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CELEBRITY ENDORSEMENT, PERCEIVED AI INTELLIGENCE, AND DIGITAL FIRM INTIMACY: A MIXED-METHODS STUDY ON SOCIAL MEDIA PURCHASE DECISIONS

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Abstract
Purpose – This study aims to analyze the direct and indirect effects of celebrity endorsement on consumer purchasing decisions in the context of live streaming on social media, with the mediating role of digital firm intimacy and perceived AI intelligence. Design/methodology/approach – This study uses a mixed-method approach. The quantitative study involved 412 active users of TikTok and Instagram Live who had interacted with celebrity content and AI-based features. Analysis was conducted using PLS-SEM to test the relationships between constructs and mediation effects. Meanwhile, qualitative research was conducted through semi-structured interviews with 10 informants, consisting of representatives from technology institutions and millennial and Gen Z consumers, analyzed using thematic content analysis. Findings – The results indicate that celebrity endorsement has a significant direct effect on purchasing decisions, as well as on both mediating constructs. However, only digital firm intimacy was found to significantly mediate these relationships. Qualitative findings support that emotional engagement during live streaming is

Resumo
Objetivo – Este estudo visa analisar os efeitos diretos e indiretos do endosso de celebridades nas decisões de compra do consumidor no contexto de transmissão ao vivo em mídias sociais, com o papel mediador da intimidade digital com empresas e da inteligência percebida da IA. Design/metodologia/abordagem – Este estudo utiliza uma abordagem de método misto. O estudo quantitativo envolveu 412 usuários ativos do TikTok e do Instagram Live que interagiram com conteúdo de celebridades e recursos baseados em IA. A análise foi conduzida usando PLS-SEM para testar as relações entre os construtos e os efeitos de mediação. Enquanto isso, a pesquisa qualitativa foi conduzida por meio de entrevistas semiestruturadas com 10 informantes, compostos por representantes de instituições de tecnologia e consumidores da geração Y e da geração Z, analisados por meio de análise de conteúdo temática. Resultados – Os resultados indicam que o endosso de celebridades tem um efeito direto significativo nas decisões de compra, bem como em ambos os construtos mediadores. No entanto, apenas a intimidade digital com empresas foi

more decisive for purchasing decisions than perceptions of technological sophistication. Originality/value – This study contributes theoretically by integrating emotional and technological approaches into a single digital marketing framework. The concept of digital firm intimacy is introduced as a bridge between celebrities, technology, and purchasing decisions. Additionally, this study provides empirical insights into the limitations of consumer perceptions of AI and emphasizes the importance of building authentic interactive experiences in digital marketing strategies.

Keywords: Celebrity Endorsement. Digital Firm Intimacy. Perceived AI Intelligence. Purchase Decision. Live Streaming. Digital Marketing.

considerada mediadora significativa dessas relações. Os resultados qualitativos sustentam que o engajamento emocional durante a transmissão ao vivo é mais decisivo para as decisões de compra do que as percepções de sofisticação tecnológica. Originalidade/valor – Este estudo contribui teoricamente ao integrar abordagens emocionais e tecnológicas em uma única estrutura de marketing digital. O conceito de intimidade digital com empresas é apresentado como uma ponte entre celebridades, tecnologia e decisões de compra. Além disso, este estudo fornece insights empíricos sobre as limitações das percepções do consumidor sobre a IA e enfatiza a importância de construir experiências interativas autênticas em estratégias de marketing digital.

Palavras-chave: *Endosso de Celebridades. Intimidade Digital com Empresas. Inteligência Percebida de IA. Decisão de Compra. Transmissão ao Vivo. Marketing Digital.*

1 INTRODUCTION

The rapid development of digital technology has changed the way consumers interact with brands. One of the most dominant platforms today is Instagram and TikTok, especially through the Live Streaming feature (Saffanah *et al*., 2023). In 2023, TikTok recorded more than 2 billion hours of live broadcasts watched every month globally, indicating that consumers now prefer real-time and visual interactions over conventional advertising (Saffanah *et al*., 2023). However, the effectiveness of this strategy in influencing purchasing decisions is not yet optimal. Many companies face challenges in creating meaningful emotional connections with consumers through digital interactions alone (Calvo-Porral and Lévy-Mangin, 2024). In response to these challenges, celebrity endorsement strategies are still considered one of the most effective methods for attracting consumer attention (Strazzullo *et al*., 2025). Previous research shows that celebrity appeal can increase purchase intent and brand image (Corvello *et al*., 2024). However, in the digital context, the authenticity and credibility of celebrities are often questioned, especially when consumers realize that endorsements are transactional rather than organic (Mohan, 2025). In live sessions, celebrities often only serve as promotional messengers, without really forming a lasting emotional connection with the audience.

In response to these limitations, many companies have begun to integrate Artificial Intelligence (AI) technology into their communication strategies (Cimino *et al*.,

2024). The use of AI in the form of chatbots, automated product recommendations, and virtual avatars is becoming part of brand communication on social media (Dong *et al*., 2024). Consumers no longer interact solely with humans but also with digital representations of brands (Von Felbert and Breuer, 2022). However, understanding how consumers perceive the intelligence and presence of AI remains inadequate in the literature (ElSayad and Mamdouh, 2024). This highlights a gap in researching the affective aspects of AI acceptance, particularly in the context of digital marketing interactions.

In response to this gap, this study introduces a new variable, Digital Firm Intimacy, which is a form of perceptual closeness that consumers feel toward a brand through digital interactions (Bügel *et al*., 2011). This closeness is formed not only by the intensity of communication but also by consumers' perceptions of the brand's responsiveness, relevance, and digital presence (Amegbe *et al*., 2019). This concept differs from brand loyalty or trust because it emphasizes the emotional and cognitive dimensions experienced digitally, rather than the result of purchasing experiences alone (Kai-Uwe Brock and Yu Zhou, 2012).

The theoretical framework of this study draws on Parasocial Interaction Theory (Horton and Richard Wohl, 1956), which explains how individuals form one-way relationships with media figures. This theory has evolved to explain digital interactions where consumers feel close to entities they do not personally know (Horton and Richard Wohl, 1956). In this context, celebrities and AI brand representatives create an illusion of closeness that mimics real-life social relationships (Maxwell et al., 2022). Therefore, this theory is highly relevant for examining how digital interactions shape perceptions and purchasing decisions.

