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Celebrity endorsement on social media in China: familiarity and likeability heuristics in impulse purchase

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ABSTRACT

Brands invested heavily in social media to influence consumer judgement and decision-making in China. Based on the heuristic judgement theory, we built a theoretical framework to examine the heuristic effect of celebrity endorsement on consumers' attitudinal and behavioural responses on social media. Results show that it is a U-shaped relationship between familiarity of celebrity endorsers and brand trust, while celebrity likeability is positively associated with brand trust. Trust is the mediating mechanism in the relationship between celebrity familiarity/likeability and impulse purchase. Yet consumer involvement plays a role as a boundary condition. Implications for theory, marketers, policymakers and consumers are discussed, respectively.

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Brand trust; China; celebrity endorsement; consumer involvement; heuristic judgement theory; impulse purchase

1. Introduction

Celebrity endorsement is a marketing approach that serves to promote a brand or product for reasons such as catching consumers' attention and enhancing brand associations (Jun et al. 2023). With the wide use of social media in contemporary consumers' daily communications and brands' marketing communications, it has become more frequent for celebrity exposure, endorsement and consumer engagement on social media platforms (Bazi, Filieri, and Gorton 2020; Liu, Choi, and Kim 2024). Brands are increasing their effort and budget to embed celebrities in their social media posts. Although there has been abundant literature on celebrity endorsement, most of previous research has focused on its influence on purchase and brand engagement (Bergkvist and Zhou 2016; El Hedhli, Zourrig, and Becheur 2021; Meng et al. 2021; Satar et al. 2024; Wei and Lu 2013). It is known that purchase goes through multiple steps in the decision-making process and engagement with celebrity endorsers can influence consumers' attitudes and emotions during the process. Existing research mainly considers information richness, social presence, relational bonds and expertise as important factors when online celebrities or influencers are employed to interact with consumers in social marketing (Xin, Liu, and Jian 2024; Xue et al. 2020; Zhang et al. 2022). Yet relatively less attention has been paid to consumers' heuristic decision-making and impulse purchase, which is unplanned and

spontaneous. Especially, interactions in social marketing create opportunities for brands to deliver marketing messages even when consumers have no shopping plan. Why do consumers make unplanned purchases spontaneously when celebrities are employed to endorse products? How does celebrity effect transfer to the endorsed brand so that consumers trust its product and take impulse purchase? Are there any conditional boundaries for such an effect?

To fill the research gap and answer the research questions, this study focuses on impulse purchase and examines such behaviour in the context of social media commerce. We adopt heuristic judgement theory (Kahneman and Frederick 2005) to explore a heuristic mechanism of consumer impulsive decision-making when online celebrities are adopted to endorse brands on social media. After years of research on celebrity endorsement using traditional media (Rossiter and Smidts 2012), there has been an increased interest in new, digital media (M. Chen et al. 2021; L. Li et al. 2022). The widespread of social media commerce urges the importance of examining celebrity endorsement in this context. More and more traditional celebrities are turning to social media for endorsement activities and communicating them with consumers. A growing number of people gain their fame because of social media and become online celebrities, who also become a new type of celebrity endorsers receiving increased favour from brands. Furthermore, the emerging development of social commerce makes it meaningful to study impulse purchase in the context of celebrity endorsement on social media (Cavazos-Arroyo and Máñez-Guaderrama 2022; M. Chen et al. 2021; Zafar et al. 2021). When social media and commerce are merged together, it becomes very common that, when they scroll through posts, consumers discover endorsement posts, share them and discuss them with other netizens and even celebrity endorsers. Unlike browsing e-commerce platforms, people scrolling through social media may not prepare to shop but just updating information of interest, such as entertainment news of celebrities. However, part of the posts unanticipatedly may contain product-related information sharing including celebrity endorsement, no matter if it is posted by celebrities or brands or spread by other social media users. These posts become stimuli that may trigger viewers' fast responses, while purchase links provided in the posts make it the most convenient for people to buy immediately just by a click (Jin and Ryu 2020). Based on the above, we argue that it is reasonable to examine the effect of celebrity endorsement on impulse purchase and unpack the heuristic mechanism under the relationship.

Numerous studies have shown that celebrity-endorsed products or brands tend to gain more likeability and higher credibility among consumers than their non-celebrity endorsed counterparts (Cheah et al. 2019; Wei and Lu 2013; L. Zhou and Whitla 2013). Therefore, having celebrities' names or physical appearance featured in advertisements can function as a marketing leverage to transfer their popularity, value and credibility to a brand, exerting a positive impact on consumer perception, brand recognition, sales and profits (Bergkvist and Zhou 2016; Premeaux 2005; Yin et al. 2023; F. Zhou et al. 2020). As social media platforms are booming, online communications can enlarge the effect of celebrity endorsement. Traditional models consider consumer decision-making as a multistage process (Chandron 1979; Cox, Granbois, and Summers 1983; Darley, Blankson, and Luethge 2010). However, many decisions actually are fast and irrational (Kahneman 2011). According to the logic of attribute substitution suggested by the heuristic judgement theory (Kahneman and Frederick 2005), consumers may pay

attention to peripheral information such as endorsers instead of the core attribute of the product. They may adopt intuitive judgement rather than careful reasoning when they make decisions. Hence, this study explores factors behind the influence of celebrity endorsement and explains how the mental shortcut of impulse purchase decision is made.

When it comes to purchase decision-making on celebrity endorsed commodities, unconscious factors may have a greater impact on consumers than conscious elements such as price and usefulness (Dijksterhuis and Nordgren 2006). Oftentimes, consumers' attention unconsciously gets captured by the likeability and familiarity of celebrity endorsers, resulting in a mental shortcut to purchase decisions (Knoll et al. 2016; McCracken 1989). Specifically, consumers may spontaneously trust the brand and buy a product solely because they like a particular endorser, ignoring its market value and material functionality. It is, accordingly, reasonable to examine the effects of celebrity familiarity and likeability as heuristics in brand trust and impulse purchase. Would these two factors accelerate decision-making and stimulate consumption?

