THE IMPACT OF AYAYI CGI INFLUENCERS' CHARACTERISTICS ON CONSUMER PURCHASE INTENTIONS AND BRAND EQUITY: THE MEDIATING ROLE OF BRAND EQUITY AND MODERATING ROLE OF BRAND-ENDORSER CONGRUENCY

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Abstract

Amid the increasing deployment of Computer-Generated Imagery (CGI) endorsers in business marketing, attributed to their superior manageability and cost-effectiveness, this study thoroughly examines the direct impact of CGI characteristics on purchase intentions and brand equity, alongside the mediating effect of brand equity between CGI characteristics and purchase intentions, and the moderating influence of CGI–Brand congruency on these relationships. Utilizing an online survey aimed at AYAYI's followers on the Little Red Book platform, this study gathered 472 responses, which were comprehensively analyzed using CB-SEM. The findings corroborate a direct effect of CGI authenticity and expertise on purchase intentions, and attractiveness, expertise, and authenticity on brand equity. It was validated that brand equity mediates the relationship between CGI endorser characteristics (specifically expertise and authenticity) and purchase intentions. Additionally, the moderating effect of Brand and CGI Endorser Congruence on the relationship between CGI Endorser Characteristics and Brand Equity was confirmed.

Keywords: CGI brand Endorser, Brand Equity, Purchase Intention, Source-Credibility Model

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Introduction

The digital era has significantly reshaped marketing strategies, leading to a transition from traditional methods to modern techniques. These techniques encompass cross-marketing, content marketing, experiential marketing, and notably, metaverse marketing. Traditional marketing—often termed "push marketing" (Todor, 2016)—primarily relies on offline channels like television ads and billboards. In contrast, modern marketing utilizes internet platforms and Artificial Intelligence (AI) to craft precise and captivating strategies, such as word-of-mouth promotions. These methods are particularly effective for engaging millennial consumers (Geng, 2018). The emergence of the metaverse concept, advocated by technology conglomerates. Facebook and Baidu have marked the emergence of metaverse marketing in 2021. Recently, many brands incorporated CGI endorsers in their campaigns to attract consumers and bolster brand equity. The increasing visibility of CGI personas in brand promotions, exemplified by collaborations such as that between Prada and Lil Miquela, has spurred the development of innovative marketing strategies and unique customer interactions (Maughan, 2018). Unlike human endorsers, CGI characters have superior capabilities for analyzing and acting on consumer behavior data. This allows brands greater control while reducing costs. Despite their recent introduction, the industry holds a sanguine view regarding their future applications and advancement. However, empirical studies examining the efficacy of CGI endorsers in marketing remain limited. Most studies have concentrated on the influence of human endorsers on purchasing decisions (Boerman, 2020; Torres et al., 2019; Castillo & Fernández, 2019). Initial studies hint that CGI endorsers' characteristics can enhance brand equity (Zhang et al., 2018) and consumer brand attachment (Zhou et al., 2018). While these findings substantiate the positive impact of CGI endorsers on purchase intentions and brand equity, some areas remain underexplored:

1. A substantial portion of the extant literature focuses on specific attributes of CGI personas: cuteness (Huang et al., 2022; Mouritzen et al., 2023), expertise (Torres et al., 2019), and relevance (Huang & Suo, 2023). However, critical attributes such as credibility and authenticity, and their influence on buying decisions and brand equity, are yet to be fully explored in the CGI endorser context. This gap underscores the need for extensive research to better understand the role and implications of digital personas in marketing.

2. A limited number of studies explore the relationship between the characteristics of CGI endorsers and purchase intentions, particularly considering the congruence between the endorser and the brand image. Most research primarily focuses on other determinants of purchase intentions, such as brand equity and attachment, persuasive effects, and overall brand sentiment. This highlights a significant research gap that needs addressing—specifically, the exploration of the direct link between CGI endorser characteristics and consumer purchasing

decisions, along with the harmony between the endorser's and brand's image.