This study also offers a conceptual approach that combines celebrity endorsement, perceived AI intelligence, and digital firm intimacy as predictors of purchasing decisions. Although many studies have examined the effects of endorsement, very few have linked it to perceptions of AI, especially in real-time interaction contexts such as TikTok Live and Instagram Live. This combination of variables has not been extensively studied simultaneously in a comprehensive model (Mikalef *et al*., 2023), thus contributing to the development of digital marketing theory. Methodologically, this study uses a mixed method approach that allows for a holistic understanding of the phenomenon under study (Creswell and Creswell, 2018). Quantitative analysis is conducted to test the relationships

between variables (Hair *et al*., 2014), while a qualitative approach is used to explore consumers' in-depth perceptions of their interactions with celebrities and AI in live sessions. With this approach, the study not only tests statistical models but also explains why and how consumers form purchasing decisions in the context of AI-based digital interactions.

2 THEORETICAL FRAMEWORK

Based on this background, this study aims to test whether celebrity endorsement has a positive effect on purchasing decisions, celebrity endorsement has a positive effect on digital firm intimacy, digital firm intimacy has a positive effect on purchasing decisions, celebrity endorsement has a positive effect on perceived AI intelligence, perceived AI intelligence has a positive effect on decisions, digital firm intimacy mediates celebrity endorsement on purchasing decisions, and perceived AI intelligence mediates celebrity endorsement on purchasing decisions. The results of this study are expected to contribute theoretically to expanding the scope of Parasocial Interaction Theory into the modern digital realm and open pathways for further research related to AI-mediated marketing (Horton and Richard Wohl, 1956).

Theoretical Basis In the modern digital marketing landscape, the phenomenon of celebrity endorsement continues to undergo transformation, particularly following the shift of brand promotion to platforms such as Instagram and TikTok. In this context, endorsement is no longer limited to the representation of celebrities in passive advertisements, but has become a form of interactive communication that invites audiences to engage directly in conversations and decision-making. (Jin *et al*., 2019) emphasize that in the social media environment, celebrity endorsements create stronger emotional effects through direct visualization, social similarity, and perceptions of interpersonal connectedness between celebrities and consumers.

This strengthens parasocial relationships that indirectly shape preferences and purchasing decisions (Horton and Richard Wohl, 1956). In the context of such digital interactions, the role of artificial intelligence (AI) technology has become increasingly dominant. Brands are not only leveraging human celebrities but also beginning to use virtual influencers or AI systems that mimic social behavior (Yang et al., 2025). The presence of AI systems in interactive channels like TikTok Live introduces a new

approach to shaping customer experiences. (Tabrani et al., 2018) found that perceived AI intelligence—the extent to which consumers view AI systems as intelligent and relevant entities—significantly influences emotional engagement and trust in digital relationships between brands and consumers.

In a context where consumers interact with brands through increasingly personalized and real-time digital mediums, new concepts are needed to understand the emotional mechanisms at play in these relationships (Mahajan *et al.*, 2022). This is where the relevance of the Digital Firm Intimacy variable comes into play, which refers to the feelings of familiarity, attachment, and emotional connection that consumers feel toward a company based on its consistent, relevant, and responsive digital presence (Dong *et al*., 2024). (Tabrani *et al*., 2018) state that digital intimacy can form when technology—both human and non-human—provides stable and contextual emotional engagement within the consumer's social ecosystem.

Digital firm intimacy is not synonymous with brand loyalty or cognitive engagement but is closer to the affective dimension similar to interpersonal relationships (Tabrani *et al*., 2018). A brand's presence on social media that is always available, capable of responding personally, and appears “human” forms the basis for this closeness (Tabrani *et al*., 2018). This aligns with the study by (Gao and Xing, 2023), which found that perceptions of digital social presence have strong implications for brand attachment and consumer decisions.In integrating celebrities and AI into the digital relational context, Parasocial Interaction Theory (Horton and Richard Wohl, 1956) provides an important framework for understanding the process of forming intense one-way relationships between audiences and digital entities. This theory has undergone significant expansion to explain relationships with virtual agents and AI-brand representatives.

(Li *et al*., 2018) demonstrate that on live-streaming platforms, parasocial relationships can form not only with human figures but also with digital entities perceived as “real” through contextual and responsive interactions. From a consumer behavior perspective, purchasing decisions in the digital age are no longer a linear process, but rather an accumulation of emotional exposure, digital interactions, and perceptions of brand presence and intelligence (Qian Liu et al., 2024). (Mariani *et al.*, 2022) state that in the context of intensive digital interactions, purchasing decisions are influenced by the quality of emotional experiences shaped through personalized systems, including AI-based interactions and celebrities. Therefore, the connection between endorsement, AI

perception, and digital intimacy is important to explain in a structured way within a solid theoretical framework (Wang, 2025). Direct interaction between celebrities and audiences in live streaming often creates intense and real emotional experiences (Strazzullo *et al*., 2025).

In this context, celebrity endorsement not only acts as a visual persuasion tool but also as a source of trust and social credibility. A study by (Freire *et al*., 2018) shows that celebrities perceived as authentic have a positive influence on purchasing decisions because they are able to instantly form consumer affection through live interaction. Therefore, we propose the following hypothesis:

H1. Celebrity endorsement has a positive influence on purchasing decisions.

In addition to its direct influence on purchasing decisions, celebrities also play an important role in shaping consumers' perceptions of a brand's emotional and human presence (Alamsyah and Febriani, 2020). In TikTok Live sessions, for example, consumers can feel that the brand is "present" through celebrity communication, creating digital intimacy known as digital firm intimacy. (Jun *et al*., 2023) state that parasocial interactions developed through celebrities on social media can create perceptions of closeness and emotional connections with brands, especially when consumers feel that the celebrity genuinely believes in the endorsed product. Therefore, we predict:

H2. Celebrity endorsement has a positive effect on digital firm intimacy.

Furthermore, digital firm intimacy is believed to have a direct influence on purchasing decisions (Amegbe *et al*., 2019). Consumers who feel emotionally close to a brand are more likely to experience emotional resonance, which drives them to act conatively, including making purchases. (Godey *et al*., 2016) found that emotional dimensions of brand experience, such as digital intimacy and social presence, significantly contribute to purchase intention. Therefore:

H3. Digital firm intimacy positively influences purchasing decisions.