An individual's perceived relevance of a product can be 'based on inherent needs, values, and interests' (Zaichowsky 1994, 362). As an intuitive response to fast thinking, impulse purchase behaviour is shown to be very probable when individuals perceive considerable and direct relevance to a specific product. This perception of product-specific relevance produces strong emotional reactions to a given product, leading to decisions on impulse purchase. Consumers' perceived images of a celebrity can be transferred to an endorsed brand and this perception significantly affects the effectiveness of celebrity endorsement (Roy 2016; Um 2017). Consumers are inclined to have strong emotional reactions to celebrity endorsed products, depending on their feelings of the endorser's familiarity and likeability. When these feelings are positive and personal, consumers tend to place great trust in a firm or brand, resulting in an impulse purchase decision (Hayat et al. 2020). However, it is quite difficult for consumers to yield positive feelings when they are not familiar enough with celebrity endorsers. Thus, it would be more informative to study the circumstances under which positive or negative emotions could be triggered (Maruping et al. 2015; Mitchell and James 2001).

Nevertheless, celebrity endorsement may not work for all consumers. What factors may buffer the heuristic effects of celebrity familiarity and likeability on impulse purchase through brand trust? In this study, we argue that consumer involvement functions as a crucial factor in moderating heuristic information processing, which in turn influences the actual impulse purchase behaviour. Particularly, in the context of digital era in China, livestream shopping is booming with 833 million users by the end of 2024 (Thomala 2025), and meanwhile, the number of short video users exceeds 1 billion, with each user spending about 156 minutes every day on Douyin (TikTok), Kuaishou, Bilibili, etc. which are also livestream e-commerce platforms (Aastocks 2025; Liu and Liang 2025). Short videos and livestreams become powerful tools for brands in China to interact with consumers and drive sales (Verot 2024). In general, consumers tend to spend more time and effort processing information on a given product when they have high levels of involvement in product evaluation when they watch a livestream or short video (Cheung and Thadani 2012). Consequently, they're less likely to make a fast purchase decision just based on little or peripheral information. That is, spontaneously decided, unplanned impulse purchase will be unlikely. On the contrary, the probability of an impulse buying

decision is strong when consumers have low involvement or engagement in gaining product knowledge. A heuristic thinking just based on celebrity familiarity and likeability will be enough to generate trust and trigger a spontaneous (i.e. impulse) purchase.

Therefore, this study explores the curvilinear relationship between familiarity of celebrity endorsers and brand trust, and the impact of celebrity likeability on brand trust and impulse purchase behaviour. A theoretical model is built to unpack the mechanism of brand trust (which is heuristically fostered rather than rationally) in consumer decision-making when celebrity endorsement is used in social media commerce. Moreover, we explain the moderated mediating role of consumer involvement, which buffers the aforementioned mechanism. This research contributes to celebrity endorsement literature by examining familiarity and likeability heuristics in impulse purchase. In particular, we extend theory on the non-linear impact of celebrity familiarity by inspecting conditions under which celebrity familiarity has a negative, rather than a positive, impact on brand trust and impulse purchase. We further advance theory on the impact of celebrity familiarity and likeability by finding their mediated impact under low versus high consumer involvement through brand trust, especially within the scope of e-commerce. Besides, this study helps marketers determine how to promote their brands by leveraging familiarity and likeability of celebrity endorsers on social media platforms. Implications for policymakers and consumers are also provided.

2. Conceptual framework and hypotheses

2.1. Celebrity endorsement

Celebrity endorsement means the use of any figure who has public recognition and utilizes that fame to represent a brand or product by appearing in an advertisement (McCracken 1989). In this study, it is set in the context of marketing communications with the use of social media. Any popular star who is frequently featured in entertainment news on social media and has a significant number of fans following them online, when he or she appears in an advertisement or a post of social media brand page, exerts an influence of celebrity endorsement (De Veirman, Cauberghe, and Hudders 2017; L. Li et al. 2022). It has been demonstrated that celebrity endorsers bring good personal meaning to a brand such as their health, greatness, dependability, and social upward mobility, and that this act of meaning transfer cannot be replaced by anything else (McCracken 1989). This indicates that an information processing process is taken place in consumers' mind when making a purchase decision based on their perceived knowledge of a brand and its endorser. Therefore, using celebrities' distinct personal features to endorse a brand can not only enhance the value of a brand's name, products and services (Djafarova and Rushworth 2017) but also increase consumer stimulation (Friedman and Friedman 1979). Celebrities can function as valuable and influential endorsers if they are perceived by the general public as credible and attractive (Tian et al. 2021).

2.2. Impulse purchase and heuristic judgment theory

Impulse purchase is a fast decision without careful assessment of alternatives or future consequences but suddenly triggered by some situations or dispositions (Amos, Holmes,

and Keneson 2014; Sharma, Sivakumaran, and Marshall 2010). This purchase behaviour reflects a fast-thinking response of consumers to a product. Such a reckless action occurs when consumers notice a product that stimulates a sensation of scarcity, compelling a quick and spontaneous consumption decision without any rational consideration (Weinberg and Gottwald 1982). Impulse purchase behaviour is described as a strong desire to make an immediate purchase in response to a quick and irresistible trigger (Rook 1987). Nevertheless, an essential part of impulse buying behaviour is consumers' purchase decision time. When a purchase decision time is extended even though there is a consumption stimulus, consumers have the opportunity to examine their impulse, leading to an act of impulse resistance (Amos, Holmes, and Keneson 2014). In addition, consumers' mood or emotional state can also have an impact on their engagement in the actual purchase decision. When consumers have positive emotions, such as joy and happiness, they are more likely to make a purchase on impulse (Beatty and Elizabeth Ferrell 1998). Positive information cues of celebrity endorsement can engender personal and pleasant feelings towards a product, enhancing the possibility of impulse purchase (Bergkvist and Zhou 2016; F. Zhou et al. 2020).

What factors stimulate impulse purchase can be varied, but these stimuli serve to accelerate consumers' decision-making process and reduce buyers' self-control capability (Lo, Lin, and Hsu 2016). Such an accelerated purchase decision process relates to the principle of the least effort of heuristic information processing (Bohner, Chaiken, and Hunyadi 2006). Heuristics are mental shortcuts that simplify the process of decision-making (Tversky and Kahneman 1974). With mental shortcuts, individuals spend minimal cognitive effort rather than thoughtfully process a lot of information (Gigerenzer and Gaissmaier 2011; Santa and Drews 2023). In this case, consumers prefer making less cognitive effort and they will channel their energy into processing information on a product only when it is necessary. Hence, heuristics result in fast thinking and quick decision-making by intuitive responses but not logical analyses (Gigerenzer and Gaissmaier 2011; Tversky and Kahneman 1981).