3. There is an ongoing debate about the effectiveness of CGI influencers. Some studies indicate that CGI endorsers might not be as effective as human endorsers in driving purchase intentions or fostering a positive brand image (Ozdemir et al., 2023; Li et al., 2023). Conversely, other studies argue that CGI endorsers can positively influence purchasing decisions and are less susceptible to reputation damage from negative press (Arsenyan & Mirowska, 2021), hinting that they may help brands avoid the so-called "vampire effect", which is defined as celebrity overshadows the product characteristics in the advertisement (Erfgen et al., 2015). To comprehensively understand this dynamic, a thorough analysis of the relationship between CGI endorser characteristics and consumer purchase intentions, rooted in the theory of planned behavior, is essential. Such research endeavors will deepen our understanding of the CGI endorsers' role in today's marketing landscape.

Objectives

The research objectives are as follows:

1. To investigate the direct impact of CGI endorser characteristics on consumer purchase intentions.

2. To delve into the moderating effect of congruence between the CGI endorser and brand on the relationship between the CGI endorser characteristics and purchase intentions, including brand equity.

3. To evaluate the mediating role of brand equity in the relationship between CGI endorser characteristics and purchase intentions.

Literature Review

Conceptual Insights and Attributes CGI Brand Endorsers

In today's digital landscape, CGI brand endorsers are capturing considerable interest from corporations and marketers, even overshadowing traditional human celebrities. These endorsers are grouped into three distinct categories: (1) individuals, which include internet celebrities, product users, and entrepreneurs; (2) animals or virtual entities; and (3) organizations or groups (Peng & Chao, 2011). By disseminating information and attracting dedicated followers through their distinctive and reliable traits, they extend the reach of brands (Schouten et al., 2019). Nonetheless, the reputation of these endorsers plays a critical role in shaping a brand image and credibility, presenting inherent challenges. A tarnished image of an endorser can have a ripple effect on the brand's reputation, given its deep-seated connection with consumers' psychological perceptions (Peng & Chao, 2011). Recognizing these challenges, many firms are shifting towards using more controllable CGI characters as endorsers. They aim to achieve personalized brand promotion, cut risks, and curtail costs. Noteworthy examples are AYAYI from China, Lil Miquela from the USA, and Rozy. Gram from Korea (Jia & Bie, 2021). Enhanced with AI sensory systems,

these CGI endorsers interact effortlessly with human audiences (Yu & Yang, 2020). Studies have pointed toward a favorable correlation between the perceived authenticity of CGI endorsers and both perceived social interaction and brand attachment (Zhou et al., 2018). Furthermore, the appeal of CGI internet celebrities increases with the realism of their facial expressions (Geng, 2018), underlining the importance of authenticity. Given these insights, marketers should capitalize on advanced multimedia tools to amplify the perceived authenticity of CGI endorsers. By doing so, they can heighten sensory experiences and leverage integrated marketing communication to bolster consumers' emotional engagement and attachment to brands (Zhou et al., 2018).Characteristics of endorsers, like credibility, expertise, and attractiveness, are encapsulated in the source-attractiveness model (Ohanian, 1990). These attributes are pivotal in shaping purchase intentions and enhancing marketing results (Jia & Bie, 2021). While traditional models have informed previous studies on human brand endorsers (Zhou & Baimei, 2021), CGI endorsers have showcased superior prowess in fostering brand-audience connections, especially in social media marketing—PRADA's virtual model campaigns being a case in point. This underscores the need for a thorough exploration of the characteristics of CGI endorsers, such as expertise, attractiveness, and authenticity, in the contemporary digital realm (Zhang et al., 2018)

The Concept of Brand Equity

A brand distinguishes a company's products using elements like names, logos, and symbols (Krishnan, 2021). Brand equity, shaped by consumer perceptions, enhances purchasing motivations and emotional connections (Mogaji, 2021). It includes brand awareness, loyalty, perceived quality, associations, and assets like patents. Brand awareness influences brand equity, loyalty, and market standing, urging businesses to invest in promotions (Krishnan, 2021). Brand loyalty, driven by marketing, influences purchase behavior and relies on effective CRM systems, benefitting company revenues (Mogaji, 2021). Perceived product quality influences purchase decisions, with consumers weighing benefits against costs (Zeithaml, 1988). Quality perception impacts pricing and brand position, and meeting consumer expectations boosts revenues (Aaker, 1991; Baumert & De Obesso, 2021). Brand associations, which relate to consumer feelings, can be categorized into attributes, benefits, and attitudes, enhancing brand value, and influencing user satisfaction (Aaker, 1991; Keller, 1993).

