findings, it is anticipated that the
30 perceived coolness of fashion brands will fully mediate the relationship between gaming values
31 and brand equity. Consequently, the following hypothesis is formulated:

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33 *H5. The perceived coolness (PBC) of fashion brands with online gaming elements*
34 *mediates the influence of consumer perceived (a) enjoyment (PE), (b) self-expressive value*
35 *(SEV) and (c) emotional challenge (PEC) on brand equity (BE).*

36 2.2 Moderating effects of gender and game experience

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38 Gaming literature has extensively explored sociodemographic variables, with numerous
39 studies incorporating age and gender in analyzing various gaming constructs. These constructs
40 encompass self-efficacy (Polo-Peña et al., 2021), gameplay intentions (Jang et al., 2021), new
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3 game adoption (Wang, 2014), e-payment acceptance (Alshurideh *et al.*, 2021), and in-game
4 team member selection (Lou *et al.*, 2020 ; Jang *et al.*, 2021). Gender differences were identified
5 in gamer behavior, particularly related to game type, revealing that female gamers exhibit
6 greater resilience and lower risk-taking tendencies when engaging with new games compared
7 to their male counterparts. On the other hand, men have demonstrated lower motivation to
8 partake in gamified self-efficacy and workplace health programs (Lier and Breuer, 2020; Polo-
9 Peña *et al.*, 2021) but greater receptivity to and willingness to engage with new technologies
10 compared to women (Alshurideh *et al.*, 2021).

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Within the conceptual framework of fashion marketing, gender has consistently been recognized as a significant factor, leading to distinct behavioral responses between genders that impact fashion consumption (Michon *et al.*, 2007; Raman, 2021). We therefore hypothesize that:

H6 Gender moderates the influence of perceived (a) enjoyment (PE), (b) self-expressive value (SEV) on-line, and (c) emotional challenge (PEC) on brand equity (BE) for fashion brands that incorporate branded gaming elements.

Gaming experience, often termed gaming intensity, refers to the time and effort invested in playing games and serves as a crucial catalyst for eliciting emotional and behavioral responses (Pham *et al.*, 2022). Furthermore, gaming experience has been linked to the pursuit of enjoyment, social support, and pleasure while completing challenges (de Rostolan and Bonnaire, 2022). A recent investigation by Pham *et al.* (2022) established a connection between prior gaming experience, game loyalty, and game consumption. Consequently, we hypothesize as follows:

H7. The gaming experience moderates the influence of consumers' perceived (a) enjoyment (PE), (b) self-expressive value (SEV) online, and (c) emotional challenge (PEC) on the brand equity (BE) of fashion brands with online gaming elements.

3. Methodology

3.1 Sample and data collection

Data were collected through online questionnaires distributed via Google Forms. A definition of fashion brand games and examples of collaborations between fashion brands and games were provided, including 'Nike X Space Jam' and 'Nikeland' for Nike, 'Louis the Game' for Louis Vuitton, 'Afterworld: The Age of Tomorrow' for Balenciaga, 'Blankos Block Party' for Burberry and 'The Sims 4' collaboration with Moschino. Participants were then asked the

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3 following screening question: “Have you played any games that represent a collaboration with
4 any fashion brands during the past 12 months?”. Only those answered in the affirmative were
5 asked to complete the survey by answering the rest of the questions while keeping that
6 particular game in mind.
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10 We distributed the online questionnaires from January to March 2022 using the
11 purposive sampling method. In this study, only people with online gaming experience were
12 eligible for participation. The final sample consisted of 248 completed questionnaires after
13 eliminating responses with missing data, outliers, and those from respondents with no online
14 gaming experience.
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19 3.2 Measures

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21 All scale items were rated on a 5-point Likert scale ranging from 1 = *strongly disagree* to
22 5 = *strongly agree*. The questionnaire items were all taken or adapted from the literature.
23 Perceived enjoyment was measured by two items adopted from De Canio et al. (2021); online
24 self-expressive value was measured by three items derived from Yoo and Park (2016);
25 perceived emotional challenge was measured by six items derived from Denisova et al. (2020);
26 perceived brand coolness was measured by five items adapted from C. F. Chen and Chou
27 (2019); and brand equity was measured by three items derived from Ebrahim (2020). The items
28 used for measuring each variable are listed in Table 1-
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35 Respondents