Drawing on the heuristic judgement theory (Kahneman and Frederick 2005), we conceptualize celebrity attributes as heuristic cues and explain how they may influence consumer decision-making with impulse purchase. The theory suggests attribute substitution and intuitive judgements. The theoretical logic can be applied to explain why perceptual impressions based on heuristic cues may facilitate intuitive judgement and decision-making, such as impulse purchase. To judge the target attribute of a product, a rational evaluation will require sufficient information processing and comprehensive reasoning before making the decision. However, the heuristic attribute may substitute the target attribute because the former allows minimal cognitive effort to obtain a plausible answer. In the heuristic way, consumers' judgements on brands or products often depend on cues that their low-level cognitive effort can easily access (Tan et al. 2021). Marketers may place various types of heuristic cues that are attention-getting and attractive, aiming to promote consumer responses (Santa and Drews 2023). Consumers may instinctively rely on heuristic cues to make decisions even though the cues are irrelevant to product information per se. In this study, we emphasize heuristic cues of celebrity endorsement in the context of social marketing. As online celebrities interact with consumers on social media, their attributes perceived by consumers may serve as heuristic cues. Especially, when consumers are surfing on social media without a particular shopping plan, heuristic

cues conveyed by celebrity endorsers may trigger consumers' intuitive judgement and impulse purchase. Specifically, this study focuses on familiarity and likeability as two heuristic cues, based on which consumers may form an intuitive judgement and decision-making with minimal cognitive effort.

A heuristic judgement can influence impulse purchase decision by triggering how consumers interpret product features. They may depend on familiarity and likeability towards the celebrity endorser as information cues, instead of necessary information and complex reasoning on factors actually determine product quality. Going through this heuristic process, consumers overlook some of the product information in order to make a purchase decision more quickly and simply (Gigerenzer and Gaissmaier 2011). Such heuristic processes are relatively automatic and concentrate more on information signals or cues that are simple to notice and understand, differing from systematic information processing which requires a greater level of mental effort to fully comprehend all available information through careful thinking and reasoning (Brandstatter, Gigerenzer, and Hertwig 2006; Van Lange, Kruglanski, and Higgins 2012). It has been found that heuristic information processing can influence credibility of information sources in social marketing, trust and consumer judgement (Bauer, Carlson, and Johnson 2022; Javed, Rashidin, and Jian 2024). Therefore, celebrity endorsed products are likely to deliver particular information cues to consumers, stimulating heuristic decision-making.

2.3. Celebrity familiarity and likability in brand trust

Familiarity and likeability of celebrity endorsers can enhance source attractiveness in consumers' information processing. This is a heuristic judgement (Kahneman and Frederick 2005), where consumers adopt these two factors of celebrity endorsers as attributes to substitute real product attributes. The intuitive judgement replaces rational reasoning on the brand and product. It will then influence consumers' trust in the brand.

Familiarity refers to consumers' knowledge of the celebrity endorser through social media exposure or online interactions in the past. When familiarity is low, people are easily influenced by the halo effect of online celebrities, due to the strong heuristic, which triggers a perception of trust (Forgas and Laham 2016). When an endorsed brand is new in the market, consumers tend to use their previous perception of the endorser to form an expectation of the advertised product (Tellis 2004). Consumers are inclined to believe that they are acquainted with a product that is endorsed by a celebrity. An image of endorsement makes a product look less strange than other products without any endorsement (Jiang, Zheng, and Luo 2024). Therefore, celebrities are always chosen to serve as endorsers to gain higher consumers' brand trust when marketers promote their products.

As familiarity grows slightly higher, one may have heard of the online celebrities but not know much about them, resulting in an effect that is weaker than that of 'strange' celebrities' halo effect and not as impactful as the benefits of familiarity (Song and Shin 2024). In the absence of strong heuristic stimulation, this may lead to slow thinking, prompting individuals to be more rational and consider what the celebrity does, whether they align with the endorsed product, and the quality of the product itself, etc (Solomon 1992). As a result, the brand trust will be reduced when the familiarity of online celebrities becomes moderate.

When consumers feel that they know an endorser very well, the feeling can be engendered through repeated exposure to images and news on a particular celebrity. As consumers' use of social media and brands' application of social commerce has been thriving (Zhu, Kim, and Choi 2021), the exposure of endorsers and endorsement promotion has also enhanced the form of consumers' familiarity. A high level of familiarity plays an important role in interacting with the parasocial relationships between endorsers and consumers, exerting significant influence on brand trust (Dibble, Hartmann, and Rosaen 2016). This parasocial relationship indicates that celebrity endorsers resemble particular referential characters or qualities which can be associated with a given product (Russell, Stern, and Stern 2006). Such referential qualities of familiarity can function as consumer-relevant heuristic cue. Drawing upon the concept of parasocial relationship, higher celebrity familiarity acts as an information cue that entices heuristic processing in consumers' minds, resulting in the enhancement of brand trust.

Consequently, we attempt to address the following hypothesis:

H1: It is a U-shaped relationship between celebrity familiarity and brand trust.

Consumer liking is regarded as a reflection of consumer interest, identification, and pleasure. Research into the effect of likeability has demonstrated that the feelings of having a strong urge to pay attention usually occur when people engage with someone whom they view as attractive (Shimojo et al. 2003; Van Lange, Kruglanski, and Higgins 2012). When an advertisement depicts an appealing endorser, it is more likely to draw consumers' visual attention. Consumers are easily attracted by their favourite celebrities while viewing them as people who make them feel good (Knoll et al. 2016). The likeability of celebrities, therefore, functions as attractive vehicles, delivering visual messages of favouritism to consumers. Those celebrities with a large number of social media followers demonstrate that they are liked by many people and thus are influential on the Internet (De Veirman, Cauberghe, and Hudders 2017). No doubt advertisers are willing to pay hefty fees to hire likeable celebrities to endorse their products to increase consumers' favourable impression.

