Influencer Marketing Effectiveness

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by

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Abstract

Influencer marketing plays a critical role in shaping consumer behavior, yet strategies for improving its effectiveness across both traditional (human) and emerging (AI) forms remain underexplored. This thesis addresses these gaps by conducting a meta-analysis and a two-part experimental study.

This thesis begins by examining the existing literature on human influencers through a meta-analysis of 1,531 effect sizes, guided by the persuasion knowledge model (PKM). This analysis identifies the antecedents, mediators, and moderators that shape influencer marketing effectiveness, emphasizing the importance of trait-based mechanisms such as source credibility. However, it also reveals a lack of research on the influence of influencer type (virtual vs. real). This highlights the need to test traditional mechanisms in AI influencer contexts and explore alternative explanations for non-human influencers.

In response, the second experimental study tests trait-based mechanisms in AI influencer contexts using two separate experiments, based on the theory of simulacra and simulation. Study 1 finds that AI clone influencers (AI-generated replicas modeled after real individuals) outperform pure AI (entirely computer-generated characters with no link to real people) on traditional traits but do not produce significantly higher engagement. To address this disconnect, Study 2 introduces experiential mechanisms, staged authenticity and immersion, and finds that AI clones are more effective for symbolic products, while pure AI performs better for functional products, with effects mediated by the experiential mechanisms.

This thesis develops a comprehensive framework for influencer marketing effectiveness across human and AI contexts. It advances the influencer marketing literature by identifying the key mechanisms that shape consumer responses to different influencer types and by clarifying when trait-based or experiential mechanisms are more effective. It offers practical implications for improving influencer marketing strategies in an evolving digital landscape.

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Declaration

I declare that this thesis is the result of my work and has not been submitted for any other degree or professional qualification.

This thesis includes co-authored work that has been published in a peer-reviewed journal. I am the first author of the publication, and I contribute to the conception, data collection, analysis, and drafting of the manuscript. Co-authors provide input on study design and contribute to feedback and revisions. Full publication details are provided in the thesis. Parts of this thesis benefit from feedback and guidance provided by my supervisors, particularly in the development of theoretical framing and study design. All other content is my original work.

Statement of copyright

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Chapter 1 Introduction

1.1 Research background

In recent years, influencer marketing has become one of the most powerful tools in digital marketing, significantly shaping consumer behavior. However, marketers continue to face challenges in using it effectively in traditional (human) and emerging (AI) contexts. A major challenge lies in selecting appropriate influencers to achieve different non-transactional (e.g., behavioral engagement) and transactional (e.g., sales) outcomes remains a persistent concern (Beichert et al., 2023; Leung et al., 2022). One persistent issue lies in maintaining influencer credibility while promoting products, as consumers increasingly recognize promotional content as marketing-driven, a phenomenon described by persuasion knowledge (Friestad & Wright, 1994). Additionally, distinct consumer preferences, diverse product types, and platform-specific characteristics (Liu et al., 2020; Hughes et al., 2019) further complicate influencer selection and campaign design.

Despite growing academic interest, the existing literature offers fragmented and often contradictory findings regarding the drivers of influencer marketing effectiveness. Besides, most existing studies focus on human influencers, relying heavily on trait-based psychological mechanisms such as source credibility. While these mechanisms provide useful insights, they may no longer be sufficient in light of emerging technologies that are reshaping the influencer landscape. The rapid advancement of AI has introduced new forms of influencers into digital marketing, commonly referred to as AI influencers. These AI influencers are increasingly used across platforms like Taobao, JD.com, Meituan, and other livestream commerce platforms to promote products and interact with consumers. While early research has begun to explore how AI influencers differ from human influencers, academic inquiry into AI influencers remains in its early stages.

