

Key impacts of celebrity endorsement in social media platforms on consumer purchase intention of the soft drink brands



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សង្ខេប

ដោយមាន ការរីកចម្រើនយ៉ាងខ្លាំង និងយ៉ាងឆាប់រហ័សខាងផ្នែកប្រព័ន្ធផ្សព្វផ្សាយតាមបណ្តាញសង្គមនៅទូទាំងពិភពលោក អតិថិជន ដែលសម្រេចចិត្តទិញទំនិញតាមបណ្តាញសង្គម មានការកើនឡើងយ៉ាងច្រើនជាទីបំផុត។ បច្ចុប្បន្ននេះ ភាពល្បីល្បាញនៃពិភពតារា ដែលបានទាក់ទាញចំណាប់អារម្មណ៍ទស្សនិកជនច្រើន មានតួនាទីយ៉ាងសំខាន់ក្នុងការផ្សព្វផ្សាយពាណិជ្ជកម្ម និងមានឥទ្ធិពលខ្លាំងទៅលើឥរិយាបថទិញរបស់អតិថិជន។ ប៉ុន្តែ ការសិក្សាស្រាវជ្រាវលើផ្នែកនេះមិនទាន់មានច្រើននៅឡើយទេ ទើបបានជាមានការសិក្សាអំពីភាពល្បីល្បាញនៃពិភពតារាតាមបណ្តាញសង្គមនេះឡើង។ ដូច្នេះ ការស្រាវជ្រាវនេះមានគោលបំណងសិក្សាពីមូលហេតុ ដែលក្រុមហ៊ុនប្រើប្រាស់ភាពល្បីល្បាញ ទេពកោសល្យ និងភាពទាក់ទាញរបស់តារា ដើម្បីផ្សព្វផ្សាយពាណិជ្ជកម្មអំពីម៉ាកយីហោរបស់ខ្លួនទៅកាន់អតិថិជន។ ដើម្បីសម្រេចបាននូវគោលបំណងនេះ យើងធ្វើការសិក្សាអំពីទំនាក់ទំនងរវាងប្រព័ន្ធផ្សព្វផ្សាយតាមបណ្តាញសង្គម ភាពទាក់ទាញនៃផលិតផលដោយពិភពល្បី និងឥរិយាបថរបស់អតិថិជនក្នុងការសម្រេចចិត្តទិញទំនិញដោយយកតម្លាភាពនិងភាពត្រឹមត្រូវជាសំខាន់។ ដោយប្រើវិធីសាស្ត្រស្រាវជ្រាវបែបបរិមាណវិស័យ យើងបានធ្វើការស្ទង់មតិតាមប្រព័ន្ធអនឡាញ ដោយមានអ្នកចូលរួមឆ្លើយសំណួរចំនួន 564 នាក់។ លទ្ធផលបានបង្ហាញពីទំនាក់ទំនងសំខាន់ៗចំនួនបួនគឺ៖ (1) ភាពស្របគ្នានៃម៉ាកយីហោទៅនឹងភាពល្បីល្បាញនៃតារា (celebrity brand congruence) មានឥទ្ធិពលជាវិជ្ជមាន

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ទៅលើអាកប្បកិរិយារបស់អចិន្ត្រៃយ៍ចំពោះម៉ាកយីហោ (attitude toward the brand), (2) ភាពល្បីរបស់តារាប្រកបដោយទេពកោសល្យ (celebrity expertise) មានទំនាក់ទំនងជាមួយនឹងអាកប្បកិរិយាអតិថិជនចំពោះម៉ាកទំនិញ (attitude toward the brand), (3) ចំណែកភាពទាក់ទាញរបស់តារា (celebrity attractiveness) មានផលប៉ះពាល់ដល់អាកប្បកិរិយានៃម៉ាកយីហោ, និង (4) ភាពគួរឱ្យទុកចិត្តរបស់តារា (celebrity trustworthiness) បង្កើនការចាប់អារម្មណ៍របស់អចិន្ត្រៃយ៍ចំពោះម៉ាកផលិតផល (attitude toward the brand)។ លទ្ធផលដែលគួរឱ្យចាប់អារម្មណ៍មួយបានបង្ហាញថា អាកប្បកិរិយាអតិថិជនចំពោះម៉ាកផលិតផលមានឥទ្ធិពលខ្លាំង ដែលអាចបណ្តាលឱ្យអតិថិជនមានបំណងចង់ទិញទំនិញនោះ។ ការស្រាវជ្រាវនេះផ្តល់នូវសារសំខាន់សម្រាប់អ្នកទីផ្សារ និងអ្នកជំនាញម៉ាកយីហោ ទាក់ទងនឹងការប្រើប្រាស់ឥទ្ធិពលនៃភាពល្បីល្បាញរបស់តារា ក្នុងការអភិវឌ្ឍយុទ្ធសាស្ត្រទីផ្សារដើម្បីលើកកម្ពស់អាជីវកម្មរបស់ខ្លួន។

Abstract

Due to the rapid global expansion of social media, consumers are becoming increasingly sensitive in their purchasing decisions. Currently, celebrity plays a crucial role in influencing consumer purchasing behavior. However, this area has not received much attention, which presents an opportunity for the current study to fill this gap. Therefore, this research aims to investigate how companies leverage celebrity brand congruence to enhance their appeal to customers. To achieve this objective, this paper explores the connection between social media, celebrity endorsements, and consumer behavior in an environment where transparency and authenticity are important. By using a quantitative analysis, we conducted an online survey with 564 participants from diverse demographics. The findings from Structural Equation Modeling (SEM) reveal significant relationships as follows: celebrity brand congruence positively influences attitude toward the brand; celebrity expertise correlates with attitude toward the brand; celebrity attractiveness impacts attitude toward the brand; and celebrity trustworthiness enhances attitude toward the brand. Interestingly, the study identifies a powerful connection between attitude toward the brand and purchase intention. Finally, the research provides significant implications for marketers and brands in terms of using the influence of celebrities in developing marketing strategies to promote their business.

Introduction

Previous research has focused on identifying characteristics that enhance communication effectiveness and help achieve advertising objectives (Lynch & Schuler, 1994). The widespread use of social media and the central role of influencer marketing has significantly contributed to the success of various marketing strategies (Ballester et al., 2025). In addition, this rapid growth in social media consumption has highlighted the impact of celebrity endorsements on purchasing decisions. Celebrity endorsement is a popular marketing strategy where celebrities share their opinions and act as spokespersons associated with a product or brand (McCracken, 1989). Indeed, celebrity endorsement marketing is gaining global traction, with companies investing millions in collaborations with well-known celebrities (Aw & Labrecque, 2020). For example, McDonald’s launched the ‘BTS Meal’ campaign, paying over \$8 million to the South Korean boy band BTS and temporarily changing its signature color to purple. This campaign led to a significant increase in sales and an unexpected earnings boost. However, not all endorsement campaigns are successful, raising questions about the types of celebrity associations that effectively benefit a brand (Jun

et al., 2023). This implicates that the selection of a spokesperson and endorser in advertisements is crucial for marketers because it can effectively deliver the benefits and appeal of a product to customers.

Traditionally, endorsers and spokespersons included movie stars, singers, models, athletes, politicians, and business people (Hsu & McDonald, 2002). Although celebrity endorsements have been utilized since the late 19th century, the supply of celebrities was initially limited due to the fear of public shame. This limits the influence of celebrity endorsements and marketing success. However, the internet has become an integral part of daily life, with over 4.26 billion people using social media worldwide in 2021 (Ortiz-Ospina, 2019). In Cambodia, the rise of social media has significantly increased the number of active users, with 73.9% of the population active in 2022. This growth has transformed consumer relationships with celebrities and the nature of celebrity endorsements. In addition, the product and service industries are also increasingly recognizing the importance of social media influencers in communication strategies (Liu & Lee, 2024). This is particularly true for social media communication, where intangible offerings are challenging to evaluate before purchase (Zhang et al.,

2025). Celebrity endorsement has become a key strategy in social media marketing, where luxury brands often post pictures of celebrities using their products. Social media can help businesses raise awareness and engage with customers, with celebrities playing a significant role in promoting products and services. The European influencer market witnesses a 100% growth from 2020 to 2023. This is because of the influencers' ability to enhance brand awareness and reduce turnover (Delbaere et al., 2021).

Especially, social media transforms consumer-celebrity relationships by allowing more direct interaction and real-time updates from celebrities (Aw & Labrecque, 2020). Celebrity endorsement on social media is a powerful marketing strategy that enhances brand visibility and consumer engagement by leveraging influencers' trust and relatability, effectively communicating messages, and driving purchasing decisions. Before, celebrities are only limited to individuals with high social reputation and public recognition, such as movie stars, singers, artists, athletes, and politicians (Belch & Belch, 2018). However, the rise of reality television shows and social media platforms has further expanded the definition of a celebrity, and it allows ordinary people featured on the shows to gain fame (Yang, 2018). Micro-influencers are ordinary individuals with strong personal brands. They focus on managing their social media presence to maintain high engagement with their followers (Belanche et al., 2021). Their attitudes and behaviors, including social presence, trustworthiness, honesty, authenticity, entertainment, and usefulness, help build a strong connection with their audience (Kim & Kim, 2023). This suggests that celebrity endorsement marketing on social media leverages the popularity and influence of celebrities to promote products or brands. By using fans' strong connections to celebrities, this strategy creates relatable content that resonates with the target audience. It can boost brand loyalty, increase sales, and enhance a brand's digital presence. Therefore, marketers and business practitioners currently adopt these platforms to promote their products and boost sales.

Several studies indicate that credibility and celebrity endorsements influence consumer purchase intentions across different product categories, with celebrity congruence enhancing this effect (Calvo-Porrá & Lévy-Mangin, 2024). Other research also highlights the increasing use of celebrity endorsements by tourism destinations and product brands to boost brand value and recognition (Li et al., 2022; Zhou et al., 2024). This approach is very popular in destination marketing studies (Kara, 2024; Kim & Chen, 2020; Kim et al., 2018). Noticeably, celebrity endorsements have also been studied in several fields, such as hospitality management (Yang et al., 2024), services management (Lee et al., 2017; Li et al., 2023; Zakari et al., 2019), and luxury

brands (Lau et al., 2023; Li & Chan, 2024; Sun et al., 2022). These studies involve only well-known celebrities endorsing products and services. However, there is a noticeable gap in research on social media influencer endorsements, especially in relation to beverage brands (Zhou et al., 2019) and food consumption (Calvo-Porrá et al., 2021; Clifford & Kavitha, 2025). There is a lack of empirical studies on brand perception, trust, and loyalty toward celebrity endorsements in this context. Companies must also decide whether to use international or local endorsers to best reach their target audiences (Yu & Hu, 2020). For example, Mr. Vannda Mann stands out as a popular singer and celebrity endorser in Cambodia. His influence is very powerful among adult social media users. Therefore, he becomes a spokesperson for several companies providing products and services to young consumers. However, the impact of local celebrities in Cambodian context has not been thoroughly explored. Additionally, brand-celebrity fit and long-term effects on brand attitudes and consumer purchasing behaviors also remain understudied by researchers.

To address these research gaps, this study aims to investigate the levels of purchase intention, antecedents of consumer purchasing intention, and relationships between celebrity brand congruence, celebrity expertise, celebrity attractiveness, and celebrity trustworthiness on attitude toward the brand and purchase intention. By examining these areas, the study can contribute to the understanding of social media and celebrity influence on purchase intentions, providing valuable insights for future research. Additionally, the findings will assist marketers in identifying the factors that motivate customer purchase intentions. Finally, the study uses established theories to develop practical solutions for current challenges faced by both business practitioners and academic communities.

Theoretical Background and Hypotheses Development

Theoretical Background

A celebrity is defined as an individual with a high social reputation and public recognition, including movie stars, singers, artists, athletes, and politicians (Belch & Belch, 2018). The mass media often links a celebrity endorser's image to both destination brands and product brands (van der Veen & Song, 2014). Numerous research on celebrity endorsement employs four main approaches: the source attractiveness and credibility models (Ohanian, 1990), affect transfer theory (Biswas et al., 2006), balance theory (Su et al., 2011), and the matchup hypothesis (Koernig & Boyd, 2009).

In the source attractiveness and credibility model, researchers focus on attractiveness, trustworthiness, and expertise as the main research themes. Attractiveness

refers to the celebrity's physical look; trustworthiness pertains to their honesty, integrity, and believability; and expertise denotes their knowledge, skills, and experience (Zhang et al., 2020). The source attractiveness model posits that physically attractive celebrities have a stronger influence on consumers' attitudes and behaviors compared to less attractive ones (Gong & Li, 2017). Moreover, the source credibility model suggests that celebrities perceived as knowledgeable and trustworthy exert a more persuasive effect on consumers (Ohanian, 1990).