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37 The demographic makeup of participants is as follows: 51.2% (female) and 48.8%
38 (male); 76.2% aged 15-25, 19.4 % aged 26-41, and 4.4% aged 42-57. This and more
39 information about the respondents’ backgrounds is presented in Figure 2.
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44 **Figure 2** - Respondents’ demographics – about here

45 3.3.2 Tests for the reliability and validity of the measurement model

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47 The validity and reliability of the reflective measurement model were then examined
48 (Hair Jr et al., 2017), with the results being shown in Table 1. The composite reliability values
49 were all greater than the recommended threshold of 0.7, indicating that the measurement model
50 was reliable (Hair Jr. et al., 2017). The convergent validity of the data was verified using the
51 average variance extracted (AVE) analysis, which was greater than 0.5 and thus considered
52 adequate.
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The Fornell–Larcker criterion matrix for discriminant validity is shown in Table 2. As suggested by Henseler et al. (2015), hetero-trait/mono-trait (HTMT) correlation ratios were calculated as an additional gauge of discriminant validity. The HTMT values, which are shown in Table 3, were all below the critical value of 1. Discriminant validity was therefore confirmed.

Table 1 - Construct reliability and validity --- about here ---

Table 2 - Fornell_Larcker criterion matrix --- about here ---

Table 3 - Discriminant validity hetero-trait mono-trait ratio --- about here ---

4. Results

4.1 Estimation of the structural model

After these preliminary analyses, the structural model was assessed. We first examined the collinearity through the variance inflation factor (VIF) to confirm there were no multi-collinearity issues and found that the VIF of each item was less than the recommended threshold of 5. We then calculated the R-squared values and significance of the path coefficients to evaluate the structural model (Hair Jr. et al., 2017). According to the results presented in Table 4, the model has considerable explanatory power, as perceived enjoyment, online self-expressive value, and emotional challenge combined can explain 73.2% of the variance in perceived brand coolness, which can explain 57% of the variance in brand equity. To test the research hypotheses, we used a partial least squares (PLS) algorithm to estimate the path coefficients of the structural model and the bootstrapping method to test their statistical significance. According to the results presented in Table 5, the direct and indirect hypotheses (H1–H4) were supported (see also Figure 3).

Figure 3 - Structural model test results – about here---

4.2 Mediation analysis

The product coefficients approach was used to evaluate the mediating effects by assessing the significance of the indirect effects using bias-corrected bootstrap confidence intervals (CIs) (Hayes and Scharkow, 2013). The results obtained from Smart PLS (Version 3), as shown in Table 6, indicate that perceived enjoyment and online self-expressive value challenge and perceived emotional challenge indirectly influence brand equity through perceived brand coolness, with *t*-values of 7.629, 4.146, and 2.320, respectively. These results supported H5a, and H5b and H5c.

Table 4 - R2 --- about here---

Table 5 - Hypothesis testing --- about here---

Table 6- Hypothesis testing on mediation --- about here---

4.3 Moderation analysis

To test for moderation effects, we treated gender and gaming experience as categorical moderators with the values of *male* and *female* for gender and *low* and *high* for gaming experience. We then used PLS-multigroup analysis (MGA) to evaluate the variations of the path coefficients for the two genders and two levels of gaming experience (Sarstedt et al., 2011). The results shown in Table 7 indicate that there was a significant gender difference in the path coefficient between perceived brand coolness and brand equity (supporting H6d). However, the gender differences in the path coefficients between perceived enjoyment, online self-expressive value, and perceived emotional challenge, and perceived brand coolness were non-significant; therefore, H6a, H6b, and H6c are not supported.

Table 8 presents the results of the PLS-MGA evaluations of the effects of gaming experience on the tested relationships. There was no significant gaming experience difference in the path coefficient between perceived brand coolness on brand equity (indicating that H7d is not supported). There were also no significant differences between those with low gaming experience and those with high gaming experience in terms of the effects of perceived enjoyment, online self-expressive value, and perceived emotional challenge on perceived brand coolness, thus not supporting H7a, H7b, or H7c.