Within this emerging space, two distinct types of AI influencers have gained prominence: AI clone influencers, which are AI-generated replicas modeled after real individuals, and pure AI influencers, which are entirely computer-generated characters with no connection to any real person. These AI influencers challenge traditional assumptions around source credibility and emotional connection in influencer marketing, raising new questions about how consumers respond to varying levels of simulation and realism (i.e., different AI influencer types). Therefore, there is a pressing need to expand theoretical models to account for this new wave of AI-mediated influence.

To address this evolving and fragmented understanding, this thesis begins with a meta-analysis of the influencer marketing literature. This method allows for the identification of robust antecedents, mediators, and moderators that shape influencer marketing effectiveness across a wide range of transactional and non-transactional outcomes. However, the meta-analysis also exposes a critical limitation in the literature: existing models overwhelmingly rely on trait-based mechanisms derived from human influencer contexts. As influencer marketing evolves, especially with the emergence of AI influencers, this trait-based paradigm may no longer fully capture consumer responses in hyperreal digital environments.

Building on the meta-analysis and responding to the identified research gaps, this thesis then adopts an experimental approach, including two parts (Study 1 and Study 2) to explore influencer effectiveness in the context of AI influencers. Study 1 examines whether traditional psychological mediators like source credibility, perceived warmth, perceived competence, and parasocial relationship can still explain marketing outcomes with AI influencers. Study 2 extends this investigation by applying Baudrillard's theory of simulacra and simulation to explore experiential mechanisms, staged authenticity and immersion, that may better explain how AI influencer type shapes consumer behavior, and how product

symbolism (symbolic vs. functional products) moderates these effects, providing a deeper contextual understanding of when and why different AI influencer types succeed.

Therefore, the meta-analysis and experimental study reflect the broader transition in digital marketing from human-centered to AI-mediated influence. They respond to the growing need for updated theoretical frameworks that can accommodate both psychological traits and experiential processes in explaining consumer behavior in digital environments. Through this integrated approach, the thesis addresses four central research questions: First, what are the key drivers of influencer marketing effectiveness in human-driven contexts, and how do they vary across different outcomes? (Chapter 2) Second, do traditional psychological mechanisms (e.g., source credibility, parasocial relationship) adequately explain consumer behaviors with AI influencers? (Chapter 3, Study 1 and Study 2) Third, how do consumers experientially respond to AI clone and pure AI influencers through experiential mechanisms, such as staged authenticity and immersion, and how does this differ from responses to traditional human influencers? (Chapter 3, Study 2) Fourth, does product type (e.g., symbolic vs. functional) moderate the relationship between AI influencer type and marketing outcomes? (Chapter 3, Study 2)

1.2 Theoretical positioning

This thesis investigates how influencer marketing can be made more effective across both traditional (human) and emerging (AI) contexts. This thesis integrates two complementary theoretical frameworks, PKM (Friestad & Wright, 1994) and the theory of simulacra and simulation (Baudrillard, 1994). PKM provides a foundation for understanding how consumers interpret persuasive intent in human influencer context, while Baudrillard's theory offers a lens for examining consumer behavior in hyperreal environments created by AI influencers.

To build a strong theoretical and empirical foundation, the thesis begins with a meta-analytic study that synthesizes existing research on influencer marketing in human contexts. Drawing on the PKM, this study develops and empirically tests a comprehensive framework for understanding influencer marketing effectiveness. This framework identifies key antecedents, including post, follower, and influencer characteristics, and examines their effects on both non-transactional outcomes (i.e., attitude, behavioral engagement, and purchase intention) and transactional outcomes (i.e., purchase behavior and sales). It also considers the mediating roles of persuasion knowledge and source credibility, while accounting for contextual moderators such as the type of social media platform and the symbolic or functional nature of the product. By synthesizing findings across a wide body of literature, the meta-analysis offers an integrated understanding of how consumers process and respond to influencer content across diverse platforms and product categories in human conditions.