Other researchers studied celebrity endorsements from the perspective of the behavior and attitude of the audiences. More precisely, the affect transfer theory proposes that celebrity endorsements can shape attitudes and purchase intentions by transferring the celebrity's image to the audience (Biswas et al., 2006). This phenomenon is further explained by the attachment-endorsement model (Saldanha et al., 2020). Besides, balance theory is a psychological approach that studies interpersonal relationships, attitude change, and social cognition. It is based on a balanced and positive relationship between a celebrity endorser and the brand as well as the relationship between the consumer and the endorser (Heider, 2013; Zhang et al., 2020).

In addition to these theories, this study adopts the Stimulus-Organism-Response (SOR) framework to examine the impact of social media endorsement on purchase intention. The SOR model is widely used in consumer behavior research, including studies on celebrity endorsement (Jacoby, 2002), such as celebrity endorsement (Rajaguru, 2014), online shopping (Rose et al., 2012), organic food consumption (Sultan et al., 2021), online learning (Pan et al., 2024), gaming applications (Mala Kalaiarasan et al., 2024), ChatGPT adoption (Duong & Nguyen, 2024), green consumption behavior (Habib et al., 2025), and Metaverse technology (Ali Abumalloh et al., 2025). Therefore, the theoretical foundations and the SOR model provide a robust framework for understanding and explaining the current conceptual analysis of celebrity endorsements on consumer behavior.

The Effect of Celebrity Brand Congruence on Attitude toward the brand

Kahle and Homer (1985) introduced that the effectiveness of celebrity endorsements in advertising is enhanced when the celebrity's image aligns with the product's message. Consistent with social adaptation theory (Sherman, 1985), their research revealed that physical attractiveness plays a significant role in shaping attitudes, purchase intentions, and brand recall. According to the aforementioned arguments, the convergence of the celebrity's message and the product's message is essential for effective advertisements. Campaigns featuring a strong alignment between the celebrity and

the product image tend to score highly in effectiveness (Kamins & Gupta, 1994). The alignment of a celebrity's attributes and values with the brand they endorse is known as celebrity brand congruence. Celebrity brand congruence refers to the alignment between a celebrity endorser and a brand's image, values, and target audience (Lynch & Schuler, 1994). This congruence is vital in marketing and advertising as it significantly impacts consumer attitudes, purchase intentions, and overall brand equity (Kamins & Gupta, 1994). High congruence increases the effectiveness of endorsements because consumers are more likely to accept and identify with products that exhibit a strong alignment between the celebrity and the brand (Erdogan et al., 2001).

Indeed, high congruence indicates a strong connection between the celebrity's persona and the brand's identity. This concept is critical for understanding consumer attitudes toward brands (Alharbi et al., 2022). Congruence theory suggests that when a celebrity's image and brand's identity are compatible, it enhances the credibility and attractiveness of the endorsement. This theory assists marketers and brand managers in selecting appropriate celebrity endorsers, thereby improving brand perception and engagement. Research indicates that celebrity-brand congruence substantially influences consumer attitudes and buying intentions (Kim & Na, 2007). High congruence enhances advertisement credibility, leading to favorable attitudes toward the brand, purchase intentions, and willingness to pay a premium (Yang, 2018). A favorable match between a celebrity and a brand results in a more positive attitude and a higher likelihood of purchase (Min et al., 2019). Empirical testing of this hypothesis can contribute to the development of marketing strategies and celebrity endorsement practices, enabling more informed decision-making in marketing promotions. Based on this, we formulate the following research hypothesis:

Hypothesis 1: Celebrity brand congruence positively influences consumers' attitudes toward the brand.

The Effect of Celebrity Expertise on Attitude toward the brand
Till and Busler (1998) recommended considering the expertise of endorsers before choosing an endorser for brands. Celebrity expertise refers to the perceived knowledge, skills, and qualifications that a celebrity possesses in relation to the product or service they endorse (Sunarwia et al., 2023). Expert celebrities produce a higher recall of product information than non-expert celebrities. The expert celebrity can deliver efficient information on products to customers and make them have a positive attitude towards the endorsed products (Magnini et al., 2008). In other words, they positively influence both brand attitude and purchase intention. Therefore, a celebrity with high competency

and knowledge has more persuasive power than one with lower perceived expertise (Wang et al., 2017).

Indeed, a high level of expertise indicates that the endorser is credible within the relevant field. This credibility influences consumers' attitudes toward a brand, leading to favorable behaviors such as purchase intention, brand loyalty, and positive word-of-mouth. Moreover, celebrity expertise has a direct impact on consumer attitudes and purchase intentions. Experts are more persuasive and generate stronger brand intentions (Aaker & Biel, 2013). A recent marketing study also confirms that the expertise and competence of celebrities influence consumers' attitudes and behavior (Belch & Belch, 2018). These arguments suggest that the effectiveness of celebrity endorsements is largely dependent on the endorser's credibility, which is composed of trustworthiness and expertise. This hypothesis establishes a clear relationship between celebrity expertise and consumer attitudes, which helps brands in designing successful endorsement campaigns and selecting celebrities that resonate with their target audience. Based on this understanding, we propose the following research hypothesis:

Hypothesis 2: Celebrity expertise positively influences attitude toward the brand.

The Effect of Celebrity Attractiveness on Attitude toward the brand

Petty et al. (1997) argued that source attractiveness significantly impacts the effectiveness of a communication message. An attractive endorser influences consumers through information acceptance, aiming to positively impact brand attitude and purchase intentions. This suggests that the comprehensive image of the celebrity in relation to the brand and the target audience, credibility and attractiveness can serve as a useful criterion for selecting celebrity endorsers (Erdogan et al., 2001). Therefore, later research on products focuses on the appropriate alignment between a celebrity and a product based on physical attractiveness. Celebrity attractiveness refers to the perceived physical appeal and charm of a celebrity, encompassing attributes like facial features, body type, style, and personality traits.

A recent study on celebrity attractiveness confirms that the congruence between a celebrity's image strongly impacts their attitude toward the brand (Zhu et al., 2019). This statement supports a previous study that suggests that attractive characteristics of celebrities have a positive connection with consumers' behavior and consumer attitudes compared to less-attractive celebrities (Gong & Li, 2017). The aforementioned discussions closely link celebrity attractiveness to consumer attitudes toward brands. Attractive individuals are more successful at attracting attention and showing favorable responses, which enhances consumer interest

and attitudes. Simply put, a favorable attitude toward an attractive celebrity can lead to increased purchase intention and brand loyalty, while an unfavorable attitude can deter consumers (Wang & Scheinbaum, 2018). This hypothesis explores how the physical attractiveness of a celebrity endorser can influence brand perception, which provides insights for marketers in designing effective endorsement strategies. Therefore, the following research hypothesis is proposed:

Hypothesis 3: The attractiveness of a celebrity endorser positively influences consumers' attitudes toward the brand.

The Effect of Celebrity Trustworthiness on Attitude toward the brand

The source credibility theory posits that the credibility of the source influences the effectiveness of a message. The target audience's perception and belief in the credibility of the source play crucial roles in influencing persuasive messages (Hovland & Weiss, 1951). Trustworthiness is defined as the degree to which consumers believe the celebrity has integrity and honesty, and this element is very popular in marketing studies (Ohanian, 1990; Erdogan, 1999). Marketers aim to enhance trustworthiness by selecting endorsers who are honest, trustworthy, and reliable. Celebrity trustworthiness refers to a celebrity's perceived reliability, honesty, and credibility in their endorsements.

The credibility of the source directly influences the effectiveness of communication messages, as a trustworthy endorser can positively affect consumers' attitudes and purchase intentions (Wang et al., 2017). This perception is influenced by their previous behavior, public image, and authenticity in representing a brand. The relationship between celebrity trustworthiness and consumer attitudes toward brands is a crucial area of marketing research. Indeed, trustworthy celebrity has higher persuasive power than less trustworthy social influencers (Gong & Li, 2017). In addition, they have an impacting role on consumers' attitudes and intentions (Wang & Scheinbaum, 2018). Trustworthiness provides valuable insights for marketers to leverage celebrity endorsements effectively and enhance marketing strategies focused on building brand credibility and trust. Hence, we develop the following research hypothesis:

Hypothesis 4: Celebrity trustworthiness positively influences consumers' attitudes toward the brand.

The Effect of Attitude toward the brands on Consumer's Purchasing Intention

Attitude toward a brand is a long-term evaluation that influences behavior. Attitudes towards a brand are consumers' evaluations and perceptions of a brand, influenced by experiences, advertising, and social influence. The Theory of Planned Behavior also

states that attitudes, subjective norms, and perceived behavioral control shape behavioral intention (Ajzen, 1991). According to Phelps and Hoy (1996), attitude forms the intention, which will increase the likelihood of product purchase. Studies have shown that celebrity endorsements can impact product and brand attributes, impacting the attitude of customers, which will enhance purchase intention (Wu & Lo, 2009).

Additionally, a positive brand attitude significantly influences customer purchasing intentions, as suggested by various studies (Wang et al., 2017; Amos et al., 2008). The relationship between attitude and purchasing intention is fundamental in consumer behavior and marketing (Alharbi et al., 2022). This statement supports the previous study that states a positive attitude toward a brand increases the likelihood of consumer's intent to purchase the products because it stimulates motivation and desire of consumers (Ha & Lam, 2017). This hypothesis forms a significant connect between attitudes and purchasing intentions, aiming to provide insights for marketers to enhance brand perception and increase sales. Therefore, we propose the following research hypothesis:

Hypothesis 5: Consumers' attitudes toward a brand positively influence their purchasing intentions.

Conceptual Framework

Based on the aforementioned theoretical backgrounds and proposition of several hypotheses, the study aims to investigate the impact of celebrity endorsement on purchase intention by focusing on the concepts of stimuli (celebrity brand congruence, celebrity expertise, celebrity attractiveness, and celebrity trustworthiness), organism (attitude toward the brand), and response (purchase intention). Therefore, the study proposes the conceptual model, as shown in Figure 1 below.

Methodology

Sampling Techniques

In quantitative research, researchers select either probability or non-probability sampling designs.

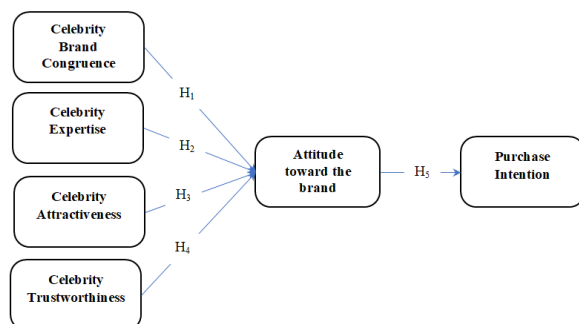


Figure 1: The model of celebrity endorsement

Probability sampling ensures that every member of the population has an equal chance of being included in the sample, while non-probability sampling is commonly used in case study research (Cooper & Schindler, 2014). For this study, we choose convenience sampling due to its practicality and cost-effectiveness, which helps mitigate the challenges associated with larger sample sizes (Taherdoost, 2016). Data was collected using a self-administered questionnaire and a purposive sampling technique, targeting adult consumers (Cooper & Schindler, 2014). To determine the sample size, we used Cochran's (1977) formula, setting an alpha level of 0.05. The acceptable margin of error was established at 5%, with an estimated standard deviation of 0.5. The study employed a proportional variable and Cochran's sample size formula for decision-making as follows:

$$n = \frac{Z^2 (p*q)}{e^2} = \frac{(1.96)^2 (0.5*0.5)}{(0.05)^2} = 384$$

In this formula, Z represents the critical value for the selected alpha level of 0.025 in each tail, which is 1.96. This alpha level of 0.05 indicates the level of risk the researcher is willing to accept, where the true margin of error might exceed the acceptable margin. The term (p * q) represents the estimate of variance, calculated as 0.25. Based on these calculations, the study determined that a minimum sample size of 384 participants was necessary for formal data analysis. Consequently, this study successfully collected responses from 564 participants for the final data analysis.