In addition to impacting emotional aspects, celebrity endorsement is also assumed to shape consumers' perceptions of a brand's technological sophistication and relevance, particularly in the context of AI (Yang *et al*., 2025). In platforms that use AI systems to personalize live experiences (e.g., automatic recommendations, live chatbots, and visual AI), celebrities can be considered part of the technological orchestration designed to delight users. (Mikalef *et al*., 2023) showed that AI designed to be communicative and

interactive enhances perceptions of its intelligence, especially when consumers recognize that the system supports celebrities in conveying personalized messages. Thus:

H4. Celebrity endorsement has a positive effect on perceived AI intelligence.

Perceived AI intelligence also has a direct influence on purchasing decisions because it plays a role in shaping perceptions of the efficiency and intelligence of the brand system in understanding user needs (ElSayad and Mamdouh, 2024). In research by (Mohan, 2025), it was found that consumers who perceive AI brands as entities that are "socially and cognitively intelligent" are more open to recommendations, even in purchasing decisions. Therefore, we propose:

H5. Perceived AI intelligence has a positive effect on purchasing decisions.

Furthermore, because celebrity endorsement plays a role in shaping digital intimacy and because digital intimacy itself influences purchasing decisions, there is a possibility of mediation (Bügel *et al*., 2011). Consumers who are emotionally connected to a brand through celebrities feel more comfortable and motivated to make purchases. Research by (Yang *et al*., 2025) shows that emotional closeness mediated by digital social presence functions as a significant mediator in the context of consumer behavior on social media. Therefore:

H6. Digital firm intimacy mediates the influence of celebrity endorsement on purchasing decisions.

Finally, since celebrity endorsement also impacts perceptions of AI, and AI perceived as intelligent can drive purchases, it can be assumed that there is a second mediation pathway (Sestino et al., 2025). Consumers who perceive that AI supporting celebrity communication operates intelligently are more likely to trust the overall digital experience, including the urge to purchase. A study by (Cimino et al., 2024) supports this, showing that perceived AI intelligence is a key psychological variable in the success of live-stream-based digital marketing strategies. Therefore, we propose:

H7. Perceived AI intelligence mediates the influence of celebrity endorsement on purchasing decisions.

3 RESEARCH METHOD

This study uses a mixed methods approach with an explanatory sequential design in which data collection and analysis are carried out sequentially: starting with

quantitative methods to test the relationship between variables (Hair et al., 2014), followed by qualitative methods to explore the findings in greater depth (Creswell and Creswell, 2018). This approach was chosen because the characteristics of the variables studied—such as digital firm intimacy and perceived AI intelligence—require not only statistical evidence but also a deeper contextual understanding of user experiences.

4 QUANTITATIVE DESIGN

In the first stage, a quantitative approach was used to test seven research hypotheses developed based on parasocial interaction theory and previous literature (Hair et al., 2014). The population in this study consists of active TikTok and Instagram Live users in Indonesia who have participated in live shopping or live endorsement sessions in the last three months. According to (Saffanah et al., 2023), the number of active TikTok and Instagram users in Indonesia who fall into the digital consumer category exceeds 100 million, with the largest demographic distribution coming from the millennial and Z generations.

The sampling technique used was purposive sampling (Hair et al., 2014), with the following inclusion criteria: (1) aged 18–35 years, (2) having an active TikTok and/or Instagram account, (3) having participated in a live streaming product promotion by a celebrity/influencer, and (4) having made or considered a purchase after watching the live stream. The questionnaire was distributed online through social media, digital community discussion forums, and campus platforms. A total of 412 valid responses were collected, deemed sufficient for analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM), in accordance with the minimum standard of >10 × the number of indicators in the most densely populated structural path.

The questionnaire was developed based on validated indicators from previous research. For the celebrity endorsement variable, indicators from (Uribe *et al*., 2022):

The celebrities used are physically attractive.

The celebrities in the live broadcast appear elegant and charming.

The celebrities are competent in recommending products.

I believe in the celebrities' ability to understand the products.

I feel that these celebrities are honest and trustworthy.

I trust the product recommendations made by these celebrities.

For perceived AI intelligence, indicators were developed from (Cimino *et al*., 2024):

The AI system provides quick responses when I interact with it.

The AI provides product recommendations that are tailored to my needs.

The AI appears sophisticated and easy to use.

I feel that the system understands my preferences.

The AI is able to tailor product offerings to my habits.

I believe that the AI provides relevant recommendations.

Meanwhile, digital firm intimacy was adapted from (Gao and Xing, 2023) and (Qianhua Liu *et al*., 2024):

I feel close to the brand because the interaction feels personal.

This brand is consistently present in my digital life.

I feel valued by the brand when I follow live streams.

The brand's communication feels natural and enjoyable.

I feel an emotional connection with this brand.

This brand feels like a friend in my digital interactions.

Purchase decisions was adapted from (Gao and Xing, 2023):

I intend to purchase the products featured during the live stream.

I felt compelled to purchase after watching the celebrity live stream.

I purchased the product because I trust the endorsement.

I have purchased products from this brand after a live stream.

I would recommend the product to others.

I plan to purchase this product again in the future.

All items were measured using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) (Hair *et al*., 2014).

5 QUALITATIVE DESIGN

After the quantitative data were analyzed and the results evaluated, the next stage was to collect qualitative data to further explain the relationships and psychological mechanisms found (Creswell and Creswell, 2018). This method aimed to strengthen the validity of the quantitative findings and explore factors that could not be measured numerically. Qualitative data collection was conducted through semi-structured

interviews designed to explore perceptions, experiences, and in-depth understanding of digital interactions between celebrities, AI, and consumers. The approach used was Thematic Content Analysis (TCA) with the assistance of NVivo 12 Plus software. TCA was chosen because it is suitable for exploring thematic patterns emerging from semi-structured interview transcripts and allows for an open coding process up to axial coding in a systematic manner. This analysis enables researchers to identify main themes, subthemes, and interconnections between concepts emerging from informants' narratives (Creswell *et al*., 2018).

Informants were selected using purposive sampling with a maximum variation sampling approach to ensure diversity of perspectives. There were a total of 10 informants, consisting of two main groups: (1) 5 people from government agencies related to digital technology and AI policy and development in Indonesia, namely from the Ministry of Communication and Information Technology, the National Research and Innovation Agency, and representatives from the Ministry of Trade's digitalization of MSMEs and e-commerce division; and (2) 5 consumers from the millennial and Gen Z generations, who are active users of TikTok and Instagram and have been involved in purchasing products after live sessions by digital celebrities.