Table 7 - Results of gender multigroup analysis hypothesis testing**Table 8** - Results of gaming experience multigroup analysis hypothesis testing ---about here

5. Discussion

Dynamic collaboration between fashion brands and the immersive world of gaming has shaped a remarkable intersection of creativity, technology, and consumer engagement, which influence consumers' interaction with brands. To advance the knowledge on consumers' interactions with brands, the present study proposes a predictive model suggesting direct and indirect relationships among some well-known gaming and marketing constructs. The study reveals that when people enjoy a fashion brand while playing online games, they also see the brand as cool. By collaborating with games, fashion brands can make their brand seem cooler by making the gaming experience enjoyable (Milanesi *et al.*, 2022). Adding elements of fun and excitement to these collaborations can make the brand more appealing to gamers in today's digital age.

Likewise, the study shows that when gamers feel they can express themselves through a brand while playing, they also perceive the brand as cool. Fashion brands working with games can use this insight by letting gamers personalize their avatars (Freeman *et al.*, 2020) or by offering virtual fashion items. This way, gamers can showcase their unique style, making the brand cooler and forming a stronger connection with the gaming community.

Furthermore, the study indicates that facing emotional challenges in online games contributes to the overall experience and makes a fashion brand seem cooler. This means that brands collaborating with games should include emotional challenges in the gaming experience (Denisova *et al.*, 2020) to enhance brand coolness.

The study's key finding emphasizes the vital role of factors such as enjoyment, self-expression, and emotional engagement, which indirectly shape a brand's perceived coolness and, subsequently, its overall equity. This discovery holds significant implications for fashion brands collaborating with video games to enhance their appeal among gamers (Yoo *et al.*, 2023). Furthermore, the study findings reveal that female gamers are notably more affected by fashion-related gaming experiences than males. This could be linked to their stronger emotional connections to fashion brands. Despite male dominance in gaming research, this emphasizes the need for deeper exploration of gender differences in fashion gaming.

6. Implications and conclusion

6.1 Theoretical implications

This study contributes to the existing literature in multiple ways. First, the core gaming values of perceived enjoyment, self-expression, and emotional challenge were found to explain almost 73% of the variance in perceived fashion brand coolness. This builds on the work of Holdack *et al.* (2022), who partially demonstrated similar results in their study on the effects of augmented reality wearables in fashion retail on consumer attitudes and intentional buying behavior. Similarly, Raman (2021) found that the enjoyment of gamified shopping experiences positively influenced the favorable behavioral intentions of young female online shoppers in India. Although gaming and gamified enjoyment has been connected to various marketing constructs, the present study provides a novel contribution by connecting it to brand coolness.

Second, the findings clearly showed that consumers' concept of brand coolness was linked both directly and indirectly to three important gaming values. These values, in turn, were closely tied to the overall value of the fashion brand. Interestingly, this study provides evidence that the core gaming values in fashion-related games play a significant role in the way in which

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3 people view a brand as being cool. In fact, this link explains 57% of the brand's overall value
4 in our analysis.
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6 Third, the relationship between brand coolness and brand equity was found to be
7 stronger among female online gamers than their male counterparts. Although this finding
8 contradicts those of previous studies that have highlighted the impact of engagement in gaming
9 arenas on men (Lier and Breuer, 2020; Polo-Peña *et al.*, 2021), it can be readily understood in
10 the field of fashion, which is mostly dominated by female interests (Ajitha and Sivakumar,
11 2019; Michon *et al.*, 2007; Raman, 2021). According to our results, female online gamers
12 respond more strongly in terms of brand associations, awareness, and loyalty than male online
13 gamers.
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21 Overall, our findings highlight the significant effect of online gaming integration and
22 collaboration within the fashion business. Fashion consumers perceive brands that launch or
23 collaborate with online gaming platforms as cool, and this builds overall brand equity. Gaming
24 can therefore be helpful for brands in maintaining and expanding their market share and
25 achieving a competitive advantage within highly demanding fashion consumer markets.
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30 6.2 Management implications