Measurement Scales and Data Collection

This study employed a questionnaire survey to collect data from adult consumers in Cambodia who regularly purchase energy drinks and soft drinks, including Coca-Cola and Sting, produced by Cambodia Beverage Company, Ltd. Participants were invited to view two social media advertisements: "Sangkran Magic" by Mr. Vanda Mann and "Sting Metaverse" by Mr. G-Devith, featured on platforms such as TikTok, Facebook, and YouTube during 2023-2024. The Coca-Cola Company sponsored the Khmer song "Sangkran Magic," with Mr. Vanda Mann as the primary celebrity influencer in its popular remix version. The survey employed a 5-point Likert scale to rate the items, details of which are provided in Appendix Section 1.

To ensure external validity and reliable data collection, the study used a self-administered questionnaire (Albert et al., 2017). Participants were asked to answer questions, provide a self-introduction, and agree to a confidentiality agreement. They were required to watch a celebrity endorsement video before responding to the survey (Shannon & Bradshaw, 2002). The survey paper included a QR code that participants could scan to match the endorser's image with the video (see Section 2 of

the Appendix). The researchers expressed gratitude to the respondents for their participation and emphasized the importance of a high response rate.

Data Analysis Techniques

In this study, the researchers employed several analysis techniques to ensure comprehensive and reliable results. First, frequency analysis was used to categorize individual information such as gender, age, occupation, education, income, and social media usage. This method is often paired with tools like bar charts and cross-tabulation due to its reliability and credibility. It is particularly effective in analyzing the relationship between Coca-Cola and Sting Energy Drink in Cambodia. Second, the study conducted exploratory factor analysis and reliability tests to confirm the dimensionality and reliability of the research variables. In this process, the principal component method with VARIMAX rotation was utilized, along with several purification processes, including factor analysis, correlation analysis, and internal consistency analysis (Cronbach’s Alpha). For an item to be retained, it needed a factor loading score higher than 0.60, an item-to-total correlation greater than 0.5, and a coefficient alpha above 0.60 or 0.70 (Black & Babin, 2019; Hair et al., 2014). Finally, the remaining items were then examined using Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) in AMOS 29 software to test hypotheses and model fit.

Results and Findings

The Results of Demographic of Respondents

The demographic profile for this study consisted of 564 participants. Among these, 148 were male, with 30.41 percent being 15-20 years old and 67.57 percent being 21-25 years old. In contrast, the female respondents numbered 416, with 45.91% being 15-20 years old and 52.64 percent being 21-25 years old. A smaller proportion of participants falls into the 26-30 years age group, comprising 2.03 percent of males and 1.44 percent of females. This demographic distribution highlights the

majority of younger age groups among the participants, particularly those aged 15-25 years for both genders (see Figure 3.1 in the Appendix).

Factor Analysis and Reliability Test

Factor analysis and reliability tests help researchers reduce the dimensionality of large datasets by grouping related variables into fewer factors, thus facilitating easier interpretation. They also assist in developing theoretical constructs by validating the effectiveness of a set of items, thereby enhancing construct validity. Reliability testing further ensures the consistency of measurement scales, validates instruments, identifies problematic items, improves research quality, and supports comparative analysis. These techniques collectively enhance data interpretation. Following the recommendations of Hair et al. (2014), the factor analysis and reliability test results (see Appendix Section 1) confirmed that all criteria satisfy the required thresholds, despite the removal of some questionnaire items. Consequently, all research constructs can be used to conduct further assessments.

Correlation Matrix

The correlation matrix is a statistical method used to identify the relationships between variables within a dataset. It helps in calculating the mean value of each research construct and determining the intercorrelation among various variables (Steiger, 1980). Pearson’s Correlation Coefficient is the most commonly used technique for this purpose (Tabachnick et al., 2018). The findings from this study revealed a strong positive correlation between brand attitude and both celebrity trustworthiness ($r = 72.7\%$) and purchase intention ($r = 76.4\%$). These results highlight a significant positive relationship among the research variables, emphasizing the impact of celebrity trustworthiness on shaping consumer attitudes and purchase intentions. Meanwhile, multi-collinearity is not a concern in this study. As shown in Table 1, the data underscores the importance of fostering positive brand attitudes through credible

Table 1: Correlation Matrix (564)

Variables	Mean	Std. D	CBC	CE	CA	CT	ATB	PI
CBC	3.765	0.575	1.00					
CE	3.427	0.668	0.530**	1.00				
CA	3.798	0.630	0.543**	0.601**	1.00			
CT	3.401	0.635	0.479**	0.710**	0.619**	1.00		
ATB	3.334	0.601	0.542**	0.629**	0.631**	0.727**	1.00	
PI	3.400	0.624	0.496**	0.619**	0.600**	0.685**	0.764**	1.00

** . Correlation is significant at the 0.01 level (2-tailed).

celebrity endorsements, which can subsequently enhance purchasing intentions. These insights contribute to a deeper understanding of the dynamics between celebrity influence and consumer behavior in the marketplace.

Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) is a technique used to investigate the relationships between observed variables and their underlying latent structures (Suhr, 2003). It is commonly employed to test construct validity and remove redundant information. Following the guidelines of Anderson and Gerbing (1988), we assessed construct reliability and convergent validity. In this study, we used a second-order factor model to analyze all research constructs and evaluate the overall model. The results met the thresholds established by Hair et al. (2019) and Kline (2023). The model demonstrated a good fit with the following indices: GFI = 0.956, AGFI = 0.935, NFI = 0.953, CFI = 0.979, and RMSEA = 0.036 (see Figure 2 and Table 2). The overall goodness-of-fit assessment confirmed that the model met the required thresholds, confirming convergent validity and construct reliability.

We then used the average variance extracted

(AVE) and composite reliability (CR) coefficients to evaluate the quality of the measurement. It is crucial to understand the equations for AVE and CR and their relationship to validity and reliability. Using one-factor models, we demonstrated how the number of items and the homogeneity of factor loadings can affect AVE and CR results. Equations (1) and (2) were applied to calculate AVE and CR, and the results are shown in Table 2. According to (Jöreskog et al., 2016), AVE should exceed the threshold value of 0.5, and CR should exceed 0.7.

$$AVE = \frac{\sum_{i=1}^n \lambda_i^2}{n} \tag{1}$$

$$CR = \frac{\left(\sum_{i=1}^n \lambda_i\right)^2}{\left(\sum_{i=1}^n \lambda_i\right)^2 + \left(\sum_{i=1}^n \delta_i\right)} \tag{2}$$

However, for Celebrity Brand Congruence, AVE was 0.426, which is below the 0.5 threshold, and CR was 0.689, below the 0.7 threshold. This suggests that item CBC1, regarding the celebrity’s match with the product,

Table 2: The results of overall model CFA

Indicators	Research Constructs	λ	t-value	p-value	AVE	CR
CBC2	← Celebrity Brand Congruence	0.597	11.615	0.000	0.426	0.689
CBC5	←	0.710	A	0.000		
CBC6	←	0.646	12.489	0.000		
CE3	← Celebrity Expertise	0.617	13.54	0.000	0.460	0.718
CE4	←	0.718	A	0.000		
CE5	←	0.695	15.14	0.000		
CA1	← Celebrity Attractiveness	0.672	14.133	0.000	0.462	0.720
CA5	←	0.702	A	0.000		
CA6	←	0.664	13.965	0.000		
CT2	← Celebrity Trustworthiness	0.671	16.139	0.000	0.544	0.826
CT3	←	0.776	A	0.000		
CT4	←	0.750	18.326	0.000		
CT5	←	0.748	18.245	0.000		
ATB3	← Attitude Towards Brand	0.674	16.392	0.000	0.547	0.828
ATB4	←	0.738	17.701	0.000		
ATB5	←	0.786	A	0.000		
ATB6	←	0.757	18.409	0.000		
PI2	← Purchasing Intention	0.674	15.651	0.000	0.504	0.802
PI3	←	0.748	A	0.000		
PI4	←	0.716	16.572	0.000		
PI5	←	0.700	16.155	0.000		

Note: ***p < 0.001, which is significant level at t-value > 1.96. A = parameter regression weight was fixed at 1. λ is standardized estimates.

may be problematic. Additionally, items CBC3 and CBC4 were removed during the factor analysis stage. To meet the thresholds for factor analysis and reliability test procedures, nearly 50% of the questionnaire items were deleted, leading to low validity and reliability for the factors of celebrity expertise and celebrity attractiveness. Despite this, all other items of the research constructs satisfied the rules of thumb, which can be feasible for conducting SEM analysis.

Structural Equation Modeling (SEM)

Main Effects. Empirical studies often employ structural equation modeling (SEM) to analyze firsthand data from surveys (Lu et al., 2007). Meanwhile, this study used SEM to test and estimate causal relationships among variables such as celebrity brand congruence, celebrity expertise, celebrity attractiveness, attitude toward the brand, and purchase intention. To ensure the validity of the causal relationships, the study adhered to essential requirements for both CFA and SEM, including a Chi-square (χ^2)/d.f < 2.50, GFI > 0.90, AGFI > 0.90, and RMSEA < 0.05 (Hair et al., 2019). The SEM model was applied to test hypotheses using the likelihood estimation method. The same variables from the CFA were used. The results, illustrated in Figures 2 and 3, indicated that the proposed model achieved satisfactory goodness-of-fit indices, confirming the model's adequacy. The results

of hypotheses testing are further illustrated as follows: First, the findings presented in Table 3 indicate a robust relationship between celebrity brand congruence and attitude toward brand ($\beta = 0.470$, $t = 8.765$, and $p < 0.001$), thereby validating Hypothesis 1. The results underscore that congruence between a celebrity's image and a brand's identity significantly enhances consumer attitudes and perceptions. For example, the alignment of Vannda Mann's youthful and energetic persona with Coca-Cola's refreshing brand image strengthens the emotional connection between consumers and the brand.

Second, the study identifies a positive association between celebrity expertise and attitude toward the brand ($\beta = 0.655$, $t = 10.229$, and $p < 0.001$). This result confirms Hypothesis 2, which highlights that a celebrity's perceived expertise plays a pivotal role in shaping consumer attitudes. When endorsers are seen as knowledgeable and credible, their influence on brand perception is significantly enhanced. For instance, Vannda Mann's reputation as a prominent cultural figure and his expertise improve positive consumer attitudes toward Coca-Cola.

Third, the outcomes reveal a significant impact of celebrity attractiveness on attitude toward the brand ($\beta = 0.770$, $t = 11.414$, and $p < 0.001$), supporting Hypothesis 3. The findings emphasize the critical role of physical appeal and charisma in shaping consumer perceptions of a brand. For instance, Vannda Mann's attractiveness effectively influences consumer attitudes toward Coca-Cola, particularly among younger audiences who value visual elements in marketing campaigns.

Fourth, the study confirms a strong positive correlation between celebrity trustworthiness and attitude toward the brand ($\beta = 0.691$, $t = 12.956$, and $p < 0.001$), fully accepting Hypothesis 4. Trustworthiness is an important factor in developing favorable consumer attitudes. A celebrity's authenticity and ethical image contribute significantly to its credibility as a brand ambassador. For example, Vannda Mann's reputation for integrity enhances consumer confidence in both him and Coca-Cola, which supports the brand's credibility.

Fifth, the results identify a strong and positive relationship between attitude toward the brand and purchase intention ($\beta = 0.91$, $t = 15.51$, and $p < 0.001$), fully validating Hypothesis 5. The findings demonstrate that favorable consumer attitudes directly influence purchase intentions. Positive perceptions created by the attributes of celebrity endorsement significantly increase the likelihood of purchasing the product, highlighting the critical role of consumer attitudes in enhancing the purchasing behavior of customers.

Mediating Effect of Attitude Toward the Brand.

The study identifies attitude toward the brand as a mediating factor in the relationships between several antecedents—celebrity brand congruence, celebrity expertise, celebrity attractiveness, and celebrity

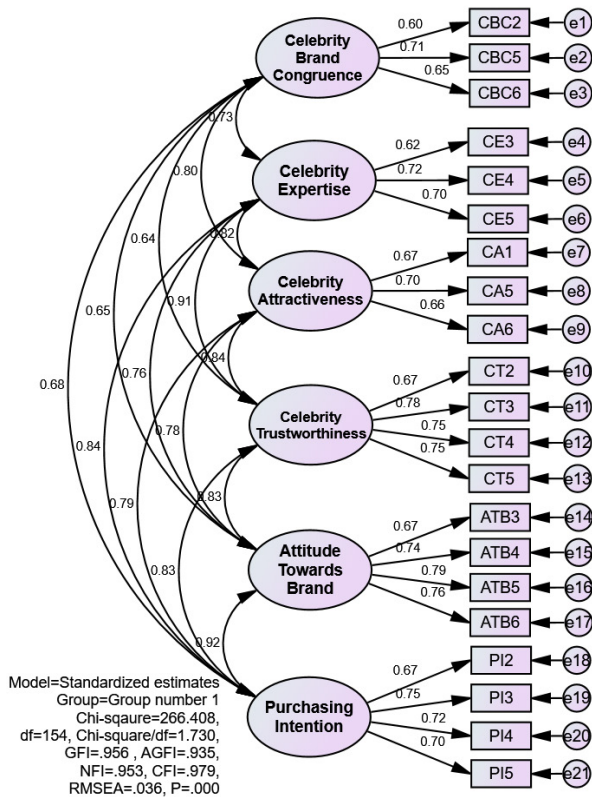


Figure 2: Overall model CFA

trustworthiness—and purchase intention. This mediating effect highlights the importance of forming positive brand attitudes through effective celebrity endorsement strategies, which consequently influence purchasing behaviors. The results also reveal that consumer’s attitude toward the brand is as significant as the direct and indirect effects on their purchasing intention (see Table 3.2, Appendix–Section 5).