Likeability indicates consumers' positive emotions of favouritism towards a celebrity endorser. This likeability towards a celebrity endorser can influence consumers' affective and cognitive responses on the endorsed brand or product during their decision-making. In a mode of heuristic judgement, consumers would substitute their emotional response towards a celebrity endorser for a rational evaluation on the real attribute of a product. The feeling-as-information heuristic indicates that consumers mix their feelings with cognitive information processing instead of purely rational evaluations and thus influence their behavioural tendencies for brand trust (R. H. Elliott et al. 2015; Schwarz 1996). Emotional value is considered as consumers' emotional state or the change in consumers' feelings after their exposure to a piece of merchandise (Van Lange, Kruglanski, and Higgins 2012). This emotional value can influence consumers' sentiments on an advertised commodity, leading to the consumer's trust transfer from trust-in-endorser to trust-in-brand (C. D. Chen, Zhao, and Wang 2020). When an advertisement stimulates a perceived need for certain emotional value, consumers feel a sense of satisfaction after their physical and emotional experiences that will reach brand trust level (Dewanti, Chu, and Wibisono 2011). In comparison with positive feelings, negative

emotions are found to be more likely to decrease the desire to share of a product due to the low level of brand trust (Bigné, Ruiz-Mafé, and Badenes-Rocha 2023). Having strong affection for a particular endorser is considered as positive emotions probably because people tend to be in agreement with the person they like, resulting in an act of heuristic processing. This heuristic process occurs in consumers' minds leading to their trust in a brand when celebrity likeability becomes positive emotional value. Hence, we propose the following hypothesis:

H2: Celebrity likeability is positively related to brand trust.

2.4. Mediating role of brand trust in the relationship between celebrity familiarity/likability and impulse purchase

Trust can serve as a control mechanism to reduce information uncertainty and asymmetry, making consumers experience a feeling of satisfaction with a brand (Chiu, Huang, and Yen 2010; Doney and Cannon 1997; K. Gefen and Straub 2003; Pavlou and Xue 2007). Reflecting customer willingness to believe brand statements on its functional value, brand trust can be conditioned by the level of consumers' perceived risk regarding a brand, influencing consumers' expectations about the brand (Delgado-Ballester, Munuera-Alemán, and Yagüe-Guillén 2003; Lau and Lee 1999). Rational consumers may consider a brand reliable if it offers certain perceived value that can satisfy their anticipated needs. Brand intentions indicate that consumers believe the faithful characteristics of a brand and its commitment to holding their best interest even when unexpected problems arise after consumption (Delgado-Ballester, Munuera-Alemán, and Yagüe-Guillén 2003). In addition, previous research has demonstrated that brand trust assuages fear for perceived risk or insecurity about a brand, and thus encourages purchase and increase sales (Kamboj et al. 2018).

Based on the heuristic judgement theory, however, this study suggests a different explanation on how the mechanism of trust prompts impulse purchase in a shortcut. As mentioned in the above section, consumer trust could be shaped by attribute substitution. That is, consumers may adopt celebrity attributes to replace real attributes of a product or a brand. Celebrity endorsement may quickly form consumers' trust in an irrational, heuristic way. Consumers' familiarity and likeability towards a celebrity, instead of information on the product per se, can influence their trust in the brand. Some research has demonstrated that one essential prerequisite for trust in online shopping is familiarity (D. Gefen 2000). This is because the feeling of familiarity engenders a sense of closeness, making netizens feel that they can be closely connected with friends if consuming the same commodities (C. Y. Li 2019). This sense of closeness exerts a positive influence on the level of trust in sales recommendations of a given product, stimulating a strong desire for online shopping. Moreover, brand trust is also considered to be influenced by individuals' emotional response (Chaudhuri and Holbrook 2018; R. Elliott and Wattanasuwan 1998; Laroche et al. 2012). Celebrities who enjoy a high degree of likeability among the general public can effectively attract consumers' attention (Cheah et al. 2019). Consumers' adoration and trust of a likable celebrity prompt them to engage in getting to know about a product. Having a strong

attachment to their adored celebrities encourages consumers to have a favourable attitude about a brand or product that is related to adoration (B. Lee, Ham, and Kim 2015). The degree of consumers' feelings of familiarity with a specific brand concerns their trust perceptions of an organization and purchase intentions (Beck and Prüggl 2018). Noticing a likable celebrity is hired to endorse a product, consumers tend to regard its advertisers as being considerate towards their interest by recognizing whom they adore (Kamboj et al. 2018). In view of this emotional relationship between consumers and a brand connected by a familiar and favourable celebrity endorser, we consider brand trust as consumers' psychological response that on account of their attitude towards the celebrity, forming their emotional willingness to have confidence in the brand.

Therefore, brand trust based on familiarity and likeability towards the celebrity endorser can stimulate impulsive purchase because it speeds up decision-making process by reducing consumers' thinking time and information processing (D. Gefen 2000). Impulse purchase behaviour patterns emerge when decision-making time from desire to purchase is significantly shortened (Amos, Holmes, and Keneson 2014). When consumers surf on social media, their interactions with online celebrities may encounter endorsement information without expectation. As consumers project their trust to the product or brand because of the celebrity, they may intuitively respond with an unplanned purchase. Hence, it can be suggested that the impact of brand trust serves to determine the outcome of impulse purchase. Trust has been found to compel customers to buy products impulsively (Chan, Cheung, and Lee 2017). Strong trust encourages strong purchase intentions (Lau and Lee 1999; Singh and Sirdeshmukh 2000). The relationship between brand trust and impulse purchase behaviour has been supported by existing research (Hayat et al. 2020; Herbst, Hannah, and Allan 2012).

Based on the preceding discussion, we suggest that consumers develop trust in their familiar or favourite celebrity and mentally or emotionally transfer their trust to the brand endorsed by the celebrity. And consumers take a shortcut in the decision-making process, which results in impulse purchase behaviour.

H3: Brand trust significantly mediates the relationship between celebrity familiarity and impulse purchase.

H4: Brand trust significantly mediates the relationship between celebrity likeability and impulse purchase.

2.5. Moderated mediation effect of consumer involvement

Self-involvement has been commonly used in brand research and consumer behaviour (Zaichkowsky 1994). Such a model for consumer involvement refers to the engagement or association that people have with a specific product based on their personal values, interests and needs (El Hedhli, Zourrig, and Becheur 2021). Consumer involvement reflects potential buyers' effort in gathering and evaluating information on product quality and efficacy. A high level of involvement includes careful consideration, whereas a low level of involvement requires minimal effort. In high involvement, consumers are more likely to adopt a systematic information

processing approach to spend more time looking into a given product with which they are highly involved; for example, the quality and functionality of goods (Cheung and Thadani 2012). This extensive search for product information prompts cautions decisions on consumption, diverting attention away from heuristic information cues, such as familiarity and likeability of celebrity endorsers. Previous research has suggested that consumers’ trust in brands gets tested when a high level of involvement is in place concerning a conscientious evaluation (Drossos et al. 2014). Consequently, the probability of impulse purchase is greatly reduced (Amos, Holmes, and Keneson 2014).