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32 Furthermore, this research also provides four valuable insights for practitioners, which
33 can help them to develop optimal marketing strategies. First, the results suggest that all three
34 of the core online game values are important. However, perceived enjoyment made the largest
35 contribution to perceived brand coolness, followed by online self-expressive value and
36 perceived emotional challenge. Accordingly, managers of fashion brands who want their target
37 consumers to perceive the brand as cool should integrate online games within their marketing
38 strategy; moreover, they should emphasize the need for increased enjoyment for their target
39 consumers when considering their game development or their partnership with game
40 development companies. The most effective games will generate pleasurable feelings and
41 curiosity to increase players' enjoyment (Wu *et al.*, 2022). Allowing players to customize the
42 game with different tools and fashionable outfits will also contribute to enhancing the
43 enjoyment level of players. Additionally, fashion brands can use interactive video games to
44 show their collections (Barnett, 2021), as this is likely to have a positive effect on brand
45 perceptions.
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56 Second, a significant positive relationship was found between online self-expressive
57 value and brand coolness, which suggests that brands are more likely to be considered cool by
58 consumers who can display and reflect their self-image through a game. Practitioners should
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3 therefore focus on developing brand coolness in games that feature different levels of
4 characters with different outfits and stories to which gamers can relate. These strategies can
5 also improve the level of emotional challenge involved in playing the games, as this study
6 shows that these can make a further contribution to perceived brand coolness.
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10 Third, the findings suggest that when gamers perceive a brand to be cool, the more
11 likely they are to be connected and loyal to that brand. Fashion brand managers can therefore
12 use online games as another way to improve brand equity by creating and promoting them as
13 a channel for reaching target consumers and communicating brand coolness. This can lead
14 gamers to connect to the brand emotionally, spreading positive word of mouth, and considering
15 the brand as a foremost option when looking to buy fashion products.
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20 Fourth, the study found that female players were more likely than male players to
21 develop a strong connection and loyalty to a brand and to give positive feedback when they
22 perceived the brand as cool. Therefore, to increase rates of conversion through online games,
23 brand managers should direct their promotions, communications, and other marketing
24 strategies towards female gamers.
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29 *6.3 Limitations and future research directions*

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32 Despite these valuable contributions, this study has some limitations that should be
33 addressed in future research. First, although core gaming features were tested for their
34 relationship with perceived brand coolness, this relationship may also vary with other game
35 characteristics, such as the technology acceptance model constructs of interface design,
36 usefulness, and ease of use. Future studies can test the effects of these features on perceived
37 brand coolness in branded or brand-integrated games and investigate the way in which
38 perceived coolness may lead to in-store engagement. Second, product factors such as product
39 quality and design are not included in the model presented and tested in this study. Future
40 studies could consider the influence of these factors alongside various game factors on
41 perceived brand coolness in the fashion industry.
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49 Avatar customization can have psychological effects on players. By tailoring their
50 avatars to suit their preferences, players can experience a sense of empowerment, control, and
51 agency (Peña *et al.*, 2023). This customization provides a means for self-reflection, self-
52 exploration, and the projection of idealized versions of themselves which may affect their
53 perceptions towards the brand. Future research could investigate the effect of avatar
54 customization on fashion brand equity.
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60 *Conclusion*

The study concludes that the perception of brand coolness in fashion and gaming collaborations is shaped by enjoyment, self-expression, and emotional challenges. Creating enjoyable and expressive experiences enhances brand coolness and connection with gamers. Gender differences exist, with female gamers being more strongly influenced. The findings aid fashion brands in boosting brand equity in competitive gaming and fashion markets through immersive experiences.