Overall, these findings highlight the influential role of celebrity brand congruence, expertise, attractiveness, and trustworthiness in shaping consumer attitudes toward brands and driving purchase intentions. Marketers and brand managers can leverage these insights to develop effective celebrity endorsement strategies that align with desired brand images, enhancing consumer engagement and enhancing loyalty. The SEM model demonstrates a

satisfactory fit, supporting the proposed relationships and providing a robust framework for understanding the impact of celebrity endorsements on consumer behavior.

Discussion and Conclusion

The analysis of responses from 564 participants offers valuable insights into the impact of celebrity endorsements and social media advertising on consumer behavior. Among the respondents, 156 expressed a willingness to purchase Sting Energy Drink, while 408 indicated an intention to buy Coca-Cola after being exposed to celebrity-endorsed campaigns on platforms like Facebook and YouTube. This demonstrates the effectiveness of social media as a key tool for advertising and the significant role of celebrity endorsements in shaping consumer purchase intentions. Notably,

Table 3: The results of SEM–Hypothesis testing

Indicators	Research Constructs	λ	t-value	p-value
CBC2	← Celebrity brand congruence	0.601	9.943	0.000
CBC5	←	0.710	A	0.000
CBC6	←	0.628	10.021	0.000
CE3	← Celebrity expertise	0.544	10.149	0.000
CE4	←	0.626	A	0.000
CE5	←	0.706	9.968	0.000
CA1	← Celebrity attractiveness	0.622	11.653	0.000
CA5	←	0.696	A	0.000
CA6	←	0.632	11.762	0.000
CT2	← Celebrity trustworthiness	0.633	13.441	0.000
CT3	←	0.713	A	0.000
CT4	←	0.747	15.281	0.000
CT5	←	0.732	15.055	0.000
ATB3	← Attitude towards brand	0.634	14.344	0.000
ATB4	←	0.640	15.688	0.000
ATB5	←	0.747	A	0.000
ATB6	←	0.728	16.576	0.000
PI2	← Purchasing intention	0.627	14.856	0.000
PI3	←	0.742	A	0.000
PI4	←	0.691	14.55	0.000
PI5	←	0.777	14.069	0.000
Path Relationships–Hypothesis testing		β_j	t-value	p-value
H1: Celebrity Brand Congruence → Attitude toward the brand		0.470***	8.765	0.000
H2: Celebrity Expertise → Attitude toward the brand		0.655***	10.229	0.000
H3: Celebrity Attractiveness → Attitude toward the brand		0.770***	11.414	0.000
H4: Celebrity Trustworthiness → Attitude toward the brand		0.691***	12.956	0.000
H5: Attitude toward the brand → Purchasing Intention		0.910***	15.51	0.000

Note: ***p < 0.001, which is a significant level at t-value > 1.96. A = parameter regression weight was fixed at 1. λ and β_j are standardized

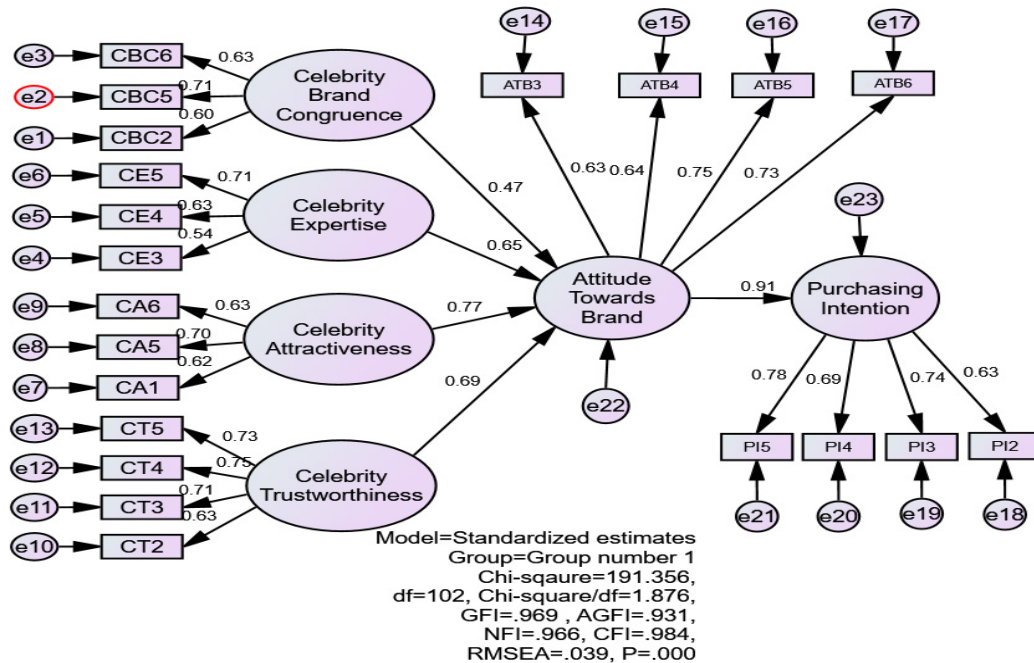


Figure 3: The results of SEM

approximately 72.3% of participants showed interest in these two brands, emphasizing the importance of strategic celebrity collaborations in enhancing consumer engagement (refer to the logistic regression results in Section 4 in the Appendix).

This study identifies the strong relationship between celebrity brand congruence and attitude toward the brand, which is consistent with findings from various contexts, such as fashion brands (Min et al., 2019; Pradhan et al., 2016), shampoo brands (Paul & Bhakar, 2018), sports brands (Rai et al., 2021), tourism destinations (Liu et al., 2023; Pradhan et al., 2023; Zhou et al., 2024), and sneaker brands (Alharbi et al., 2022). The current research focuses on the organism component that contributes to the stimulus-organism-response (SOR) framework, highlighting how consumers' emotional response to advertisements affects their attitudes and intentions (Rajaguru, 2014). Additionally, the SOR model has been widely applied in contexts such as e-commerce (Lin et al., 2021), social commerce (Molinillo et al., 2021), retail apps (Abbasi et al., 2024), mobile payment systems (Irimia-Diéguez et al., 2023), online food ordering services (Liébana-Cabanillas et al., 2024), and influencer marketing (Sinha & Srivastava, 2024). Consequently, this study extends the application of the SOR framework to Cambodia's soft drink market, demonstrating its relevance in advertising campaigns featuring celebrity endorsers on social media.

Furthermore, the findings confirm that celebrity expertise, attractiveness, and trustworthiness significantly impact consumer attitudes toward brands,

supporting prior studies in hospitality management (Wang et al., 2017), cosmetic brands (Al Mamun et al., 2023), online shopping (Park & Lin, 2020; Rungruangjit, 2022), destination branding (Zhang et al., 2020), and the luxury fashion and jewelry industries (Eastman et al., 2024). These results also align with parasocial relationship theory, which describes the one-sided relationships that consumers form with celebrities they admire (Lueck, 2015; Dibble et al., 2016). It highlights the importance of parasocial interactions in strengthening emotional connections between consumers and celebrity endorsers. Key attributes such as attractiveness, trustworthiness, and expertise significantly enhance these parasocial interactions, positively influencing attitudes and behaviors toward brands. This outcome is consistent with Zhang et al. (2020), who demonstrate that consumers develop parasocial relationships simply by viewing celebrity-endorsed advertisements. Similarly, Yuan et al. (2021) find that tourists are more likely to form such connections with endorsers who are perceived as credible, attractive, and knowledgeable. Celebrities create opportunities for interaction, promoting long-term socioemotional attachments on social media (Kurtin et al., 2018). This psychological and media-based theory explains why consumers trust and follow celebrities (Chung & Cho, 2017). For instance, adolescents often see internet celebrities as personal friends despite the one-sided nature of these relationships (De Jans et al., 2018). These perceived connections create an illusion of intimacy that enhances trust and credibility of celebrity endorsement and thereby increases favorable attitudes

toward the endorsed products (Rungruangjit, 2022).

Finally, the study confirms a significant link between attitude toward the brand and purchase intention, reinforcing findings from previous research in areas such as green skincare products (Al Mamun et al., 2023), organic food consumption (Kalam et al., 2025), and online food delivery services (Jabbour Al Maalouf et al., 2025). These results underscore the critical role of positive consumer attitudes in driving purchase decisions. By carefully employing celebrity endorsements and leveraging social media platforms, brands can effectively engage consumers, influence their purchasing intentions, and achieve success in Cambodia's beverage industry.

Limitation and Future Research

The current study has several limitations to be noted. First, this thesis examines low-involvement products in the Cambodian market for adult consumers, which limits its applicability to other demographic groups, regions, or product types. Second, the cross-sectional design of the study does not account for changes in consumer attitudes and behaviors over time, potentially affecting the relationships among variables. Third, self-reported data could introduce biases, and the study may not control for potentially confounding variables such as cultural factors, social media influence, or advertising effectiveness. Fourth, the study also lacks an exploration of relationship dynamics based on consumer characteristics or external influences. Consequently, future research could include a wider demographic scope, longitudinal studies, qualitative research approaches, and cross-cultural comparisons to better understand consumer behavior regarding celebrity endorsements and purchase intentions.

By addressing these limitations and pursuing suggested research directions, future studies can contribute to a more comprehensive understanding of consumer behavior regarding celebrity endorsements and purchase intentions across different contexts and levels of product involvement. Celebrity endorsement companies invest heavily to ensure a good fit between celebrities and endorsed products, securing differential advantages (Keel & Natarajan, 2012). Favorable congruence refers to a fair degree of consistency between the brand and celebrity message (Choi & Rifon, 2012), attracting favorable responses and generating higher returns (Li et al., 2022). Using a celebrity allows a brand to incorporate its values and meanings into its image, effectively communicating these ideas to consumers through purchase and use (Erfgen et al., 2015). Brands can cater to various consumer needs, including functional and symbolic ones. Functional brands provide practical benefits and solve problems, while symbolic brands allow consumers to express their identities and satisfy pleasure-seeking

needs. Each type of brand has its unique characteristics and functions (Zhu et al., 2019). Therefore, product brand image (Kim et al., 2018), brand love (Zhang et al., 2020), and emotional satisfaction (Garg et al., 2023), and cultural contexts and demographic segments (Alcántara-Pilar et al., 2024; Min et al., 2019) must be considered key variables when exploring consumers' purchasing intentions. Overall, future researchers might consider these aforementioned aspects in related fields of study, especially celebrity endorsement.

Conclusion and Recommendations

This research investigates the level of purchase intention and the key factors influencing them, specifically focusing on the relationships among celebrity brand congruence, celebrity expertise, celebrity attractiveness, celebrity trustworthiness, attitude toward the brand, and purchase intention. The findings validate all proposed hypotheses, underscoring the critical importance of understanding how celebrity brand congruence, expert credibility, and attractiveness affect consumers' attitudes toward the brand. Additionally, these factors significantly contribute to overall purchase intention. The results emphasize the necessity for marketers to leverage these elements in branding strategies to enhance consumer engagement and drive purchasing decisions. This thesis suggests that marketers in the Cambodian market should strategically use celebrity endorsements to align their brands with consumers' values and attitudes. Emphasizing celebrity expertise and trustworthiness in promotional campaigns can reinforce credibility and positively impact brand attitudes. Engaging in advertising campaigns can foster and maintain positive brand attitudes. Social media platforms with a strong celebrity presence can enhance positive brand attitudes and drive purchase intentions. Regular market research can help brands adapt their strategies while diversifying marketing channels can optimize engagement levels and purchase intentions. Evaluating campaign effectiveness can provide valuable feedback for future initiatives. By implementing these recommendations, marketers can enhance purchase intentions for low-involvement products, leading to increased consumer engagement and brand loyalty. Overall, this research highlights the pivotal role of celebrity endorsements in shaping consumer behavior in today's markets, such as Cambodia.