Building on the insights and limitations identified in the meta-analysis, particularly the over-reliance on trait-based mechanisms and more focus on human influencer conditions, the thesis proceeds with a two-part experimental design to explore the emerging domain of AI influencer marketing. Based on the theory of simulacra and simulation (Baudrillard, 1994), this study distinguishes between AI clone influencers (second-order simulacra), which are tethered to real-world individuals, and pure AI influencers (third-order simulacra), which have no real-world referent. Accordingly, the experiment examines how different types of AI influencers operate within hyperreal marketing environments, and how the effectiveness of AI influencer types varies depending on product symbolism, specifically, whether the promoted product is symbolic (e.g., fashion) or functional (e.g., technology). Whereas the meta-analysis emphasizes trait-based mechanisms common in human influencer contexts, the experimental study introduces two experiential mechanisms, staged authenticity and

immersion, as alternative pathways explaining consumer responses to AI influencers. The two-part experimental design tests whether traditional traits (e.g., source credibility, perceived warmth and competence, parasocial relationships) remain predictive of consumer responses to AI influencers (Study 1), and whether experiential mechanisms more effectively explain positive marketing outcomes depending on product type (Study 2).

Therefore, this thesis presents a multi-method investigation from traditional human-centered persuasion to AI-mediated influence. The combined use of PKM and the theory of simulacra and simulation captures the shifting nature of digital persuasion, from evaluating credibility in human sources to experiencing authenticity and immersion in AI-generated simulations, thus offering a more holistic and context-sensitive understanding of influencer effectiveness in digital marketing environments.

1.3 Methodological overview

This thesis employs a multi-method research design, integrating meta-analysis and experimental methods to comprehensively examine influencer marketing effectiveness across both human-led and AI-mediated contexts. Each method serves a complementary purpose in addressing the overarching research question: How can influencer marketing be made more effective across both traditional (human) and emerging (AI) forms?

The meta-analysis systematically synthesizes and quantifies findings from a fragmented body of literature that focuses on human influencers. This method is well-suited for identifying robust antecedents, mediators, and moderators across diverse studies, enabling generalizable insights into how post, follower and influencer characteristics, as well as context affect both transactional and non-transactional outcomes. By aggregating evidence from a wide range of sources, the meta-analysis provides a consolidated theoretical and empirical foundation. However, its scope is inherently limited to well-established areas of

research and cannot account for emerging phenomena, such as AI influencers, which remain underrepresented in the current literature.

To address this limitation, the thesis complements the meta-analysis with an experimental study, which allows for controlled testing of novel influencer types, AI clone and pure AI influencers. Experiments allow for controlled manipulation of influencer type and context, providing causal insights into psychological and experiential mechanisms that may not be observable in past studies. This approach is especially valuable for investigating consumer responses in hyperreal digital environments, where traditional theoretical models may no longer apply. By combining the breadth and generalizability of meta-analysis with the depth and causal inference of experiments, this thesis delivers a comprehensive and methodologically rigorous investigation into influencer marketing effectiveness across both traditional and emerging forms of influence.

1.4 Practical relevance

This thesis provides timely and actionable insights for marketing practitioners by addressing key challenges in both traditional (human-led) and emerging (AI-mediated) forms of influencer marketing. The findings offer strategic guidance on influencer selection, content design, and alignment with product and platform characteristics.

First, the findings underscore the importance of selecting influencers whose attributes align with desired marketing outcomes and audience expectations. The meta-analysis identifies post, follower, and influencer characteristics as key antecedents of campaign success in human influencer contexts, thereby enabling practitioners to make informed decisions based on systematically aggregated empirical evidence. Extending this to AI influencers, the experimental studies demonstrate that AI clone and pure AI influencers elicit distinct consumer responses depending on the symbolic or functional nature of the promoted product. AI clone influencers are more effective for symbolic goods that benefit from identity

signaling and emotional resonance, whereas pure AI influencers are better suited for functional goods where utility and innovation are primary concerns. These findings suggest that influencer selection should consider not only the influencer's format (human, AI clone, or pure AI), but also how that format interacts with the underlying product meaning.