The number of informants is considered adequate based on the principles of informational adequacy and thematic saturation, as suggested by (Creswell *et al*., 2018), where in-depth understanding can be achieved within a range of 6–12 interviews with homogeneous subjects and a clear exploratory focus. The interviews were conducted online via the Zoom platform, recorded with the informants' permission, and analyzed using a thematic content analysis approach.

Triangulation was performed by comparing qualitative findings and quantitative statistical results to identify convergence, divergence, or elaboration that could enrich theoretical interpretation. This approach is expected to reveal more deeply how perceptions of AI and digital proximity are formed psychologically, as well as why celebrity endorsements succeed or fail in driving purchasing decisions in the context of interactive social media.

6 RESULTS AND DISCUSSION

6.1 Results description of respondents

To provide context for the demographic background and behavior of respondents, this study first presents the general characteristics of the 412 individuals who participated in the quantitative stage. Respondents were purposively selected based on their active involvement in using the TikTok and/or Instagram Live platforms, particularly in the context of interacting with content involving celebrities and artificial intelligence (AI). The characteristics presented include gender, age, occupation, preferred type of live content, and duration of AI usage. This profile serves as a crucial foundation for understanding consumer behavior patterns, as well as their adoption levels and interaction within a technology-driven digital ecosystem that incorporates endorsements.

Tabel 1

Characteristics Respondens

Number	Characteristics	Information	Quantity	Percentage
1	Gender	Man	266	64.56%
		Women	146	35.44%
		AMOUNT	**412**	**100%**
2	Age	17–24 years old	198	48.06%
		25–34 years old	151	36.65%
		35 years old and above	63	15.29%
		AMOUNT	**412**	**100%**
3	Occupation	Student	189	45.87%
		Employee	141	34.22%
		Entrepreneur	56	13.59%
		Others	26	6.31%
		AMOUNT	**412**	**100%**
4	Preferred Live Content for Purchase	Product review	155	37.62%
		Discount or flash sale	172	41.75%
		Live Q&A with influencers	51	12.38%
		Behind-the-scenes/product usage	34	8.25%
		AMOUNT	**412**	**100%**
5	Duration of AI Use	Less than 1 year	79	19.17%
		1–2 years	241	58.50%
		More than 2 years	92	22.33%
		AMOUNT	**412**	**100%**

Source: At work 2025.

Descriptive results indicate that the majority of respondents in this study were male (64.56%), with a female proportion of 35.44%. This suggests that male involvement in live streaming-based digital activities, particularly those related to celebrity promotion and AI content, tends to be higher in this population. In terms of age, respondents were dominated by the 17–24 age group (48.06%) and the 25–34 age group (36.65%), indicating that Generation Z and early millennials are the primary users of platforms such as TikTok and Instagram Live. This age group is also known to be more open to digital experiences, celebrity endorsements, and the adoption of technologies such as AI. This reinforces the relevance of the research focus on social media and live streaming-based purchasing experiences. From an occupational perspective, the majority of respondents were students (45.87%) and employees (34.22%), indicating that respondents are in their productive years with high exposure to digital content. Regarding the most preferred live content, "discounts or flash sales" were the dominant choice (41.75%), followed by "product reviews" (37.62%), indicating that purchasing decisions are influenced by price incentives and informative product narratives. Meanwhile, in terms of AI technology usage duration, most respondents (58.50%) have been using AI for 1–2 years, indicating that despite its relative novelty, most respondents have already formed perceptions of AI within the digital commerce context. This data provides a foundation that the studied population has a high affinity with the digital ecosystem, making them representative in assessing the relationship between celebrities, AI, and purchasing decisions.

6.2 Indicator validity test

According to (Hair *et al*., 2022), in the SEM-PLS approach, the validity of indicators for latent constructs is determined through outer loading or factor loading values, where the minimum recommended value is 0.70. A loading value ≥ 0.70 indicates that the indicator has a strong correlation with the construct it measures and is able to explain more than 50% of the variance of that construct. In other words, indicators with loadings above 0.70 are considered convergent valid because they reflect high interrelationship and consistency in measuring the intended concept, and can therefore be retained in the measurement model.

Tabel 2

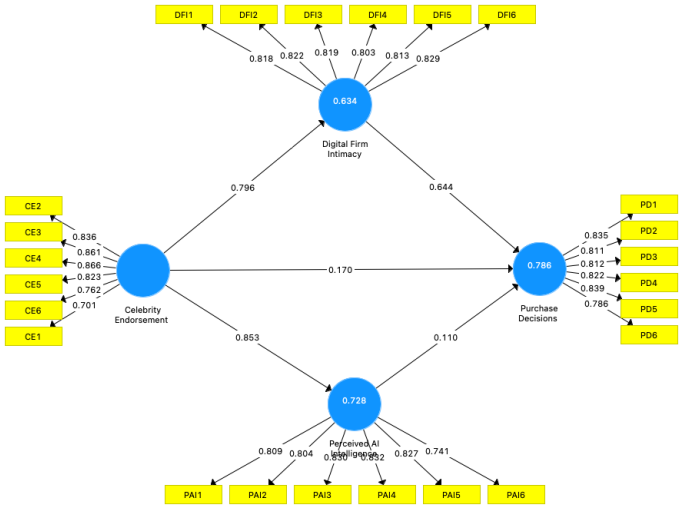
Loading Factor

Indicator	Celebrity Endorsement	Digital Firm Intimacy	Perceived AI Intelligence	Purchase Decisions
CE1	0,701			
CE2	0,836			
CE3	0,861			
CE4	0,866			
CE5	0,823			
CE6	0,762			
DFI1		0,818		
DFI2		0,822		
DFI3		0,819		
DFI4		0,803		
DFI5		0,813		
DFI6		0,829		
PAI1			0,809	
PAI2			0,804	
PAI3			0,830	
PAI4			0,832	
PAI5			0,827	
PAI6			0,741	
PD1				0,835
PD2				0,811
PD3				0,812
PD4				0,822
PD5				0,839
PD6				0,786

Source: At work 2025.

Figure 1

Loading Factor



Source: At work 2025.