The Influence of CGI Endorser Attractiveness on Consumer Purchase Intentions

Growing academic research highlights the vital role of certain attributes, such as attractiveness, professionalism, authenticity, and interactivity, linked to brand endorsers in shaping consumer purchasing behaviors. Among these, authenticity, professionalism, and attractiveness stand out as fundamental

source traits (Kelman, 1961). Supporting this, a study by Chiu and Ho (2023) demonstrated the significant impact of attractiveness on purchase intentions, particularly for beauty-related products. In a similar vein, AlFarraj et al. (2021) studied how various influencer credibility aspects, including attractiveness, trustworthiness, and expertise, influenced purchase intentions in Jordan's aesthetic dermatology sector. They also pointed to the potential for extending this research to various social media platforms.

Our study aims to bridge the existing knowledge gap regarding how endorser attributes affect purchase intentions, specifically emphasizing the four attributes mentioned earlier. The analytical approach leans on the theoretical framework of information source characteristics and McGuire's (1958) source-attractiveness model. From this foundation, we propose the hypothesis: H1 - The attractiveness of a CGI endorser has a positive effect on consumer purchase intentions.

The Influence of CGI Endorser Expertise on Consumer Purchase Intentions

Expertise, characterized by an influencer's specialized knowledge or skills in a particular domain, is pivotal in shaping purchase intentions (Wiedmann & Von Mettenheim, 2020). However, when it comes to CGI endorsers, their expertise does not appear to have a direct influence on purchase intentions. Chiu and Ho (2023) suggest this may be because consumers often question the authenticity of opinions or content from CGI endorsers. Such skepticism is rooted in the perception that CGI endorsers do not actually use the products they promote, casting doubts on their credibility. Contrastingly, prior research indicates that the expertise of human endorsers positively affects purchase intentions. Given these mixed insights, we put forth the hypothesis: H2 - A CGI endorser's expertise positively influences consumer purchase intentions.

The Influence of CGI Endorser Authenticity on Consumer Purchase Intentions

In brand endorsements, authenticity has increasingly become a vital attribute, playing a significant role in consumer engagement (Kapitan & Silvera, 2016). For CGI endorsers, however, the concept of authenticity can be dissected through two unique perspectives. Firstly, based on the framework of Lee et al. (2022), behavioral or ethical authenticity encompasses an endorser's perceived honesty, transparency, and reliability. It captures the influencer's genuineness, highlighting the congruence between their actions and public portrayal.

On the other hand, authenticity also entails an aesthetic angle primarily related to human likeness. Mori et al. (2012) introduced the "uncanny valley" phenomenon, suggesting that as robots or CGI characters increasingly resemble humans, they become more appealing—up until they appear almost human but not quite, at which point their appeal drastically drops. Expanding upon this, Ham et al. (2023) researched how blending reality with the virtual impacts perceptions of

anthropomorphism and authenticity in virtual human influencers. They found that factors like realism and the depth of product engagement could enhance the sense of authenticity.

However, despite the inherent power of authenticity to drive purchase intentions (Lee et al., 2022), CGI endorsers can sometimes come across as both 'uncanny' and 'artificially genuine'. This perception poses a challenge in establishing strong prosocial relationships (Lou et al., 2023), given that consumers are often aware of the constructed personas and commercial motivations behind these virtual influencers (Sands et al., 2022; Ahn et al., 2022). This dual perspective underscores the intricate and evolving nature of authenticity in the context of virtual influencers. Acknowledging these complexities, our research intends to probe deeper into how both the behavioral/ethical and aesthetic dimensions of a CGI endorser's authenticity might influence consumer purchasing behavior. This inquiry complements the growing call for more transparency and genuineness in consumer-brand relationships. Thus, stemming from this discussion, we put forward the following hypothesis: H3 - The authenticity of a CGI endorser, covering both behavioral/ethical and aesthetic aspects, positively impacts consumer purchase intentions.