This thesis also highlights the critical role of content design in shaping influencer marketing effectiveness. The meta-analytic findings reveal that content value, particularly informational and hedonic appeal, constitutes one of the most influential drivers of purchase intention and engagement. In the context of AI influencers, the experimental studies find that traditional trait-based mediators (e.g., source credibility, perceived warmth, parasocial relationship) are insufficient to explain consumer responses. Instead, experiential mechanisms such as staged authenticity and immersion emerge as more salient predictors of influencer marketing effectiveness. These findings suggest that AI influencer content should be strategically designed to evoke authenticity and create immersive experiences, thereby enhancing effectiveness in hyperreal marketing environments.

Finally, this thesis underscores the importance of aligning influencer strategies with both platform and product characteristics to enhance marketing effectiveness. Meta-analytic findings reveal that content-driven and utilitarian platforms, such as Pinterest and Xiaohongshu (Little Red Book), are particularly effective at mitigating consumers' persuasion knowledge by supporting discovery-oriented and goal-driven content consumption. Accordingly, marketers should tailor their approaches to fit the expectations and motivations of platform-specific audiences. Moreover, product characteristics further moderate campaign outcomes: narrative-driven content fosters trust and reduces uncertainty for experience goods, while search goods benefit from clear and credible information. For self-expressive products, symbolic cues, brand–influencer congruence, and authenticity drive social validation, whereas functional products require a focus on utility and performance.

1.5 Thesis structure

This thesis is organized into five main chapters, each building on the previous to investigate influencer marketing effectiveness and how consumer responses differ between traditional (human) and AI influencers (AI clone and pure AI) across contexts and mechanisms.

Chapter 1 provides the conceptual and contextual foundation for the thesis by outlining the research background, theoretical positioning, methodological overview, and practical relevance. It introduces the rise of influencer marketing and the growing complexity marketers face in predicting campaign effectiveness across platform and product types. It highlights the emerging use of AI influencers, specifically AI clones and pure AI, and the limitations of traditional trait-based approaches in explaining consumer behaviors. It positions the research within two frameworks: the PKM and the theory of simulacra and simulation. Finally, it presents the multi-method research design and emphasizes the practical value for marketers seeking guidance in increasing influencer marketing effectiveness.

Chapter 2 focuses on traditional human influencers. Drawing on the PKM, it conducts a meta-analysis that synthesizes 1,531 effect sizes from 251 papers to identify and categorize key antecedents (post, follower, and influencer characteristics), mediators, and moderators of influencer effectiveness across both transactional and non-transactional outcomes. The chapter also explores the role of contextual moderators such as product type and social media platform, offering a foundational understanding of what drives successful influencer marketing in human conditions. The findings reveal that trait-based mechanisms dominate current explanations, and there are gaps in understanding AI influencer effectiveness, highlighting the need to explore new mechanisms.

Chapter 3 builds directly on insights and limitations identified in Chapter 2 and shifts focus to AI influencers. It investigates how consumers respond to different types of AI

influencers, specifically AI clone and pure AI, drawing on the theory of simulacra and simulation. Study 1 examines whether trait-based constructs (e.g., source credibility, perceived warmth, parasocial relationship) still apply in AI contexts. Study 2, motivated by gaps in Chapter 2, introduces experiential mechanisms, staged authenticity and immersion, and examines how these mediate responses to AI influencer types. This study also tests the moderating role of product symbolism (symbolic vs. functional), as suggested by Chapter 2's findings.

Chapter 4 synthesizes the key findings from both the meta-analytic (Chapter 2) and experimental studies (Chapter 3), integrating insights to address the central research questions outlined in Chapter 1.

Chapter 5 concludes the thesis by summarizing contributions, discussing practical implications for marketers and content creators, and outlining future research directions.

Figure 1.1 outlines the overall structure of the thesis and illustrates how the chapters are connected in terms of research focus, questions, and methodological progression.