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Declaration of competing interest

The authors have no competing interests to declare.

Credit authorship contribution statement

Study conception and design: OU Phichhang, MAO Makara, and MERN Sokban.

Data collection: MERN Sokban, MAO Sreymoch, PICH Polina, and DUONG Sokheng.

Data analysis and interpretation of results: OU Phichhang, and MAO Makara.

Manuscript preparation: OU Phichhang.

All authors reviewed the results and approved the final version of the manuscript.

Data availability statement

Raw data were collected by professional research assistant. The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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Author's biography

Mr. OU Phichhang is currently working as a Professor and Deputy Head of the Department of International Business Management at the Royal University of Phnom Penh. He has published several research articles and conference papers. He has participated in presenting papers at international conferences and also supervised students' research and thesis in business management.

Miss MAO Makara, Miss MERN Sokban, Miss MAO Sreymoch, Miss PICH Polina, and Mr. DUONG Sokheng graduated a Bachelor of International Business Management from the Royal University of Phnom Penh in 2023. They have worked together to complete a joint research project of the Key Impacts of Celebrity Endorsement in Social Media Platforms on Consumer Purchase Intention of Soft Drink Brands under the direction of Professor OU Phichhang.

References

- Aaker, D. A., & Biel, A. L. (2013). Brand equity and advertising: An overview. *Brand Equity & Advertising*, 1-8.
- Abbasi, G. A., Goh, Y. N., Iranmanesh, M., & Liebana-Cabanillas, F. (2024). Determinants of continuous intention to use retail apps: A hybrid PLS-ANN approach. *Journal of Marketing Theory and Practice*, 32(3), 413-434. <https://doi.org/10.1080/10696679.2023.2218098>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Al Mamun, A., Naznen, F., Yang, Q., Ali, M. H., & Hashim, N. M. H. N. (2023). Modelling the significance of celebrity endorsement and consumer interest on attitude, purchase intention, and willingness to pay a premium price for green skincare products. *Heliyon*, 9(6), e16765. <https://doi.org/10.1016/j.heliyon.2023.e16765>
- Albert, N., Ambrose, L., & Vallete-Florence, P. (2017). Consumer, brand, celebrity: Which congruency produces effective celebrity endorsements? *Journal of Business Research*, 96-106. <https://doi.org/10.1016/j.jbusres.2017.08.002>
- Alcántara-Pilar, J. M., Rodríguez-López, M. E., Kalinić, Z., & Liébana-Cabanillas, F. (2024). From likes to loyalty: Exploring the impact of influencer credibility on purchase intentions in TikTok. *Journal of Retailing and Consumer Services*, 78, 103709. <https://doi.org/10.1016/j.jretconser.2024.103709>
- Alharbi, K., Kim, J. K., Noland, C., & Carter, J. (2022). When Corporate Social Advocacy Meets Controversial Celebrity: The Role of Consumer-Brand Congruence and Consumer-Celebrity Congruence. *Sustainability*, 14(3), 1811. <https://www.mdpi.com/2071-1050/14/3/1811>
- Ali Abumalloh, R., Halabi, O., & Nilashi, M. (2025). The relationship between technology trust and behavioral intention to use Metaverse in baby monitoring systems" design: Stimulus-Organism-Response (SOR) theory. *Entertainment Computing*, 52, 100833. <https://doi.org/10.1016/j.entcom.2024.100833>
- Amos, C., Holmes, G., & Strutton, D. (2008). Exploring the relationship between celebrity endorser effects and advertising effectiveness: A quantitative synthesis of effect size. *International Journal of Advertising*, 27(2), 209-234. <http://dx.doi.org/10.1080/02650487.2008.11073052>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- Aw, E. C.-X., & Labrecque, L. I. (2020). Celebrity endorsement in social media contexts: understanding the role of parasocial interactions and the need to belong. *Journal of Consumer Marketing*, 37(7), 895-908. <https://doi.org/10.1108/JCM-10-2019-3474>
- Ballester, E., Ruiz, C., Rubio, N., & Veloutsou, C. (2025). We match! Building online brand engagement behaviours through emotional and rational processes. *Journal of Retailing and Consumer Services*, 82, 104146. <https://doi.org/10.1016/j.jretconser.2024.104146>
- Belanche, D., Casalo, L. V., Flavián, M., & Ibáñez-Sánchez, S. (2021). Building influencers' credibility on Instagram: Effects on followers' attitudes and behavioral responses toward the influencer. *Journal of Retailing and Consumer Services*, 61, 102585.
- Belch, G. E., & Belch, M. A. (2018). *Advertising and promotion: An integrated marketing communications perspective*. McGraw-Hill.
- Biswas, D., Biswas, A., & Das, N. (2006). The Differential Effects of Celebrity and Expert Endorsements on Consumer Risk Perceptions. The Role of Consumer Knowledge, Perceived Congruency, and Product Technology Orientation. *Journal of Advertising*, 35(2), 17-31. <https://doi.org/10.1080/00913367.2006.10639231>
- Black, W., & Babin, B. J. (2019). Multivariate Data Analysis: Its Approach, Evolution, and Impact. In B. J. Babin & M. Sarstedt (Eds.), *The Great Facilitator: Reflections on the Contributions of Joseph F. Hair, Jr. to Marketing and*

- Business Research* (pp. 121-130). Springer International Publishing. <https://doi.org/10.1007/978-3-030-06031-216>
- Calvo-Porrá, C., & Lévy-Mangin, J.-P. (2024). The influence of celebrity endorsement on the purchase behavior of brands and product categories. *Journal of Product & Brand Management*, 33(8), 1027-1040. <https://doi.org/10.1108/JPBM-09-2023-4745>
- Calvo-Porrá, C., Rivaroli, S., & Orosa-González, J. (2021). The Influence of Celebrity Endorsement on Food Consumption Behavior. *Foods*, 10(9), 2224. <https://www.mdpi.com/2304-8158/10/9/2224>
- Choi, S. M., & Rifon, N. J. (2012). It is a match: The impact of congruence between celebrity image and consumer ideal self on endorsement effectiveness. *Psychology & Marketing*, 29(9), 639-650.
- Chung, S., & Cho, H. (2017). Fostering parasocial relationships with celebrities on social media: Implications for celebrity endorsement. *Psychology & Marketing*, 34(4), 481-495.
- Clifford, M. J., & Kavitha, R. (2025). A Study on Influence of Celebrity Endorsement on Online Consumer Buying Behaviour with Special Reference to Food Products. In A. Hamdan (Ed.), *Achieving Sustainable Business through AI, Technology Education and Computer Science: Volume 1: Computer Science, Business Sustainability, and Competitive Advantage* (pp. 519-529). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-70855-8_44
- Cochran, W. G. (1977). *Sampling techniques* (3rd, Ed.). John Wiley & Sons.
- Cooper, D. R., & Schindler, P. (2014). *Business research methods* (4th ed.). McGraw-Hill.
- De Jans, S., Cauberghe, V., & Hudders, L. (2018). How an Advertising Disclosure Alerts Young Adolescents to Sponsored Vlogs: The Moderating Role of a Peer-Based Advertising Literacy Intervention through an Informational Vlog. *Journal of Advertising*, 47(4), 309-325. <https://doi.org/10.1080/00913367.2018.1539363>
- Delbaere, M., Michael, B., & Phillips, B. J. (2021). Social media influencers: A route to brand engagement for their followers. *Psychology & Marketing*, 38(1), 101-112.
- Dibble, J. L., Hartmann, T., & Rosaen, S. F. (2016). Parasocial interaction and parasocial relationship: Conceptual clarification and a critical assessment of measures. *Human communication research*, 42(1), 21-44.
- Duong, C. D., & Nguyen, T. H. (2024). How ChatGPT adoption stimulates digital entrepreneurship: A stimulus-organism-response perspective. *The International Journal of Management Education*, 22(3), 101019. <https://doi.org/10.1016/j.ijme.2024.101019>
- Eastman, J. K., Shin, H., Jain, V., & Wang, X. (2024). Determinants of positive consumer affect toward luxury brands' social media posts on sustainability: A fsQCA approach. *Journal of Business Research*, 183, 114871. <https://doi.org/10.1016/j.jbusres.2024.114871>
- Erdogan, B. Z. (1999). Celebrity endorsement: A literature review. *Journal of marketing management*, 15(4), 291-314.
- Erdogan, B. Z., Baker, M. J., & Tagg, S. (2001). Selecting Celebrity Endorsers: The Practitioner's Perspective. *Journal of advertising research*, 41(3), 39-48. <https://doi.org/10.2501/jar-41-3-39-48>
- Erfgen, C., Sattler, H., & Schnitka, O. (2015). How celebrity endorsers enhance parent brand extendibility to low similarity brand extensions. *Journal of Business Economics*, 85(5), 479-504. <https://doi.org/10.1007/s11573-014-0743-3>
- Garg, P., Raj, R., Kumar, V., Singh, S., Pahuja, S., & Sehrawat, N. (2023). Elucidating the role of consumer decision making style on consumers' purchase intention: The mediating role of emotional advertising using PLS-SEM. *Journal of Economy and Technology*, 1, 108-118. <https://doi.org/10.1016/j.ject.2023.10.001>
- Gong, W., & Li, X. (2017). Engaging fans on microblog: the synthetic influence of parasocial interaction and source characteristics on celebrity endorsement. *Psychology & Marketing*, 34(7), 720-732. <https://doi.org/10.1002/mar.21018>
- Ha, N. M., & Lam, N. H. (2017). The effects of celebrity endorsement on customer's attitude toward brand and purchase intention. *International Journal of Economics and Finance*, 9(1), 64-77. <http://dx.doi.org/10.5539/ijef.v9n1p64>
- Habib, M. D., Attri, R., Salam, M. A., & Yaqub, M. Z. (2025). Bright and dark sides of green consumerism: An in-depth qualitative investigation in retailing context. *Journal of Retailing and Consumer Services*, 82, 104145. <https://doi.org/10.1016/j.jretconser.2024.104145>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis: Pearson new international edition*. Pearson.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2019). *Multivariate data analysis* (8th ed). Cengage Learning EMEA, Hampshire.
- Heider, F. (2013). *The psychology of interpersonal relations*. Psychology Press.
- Hovland, C. I., & Weiss, W. (1951). The influence of source credibility on communication effectiveness. *Public opinion quarterly*, 15(4), 635-650.
- Hsu, C. k., & McDonald, D. (2002). An examination on multiple celebrity endorsers in advertising. *Journal of Product & Brand Management*, 11(1), 19-29. <https://doi.org/10.1108/10610420210419522>
- Irimia-Diéguez, A., Liébana-Cabanillas, F., Blanco-Oliver, A., & Lara-Rubio, J. (2023). What drives consumers to use P2P payment systems? An analytical approach based on the stimulus-organism-response (S-O-R) model. *European Journal of Management and Business Economics*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/EJMBE-12-2022-0374>
- Jabbour Al Maalouf, N., Sayegh, E., Makhoul, W., & Sarkis, N. (2025). Consumers' attitudes and purchase intentions toward food ordering via online platforms. *Journal of Retailing and Consumer Services*, 82, 104151. <https://doi.org/10.1016/j.jretconser.2024.104151>
- Jacoby, J. (2002). Stimulus-organism-response reconsidered: an evolutionary step in modeling (consumer) behavior. *Journal of consumer psychology*, 12(1), 51-57.
- Japutra, A., Ekinici, Y., & Simkin, L. (2019). Self-congruence, brand attachment and compulsive buying. *Journal of Business Research*, 99, 456-463. <https://doi.org/10.1016/j.jbusres.2017.08.024>
- Jöreskog, K. G., Olsson, U. H., & Wallentin, F. Y. (2016). *Multivariate analysis with LISREL*. Springer.
- Jun, M., Han, J., Zhou, Z., & Eisingerich, A. B. (2023). When is celebrity endorsement effective? Exploring the role of celebrity endorsers in enhancing key brand associations.