The Impact of CGI Endorser Characteristics on Brand Equity

Current literature highlights the relationship between positive perceptions of a brand spokesperson's attributes and increased brand equity (Xue et al., 2016). Notably, these perceptions can enhance aspects of brand equity like brand loyalty, perceived value, brand awareness, and brand associations, as elucidated by scholars including Callcot and Phillips (1996) and Sun and Jiang (2015). However, there is limited research on how the characteristics of CGI endorsers specifically influence elements of brand equity, such as endorser-brand association. Guided by Aaker's brand equity theory (1991), this study probes the effects of CGI endorser attributes on four pivotal dimensions of brand equity: recognition, loyalty, perceived quality, and brand associations.Brand Equity is seen as a comprehensive construct composed of brand awareness, brand loyalty, perceived quality, and brand associations. Each of these facets contributes to the overall brand equity, which affects consumer purchase intentions. With this backdrop, our research aims to analyze the impact of CGI endorsers on the totality of brand Equity. Based on this discourse, we propose the subsequent hypotheses: H4 - A CGI endorser's attractiveness positively impacts overall brand equity; H5 - A CGI endorser's expertise adds value to overall brand equity; H6 - The authenticity of a CGI endorser bolsters overall brand equity.

The Mediating Influence of Brand Equity on the Relationship between CGI Endorser Characteristics and Consumer Purchase Intentions

Extensive research highlights a positive association between brand equity—essentially, Brand's value derived from consumer

perceptions—and purchase intentions. Notably, Cobb-Walgren et al. (1995) found that strong purchase intentions often correlate with brands enjoying high brand equity. Similarly, Shukla (2009) underscored the significant roles of both brand awareness and brand loyalty in influencing purchase intentions.Brand equity further cements its importance through its pivotal role in linking the credibility of CGI endorsers to purchase intentions. By leveraging the allure of a CGI endorser in their marketing campaigns, brands can directly connect with potential consumers. This strategy not only fosters brand loyalty, as noted by Çelik (2022), but also amplifies brand awareness (Sesar et al., 2022), boosts perceived quality (Spry et al., 2011), and fortifies the bond between the brand and its endorser. However, a gap exists in the literature concerning the intermediary role of brand equity when assessing the characteristics of CGI endorsers and purchase intentions. Some studies allude to the capacity of brand equity to sway purchase intentions and suggest that certain attributes of CGI endorsers might strengthen brand equity. Yet, this relationship beckons more in-depth exploration. Given the plethora of evidence supporting brand equity's influence on purchase intentions, it is surprising how the literature has insufficiently probed its mediating role between CGI endorser traits and consumer purchase intentions. Addressing this lacuna, this study posits the following hypotheses: H7a - Brand equity mediates the relationship between the attractiveness of a CGI endorser and consumer purchase intentions; H7b - Brand equity mediates the relationship between the expertise of a CGI endorser and consumer purchase intentions; H7c - Brand equity mediates the relationship between the authenticity of a CGI endorser and consumer purchase intentions.

The Congruity of CGI Endorser and Brand

Introduced by Friedman and Friedman (1979), the concept of brand-endorser congruity emphasizes the alignment between the endorser and the brand, spotlighting the harmony between an endorser's persona and the brand image (Fleck et al., 2012). A body of research supports the idea that when an endorser's traits resonate with a brand image, it amplifies audience identification with the endorser. Such heightened identification consequently bolsters perceived professionalism and attractiveness, which can sway purchase intentions (Kim & Park, 2023; Rungruangjit, 2022). Yet, a noticeable void exists in the literature concerning the moderating effect of congruity between a CGI (Computer-Generated Imagery) endorser—an animated or digitally-created brand spokesperson—and a brand image. While we have a comprehensive understanding of congruity in the realm of human endorsers, the dynamics involving CGI endorsers remain largely untapped. Addressing this gap, the study forwards the following hypothesis: The congruity moderates the impact of CGI endorser characteristics on consumer purchase intentions (H8) and brand equity (H9).