In contrast, low level of involvement prompts impulse purchase behaviour because consumers focus primarily on peripheral cues or heuristics instead of analysing product information attentively (Filieri, Hofacker, and Alguezaui 2018; J. Lee, Park, and Han 2008). The time period between a desire for consumption and an actual buying decision is significantly shortened when consumers’ involvement level is low (Amos, Holmes, and Keneson 2014). It has been found that consumers exhibit a propensity to have low involvement and make a quick purchase decision on certain commodities, such as candy bars, clothes, and chewing gums. Consumers are less likely to make an impulse buying decision on highly functional products or durable goods, such as a piece of furniture, technology equipment, car equipment and a watch (Drossos et al. 2014; Winterich, Gangwar, and Grewal 2018). However, when endorsers show considerable expert knowledge of their endorsed products, their endorsement can serve as peripheral cues, gaining consumers’ trust and stimulating a desire for impulse purchase (Biswas, Biswas, and Das 2013).

In sum, the above indicates that the trust mechanism based on heuristic judgement will be buffered by consumer involvement. Therefore, we propose the following hypotheses:

H5: Consumer involvement negatively moderates the mediating effect of brand trust between celebrity familiarity and impulse purchase in such a way, the higher the consumer involvement is, the weaker the relationship is.

H6: Consumer involvement negatively moderates the mediating effect of brand trust between celebrity likeability and impulse purchase in such a way, the higher the consumer involvement is, the weaker the relationship is.

In Figure 1, we depict the research model of this study.

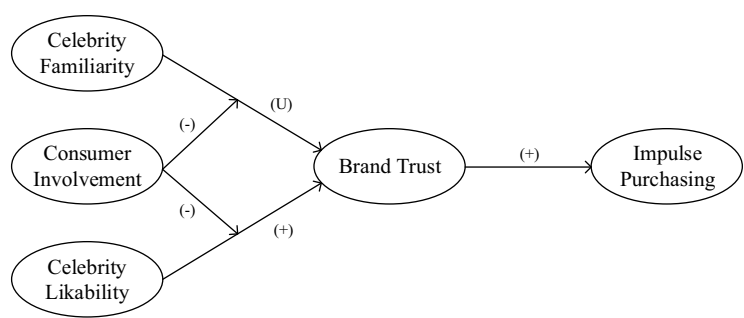


Figure 1. Research model.

3. Methods

3.1. Sample and data collection

An online survey was conducted through a well-established platform in China called Wenjuanxing (www.wjx.cn) during 4 March to 20 April 2023. To avoid misunderstanding, the questionnaire was examined, pre-tested and modified before its launch. Survey invitations were circulated through multiple social media platforms so that people from different backgrounds could participate in this study. As this study examined the heuristic effect of celebrity endorsement with the background of the rising of social media commerce, it was an appropriate channel to recruit participants, ensuring that they were social media users and understood the social media environment. Firstly, participants were told to imagine that they were scrolling social media (e.g. Weibo, Instagram or any platform they used the most often) just like every day. Then they were given a capture of a social media post showing a branded shampoo and its celebrity endorser. The celebrity made his debut as the winner in a talent contest, where the score ranking was based on fans' votes on social media and their purchase of sponsored products. In this survey, we told participants that the celebrity was endorsing a shampoo brand and the captured post was spread on social media. Next, they were asked to rate their familiarity and liking towards the celebrity endorser. Then they evaluated their trust in the shampoo brand and their involvement. Finally, they were asked about impulse purchasing when seeing the post on social media. To protect privacy, the questionnaire was anonymous. Demographic information including gender, age, education and monthly consumption expenditure was collected. A total of 260 valid responses were obtained.

3.2. Measures

This research employed existing scales to measure all variables. Yet some contextual wordings were slightly modified to fit the research context. To measure participants' familiarity with a particular celebrity endorser, three items (e.g. 'I'm familiar with this celebrity'.) were adopted from Simonin and Ruth (1998). A four-item scale of likeability (e.g. 'This celebrity is attractive to me'.) was adopted from B. Lee, Ham, and Kim (2015). Eight items from Delgado-Ballester, Munuera-Alemán, and Yagüe-Guillén (2003) were used to measure brand trust (e.g. 'I feel confidence in this brand'.). For consumer involvement, eight items (e.g. 'I would be interested in reading information about how the product is made'.) were adopted from McQuarrie and Munson (1992). Impulse purchasing was modified from Rook and Fisher (1995) nine-item scale to fit the social media context (e.g. 'I will buy this shampoo spontaneously when I see the post'.). A 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) was used.

4. Results

4.1. Data description

The sample was balanced in gender (52.3% female) and relatively young (76.9% below 35). More than half of them had bachelor's degree or above (54.7%). The monthly consumption expenditure of the majority of the sample (61.9%) ranged between

Table 1. Means, standard deviations, and intercorrelations among variables.

	Mean	SD	1	2	3	4	5
1. Celebrity Familiarity	3.61	.93	(.91)				
2. Celebrity Likability	3.56	1.05	.49**	(.91)			
3. Trust	3.71	0.94	.43**	.30**	(.96)		
4. Involvement	2.44	1.03	-.14*	-.20**	-.31**	(.95)	
5. Impulse Purchasing	3.69	1.00	.41*	.42**	.50**	-.21**	(.95)

$N = 260$, * $p < .05$; ** $p < .01$ (two-tailed).

CNY2000 (approx. USD276) to CNY8000 (approx. USD1,106). This sample reflected the mainstream users of social media in China, indicating that it is suitable for this study. Results of reliability test for all variables exceeded 0.9. Table 1 shows means, standard deviations and correlations. Cronbach's alpha values are presented on the diagonal in parentheses. Regarding common method variance, results of Harman's one-factor test showed that the total variance extracted after factors rotation was 37.9%, which was below the threshold of 50%. Hence, common method bias was not present in this study.