In this study, all indicators showed adequate loading values and were above the minimum threshold, indicating that convergent validity had been achieved at the indicator

level. For the Celebrity Endorsement construct, six indicators (CE1–CE6) had loading values between 0.701 and 0.866. Indicator CE4 shows the highest contribution to the construct (0.866), followed by CE3 (0.861), CE2 (0.836), and CE5 (0.823). Meanwhile, CE6 (0.762) and CE1 (0.701) remain within acceptable limits, confirming that all indicators consistently measure perceptions of celebrities in terms of attractiveness, expertise, and credibility.The Digital Firm Intimacy construct was measured using six indicators (DFI1–DFI6), all of which had high loading values, ranging from 0.803 to 0.829. The DFI6 indicator had the highest contribution (0.829), followed by DFI2 (0.822) and DFI3 (0.819). The consistency of these values indicates that the dimensions of digital intimacy—which include emotional closeness, responsiveness, and digital presence of the brand—are well represented by all the indicators used. In the Perceived AI Intelligence construct, six indicators (PAI1–PAI6) also show high and valid loadings, ranging from 0.741 to 0.832. PAI4 (0.832) and PAI3 (0.830) recorded the highest values, reinforcing that perceptions of AI intelligence—from the perspectives of personalization, relevance of suggestions, and system responsiveness—are consistently measured by these indicators.The Purchase Decisions construct also showed a high level of consistency among its six indicators (PD1–PD6), with loading values ranging from 0.786 to 0.839. Indicator PD5 recorded the highest value (0.839), followed by PD1 (0.835) and PD4 (0.822), indicating that purchase intent and actual purchase actions are strongly represented by the indicators used.Overall, these results indicate that the measurement model in this study has met the criteria for convergent validity for each construct, which is an important foundation before testing the structural model.

6.3 Discriminant validity test

According to (Hair *et al*., 2022), discriminant validity shows the extent to which a construct is truly different from other constructs in the model. Discriminant validity is important to ensure that each construct in the model is truly unique and captures the specific phenomenon in question (Fornell and Larcker, 1981). This test can be conducted using three main approaches, namely: (1) Fornell-Larcker criterion, where the square root of the AVE of a construct must be greater than the correlation between constructs; (2) Cross-loadings, where items must have the highest loading on the intended construct

compared to other constructs; and (3) Heterotrait-Monotrait Ratio (HTMT), which is a modern approach with a threshold of < 0.90 to indicate good discriminant validity.

Table 3

Discriminant Validity

Variable	Celebrity Endorsement	Digital Firm Intimacy	Perceived AI Intelligence	Purchase Decisions
Celebrity Endorsement	0,810			
Digital Firm Intimacy	0,796	0,817		
Perceived AI Intelligence	0,853	0,872	0,808	
Purchase Decisions	0,777	0,875	0,816	0,818

Source: At work 2025.

The results of the discriminant validity test using the Fornell-Larcker criterion indicate that all constructs meet the discriminant validity requirements (Fornell and Larcker, 1981). This is indicated by the AVE (Average Variance Extracted) square root value on the diagonal being higher than the correlations between other constructs in the same column and row. For example, the AVE root value for the Celebrity Endorsement construct is 0.810, higher than its correlation with Digital Firm Intimacy (0.796), Perceived AI Intelligence (0.853), and Purchase Decisions (0.777). The same applies to the other three constructs, so it can be concluded that each construct has conceptual uniqueness and does not overlap empirically.

6.4 Construct reliability and validity test

(Hair *et al*., 2022) explain that construct reliability and validity tests are conducted to assess internal consistency and the ability of constructs to explain the variables being measured. The two main indicators used are: Composite Reliability (CR) to measure internal consistency, with a recommended value > 0.70; and Average Variance Extracted (AVE) to measure convergent validity, with a minimum threshold of 0.50. A high CR value indicates that the indicators within a construct consistently measure the same concept, while AVE indicates the proportion of variance in the indicators that can be explained by the construct.

Table 4

Construct Reliability And Validity

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Celebrity Endorsement	0,894	0,897	0,919	0,656
Digital Firm Intimacy	0,901	0,901	0,923	0,668
Perceived AI Intelligence	0,893	0,895	0,918	0,653
Purchase Decisions	0,901	0,902	0,924	0,668

Source: At work 2025.

All constructs in this model show excellent internal reliability. The Cronbach's Alpha values for the four constructs range from 0.893 to 0.901, indicating that the indicators used to measure the constructs are consistent. Similarly, the Composite Reliability (CR) values for all constructs are above the recommended minimum value of 0.70, ranging from 0.918 to 0.924. The Average Variance Extracted (AVE) values for each construct also meet the minimum threshold of 0.50, ranging from 0.653 to 0.668. This indicates that more than 65% of the variance captured by the indicators can be explained by the respective latent constructs. Overall, these results confirm that the measurement model has high validity and reliability.

6.5 F-Square test

The f-square test is used to evaluate the effect size of exogenous constructs on endogenous constructs in a structural model. (Hair *et al*., 2022) state that f^2 indicates the change in R^2 when an independent construct is removed from the model. The f^2 value is interpreted as follows: 0.02 indicates a small effect, 0.15 indicates a moderate effect, and 0.35 indicates a large effect. This test is important for understanding the relative contribution of each construct to the dependent variable.

Table 5

F-Square

Variable	Celebrity Endorsement	Digital Firm Intimacy	Perceived AI Intelligence	Purchase Decisions
Celebrity Endorsement		1,729	2,672	0,035
Digital Firm Intimacy				0,446
Perceived AI Intelligence				0,010
Purchase Decisions				

Source: At work 2025.

The f^2 test shows how much an independent construct contributes to a dependent construct when that construct is included or excluded from the model. The test results show that Celebrity Endorsement has a large effect on Perceived AI Intelligence (f^2 = 2.672) and Digital Firm Intimacy (f^2 = 1.729), and a very small effect on Purchase Decisions directly (f^2 = 0.035).Meanwhile, Digital Firm Intimacy has a moderate contribution to Purchase Decisions (f^2 = 0.446), and Perceived AI Intelligence has a very small contribution to Purchase Decisions (f^2 = 0.010). According to Cohen's interpretation (1988), an f^2 value > 0.35 is considered large, >0.15 is considered moderate, and >0.02 is considered small. Thus, the largest effect in this model occurs in the relationship between Celebrity Endorsement and Perceived AI Intelligence and Digital Firm Intimacy.