Methodology

Pilot Study

Before undertaking the primary research, a preliminary study was launched. This study aimed to identify potential challenges and to fine-tune the research methodology. Central to this preparatory phase was understanding which type of product consumers were most likely to purchase when promoted by Ayayi, a distinguished CGI (Computer-Generated Imagery) endorser who has gained prominence on China's Little Red Book social media platform (Gao & Feng, 2023). The need for such clarity became paramount given Ayayi's diverse endorsement portfolio, which spanned cosmetics (like Shiseido and Makeup Forever), food items (such as AMX), and electronics (for instance, Bose). Notably, each product category likely triggered varying levels of user engagement. Based on prior research recommendations, the preliminary study involved a sample of 34 participants, ensuring the derivation of meaningful initial insights (Hertzog, 2008; Julious, 2005). This investigation centered on assessing the effectiveness of CGI endorsements across various product types. To this end, a curated set of images showcasing Ayayi endorsing various products was employed, providing a tangible measure of her endorsement's impact on consumer purchase intention.

For clarity, three distinct images were showcased: Ayayi endorsing cosmetics, electronics, and drinks. Each image was crafted to place Ayayi in settings reflective of the endorsed product, ensuring contextual congruence. This strategy aided in measuring the endorsement's direct impact on consumer intentions for different product types. Concurrently, it offered a lens to understand how Ayayi's personal attributes might interplay with the specific product she was endorsing. Insights from this preliminary phase were instrumental in refining the design and approach of the conducted primary research.The participants for this preliminary study were sourced from Little Red Book, with 64.71% female and 35.29% male. Most of the participants were undergraduate educated (58.82%), followed by graduate educated (17.65%) and high school educated (11.76%). All the participants were Chinese (M_{age} 25.3)

When asked which product category they would have been most likely to purchase if endorsed by Ayayi, 24.3% opted for cosmetics (M_{fit} 5.5, $p<0.001$), 19% for drinks (M_{fit} = 5.24, $p<0.001$), 12% for electronics (M_{fit} = 4.32, $p<0.001$). This led to the selection of cosmetics endorsement as the research instrument for the primary study.

Primary Research Design

After completing the preliminary study, the primary research utilized a quantitative methodology to test the hypotheses and achieve the research objectives. The measurements employed in this study, adjusted to the context of CGI endorsers, were drawn from prior research. Specifically, the measurement of attractiveness was adopted from Kim and Park (2023), expertise from Ohanian (1990), authenticity from Lou et al. (2023), brand awareness from Sesar et al. (2022), perceived quality from Spry et al. (2011), purchase

intentions from Sesar et al. (2022), brand loyalty from Çelik (2022), brand association from Till and Shimp (1998), and CGI-Product Congruence from Jun et al. (2023), as indicated in Table 1.

Sampling Procedure

In this research, a convenience sampling method was employed. A 7-point Likert Scale online questionnaire was disseminated to the followers of Ayayi on the Little Red Book Platform via messaging. The construction of the survey was facilitated using the Wenjuanxing platform. The study included participants aged between 18 and 65, enabling an examination of consumer behavior across various age groups (Rungruangjit, 2022). All the participants were of Chinese nationality (M_{age} = 35.6). The sample's demographic composition was as follows: 53.81% were female, and 46.19% were male. Regarding education, 59.75% held an undergraduate degree, 26.06% possessed a graduate degree, and 6.78% had completed high school education. The sample comprised 472 individuals, selected from a population of 125,000 followers of Ayayi on the Little Red Book social media platform. This sample size was calculated based on a 95% confidence level and a 5% margin of error. Before participation, all participants provided informed consent. In line with ethical research standards, all data collected were stored anonymously to protect the identities of the participants.

Data Analysis and Finding

Statistical analyses for this study were performed using the Mplus 8 software program. The study's focus on Ayayi's followers on the Little Red Book was predicated on the assumption that these individuals are already familiar with CGI endorsers. This is a reasonable expectation, given their existing engagement with a CGI influencer. Once their familiarity was ascertained, respondents proceeded to the variable test section, which presented a brief overview of Ayayi and the test instructions.