- Journal of Business Research*, 164, 113951. <https://doi.org/10.1016/j.jbusres.2023.113951>
- Kahle, L. R., & Homer, P. M. (1985). Physical Attractiveness of the Celebrity Endorser: A Social Adaptation Perspective. *Journal of consumer research*, 11(4), 954-961. <https://doi.org/10.1086/209029>
- Kalam, A., Monirul Islam, S. M., & Akterujjaman, S. M. (2025). Momentum for organic food purchase intention and actual adoption- moderating effects of social media influencer and celebrity endorser. *Food Quality and Preference*, 122, 105307. <https://doi.org/10.1016/j.foodqual.2024.105307>
- Kamins, M. A., & Gupta, K. (1994). Congruence between spokesperson and product type: A matchup hypothesis perspective. *Psychology & Marketing*, 11(6), 569-586.
- Kara, N. S. (2024). The role of celebrity involvement in influencing domestic tourists' intention to visit Tanzania's attractions: attitude as a mediating variable. *International Hospitality Review*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/IHR-05-2023-0031>
- Keel, A., & Natarajan, R. (2012). Celebrity endorsements and beyond: New avenues for celebrity branding. *Psychology & Marketing*, 29(9), 690-703.
- Kim, B., & Chen, Y. (2020). Effects of religious celebrity on destination experience: The case of Pope Francis's visit to Solmoe Shrine. *International Journal of Tourism Research*, 22(1), 1-14.
- Kim, D. Y., & Kim, H.-Y. (2023). Social media influencers as human brands: an interactive marketing perspective. *Journal of Research in Interactive Marketing*, 17(1), 94-109. <https://doi.org/10.1108/JRIM-08-2021-0200>
- Kim, S., Choe, J. Y., & Petrick, J. F. (2018). The effect of celebrity on brand awareness, perceived quality, brand image, brand loyalty, and destination attachment to a literary festival. *Journal of Destination Marketing & Management*, 9, 320-329. <https://doi.org/10.1016/j.jdmm.2018.03.006>
- Kim, Y.-J., & Na, J.-H. (2007). Effects of celebrity athlete endorsement on attitude towards the product: the role of credibility, attractiveness and the concept of congruence. *International Journal of Sports Marketing and Sponsorship*, 8, 23-33. <https://doi.org/10.1108/IJSMS-08-04-2007-B004>
- Kline, R. B. (2023). *Principles and practice of structural equation modeling*. Guilford publications.
- Koernig, S. K., & Boyd, T. C. (2009). To catch a tiger or let him go: The matchup effect and athlete endorsers for sport and non-sport brands. *Sport marketing quarterly*, 18(1).
- Kurtin, K. S., O'Brien, N., Roy, D., & Dam, L. (2018). The development of parasocial interaction relationships on YouTube. *The Journal of Social Media in Society*, 7(1), 233-252.
- Lau, M. M., Ng, P. M. L., Chan, E. A. H., & Cheung, C. T. Y. (2023). Examining purchase intention for luxury fashion: integrating theory of reasoned action, with affect-behavior-cognition (ABC) model, identity and social identity theories. *Young Consumers*, 24(1), 114-131. <https://doi.org/10.1108/YC-07-2022-1557>
- Lee, W.-Y., Hur, Y., Kim, D. Y., & Brigham, C. (2017). The effect of endorsement and congruence on banner ads on sports websites. *International Journal of Sports Marketing and Sponsorship*, 18(3), 263-280. <https://doi.org/10.1108/IJSMS-08-2017-096>
- Li, L., Kang, K., Zhao, A., & Feng, Y. (2023). The impact of social presence and facilitation factors on online consumers' impulse buying in live shopping - celebrity endorsement as a moderating factor. *Information Technology & People*, 36(6), 2611-2631. <https://doi.org/10.1108/ITP-03-2021-0203>
- Li, Q., & Chan, K. (2024). Perceived effectiveness of celebrities and online influencers in advertising endorsement among Malaysian young adults. *Young Consumers, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/YC-05-2024-2076>
- Li, S., Xiong, M., Wang, Y., & Zhang, M. (2022). How does product-celebrity congruence and content sponsorship affect perceived altruism among consumers? Evidence from factorial experiments. *Resources, Conservation and Recycling*, 178, 106062. <https://doi.org/10.1016/j.resconrec.2021.106062>
- Liébana-Cabanillas, F., Alcántara-Pilar, J. M., Singh, N., & Pavluković, V. (2024). Overview of the Adoption of Online Food Ordering Services in Spain and India. An Analytical Approach Based on the Stimulus-Organism-Response Model. *International Journal of Human-Computer Interaction*, 40(14), 3748-3762. <https://doi.org/10.1080/10447318.2023.2201550>
- Lin, J., Li, T., & Guo, J. (2021). Factors influencing consumers' continuous purchase intention on fresh food e-commerce platforms: An organic foods-centric empirical investigation. *Electronic Commerce Research and Applications*, 50, 101103.
- Liu, B., Moyle, B., Kralj, A., & Li, Y. (2023). Celebrity endorsement in tourism: Attention, emotional arousal and familiarity. *Tourism management*, 98, 104750. <https://doi.org/10.1016/j.tourman.2023.104750>
- Liu, F., & Lee, Y.-H. (2024). Virtually authentic: examining the matchup hypothesis between human vs virtual influencers and product types. *Journal of Product & Brand Management*, 33(2), 287-299. <https://doi.org/10.1108/JPBM-03-2023-4418>
- Lu, C.-S., Lai, K.-h., & Cheng, T. C. E. (2007). Application of structural equation modeling to evaluate the intention of shippers to use Internet services in liner shipping. *European Journal of Operational Research*, 180(2), 845-867. <https://doi.org/10.1016/j.ejor.2006.05.001>
- Lueck, J. A. (2015). Friend-zone with benefits: The parasocial advertising of Kim Kardashian. *Journal of Marketing Communications*, 21(2), 91-109. <https://doi.org/10.1080/13527266.2012.726235>
- Lynch, J., & Schuler, D. (1994). The matchup effect of spokesperson and product congruency: A schema theory interpretation. *Psychology & Marketing*, 11(5), 417-445.
- Magnini, V. P., Honeycutt, E. D., & Cross, A. M. (2008). Understanding the use of celebrity endorsers for hospitality firms. *Journal of Vacation Marketing*, 14(1), 57-69. <https://doi.org/10.1177/1356766707084219>
- Mala Kalaiarasan, S., Vafaei-Zadeh, A., Hanifah, H., & Ramayah, T. (2024). Can we engage players with extended reality in gaming applications? A Stimulus-Organism-Response framework. *Entertainment Computing*, 50, 100651. <https://doi.org/10.1016/j.entcom.2024.100651>
- McCracken, G. (1989). Who Is the Celebrity Endorser? Cultural Foundations of the Endorsement Process. *Journal of consumer research*, 16(3), 310-321. <https://doi.org/10.1086/2088111>

- org/10.1086/209217
- Min, J. H. J., Chang, H. J. J., Jai, T.-M. C., & Ziegler, M. (2019). The effects of celebrity-brand congruence and publicity on consumer attitudes and buying behavior. *Fashion and Textiles*, 6(1), 10. <https://doi.org/10.1186/s40691-018-0159-8>
- Molinillo, S., Aguilar-Illescas, R., Anaya-Sánchez, R., & Liébana-Cabanillas, F. (2021). Social commerce website design, perceived value and loyalty behavior intentions: The moderating roles of gender, age and frequency of use. *Journal of Retailing and Consumer Services*, 63, 102404. <https://doi.org/10.1016/j.jretconser.2020.102404>
- Ohanian, R. (1990). Construction and Validation of a Scale to Measure Celebrity Endorsers' Perceived Expertise, Trustworthiness, and Attractiveness. *Journal of Advertising*, 19(3), 39-52. <https://doi.org/10.1080/00913367.1990.10673191>
- Ortiz-Ospina, E. (2019). *The rise of social media*. <https://ourworldindata.org/rise-of-social-media?ref=tms>
- Pan, J., Ishak, N. A., & Qin, Y. (2024). The application of Moore's online learning interactions model in learning outcomes: The SOR (stimulus-organism-response) paradigm perspective. *Heliyon*, 10(7), e28505. <https://doi.org/10.1016/j.heliyon.2024.e28505>
- Park, H. J., & Lin, L. M. (2020). The effects of matchups on the consumer attitudes toward internet celebrities and their live streaming contents in the context of product endorsement. *Journal of Retailing and Consumer Services*, 52, 101934. <https://doi.org/10.1016/j.jretconser.2019.101934>
- Paul, J., & Bhakar, S. (2018). Does Celebrity Image Congruence Influences Brand Attitude and Purchase Intention? *Journal of Promotion Management*, 24(2), 153-177. <https://doi.org/10.1080/10496491.2017.1360826>
- Petty, R. E., Wegener, D. T., & Fabrigar, L. R. (1997). Attitudes and attitude change. *Annual Review of Psychology*, 48(1), 609-647.
- Phelps, J. E., & Hoy, M. G. (1996). The Aad-Ab-PI relationship in children: The impact of brand familiarity and measurement timing. *Psychology & marketing*, 13(1), 77-105. [https://doi.org/10.1002/\(SICI\)1520-6793\(199601\)13:1<77::AID-MAR5>3.0.CO;2-M](https://doi.org/10.1002/(SICI)1520-6793(199601)13:1<77::AID-MAR5>3.0.CO;2-M)
- Pradhan, D., Duraipandian, I., & Sethi, D. (2016). Celebrity endorsement: How celebrity-brand-user personality congruence affects brand attitude and purchase intention. *Journal of Marketing Communications*, 22(5), 456-473. <https://doi.org/10.1080/13527266.2014.914561>
- Pradhan, D., Moharana, T. R., & Malik, G. (2023). Influence of celebrity, destination and tourist personality on destination attachment and revisit intention: Moderating roles of endorsement embeddedness, destination crowding and gender. *Journal of Destination Marketing & Management*, 27, 100754. <https://doi.org/10.1016/j.jdmm.2022.100754>
- Rai, J. S., Yousaf, A., Itani, M. N., & Singh, A. (2021). Sports celebrity personality and purchase intention: the role of endorser-brand congruence, brand credibility and brand image transfer. *Sport, Business and Management: An International Journal*, 11(3), 340-361.
- Rajaguru, R. (2014). Motion Picture-Induced Visual, Vocal and Celebrity Effects on Tourism Motivation: Stimulus Organism Response Model. *Asia Pacific Journal of Tourism Research*, 19(4), 375-388. <https://doi.org/10.1080/10941665.2013.764337>
- Rose, S., Clark, M., Samouel, P., & Hair, N. (2012). Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes. *Journal of retailing*, 88(2), 308-322. <https://doi.org/10.1016/j.jretai.2012.03.001>
- Rungruangjit, W. (2022). What drives Taobao live streaming commerce? The role of parasocial relationships, congruence and source credibility in Chinese consumers' purchase intentions. *Heliyon*, 8(6). <https://doi.org/10.1016/j.heliyon.2022.e09676>
- Saldanha, N., Mulye, R., & Rahman, K. (2020). A strategic view of celebrity endorsements through the attachment lens. *Journal of Strategic Marketing*, 28(5), 434-454. <https://doi.org/10.1080/0965254X.2018.1534877>
- Shannon, D. M., & Bradshaw, C. C. (2002). A comparison of response rate, response time, and costs of mail and electronic surveys. *Journal of Experimental Education*, 70(2), 179-192. <https://doi.org/10.1080/00220970209599505>
- Sherman, S. P. (1985). When you wish upon a star. *Fortune*, 112(4), 66.
- Singh, R. P., & Banerjee, N. (2018). Exploring the Influence of Celebrity Credibility on Brand Attitude, Advertisement Attitude and Purchase Intention. *Global Business Review*, 19(6), 1622-1639. <https://doi.org/10.1177/0972150918794974>
- Sinha, M., & Srivastava, M. (2024). Augmented Reality: New Future of Social Media Influencer Marketing. *Vision*, 09722629221147124. <https://doi.org/10.1177/09722629221147124>
- Sobel, M. E. (1982). Asymptotic Confidence Intervals for Indirect Effects in Structural Equation Models. *Sociological Methodology*, 13, 290-312. <https://doi.org/10.2307/270723>
- Spry, A., Pappu, R., & Bettina Cornwell, T. (2011). Celebrity endorsement, brand credibility and brand equity. *European Journal of Marketing*, 45(6), 882-909. <https://doi.org/10.1108/0309056111119958>
- Steiger, J. H. (1980). Tests for comparing elements of a correlation matrix. *Psychological bulletin*, 87(2), 245-251. <https://doi.org/10.1037/0033-2909.87.2.245>
- Su, H. J., Huang, Y.-A., Brodowsky, G., & Kim, H. J. (2011). The impact of product placement on TV-induced tourism: Korean TV dramas and Taiwanese viewers. *Tourism management*, 32(4), 805-814. <https://doi.org/10.1016/j.tourman.2010.06.020>
- Suhr, D. (2003). Reliability, exploratory & confirmatory factor analysis for the scale of athletic priorities. *Diambil pada tanggal*, 2, 274-28.
- Sultan, P., Wong, H. Y., & Azam, M. S. (2021). How perceived communication source and food value stimulate purchase intention of organic food: An examination of the stimulus-organism-response (SOR) model. *Journal of Cleaner Production*, 312, 127807. <https://doi.org/10.1016/j.jclepro.2021.127807>
- Sun, Y., Wang, R., Cao, D., & Lee, R. (2022). Who are social media influencers for luxury fashion consumption of the Chinese Gen Z? Categorisation and empirical examination. *Journal of Fashion Marketing and Management: An International Journal*, 26(4), 603-621. <https://doi.org/10.1108/JFMM-07-2020-0132>
- Sunarwita, A. A., Kadir, A. R., Maming, D., Kadir, N., Parawansa, D. A., & Mustafa, F. (2023). The effect of celebrity endorsement on repurchase intention with brand attitude,