6.6 R Square test

According to (Hair *et al*., 2022), R-square measures the predictive power of exogenous constructs on endogenous constructs. The R^2 value indicates the proportion of variance in the endogenous construct that can be explained by the exogenous construct in the model. The general interpretation of the R^2 value is: 0.75 (substantial), 0.50 (moderate), and 0.25 (weak). Although there is no standard threshold, higher values indicate a stronger model in explaining the phenomenon in question.

Table 6

R-Square

Variable	R Square	R Square Adjusted
Digital Firm Intimacy	0,634	0,633
Perceived AI Intelligence	0,728	0,727
Purchase Decisions	0,786	0,784

Source: At work 2025.

The R^2 value is used to evaluate the predictive ability of the model against endogenous constructs. The Digital Firm Intimacy construct has an R^2 of 0.634, which means that 63.4% of the variance of this variable can be explained by the Celebrity Endorsement variable. Meanwhile, the Perceived AI Intelligence construct has an R^2 value of 0.728, indicating that Celebrity Endorsement explains 72.8% of the variance in perceptions of AI. The Purchase Decisions construct has an R^2 of 0.786, meaning that 78.6% of the variance in purchasing decisions can be explained simultaneously by the

three predictor variables: Celebrity Endorsement, Digital Firm Intimacy, and Perceived AI Intelligence. According to Hair et al. (2021), an R^2 value between 0.67 and 0.75 can be categorized as strong, indicating that this model has good structural predictive power.

6.7 Hypothesis test

After testing the validity and reliability of the constructs, as well as evaluating the measurement and structural models, the next step is to test the hypotheses developed in the theoretical framework (Hair *et al*., 2022). Hypothesis testing was conducted through path coefficient analysis in the structural model using the bootstrapping method with 5,000 replication samples. This analysis aims to identify direct and indirect relationships between constructs and evaluate the statistical significance of each relationship pathway. In addition, hypothesis testing also includes testing the mediating effect involving the constructs of Digital Firm Intimacy and Perceived AI Intelligence as mediators between Celebrity Endorsement and Purchasing Decisions. The results of this test will be the main basis for answering the research objectives and verifying the proposed conceptual model.

Table 7

Hypothesis Test

Hypothesis	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Celebrity Endorsement to Purchase Decisions	0,060	2,864	0,004
Celebrity Endorsement to Digital Firm Intimacy	0,027	29,205	0,000
Digital Firm Intimacy to Purchase Decisions	0,070	9,225	0,000
Celebrity Endorsement to Perceived AI Intelligence	0,019	45,343	0,000
Perceived AI Intelligence to Purchase Decisions	0,079	1,385	0,167
Digital Firm Intimacy mediate Celebrity Endorsement to Purchase Decisions	0,061	8,467	0,000
Perceived AI Intelligence mediate Celebrity Endorsement to Purchase Decisions	0,068	1,382	0,167

Source: At work 2025.

6.8 Result qualitative

Qualitative data analysis in this study was conducted to explore the psychological mechanisms, interaction experiences, and perceptions of consumers and stakeholders regarding the use of AI and celebrities in the context of digital marketing through live streaming social media (Creswell et al., 2018). These qualitative findings were obtained

from interviews with ten informants, consisting of five representatives from government agencies dealing with technology and digitalization issues, and five active consumers from the millennial and Z generations who regularly use TikTok and Instagram Live in their purchasing decisions. The results of the thematic analysis show that perceptions of celebrity endorsements are greatly influenced by the authenticity and emotional closeness built during live sessions. Informants from the consumer group revealed that they are more likely to be influenced by celebrities who appear spontaneous, responsive, and not overly scripted. Some mentioned that when celebrities mention users' names or respond to comments during live sessions, this creates a strong emotional effect and directly increases purchase intent. In terms of perceptions of AI intelligence (perceived AI intelligence), most informants stated that

AI is considered intelligent if it can provide quick and relevant responses and tailor product recommendations to personal preferences. However, some consumers also acknowledge that they are not fully aware that their interactions during live sessions are mediated by AI systems. This indicates a significant awareness gap regarding the role of technology in digital purchasing experiences. Digital intimacy between consumers and brands (digital firm intimacy) is created through a combination of celebrity interactions and technological engagement. Informants described feeling “approached” personally when brands provided interactive, responsive, and non-generic experiences. Brands that build consistency in communication and treat their audience like a community tend to form stronger emotional bonds. In the context of purchasing decisions, nearly all consumer informants admitted that they had made impulsive purchases during live sessions, especially when celebrities highlighted urgency such as “limited stock” or “discount only during the live session.”

These decisions are often reinforced by enjoyable interactive experiences and ease of navigation during the purchasing process. These findings reinforce that affective and interactive elements play a crucial role in the digital conversion process. Meanwhile, informants from the government emphasized the importance of adaptive regulations for AI developments in digital marketing. They highlighted the need for transparency in the use of algorithms and consumer data protection, especially as more companies utilize AI to drive purchasing decisions without consumers' awareness. Some even suggested cross-sector collaboration between regulators, social media platforms, and industry players to promote the ethical and strategic use of AI. Overall, these qualitative findings confirm

that the user experience in live streaming does not depend solely on celebrities or AI individually, but on the synergistic interaction between the two in creating a relevant, responsive, and emotional digital experience. Purchasing decisions in this context cannot be explained solely through cognitive processes but involve emotional dimensions and perceptions of the overall intelligence of digital systems.

6.9 Discussion quantitative

Based on the results of hypothesis testing using the PLS-SEM approach, it was found that Celebrity Endorsement has a significant direct effect on Purchasing Decisions ($t = 2.864$; $p = 0.004$). This indicates that celebrities are not merely visual attractions in live streaming sessions but possess genuine persuasive power in triggering intent and purchase actions. Respondents in this study revealed that celebrities' credibility, spontaneity in interaction, and the narratives conveyed during live streaming create confidence and a sense of urgency in purchasing products.

Furthermore, Celebrity Endorsement also has a very strong influence on Digital Firm Intimacy ($t = 29.205$; $p = 0.000$), which means that the presence of celebrities contributes greatly to building perceptions of digital closeness between consumers and brands. This intimacy is not only cognitive but also affective, such as feelings of “being known,” “being noticed,” and “being close” to the brand brought by the celebrity. This effect was then proven to impact Purchase Decisions, with a significant relationship between Digital Firm Intimacy and Purchase Decisions ($t = 9.225$; $p = 0.000$), indicating that digital intimacy is not merely a consequence of marketing strategies but rather an emotional bridge leading to conversion.