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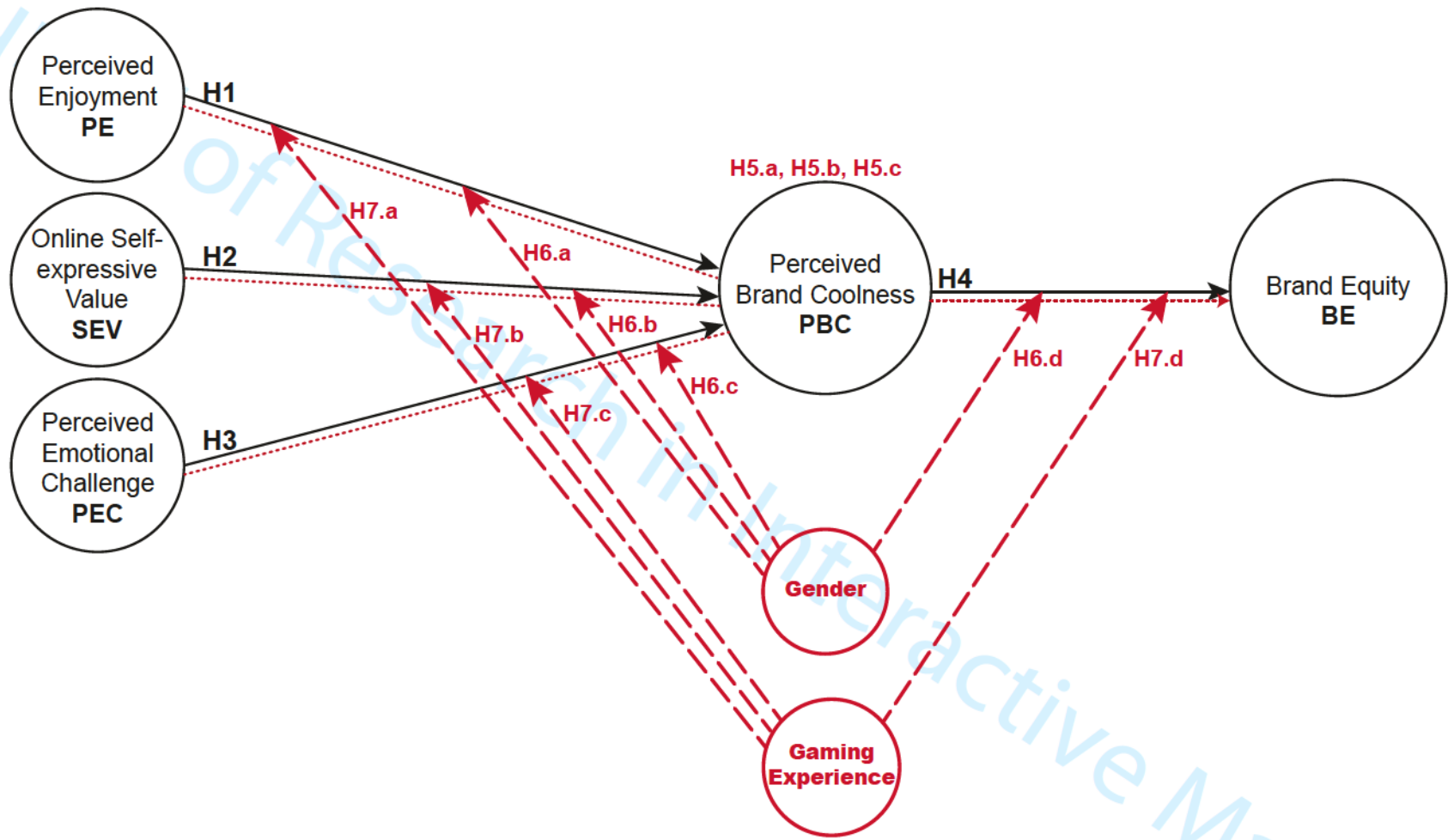
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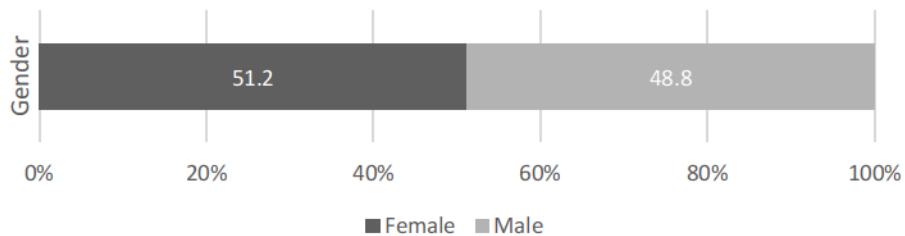
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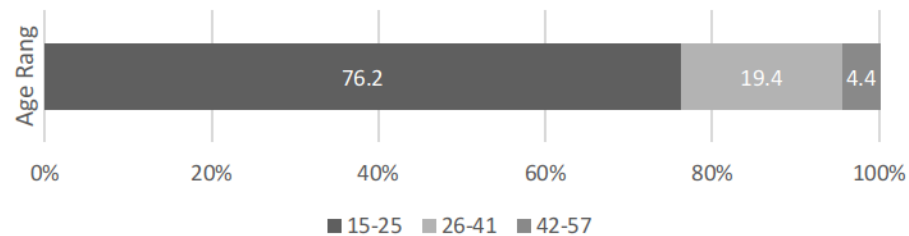