The analytical process commenced with an exploration of how the three dimensions of CGI endorser attributes—namely, Attractiveness, Expertise, and Authenticity—influenced purchase intentions and brand equity, which were the primary constructs under scrutiny. Structural Equation Modeling (SEM) was employed as the principal method of analysis, with the Maximum Likelihood Robust (MLR) serving as the estimator to account for any potential non-normality in thedataset. With in the proposed model, brand equity was envisaged as a latent variable underpinned by four distinct observed variables: Brand Awareness, Perceived Quality, Brand Loyalty, and Brand Association. In a parallel manner, the attributes of CGI endorsers (Attractiveness, Expertise, Authenticity) were conceptualized as latent variables, with each being represented by three distinct indicators. Likewise, Congruence was gauged.

Validity and Reliability

This research implemented Confirmatory Factor Analysis (CFA) to ensure the validity and reliability of the measurement scales used. For Construct Reliability and Convergent Validity, the factor loading surpassed the recommended

0.7 threshold (Hair et al., 2010). Furthermore, Composite Reliability (CR) values approximated 0.9, exceeding the suggested value of 0.7. Average Variance Extracted (AVE) values exceeded 0.5, indicating adequate convergent validity (Fornell & Larcker, 1981). Moreover, the Cronbach's Alpha (CA) ranged between 0.8 to 0.9, surpassing Nunnally's (1978) 0.7 benchmark, confirming the convergent validity and construct reliability of the measurement scales (see Table 1).

Table 1 Construct reliability and convergent

Items	Loading	CA	AVE	CR
ATT1: I think Ayayi is very attractive.	0.930			
ATT2: Ayayi is charming.	0.908	0.884	0.814	0.929
ATT3: I want to be friends with Ayayi.	0.868			
EPT1: Ayayi has a deep understanding of fashion and design.	0.921			
EPT2: Ayayi is an expert in fashion and design.	0.939	0.912	0.858	0.948
EPT3: Ayayi has experience in fashion and design.	0.918			
ATCT1: Ayayi's endorsement feels real and credible.	0.928			
ATCT2: I can imagine Ayayi using this product in daily life.	0.921	0.888	0.821	0.932
ATCT3: AYAYI looks like a real person, with human characteristics.	0.868			
BRA1: The logo of Shiseido instantly comes to my mind.	0.913			
BRA2: I can easily distinguish Shiseido's advertised products from other competitive cosmetic brands.	0.880	0.879	0.810	0.928
BRA3: I can immediately recall the unique characteristics of the product, such as the slogan mentioned by Ayayi.	0.907			
PQ1: I believe in the high quality of Shiseido products.	0.922			
PQ2: I perceive Shiseido's quality as highly consistent.	0.933	0.910	0.858	0.948
PQ3: I think that the product functions provided by Shiseido are excellent.	0.924			

Table 1 Construct reliability and convergent (cont.)

Items	Loading	CA	AVE	CR
PCT1: I'm inclined to buy the products she recommends in the future.	0.939			
PCT2: I would recommend the products used and recommended by Ayayi to others.	0.928	0.925	0.872	0.953
PCT3: Ayayi's recommendation video motivates me to purchase and try.	0.934			
BL1: I feel a strong loyalty towards Shiseido.	0.953			
BL2: Shiseido has become my first choice.	0.940	0.934	0.888	0.959
BL3: I would not consider purchasing other brands.	0.934			
CPC1: Ayayi's image perfectly aligns with Shiseido's brand image.	0.930			
CPC2: There's a strong congruence between Shiseido's and Ayayi's brand images.	0.915	0.895	0.829	0.936
CPC3: Ayayi is an extremely suitable spokesperson for Shiseido.	0.886			

Remark: CA = Cronbach's Alpha; CR = Composite Reliability; AVE = Average Variance Extracted

Regarding discriminant validity, the off-diagonal correlations (between 0.1 and 0.2) were below the square roots of the AVE values, validating the discriminant validity of the scales (Fornell & Larcker, 1981), according to Table 2.