4.2. Relationship between celebrity familiarity/likability and brand trust

We developed four models to test the relationship between celebrity familiarity/likeability and brand trust, as shown in Table 2. As the baseline model, Model 1 includes control variables. Model 2 introduces the linear and quadratic terms of celebrity familiarity, while celebrity likeability is introduced in Model 3 as independent variable. Model 4 includes all variables mentioned above. H1 predicted that celebrity familiarity would have a U-shaped relationship with brand trust. As shown in Model 2, the coefficient of celebrity familiarity-squared is positive and significant ($\beta = .22$, $p < .001$). Yet, the coefficient of the linear factor for celebrity familiarity is also positive and significant ($\beta = .53$, $p < .001$), indicating that it is an overall positive trend for the U-shape curve (Aiken and West 1991). As plotted in Figure 2, celebrity familiarity has a weak negative effect on brand trust at a low level, and the relationship becomes increasingly positive at moderate to high levels, which fails to reflect a full U-shape relationship between celebrity familiarity and brand trust (Maruping et al. 2015). Thus, H1 is partially supported.

Table 2. Results of regression analysis predicting brand trust.

	Model 1		Model 2		Model 3		Model 4	
	β	SE	β	SE	β	SE	β	SE
Gender	.03	.06	.02	.06	.03	.06	.01	.06
Age	-.00	.07	.01	.07	-.00	.07	.02	.07
Education	-.08	.07	-.07	.07	-.04	.07	-.05	.07
Occupation	.03	.07	.00	.07	.03	.07	-.02	.07
Income	.01	.07	.00	.07	-.01	.07	.01	.07
Familiarity			.53***	.07			.41***	.08
Familiarity ²			.22***	.04			.10*	.04
Likability					.39***	.06	.20**	.07
R ²	.118		.223		.161		.251	

$N = 260$, * $p < .05$; ** $p < .01$; *** $p < .001$.

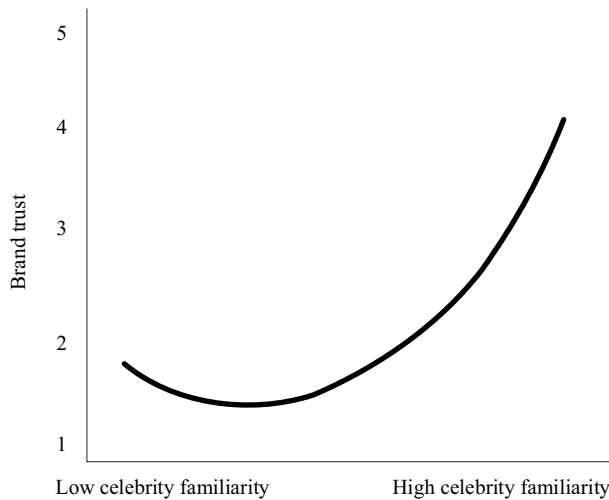


Figure 2. Relationship between celebrity familiarity and brand trust.

Model 3 shows a positive and significant relationship between celebrity likeability and brand trust ($\beta = .53, p < .001$), providing support for H2.

4.3. Mediation effects of brand trust

To test the mediating role of brand trust, we conducted mediation analyses with 5,000 bootstrap samples and 95% bias-corrected confidence intervals based on Model 4 of the PROCESS macro (Hayes 2013). Through brand trust, celebrity familiarity-squared ($\beta = .04$, 95% CI [.0073, .0754]) and celebrity likeability ($\beta = .08$, 95% CI [.0185, .1348]) both had significant indirect effects on impulse purchase. Hence, H3 and H4 were supported. Table 3 shows details of mediation test.

Table 3. Mediation effects of brand trust.

	β	SE	LLCI	ULCI
<i>Total, direct, and indirect effects of Celebrity Familiarity on Impulse Purchasing through brand trust</i>				
Total effect	.20	.08	.0483	.3456
Direct effect	.04	.07	-.1042	.1876
Indirect effect	.16	.03	.0918	.2285
<i>Total, direct, and indirect effects of Celebrity Familiarity-squared on Impulse Purchasing through brand trust</i>				
Total effect	-.05	.04	-.1359	.0275
Direct effect	-.09	.04	-.1699	-.0164
Indirect effect	.04	.02	.0073	.0754
<i>Total, direct, and indirect effects of Celebrity Likability on Impulse Purchasing through brand trust</i>				
Total effect	.31	.07	.1791	.4387
Direct effect	.23	.06	.1108	.3560
Indirect effect	.08	.03	.0185	.1348

N = 260, 95% confidence intervals based on 5,000 bootstrap samples.

Table 4. Conditional indirect effects of consumer involvement.

	β	SE	LLCI	ULCI
Celebrity Familiarity \rightarrow Trust \rightarrow Impulse Purchasing				
–1SD	.18	.04	.1047	.2790
0	.13	.03	.0714	.1956
+1SD	.08	.04	.0009	.1563
Celebrity Familiarity-squared \rightarrow Trust \rightarrow Impulse Purchasing				
–1SD	.02	.03	–.0460	.0674
0	.03	.02	.0006	.0670
+1SD	.05	.02	.0065	.0950
Celebrity Likability \rightarrow Trust \rightarrow Impulse Purchasing				
–1SD	.14	.04	.0651	.2316
0	.07	.03	.0195	.1290
+1SD	.00	.03	–.0647	.0626

$N = 260$, 95% confidence intervals based on 5,000 bootstrap samples.

4.4. Moderated mediation effects of consumer involvement

To examine conditional factors influencing the above mediations, we tested the moderated mediation effect of consumer involvement with 5,000 bootstrap samples and 95% bias-corrected intervals based on Model 7 of the PROCESS macro (Hayes 2013). We separately tested two moderated mediation models of celebrity familiarity-squared and celebrity likeability on impulse purchasing through trust, where one independent variable acted as independent variable and the other as the covariate. As Table 4 shows, in the low consumer involvement condition, the indirect effects of celebrity likeability ($\beta = .14$, 95% CI [.0651, .2361]) through brand trust were significant; but in the high consumer involvement condition, the indirect effects of celebrity likeability ($\beta = .00$, 95% CI [–.0647, .0626]) turned to be non-significant. In addition, the indirect effects of celebrity familiarity-squared was significant in high consumer involvement condition ($\beta = .05$, 95% CI [.0065, .0950]), but turned to non-significant in low consumer involvement condition ($\beta = .02$, 95% CI [–.0460, .0674]). Moreover, the indirect effect of celebrity familiarity was higher in low consumer involvement condition ($\beta = .18$, 95% CI [.1047, .2790]) than that in high consumer involvement condition ($\beta = .08$, 95% CI [.0009, .1563]). Taken together, H5 and H6 were supported by these findings (Edwards and Lambert 2007).