- brand credibility, and brand image as intervening variables on product something. *Economics and Business Journal (ECBIS)*, 1(5), 773-784. <https://doi.org/10.47353/ecbis.v1i5.90>
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2018). *Using multivariate statistics* (7th ed.). Pearson Boston, MA.
- Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management(IJARM)*,5, 18-27.
- Till, B. D., & Busler, M. (1998). Matching products with endorsers: attractiveness versus expertise. *Journal of Consumer Marketing*, 15(6), 576-586. <https://doi.org/10.1108/07363769810241445>
- van der Veen, R., & Song, H. (2014). Impact of the Perceived Image of Celebrity Endorsers on Tourists' Intentions to Visit. *Journal of travel research*, 53(2), 211-224. <https://doi.org/10.1177/0047287513496473>
- Wang, S. W., Kao, G. H.-Y., & Ngamsiriudom, W. (2017). Consumers' attitude of endorser credibility, brand and intention with respect to celebrity endorsement of the airline sector. *Journal of Air Transport Management*, 60, 10-17. <https://doi.org/10.1016/j.jairtraman.2016.12.007>
- Wang, S. W., & Scheinbaum, A. C. (2018). Enhancing brand credibility via celebrity endorsement: Trustworthiness trumps attractiveness and expertise. *Journal of advertising research*, 58(1), 16-32. <https://doi.org/10.2501/JAR-2017-042>
- Wu, S. I., & Lo, C. L. (2009). The influence of core-brand attitude and consumer perception on purchase intention towards extended product. *Asia Pacific Journal of Marketing and Logistics*, 21(1), 174-194.
- Yang, W. (2018). Star power: the evolution of celebrity endorsement research. *International Journal of Contemporary Hospitality Management*, 30(1), 389-415. <https://doi.org/10.1108/IJCHM-09-2016-0543>
- Yang, W., Zhang, L., Wei, W., Yoo, M., & Rathjens, B. (2024). Do we love celebrity endorsers? The joint impacts of consumers' need for status,celebrity's star power and image congruence on celebrity endorsement effectiveness. *Journal of Hospitality and Tourism Insights*, 7(4), 2183-2198. <https://doi.org/10.1108/JHTI-05-2023-0313>
- Yu, S., & Hu, Y. (2020). When luxury brands meet China: The effect of localized celebrity endorsements in social media marketing. *Journal of Retailing and Consumer Services*, 54, 102010. <https://doi.org/10.1016/j.jretconser.2019.102010>
- Yuan, C. L., Moon, H., Kim, K. H., & Wang, S. (2021). The influence of parasocial relationship in fashion web on customer equity. *Journal of Business Research*, 130, 610-617. <https://doi.org/10.1016/j.jbusres.2019.08.039>
- Zakari, M., Dogbe, C. S. K., & Asante, C. (2019). Effect of celebrity endorsement on telecommunication companies' reputation. *Management Research Review*, 42(12), 1297-1314. <https://doi.org/10.1108/MRR-12-2018-0470>
- Zhang, H., Xu, H., & Gursoy, D. (2020). The effect of celebrity endorsement on destination brand love: A comparison of previous visitors and potential tourists. *Journal of Destination Marketing & Management*, 17, 100454. <https://doi.org/10.1016/j.jdmm.2020.100454>
- Zhang, J., Shao, Z., & Wang, K. (2025). Does your company have the right influencer? Influencer type and tourism brand personality. *Tourism management*, 107, 105079. <https://doi.org/10.1016/j.tourman.2024.105079>
- Zhou, M., Rajamohan, S., Hedrick, V., Rincón-Gallardo Patiño, S., Abidi, F., Polys, N., & Kraak, V. (2019). Mapping the Celebrity Endorsement of Branded Food and Beverage Products and Marketing Campaigns in the United States, 1990-2017. *International journal of environmental research and public health*, 16(19), 3743. <https://www.mdpi.com/1660-4601/16/19/3743>
- Zhou, Y., Li, Y.-Q., Ruan, W.-Q., Zhang, S.-N., & Yang, T.-T. (2024). Who should the spotlight be on? The interactive effects of celebrity endorser type and destination personality. *Tourism management*, 105, 104957. <https://doi.org/10.1016/j.tourman.2024.104957>
- Zhu, X., Teng, L., Foti, L., & Yuan, Y. (2019). Using self-congruence theory to explain the interaction effects of brand type and celebrity type on consumer attitude formation. *Journal of Business Research*, 103, 301-309. <https://doi.org/10.1016/j.jbusres.2019.01.055>

Appendix

Section 1-Factor Analysis and Reliability Test

Code	Descriptions	Factor Analysis				Reliability Test	
		FL	KMO	Eig	CUM%	ITC	α
Celebrity Brand Congruence (Japutra et al., 2019)							
CBC5	I think that this brand is totally suitable for the celebrity to represent.	0.794	0.669	1.847	61.569	0.514	0.688
CBC6	Celebrities appear frequently in this brand's advertising.	0.782				0.498	
CBC2	I think that the celebrity that represents this brand is trustworthy	0.778				0.494	
CBC1	This celebrity matches the product exactly	Deleted (FL<0.60)					
CBC3	The appearance of celebrity in advertisement influences your purchasing.						
CBC4	This celebrity is consistent with how the goods would like to be.						
Celebrity Expertise (Ohanian, 1990; Spry et al., 2011)							
CE4	I think a brand that is endorsed by an expert celebrity is more trustable.	0.832	0.664	1.907	63.556	0.578	0.712
CE5	I think the celebrity has much knowledge about this brand.	0.803				0.535	
CE3	I'll purchase a product if a well-known person recommends it.	0.754				0.479	
CE1	I think an advertisement with a celebrity endorser who has experience is more respectable.	Deleted (FL<0.60)					
CE2	I pay more attention to advertisement using expert celebrity.						
Celebrity Attractiveness (Ohanian, 1990; Spry et al., 2011)							
CA5	I think celebrity has a very elegant fashion toward advertisement.	0.825	0.677	1.930	64.331	0.576	0.723
CA1	The appearance of celebrity in social media advertisement is attractive.	0.792				0.527	
CA6	Celebrities are charming	0.789				0.524	
CA2	The appearance of celebrity in the product or service advertisement is classy.	Deleted (FL<0.60)					
CA3	The appearance of celebrity in advertisement influences your purchasing.						
CA4	I'm interested in advertisement that presented by celebrity.						
Celebrity Trustworthiness (Ohanian, 1990; Spry et al., 2011)							
CT4	I think that celebrity provides a reliable source of information	0.796	0.788	2.460	61.492	0.616	0.791
CT5	You believe in celebrity's brand choice.	0.783				0.598	
CT2	The celebrity endorser is a trustworthy person.	0.780				0.592	
CT3	I think a brand that is being endorsed by a trustworthy celebrity is more respectable and desirable	0.777				0.592	
CT1	I feel that advertisements with a trustworthy endorser push me to remember that advertisement and the product that is being endorsed.	Deleted (FL<0.60)					
Attitude toward the brand (Singh & Banerjee, 2018; Wang et al., 2017)							

ATB5	I keep using a brand only because of the endorsing Celebrity	0.813	0.830	3.040	60.801	0.685	0.838
ATB6	I feel positive about the advertisement.	0.797				0.661	
ATB3	My opinion of this brand,it's very favorable.	0.790				0.655	
ATB4	I have bought product under the influence of a celebrity.	0.761				0.618	
ATB1	I think this brand is very good.	0.737				0.585	
ATB2	I think this brand is useful.	Deleted (FL<0.60)					
Purchase Intention (Singh & Banerjee, 2018; Wang et al., 2017)							
PI3	I expect to purchase through celebrity advertisement in the near future.	0.818	0.749	2.508	62.711	0.648	0.801
PI4	Celebrity appearance in the advertisement has motivated me to purchase this product.	0.810				0.642	
PI2	I will definitely buy products from celebrity advertisement in the future.	0.771				0.584	
PI5	I will buy the product if celebrities I like start endorsing.	0.767				0.584	
PI1	I buy this product again.	Deleted (FL<0.60)					

Note:

FL= Factor Loading Score must be > 0.60

KMO= Kaiser-Meyer-Olkin must be > 0.50

Eig. = Eigenvalue must be > 1.0

CUM% = Cumulative percentage must be > 60%





ITC= Item-total Correlation must be > 0.50

Alpha = Cronbach Alpha coefficient must be > 0.6

Section 2-Experiemental Banner and Social Media Platform

Please scan the QR Code below to watch detail of celebrity endorsers.

Source:Author's collection

Coca-Cola	QR code [Facebook]	Celebrities
Coca-Cola brand ambassador with Baramey song company		
Sting Energy Drink	QR code [YouTube]	
Sting metaverse TVC 30s		

Section 3. The results of Pyramid: Age vs Gender

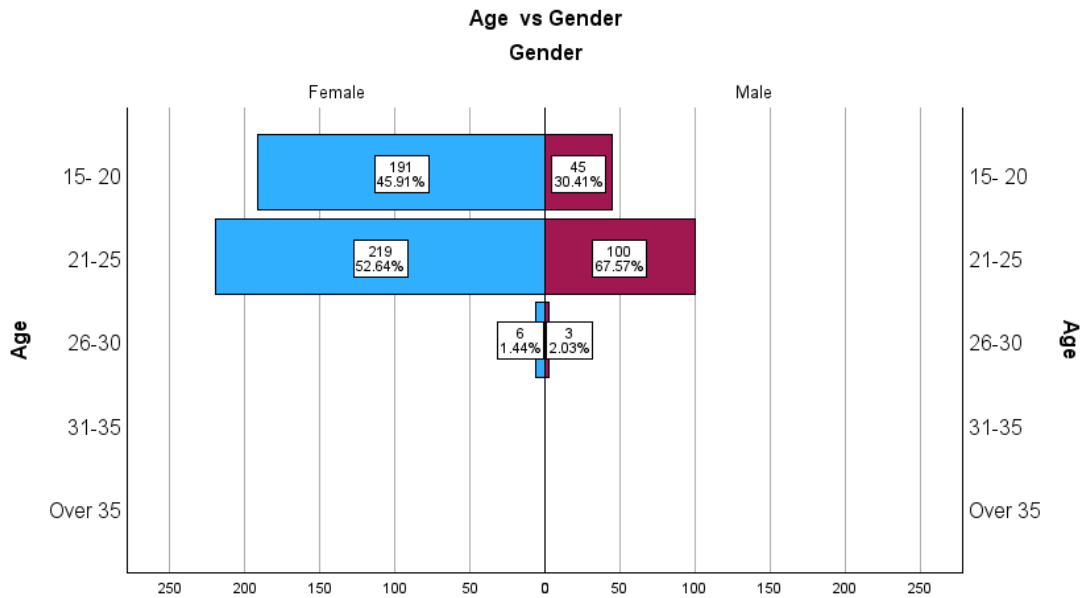


Figure 3.1: The results of demographic of respondents

Section 4. Logistic Regression

Classification Table ^{a,b}					
Observed		Predicted			
		Sponsors		Percentage Correct	
		Coca-Cola	Sting Energy Drink		
Step 0	Sponsors	Coca-Cola	408	0	100.0
		Sting Energy Drink	156	0	.0
	Overall Percentage				

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-.961	.094	104.309	1	<.001	.382

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	664.156 ^a	.002	.003

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	16.049	8	.042

Section 5. ASobel’s test for mediating effects

Table 3.2: The results of mediating effect–attitude toward the brand

Mediating effects	B^*	Sobel (1982) test						Results	Graphics
		a	S_{Ea}	b	S_{Eb}	z-test**	p		
CB → CATB → PI	0.433***	0.473	0.062	0.915	0.059	6.880	0.000	Confirmed	Figure 3-2
CE → ATB → PI	0.591***	0.652	0.074	0.906	0.058	7.674	0.000	Confirmed	Figure 3-3
CAT → ATB → PI	0.706***	0.772	0.079	0.915	0.058	8.307	0.000	Confirmed	Figure 3-4
CTR → ATB → PI	0.652***	0.701	0.073	0.930	0.061	8.125	0.000	Confirmed	Figure 3-5

Noted: *Standardized Coefficient for mediating effect = a x b; ** z-test

CBC= Celebrity brand congruence; ATB= Attitude toward the brand; CE= Celebrity expertise; CAT= Celebrity attractiveness; CTR= Celebrity trustworthiness; PI = Purchasing Intention.