Table 2 Discriminant validity: Correlations and square roots of Average Variance Extracted (AVE)

	ATT	EPT	ATTCT	BAWN	PQ	PITT	BL	BA	CPC
ATT	**0.902**								
EPT	0.164*	**0.926**							
ATTCT	0.104	0.196*	**0.906**						
BAWN	0.159*	0.203*	0.157*	**0.900**					
PQ	0.162*	0.167*	0.191*	0.209*	**0.926**				
PITT	0.152*	0.158*	0.259*	0.203*	0.138*	**0.934**			
BL	0.810	0.123*	0.188*	0.208*	0.156*	0.219*	**0.942**		
BA	0.109	0.186*	0.136*	0.109	0.137*	0.173*	0.166*	**0.911**	
CPC	0.121*	0.131*	0.163*	0.190*	0.146*	0.239*	0.127*	0.248*	**0.910**

Remark: The values in bold on the diagonal represent the square root of AVE foreach construct

Model Fit Assesment

The structural equation model's fit was evaluated using multiple indices. Despite the chi-square test indicating a discrepancy in the model's implied and observed covariance matrices (χ^2 = 792.115, df = 312, p<0.05), Bentler (2007) notes its sensitivity to larger sample sizes. Therefore, other fit indices were considered. Notably, both the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI) registered a value of 0.9, indicating a good fit (Hu & Bentler, 1999). Additionally, the Root Mean Square Error of Approximation (RMSEA) also stood at 0.057, below the widely accepted 0.08 threshold (Brown & Cudeck, 1993), suggesting a commendable fit. The Standardized Root Mean Square Residual (SRMR), at 0.062, was similarly below the 0.08 threshold (Hu & Bentler, 1999), reinforcing the model's good fit (see Table 3).

Table 3 Fit Indices for measurement and structural models

Model	χ^2 (df)	p-value	CFI	TLI	RMSEA	SRMR
Measurement Model (CFA)	792.115 (312)	<0.05	0.938	0.930	0.057	0.062
Single-Factor Model	6351.723 (324)	<0.05	0.220	0.155	0.199	0.146

Common Method Bias

Two Confirmatory Factor Analyses (CFAs) were conducted to examine potential common method bias by comparing the theoretical model showed superior fit indices (χ^2 = 792.115*, df = 312, p<0.05, CFI = 0.938, TLI = 0.930, RMSEA = 0.057, SRMR= 0.062) compared to the single-factor model (χ^2 = 6351.723*, df = 324, p<0.05, CFI = 0.220, TLI = 0.155, RMSEA = 0.199, SRMR = 0.146), indicating that the SEM analysis is unlikely to be affected.

Result

Path Coefficients

Our Structural Equation Modelling (SEM) results indicated a direct, significant relationship between CGI authenticity and purchase intention (β = 0.206, SE = 0.051, p<0.001), supporting Hypothesis H3. The effect of expertise on purchase intention (β = 0.108, SE = 0.053, p = 0.041) was also significant, confirming Hypothesis H2. However, the influence of attractiveness (β = 0.085, SE = 0.052, p = 0.099) was

not statistically significant at the conventional level, failing to confirm Hypothesis H1. The CGI endorser characteristics had a significant impact on brand equity. Attractiveness (β = 0.088, SE = 0.043, $p<0.05$, expertise (β = 0.156, SE = 0.047, $p<0.01$) and authenticity (β = 0.315, SE = 0.140, $p<0.001$) were influential, supporting Hypotheses H4, H5, and H6 (see Table 4).

Table 4 Direct effect (H1-H6) test results

Hypothesis	Path Coefficient	Standard Error	p-value	t-value
H1: ATT → PITT	0.085	0.052	0.099	1.63
H2: EPT → PITT	0.108	0.053	<0.05	2.04
H3: ATTCT → PITT	0.206	0.051	<0.001	4.04
H4: ATT → BE	0.088	0.043	<0.05	2.05
H5: EPT → BE	0.156	0.047	<0.01	3.32
H6: ATTCT → BE	0.315	0.140	<0.001	2.25

Mediation Analysis

Brand equity significantly influenced purchase intentions (β = 0.405, SE = 0.120, p = 0.001). When considering the mediating effect of brand equity, the direct impact of attractiveness on purchase intentions remained non-significant (β = 0.017, SE = 0.059, p = 0.766). Furthermore, both the influence of expertise and authenticity on purchase intentions became non-significant when brand equity was introduced as a mediator (Expertise: β = - 0.023, SE = 0.073, p = 0.755; Authenticity: β = 0.103, SE = 0.066, p = 0.117). These results support hypotheses H7b and H7c (see Table 5), indicating that brand equity mediates the relationship between CGI endorser characteristics (expertise and authenticity) and purchase intentions.