Meanwhile, Celebrity Endorsement also significantly influences Perceived AI Intelligence ($t = 45.343$; $p = 0.000$). This indicates that when celebrities interact with AI-supported systems—such as chatbots, automated product recommendations, or smart checkout systems—consumers form the perception that these systems are advanced, adaptive, and relevant. However, Perceived AI Intelligence does not significantly influence Purchase Decisions directly ($t = 1.385$; $p = 0.167$). This indicates a gap between perceptions of technology and actual consumption behavior. Many respondents may not be aware that AI systems are present behind their interactions, or they do not consider technological sophistication as a primary factor in making purchase decisions.

In an indirect relationship, Digital Firm Intimacy proved to be a significant mediator between Celebrity Endorsement and Purchase Decision (t = 8.467; p = 0.000). This means that the effect of endorsement becomes stronger when associated with the perceived closeness between consumers and the brand. Conversely, Perceived AI Intelligence does not show a significant mediating role (t = 1.382; p = 0.167). This reinforces that in a social-digital context like live streaming, emotional and relational factors are stronger in shaping purchasing decisions than purely technological elements.

Overall, out of the seven hypotheses tested, five (H1, H2, H3, H4, H6) were empirically supported, while two hypotheses (H5 and H7) were not statistically significant. These findings confirm that celebrity-based digital marketing and emotional interactions are more relevant in influencing purchasing behavior than background or intangible technologies. Therefore, brands and businesses are advised to prioritize affective strategies in live streaming rather than solely focusing on the technical aspects of AI systems.

6.10 Discussion qualitative

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responses and tailor product recommendations to personal preferences. However, some consumers also acknowledged that they were not fully aware that their interactions during live sessions were mediated by an AI system. This indicates a significant awareness gap regarding the role of technology in digital purchasing experiences.

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Overall, these qualitative findings confirm that user experience in live streaming does not depend solely on celebrities or AI individually, but on the synergistic interaction between the two in creating a relevant, responsive, and emotional digital experience. Purchasing decisions in this context cannot be explained cognitively alone, but involve emotional dimensions and perceptions of the overall intelligence of digital systems.

7 CONCLUSSION

This study aims to explore and examine the influence of Celebrity Endorsement on Purchasing Decisions, with Digital Firm Intimacy and Perceived AI Intelligence as mediating variables. Through a mixed methods approach, quantitative findings indicate that Celebrity Endorsement has a significant direct influence on Purchasing Decisions, as

well as a significant influence on both mediating variables. However, only Digital Firm Intimacy was found to significantly mediate this relationship. Qualitative results reinforce these findings, where emotional experiences built through direct interaction with celebrities and brands are more dominant in driving purchasing decisions than perceptions of AI sophistication that are present unconsciously.

Theoretically, this study contributes by expanding the understanding of the role of parasociality and emotional interaction in the context of live streaming-based digital marketing. The use of the concept of Digital Firm Intimacy as a mediating variable enriches the marketing literature, which has traditionally focused more on the rational aspects of consumers.

Additionally, although Perceived AI Intelligence does not play a significant role in decision-making, this finding suggests a new direction: AI should be packaged as a meaningful social experience to actively influence consumers' conative decisions in the digital age. From a practical perspective, the study's findings suggest that digital businesses and brands should maximize celebrity strategies that are not only promotional but also interactive and authentic.

The application of live streaming should be directed at building consistent intimacy between brands and consumers through emotional responses, name mentions, and the strengthening of digital communities. The development of AI in platforms should be directed at enhancing experiences that feel personal and adaptive, so that consumers perceive technology not only as a tool but as part of their relationship with the brand.

This study has several limitations. First, the sample was limited to active TikTok and Instagram Live users, so it does not reflect users of other digital platforms. Second, perceptions of AI were only measured through self-reports, without further exploration of respondents' cognitive awareness of AI-based systems. In addition, moderating variables such as interaction frequency or product type were not included in the model, even though they are likely to influence the strength of the relationship between constructs.

Further research is recommended to develop a model that considers moderating roles such as product type, live streaming frequency, or digital literacy. Qualitative exploration could also be expanded by involving stakeholders from the technology side, such as AI developers or streaming platform providers. Additionally, longitudinal studies could be conducted to examine changes in consumer perceptions and behavior toward

endorsements and technology over the long term, thereby providing deeper contributions both theoretically and practically.

REFERENCES

Alamsyah, D.P., Febriani, R., 2020. Green Customer Behaviour: Impact of Green Brand Awareness to Green Trust. J. Phys.: Conf. Ser. 1477, 072022. https://doi.org/10.1088/1742-6596/1477/7/072022

Amegbe, H., Hanu, C., Mensah, F., 2019. Achieving service quality and students loyalty through intimacy and trust of employees of universities: A test case of Kenyan universities. IJEM 33, 359–373. https://doi.org/10.1108/IJEM-09-2017-0251

Bügel, M.S., Verhoef, P.C., Buunk, A.P., 2011. Customer intimacy and commitment to relationships with firms in five different sectors: Preliminary evidence. Journal of Retailing and Consumer Services 18, 247–258. https://doi.org/10.1016/j.jretconser.2010.11.005

Calvo-Porral, C., Lévy-Mangin, J.-P., 2024. The influence of celebrity endorsement on the purchase behavior of brands and product categories. JPBM 33, 1027–1040. https://doi.org/10.1108/JPBM-09-2023-4745

Cimino, A., Felicetti, A.M., Corvello, V., Ndou, V., Longo, F., 2024. Generative artificial intelligence (AI) tools in innovation management: a study on the appropriation of ChatGPT by innovation managers. MD. https://doi.org/10.1108/MD-10-2023-1968

Corvello, V., Felicetti, A.M., Pini, B., Bigliardi, B., 2024. International entrepreneurship as a dynamic capability in new ventures: Defining the concept and identifying its antecedents and outcomes through a systematic literature review. J Int Entrep 22, 288–317. https://doi.org/10.1007/s10843-024-00368-3

Creswell, J., Creswell, J.D., 2018. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.

Creswell, J.W., Creswell, J.D., Creswell, J.W., Creswell, J.D., 2018. Research design: qualitative, quantitative, and mixed methods approaches, Fifth edition. ed. SAGE, Los Angeles London New Delhi Singapore Washington DC Melbourne.