Keys: ———→ **Direct Effect** ·····→ **Mediating Effect** - - - - -→ **Moderating Effect**

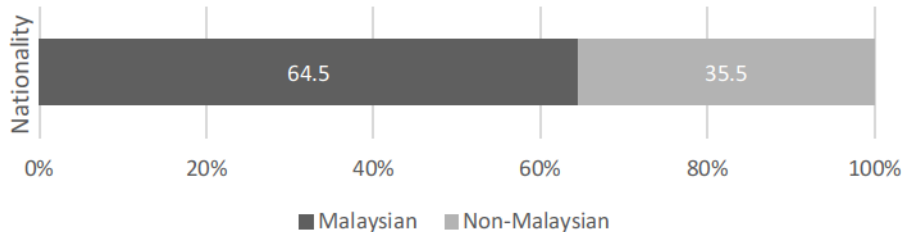
Gender



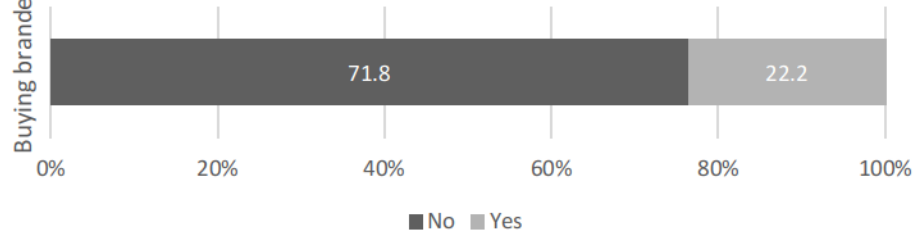
Age range



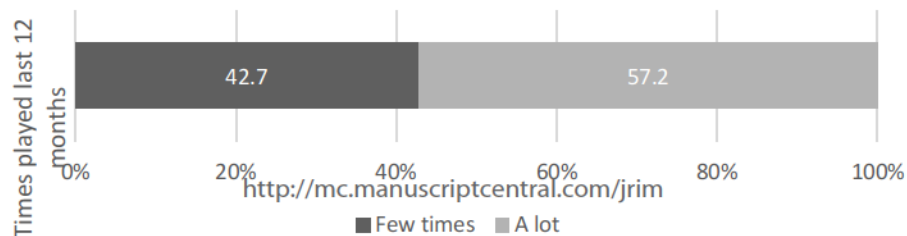
Nationality



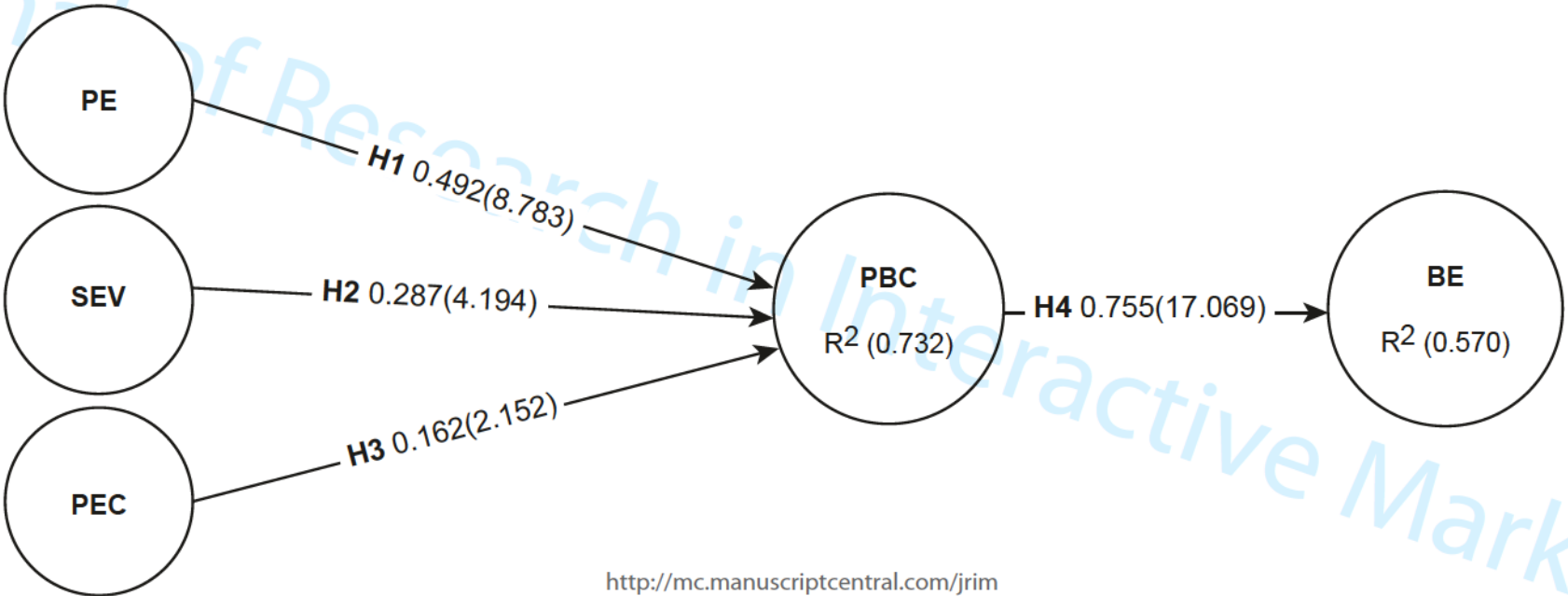
Experience of buying NFTs/Branded items



Gaming experience



e Marketing



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Table 1. Results of the assessment of measurement model

Construct	Item	Scale Items	Loading
Perceived Enjoyment (PE) (AVE =0.881; CR = .957)	PE1	I enjoy playing fashion brand game.	0.931
	PE2	I find my experience of playing fashion brand game is pleasant.	0.944
	PE3	I find my experience of playing fashion brand game is exciting.	0.942
Online Self-Expressive Value (SEV) (AVE =0.821; CR = .932)	SEV1	Playing the fashion brand game makes me feel different.	0.881
	SEV2	Playing the fashion brand game enables me to stand out from the others.	0.920
	SEV3	Playing the fashion brand game represents myself image.	0.917
Perceived Emotional Challenge (PEC) (AVE =0.657; CR = .920)	PEC1	Playing fashion brand game is more than just a game to me.	0.801
	PEC2	I invest a lot of thoughts during my time playing fashion brand game.	0.736
	PEC3	I feel a sense of responsibility for avatars and events in fashion brand game.	0.854