Table 5 Mediation effect (H7) test results

Hypothesis	Path Coefficient	Standard Error	p-value	t-value
H7a: ATT → BE → PITT	0.017	0.059	0.766	0.29
H7b: EPT → BE → PITT	-0.023	0.073	0.755	0
H7c: ATTCT → BE → PITT	0.103	0.066	0.117	6.73

Moderation Analysis

Structural Equation Modeling (SEM) results indicate that the hypothesized moderating role of brand and CGI endorser congruence in the relationship between CGI endorser characteristics and purchase Intentions (Hypothesis H8) was not supported. Although the interaction term approached significance (β = 0.146, SE = 0.076, p = 0.056), it did not meet the conventional significance criterion of $p<0.05$. In contrast, the hypothesized moderating effect of brand and CGI endorser congruence on the relationship between CGI endorser characteristics and brand equity was validated (Hypothesis H9). The interaction term showed a significant effect (β = 0.740, SE = 0.113, $p<0.001$), confirming Hypothesis H9 (see Table 6).

Table 6 Moderation effect (H8, H9) test

Hypothesis	Path Coefficient	Standard Error	p-value	t-value
H8: CRTRT → CPC → PITT	0.146	0.076	0.056	1.92
H9: CRTRT → CPC → BE	0.740	0.113	<0.001	6.73

Discussion

This research investigated the effects of CGI endorser characteristics on purchase intentions and brand equity, with a specific emphasis on the mediating role of brand equity and the moderating role of Brand-CGI congruency. The results demonstrate a pronounced influence of CGI endorser expertise (H2) and authenticity (H3) on purchase intentions, echoing findings from Lee et al. (2022). Notably, attractiveness (H1) did not have a significant impact on purchase intentions, a detail that aligns with the "uncanny valley" phenomenon described by Mori et al. (2012). This phenomenon highlights the role of human likeness, a facet of authenticity, in influencing purchase intentions beyond mere aesthetics. The study aligns with the conclusions of Wiedmann and Von (2020), emphasizing the pivotal role of expertise in determining purchase intentions. Moreover, there was a consistent influence of attractiveness, expertise, and authenticity on brand equity, in line with Xue et al. (2016). This research also unveils the mediating role of brand equity between CGI endorser characteristics and purchase intentions, a finding supported by studies such as Shukla (2009), Çelik (2022), and Spry et al. (2011). Finally, the research highlights the moderating role of CGI-Brand congruency in the relationship between CGI characteristics and brand equity, expanding upon insights from Fleck et al. (2012).

Conclusion

The research identified CGI endorser expertise and authenticity as primary determinants of purchase intentions. While attractiveness did not directly sway purchase intentions, its significant influence on brand equity was evident. According to managerial and theoretical implications, the findings underscore the importance of genuine and knowledgeable CGI endorsers in enhancing both purchase intentions and brand equity. Despite the limited direct impact of attractiveness on buying decisions, its contribution to brand equity is undeniable. To circumvent the "uncanny valley" effect, maintaining a balanced human likeness in CGI and ensuring transparency are vital. In summary, this study offers a deeper insight into the effects of CGI endorser attributes and charts a course for future research in this dynamic area.

Limitations and Recommendations

1. This study, exclusively based on a Chinese sample group. Future studies should explore the socio-cultural context's potential moderating role between CGI endorsers. It will offer a more comprehensive insight into global consumer behaviour.

2. This study utilized quantitative analysis, targeting Ayayi (followers on the Little Red Book Platform). Future research should incorporate qualitative methods like in-depth interviews, offering a more holistic view of the CGI endorsers-consumer behaviour relationship.

3. The study determined the direct impact of CGI characteristics on brand equity and purchase intentions but did not examine other potential significant variables. Future research should explore additional factors like price, promotion, and brand image from the marketing mix as possible mediators.

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