Dong, X., Chang, Y., Liao, J., Hao, X., Yu, X., 2024. The impact of virtual interaction on consumers' pro-environmental behaviors: the mediating role of platform intimacy and love for nature. ITP 37, 201–222. https://doi.org/10.1108/ITP-02-2021-0164

ElSayad, G., Mamdouh, H., 2024. Are young adult consumers ready to be intelligent shoppers? The importance of perceived trust and the usefulness of AI-powered retail platforms in shaping purchase intention. YC 25, 969–989. https://doi.org/10.1108/YC-02-2024-1991

Fornell, C., Larcker, D.F., 1981. Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. Journal of Marketing Research 18, 382. https://doi.org/10.2307/3150980

Freire, O., Quevedo-Silva, F., Senise, D., Scrivano, P., 2018. The effectiveness of celebrity endorsement in aspiring new celebrities: Examining the effects of brand, congruence, charisma and overexposure. RAUSP 53, 289–303. https://doi.org/10.1108/RAUSP-04-2018-011

Gao, Q., Xing, X., 2023. Study on the Impact of Chatbot Characteristics of Online Shopping Mall on Customer Satisfaction and Reuse Intention in China: Hedonic Motivation and Utilitarian Motivation as Moderating Variables. Korea Int Trade Res Inst 19, 51–67. https://doi.org/10.16980/jitc.19.1.202302.51

Godey, B., Manthiou, A., Pederzoli, D., Rokka, J., Aiello, G., Donvito, R., Singh, R., 2016. Social media marketing efforts of luxury brands: Influence on brand equity and consumer behavior. Journal of Business Research 69, 5833–5841. https://doi.org/10.1016/j.jbusres.2016.04.181

Hair, J., Sarstedt, M., Hopkins, L., G. Kuppelwieser, V., 2014. Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. European Business Review 26, 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M., 2022. A primer on partial least squares structural equation modeling (PLS-SEM), Third edition. ed. SAGE, Los Angeles.

Horton, D., Richard Wohl, R., 1956. Mass Communication and Para-Social Interaction: Observations on Intimacy at a Distance. Psychiatry 19, 215–229. https://doi.org/10.1080/00332747.1956.11023049

Jin, S.V., Muqaddam, A., Ryu, E., 2019. Instafamous and social media influencer marketing. MIP 37, 567–579. https://doi.org/10.1108/MIP-09-2018-0375

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

Kai-Uwe Brock, J., Yu Zhou, J., 2012. Customer intimacy. Journal of Business & Industrial Marketing 27, 370–383. https://doi.org/10.1108/08858621211236043

Li, L., Su, F., Zhang, W., Mao, J., 2018. Digital transformation by SME entrepreneurs: A capability perspective. Information Systems Journal 28, 1129–1157. https://doi.org/10.1111/isj.12153

Liu, Qianhua, Chan, C., Chimhundu, R., 2024. From Customer Intimacy to Digital Customer Intimacy. JTAER 19, 3386–3411. https://doi.org/10.3390/jtaer19040164

Liu, Qian, Chen, J., Li, Z., 2024. Digital technology implementation: The mediating role of the duality of digital technology affordance in open innovation practices. Journal of Engineering and Technology Management 73, 101832. https://doi.org/10.1016/j.jengtecman.2024.101832

Mahajan, Rhea, Mahajan, Remia, Sharma, E., Mansotra, V., 2022. "Are we tweeting our real selves?" personality prediction of Indian Twitter users using deep learning ensemble model. Computers in Human Behavior 128, 107101. https://doi.org/10.1016/j.chb.2021.107101

Mariani, M.M., Perez-Vega, R., Wirtz, J., 2022. AI in marketing, consumer research and psychology: A systematic literature review and research agenda. Psychology and Marketing 39, 755–776. https://doi.org/10.1002/mar.21619

Maxwell, L.C., Tefertiller, A., Morris, D., 2022. The nature of FoMO: trait and state fear-of-missing-out and their relationships to entertainment television consumption. Atlantic Journal of Communication 30, 522–534. https://doi.org/10.1080/15456870.2021.1979977

Mikalef, P., Islam, N., Parida, V., Singh, H., Altwaijry, N., 2023. Artificial intelligence (AI) competencies for organizational performance: A B2B marketing capabilities perspective. Journal of Business Research 164, 113998. https://doi.org/10.1016/j.jbusres.2023.113998

Mohan, R., 2025. Influence of celebrity endorsements in advertisements on the purchasing intentions among higher education students. IIMTJM. https://doi.org/10.1108/IIMTJM-04-2024-0044

Saffanah, L., Handayani, P.W., Sunarso, F.P., 2023. Actual purchases on Instagram Live Shopping: The influence of live shopping engagement and information technology affordance. Asia Pacific Management Review 28, 204–214. https://doi.org/10.1016/j.apmrv.2022.09.002

Sestino, A., Bernardo, A., Rizzo, C., Bresciani, S., 2025. An explorative analysis of the antecedents and consequents of gamification in the digital therapeutic context. EJIM 28, 1315–1341. https://doi.org/10.1108/EJIM-08-2023-0633

Strazzullo, S., Mauriello, R., Corvello, V., Cricelli, L., Grimaldi, M., 2025. How open innovation can improve companies' corporate social responsibility performance? Business Ethics Env & Resp 34, 1–16. https://doi.org/10.1111/beer.12535

Tabrani, M., Amin, M., Nizam, A., 2018. Trust, commitment, customer intimacy and customer loyalty in Islamic banking relationships. IJBM 36, 823–848. https://doi.org/10.1108/IJBM-03-2017-0054

Uribe, R., Buzeta, C., Manzur, E., Celis, M., 2022. Celebrity endorsement using different types of new media and advertising formats. ARLA 35, 281–302. https://doi.org/10.1108/ARLA-08-2021-0167

Von Felbert, A., Breuer, C., 2022. The influence of multiple combinations of celebrity endorsers on consumers' intentions to purchase a sports-related product. SBM 12, 440–458. https://doi.org/10.1108/SBM-03-2021-0030

Wang, H.-J., 2025. The drivers of intimacy toward social media-based brand communities: perspective of attachment theory. INTR. https://doi.org/10.1108/INTR-01-2024-0066

Yang, B., Sun, Y., Shen, X.-L., 2025. Building harmonious human–AI relationship through empathy in frontline service encounters: underlying mechanisms and journey stage differences. IJCHM 37, 740–762. https://doi.org/10.1108/IJCHM-05-2024-0676