	PEC4	Fashion brand game made me think about real life issues.	0.808
	PEC5	I usually feel a sense of suspense when playing fashion brand game	0.837
	PEC6	Playing fashion brand game was stimulating to real life scenarios.	0.822
Perceived Brand Coolness (PBC) (AVE =0.762; CR = .941)	PBC1	When I first heard of the fashion brand game, I was thinking that it would be cool to play it.	0.844
	PBC2	Playing the fashion brand game with a character wearing the brand outfits will make me look cool.	0.827
	PBC3	Playing the fashion brand game is cool.	0.904
	PBC4	When I play the fashion brand game, my response often is something like "That's cool!".	0.901
	PBC5	The fashion brand game has some cool features.	0.886
Brand Equity (BE) (AVE =0.766; CR = .907)	BE1	Even if another brand offered a similar product/promotion offers, I would prefer the offers of this brand I played/passed by in the game.	0.869
	BE2	If there is another brand as good as the brand I played/passed by in the video game, I prefer this brand.	0.897
	BE3	If the services of another brand is not different from the fashion brand I played/passed by in a video game in any way, it seems smarter to purchase this brand.	0.858

Table 2 - Fornell_Larcker Criterion Matrix

Construct	BE	PBC	PEC	PE	SEV
BE	0.875				
PBC	0.755	0.873			
PEC	0.699	0.744	0.811		
PE	0.668	0.806	0.731	0.939	