5. Discussion and implications

5.1. Discussion

Drawing on the heuristic judgement theory (Kahneman and Frederick 2005), this study builds a theoretical model to explain how celebrity endorsement triggers impulse purchase in the context of social marketing or social commerce. By providing empirical evidence, this research emphasizes a heuristic mechanism of celebrity presence on consumer impulsive consumption behaviour, even though they may do not have an initial shopping plan when they are surfing on social media. Our results confirm the idea that celebrity endorsement contributes as way to arise impulse buying (Djafarova and Bowes 2021; L. Li et al. 2022; Zafar, Qiu, and Shahzad 2020). Specifically, this research highlights two key factors, familiarity and likeability, which account for the significant influence brought by celebrity. We find a mediating effect of brand trust, which explains

the effects of celebrity familiarity and likeability on impulse purchasing. Previous work has indicated that consumer perception of celebrity authenticity and credibility causes their urge to impulsive buying (Djafarova and Rushworth 2017; Yan et al. 2022; Zafar et al. 2021). This research demonstrates a heuristic trust of consumers towards the brand endorsed by the celebrity they are familiar with and like. That is, individuals would purchase without thinking clearly out of trust in a familiar and favourable celebrity. This kind of heuristic thinking fosters blind trust, rather than a rational one, towards the brand. This research developed a theoretical framework to explain consumer heuristic approach of making impulsive buying decisions with insufficient information based on the blind trust towards the celebrity. Interestingly, the proposed U-shape relationship between celebrity familiarity and brand trust was partially supported. When celebrity familiarity is low, its relationship with brand trust is slightly negative, and the relationship turns progressively positive with the increase of celebrity familiarity.

Furthermore, we find that consumers with lower involvement are more likely to trust a brand and purchase impulsively than those with higher involvement. When consumers are lowly involved, using familiar and attractive information could easily persuade them to make choices without sufficient evaluation (Hawkins and Hoch 1992). This indicates that consumers are easier to act irrationally in a low involvement situation by making choices without trade-offs between risk of limited information and available benefits (Brandstatter, Gigerenzer, and Hertwig 2006). It supports the unconscious information processing view, showing that paying less involved effort would lead to quicker decisions (Chan, Cheung, and Lee 2017; Sharma, Sivakumaran, and Marshall 2010).

5.2. Implications for theory

We extend the heuristic judgement theory (Kahneman and Frederick 2005) by investigating the heuristic mechanism of celebrity endorsement in the context of social media commerce. This study makes an important contribution to theory on the impact of celebrity familiarity on brand trust. Initially, this study was motivated by the ambiguous relationship between celebrity familiarity and impulse purchase. Many studies suggest a positive relationship (e.g. Rossiter and Smidts 2012; Zafar et al. 2021), but there is limited investigation on how the relationship could keep positive even if celebrity familiarity is quite low. Our consideration of the curvilinear relationship between celebrity familiarity and brand trust, the mediating effect of brand trust, and the moderating effect of consumer involvement offers a more complete explanation for the trigger of impulse purchase at various levels of celebrity familiarity. Instead of assessing whether celebrity familiarity is intrinsically beneficial or detrimental to brand trust or impulse purchase, this study indicates that it is more valuable to explore the conditions that lead to celebrity familiarity having either a negative or positive impact (Mitchell and James 2001).

In addition, we confirm the effect of celebrity endorsement in the social media context. In traditional marketing, it has been a prevalent approach of using celebrity endorsement to enhance persuasiveness in marketing communications (Ohanian 1990). With the emergence of social media platforms, more scholars have turned their attention to the new roles of celebrities in various online marketing circumstances, such as selfie promotion and live streaming (Cheah et al. 2019; Yan et al. 2022). In this study, we highlight that familiarity and likeability are factors reflecting celebrity endorsers' influence towards

consumers when brands, celebrities and consumers communicate and interact on social media platforms. Our findings enrich the understanding of celebrity endorsement in the digital age. We contribute to the interpretation of irrational consumer behaviour such as impulsive purchase, given the fact that contemporary consumers are swamped by information sharing from online influencers.

Moreover, we clarify the heuristic mechanism of celebrity endorsement in consumers' fast decision-making. Existing research mainly agrees that the brand-celebrity association could accelerate consumers' positive brand attitude in the multi-stage decision-making process (Darley, Blankson, and Luethge 2010; Jun et al. 2023; C. Y. Li 2019). Some research argues that online celebrity might gain consumers' trust because they demonstrate expertise in certain areas, while some other research suggests that celebrities could arouse positive emotional responses, such as attachment (T. Y. Chen et al. 2021) and pleasure (Meng et al. 2021), which would lead to impulse buying (Redine et al. 2022). Considering impulsive buying as a fast and irrational decision, the present study highlights that celebrity endorsers triggers celebrity endorsement plays a heuristic information cue in triggering consumer impulse purchase through evoking consumer blind trust towards brand in an irrational way. Celebrity likeability and a moderate or high level of familiarity had been proven to increase consumer trust towards brand in the rational purchasing decision process by reducing consumer perceived uncertainty and promoting brand-customer relationship (Bergkvist and Zhou 2016; Jun et al. 2023). Different from systematic information processing procedures, celebrity familiarity and likeability active automatic information processing, which provides consumers with a mental shortcut to quickly form brand trust and thus take little effort in purchase decision-making.

Finally, this research identifies consumer involvement as a boundary condition, buffering the heuristic effect of celebrity endorsement on impulsive buying. This research demonstrates how the heuristic mechanism might be strengthened or weakened in consumer decision-making. Consumers with low involvement would pay shorter time to make decisions and are more likely to accept others' recommendations because peripheral cues (such as the celebrity endorser) become more influential than quality and useful messages (Amos, Holmes, and Keneson 2014; Park, Lee, and Han 2014). But high involvement could make consumers focus on product-related evaluations. Thus, the heuristic effect of celebrity endorsement would be diminished.

5.3. Implications for marketers

This research provides marketers with practical recommendations in the background of the trends of using celebrity endorsement on social media platforms. From the perspective of choosing appropriate celebrity endorsers, our findings suggest that celebrities are effective heuristics to facilitate purchase decisions. Specifically, likeability and familiarity are two significant information clues that would accelerate consumer decision-making process (Beck and Prögl 2018; B. Lee, Ham, and Kim 2015). We recommend using celebrities who are favourable and familiar with targeted customer segments as online endorsers and posting this endorsement on social media platforms to avoid the negative effects on brands when the familiarity is low. Moreover, this study regards trust as the mediator of consumers' impulse purchasing. Presenting well-known and likeable celebrities with trustworthy and credibility impressions (Djafarova and Rushworth 2017) could

trigger consumer instant trust, which is unnecessary relied on expatiation of product details. It is certain that celebrity fans are important potential customers. Brand should take effort to reach them through social media platforms including blogs, forums and fans community, especially for those who have interacted with the celebrity at these channels before (L. Li et al. 2022). Presenting celebrity endorsers in marketing posts and associating them with the brand might be sufficient to win fan consumers over, shift their trust to the brand and gain fast purchase.