- a is the path coefficient of the relationship between the independent and the mediator variables.
- b is the path coefficient of the relationship between the mediator and the dependent variables.
- SE_a is the standard error (S_E) of the relationship between the independent and the mediator variables.
- SE_b is the standard error (S_E) of the relationship between the mediator and the dependent variables.

The significance level for Sobel’s test is z-test > 1.96 and p < 0.05. An online calculation tool for Sobel’s test can be found on the following webpage: <https://www.analyticscalculators.com/calculator.aspx?id=31>

Analytics Calculators
better insights and decisions, one calculation at a time!

Home Formulas References Related Calculators

Significance of Mediation (Sobel Test) Calculator

Significance of Mediation (Sobel Test) Calculator

Compute the one-tailed and two-tailed probabilities that the indirect effect of an independent variable on a dependent variable through a mediator variable is significant by using the Sobel test. Many analytics studies rely on mediation models, and identifying whether a mediator variable significantly carries the influence of an independent variable to a dependent variable is critical when assessing the value of such models.

Please provide the necessary values, and then click 'Calculate'.

```

    graph LR
      IV[independent variable] -- "A (SEa)" --> MV[mediator variable]
      MV -- "B (SEb)" --> DV[dependent variable]
  
```

A: 0.701
 B: 0.930
 SE_A: 0.073
 SE_B: 0.061

Calculate!

Sobel test statistic: 8.12532017
 One-tailed probability: 0.0
 Two-tailed probability: 0.0

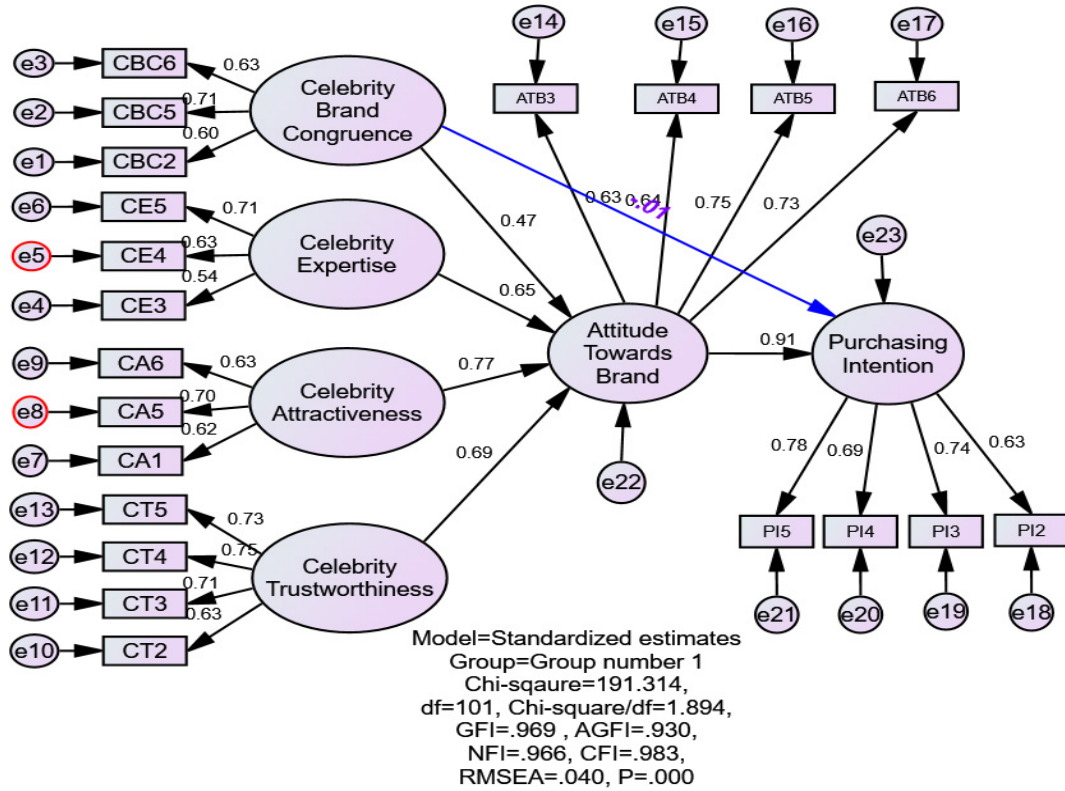


Figure 3-2: Mediating effect of CBC → ATB → PI

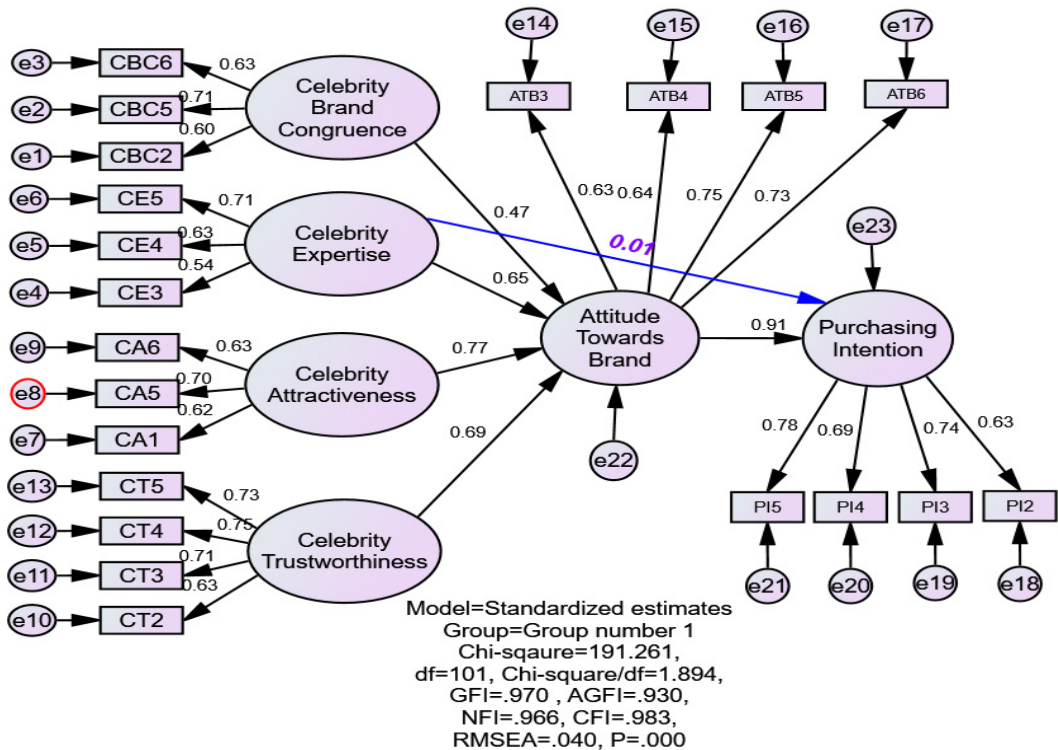


Figure 3-3: Mediating effect of CE → ATB → PI

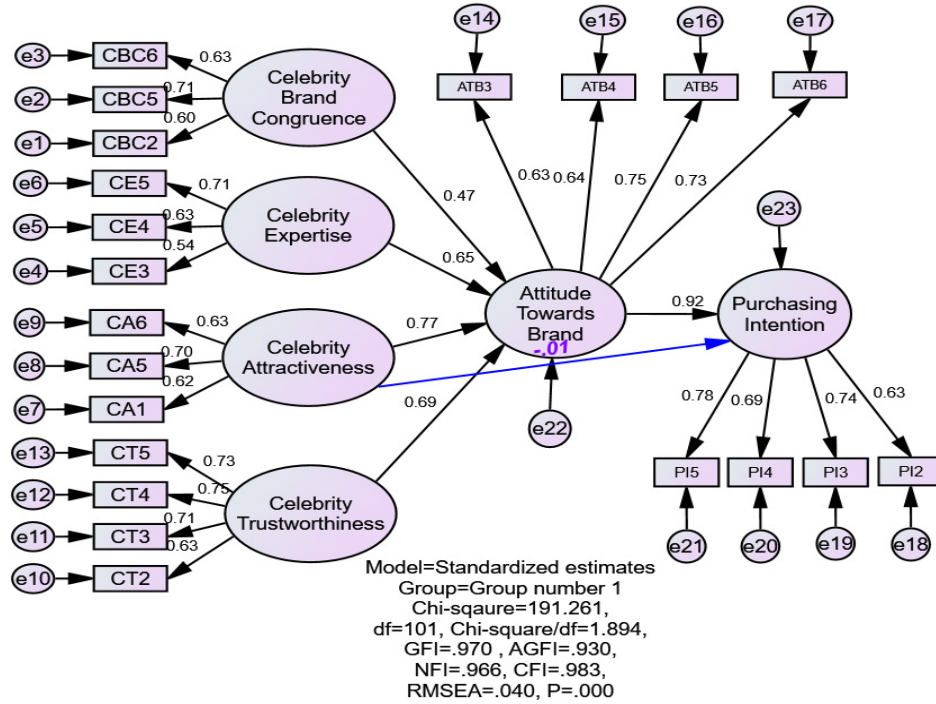


Figure 3-4: Mediating effect of CAT → ATB → PI

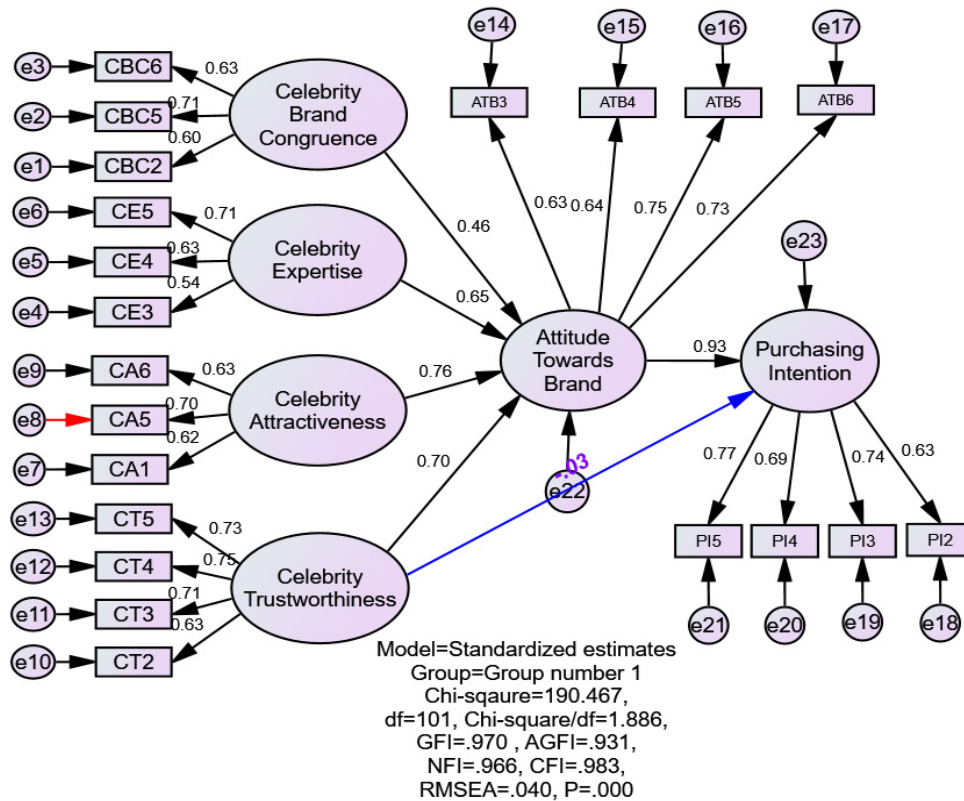


Figure 3-5: Mediating effect of CTR → ATB → PI