SEV	0.694	0.749	0.777	0.684	0.906
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Notes: BE, Brand Equity; PBC, Perceived Brand Coolness; PEC, Perceived Emotional Challenge; PE, Perceived Enjoyment; SEV, Online Self-Expressive Value

Table 3 - Discriminant validity heterotrait monotrait ratio

Construct	BE	PBC	PEC	PE	SEV
BE					
PBC	0.853				
PEC	0.797	0.812			
PE	0.751	0.868	0.793		
SEV	0.799	0.827	0.865	0.749	

Notes: BE, Brand Equity; PBC, Perceived Brand Coolness; PEC, Perceived Emotional Challenge; PE, Perceived Enjoyment; SEV, Online Self-Expressive Value

Table 4 - R2

Endogenous	R ²
Perceived Brand Coolness	0.732
Brand Equity	0.570

Table 5 - Hypothesis Testing- Direct relationships

Hypothesis	Path	Path coefficient(β)	SE	T-statistics	P Values	Decision
H1	PE \rightarrow PBC	0.492	0.056	8.783	0.000	Supported
H2	SEV \rightarrow PBC	0.287	0.068	4.194	0.000	Supported
H3	PEC \rightarrow PBC	0.162	0.075	2.152	0.016	Supported
H4	PBC \rightarrow BE	0.755	0.044	17.069	0.000	Supported

Notes: PE, perceived enjoyment; PBC, Perceived Brand Coolness; SEV, Online Self-Expressive Value; PEC, Perceived Emotional Challenge; BE, Brand Equity.

Table 6 – Hypothesis Testing on Mediation – Indirect relationships

Hypothesis	Path	Path coefficient(β)	SE	T-statistics	Confidence interval (bias-corrected)		Decision	Type of mediation
					LL	UL		
H5a	PE \rightarrow PBC \rightarrow BE	0.371	0.049	8.099	0.282	0.463	Supported	Partial mediation
	PE \rightarrow BE	0.371	0.046	8.099	0.282	0.463		

H5b	SEV → PBC → BE	0.206	0.052	3.913	0.109	0.308	Supported	Partial mediation
	SEV--> BE	0.206	0.053	3.913	0.109	0.308		
H5c	PEC → PBC → BE	0.134	0.058	2.320	0.015	0.229	Supported	Partial mediation
	PEC--> BE	0.134	0.058	2.320	0.015	0.229		
Notes: PE, perceived enjoyment; PBC, Perceived Brand Coolness; SEV, Online Self-Expressive Value; PEC, Perceived Emotional Challenge; BE, Brand Equity. LL = lower limits; UL = upper limits.								

Table 7 - Results of gender multigroup analysis hypothesis testing

Hypothesis	Path	PC difference (male vs female)	p-value PLS-MGA	p-value parametric	p-value Welch-Satterthwait	Decision
H6.a	PEàPBC	0.064	0.293	0.292	0.290	Not Supported
H6.b	SEV à PBC	-0.177	0.078	0.081	0.080	Not Supported
H6.c	PEC à PBC	0.189	0.093	0.096	0.096	Not Supported
H6.d	PBC à BE	-0.147	0.035	0.044	0.047	Supported

Notes: 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; $p < 0.10$.
Notes: PC, Path coefficient; PE, Perceived Enjoyment; PBC, Perceived Brand Coolness; SEV, Online Self-Expressive Value; PEC, Perceived Emotional Challenge; BE, Brand Equity.

Table 8 - Results of gaming experience multigroup analysis hypothesis testing

Hypothesis	Path	PC difference (low experience vs high experience)	p-value PLS-MGA	p-value parametric test	p-value Welch-Satterthwait test	Decision
H7.a	PEà PBC	-0.041	0.766	0.745	0.748	Not Supported
H7.b	SEV à PBC	-0.092	0.544	0.533	0.543	Not Supported
H7.c	PEC à PBC	0.119	0.437	0.427	0.433	Not Supported
H7.d	PBC à BE	0.149	0.074	0.069	0.068	Not Supported

Notes: 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; $p < 0.10$.
Notes: PC, Path coefficient
PE, Perceived Enjoyment; PBC, Perceived Brand Coolness; SEV, Online Self-Expressive Value; PEC, Perceived Emotional Challenge; BE, Brand Equity.