The present research shows that customers with low involvement are easier to be influenced in celebrity endorsement marketing. Brands could identify low-involved customers according to their previous purchase records and decision types. To these customers, it would be more effective to emphasize the exposure of the celebrity endorser and thus would result in shorter repurchase cycle to trigger impulsively buying (Zaichkowsky 1994). While customers ignore product disadvantages and are less involved in deep consideration, they are more easily making impulsive purchase decisions without thinking clearly (Hawkins and Hoch 1992; McQuarrie and Munson 1992). For highly involved customers, however, the heuristic mechanism is weaker. In this case, it would be more important to create a trustworthy marketing environment that leading consumer to pay more attention with brands' benefits.

5.4. Implications for policy makers

From the perspective of policy making, this study is meaningful for e-commerce and social media platforms. Research results emphasize trust as the underlying mechanism to trigger impulse purchase. Specifically, such a mechanism is effective because of two important factors, i.e. familiarity and likeability. Both factors have potential to facilitate impulse consumption. The first recommendation for platforms is to encourage celebrities to keep activating in platforms, such as posting, interacting with followers or livestream. Those followers who have preference and know well about celebrities hold natural trust to purchase endorsed products without hesitation (Djafarova and Bowes 2021; Yan et al. 2022). In addition, if normal consumers frequently see celebrities in digital platforms, they can be easily motivated by familiarity to make quick decisions (Meng et al. 2021; Wei and Lu 2013).

On the other hand, we remind platforms pay attention to the important role of involvement, which would weaken or even suppress the benefits brought by familiarity and likeability. We recommend platforms should supervise endorsed advertisement. When high-involved consumers hold negative knowledge related to celebrities, the positive mental shortcut based on trust might be cut down. Neither those false advertising from fraud sellers, nor the negative events of celebrities themselves, would prevent consumers from impulse purchase (Drossos et al. 2014; Jun et al. 2023). Furthermore, platforms should prevent the possible negative outcomes in the post-impulse purchase stage, like consumer avoidance and high return (Obukhovich, Sipilä, and Tarkiainen 2024). Hence, to improve customer satisfaction and loyalty, we also suggest platforms to encourage sellers to provide better after-sales services. In the pre-purchase stage, the platform can require sellers to disclosure necessary information about the products, instead of promotion only, to avoid consumers dissatisfaction after impulse purchase.

5.5. Implications for consumers

For consumers, this research extends their understanding about impulse purchase. We highlight trust as one of the key drivers, which is heuristically generated by familiarity and likeability. Present studies mainly argued celebrity effectiveness from relationship or emotions perspectives (Redine et al. 2022; Zafar, Qiu, and Shahzad 2020). In the regular decision-making process, consumers may evaluate products based on several elements (Darley, Blankson, and Luethge 2010). Unlike previous research, this study explained how celebrity endorsement promotes consumption of consumers with limited product knowledge. In the context of emerging e-commerce and social media marketing, consumers can easily see the updates of celebrities, and the familiarity towards celebrity becomes a mental shortcut to stimulate impulse purchase (Yan et al. 2022; Zafar et al. 2021). To make rational purchase decisions, consumers should distinguish their familiarity and likeability towards celebrities from endorsed products.

In addition, we suggest consumers should get more information about celebrities and products before consumption. Low-involved consumers had been found more likely to generate trust when see repeated cues (Djafarova and Rushworth 2017). However, high-involved consumers would make more cautious purchase decisions based on useful information (Jiang, Zheng, and Luo 2024). Our research findings indicate that high involvement can hinder the positive trust mechanism brought by celebrity endorsement. Therefore, with more knowledge of celebrities and products, high-involved consumers are less likely to impulse purchase, which in turn prevent negative emotional and financial outcomes (Obukhovich, Sipilä, and Tarkiainen 2024).

6. Limitations and future research directions

This study examined the heuristic effect of celebrity endorsement on consumer decision-making in the social media commerce context. However, there are some limitations that suggest avenues for future research. We focus on familiarity and likeability as two heuristic factors and demonstrate that merely presenting these two factors of celebrity endorsement could surprisingly form consumer trust towards the brand and promote fast purchase decision. Although we offer insights from a clear perspective, there might be other mechanisms in other marketing scenes worth exploring. For instance, celebrity endorsement in livestreaming commerce could be more interactive, which might suggest different factors of trust building and purchase decision-making (C. D. Chen, Zhao, and Wang 2020). Potential mechanisms, such as parasocial interaction, attachment, the feeling of elevation and perceived usefulness, might further interpret the influence caused by celebrities (T. Y. Chen et al. 2021; Jun et al. 2023; Yan et al. 2022). Further research may also draw lessons from elaboration likelihood model, stakeholder theory, source credibility theory, halo effect theory and meaning transfer theory (Beck and Prügl 2018; C. D. Chen, Zhao, and Wang 2020; Djafarova and Rushworth 2017).

We identify consumer involvement as a moderating factor. Yet contemporary consumers face a more complex consumption environment, and diverse factors have not been fully investigated. Although this study offers an insight into a fast, heuristic effect of celebrity endorsement, a delayed and latent meaning transfer effect in consumer unconscious thought may develop over time (Dijksterhuis and

Nordgren 2006; Knoll et al. 2016). This suggests a dynamic perspective to look at changes of brand image after celebrity endorsement is utilized. Different styles and approaches taken by celebrities, such as emotional disclosure and knowledge sharing, might influence the decision-making process differently (T. Y. Chen et al. 2021). When consumers lack related knowledge about the endorsed brand, celebrity endorsement would be more effective to build brand associations (Jun et al. 2023). Different genders and generations of consumers engage at different social media channels and interact in different ways, which could vary the performance of celebrity endorsement in consumer purchase (Djafarova and Bowes 2021; Djafarova and Rushworth 2017). Considering manifold marketing methods used in practice, future research should investigate the effect of celebrity endorsement with other factors across different contexts.

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