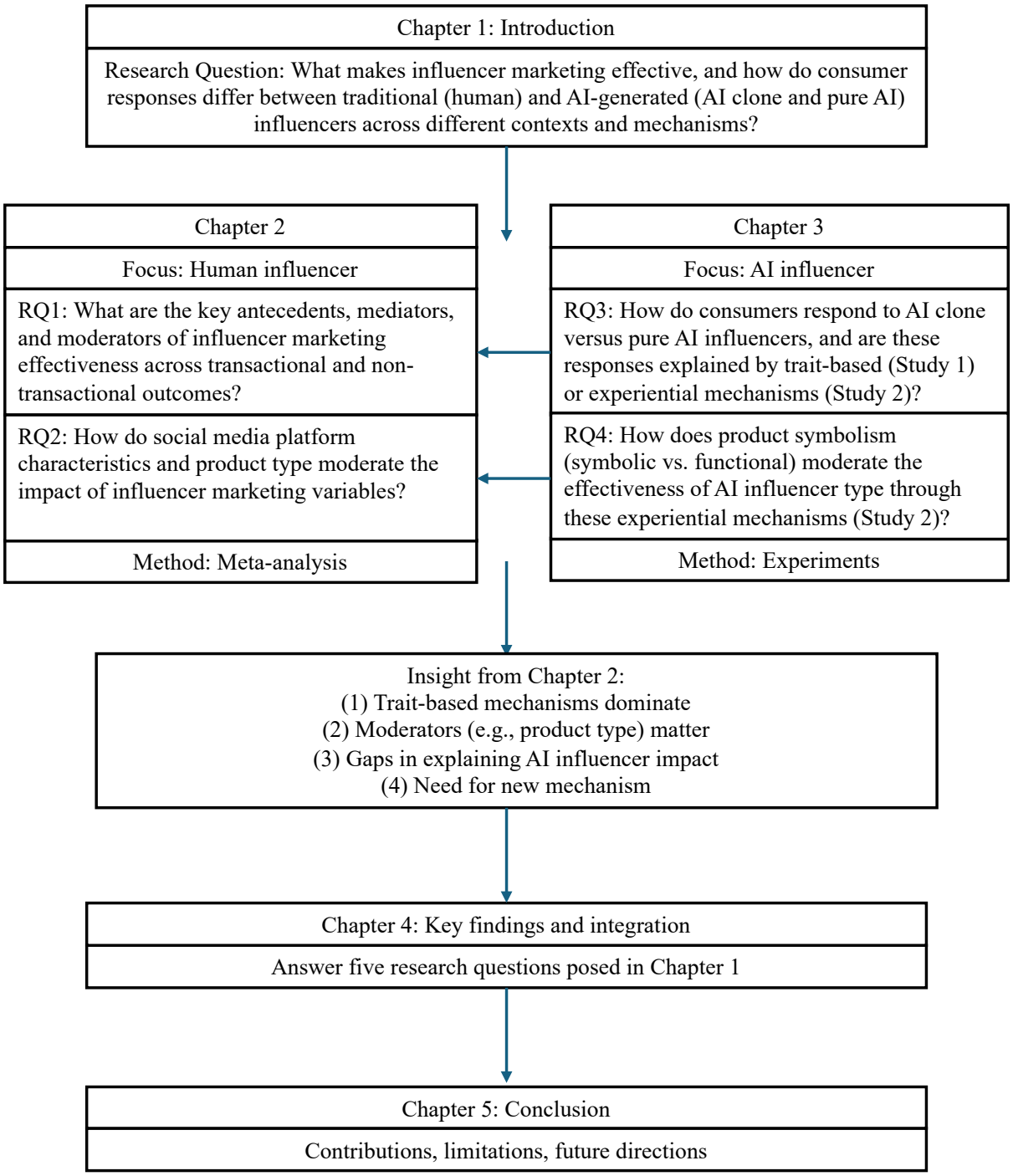


Figure 1.1 Thesis structure

Chapter 2 Influencer marketing effectiveness: A meta-analytic review[1]

2.1 Introduction

Social media influencers are regular Internet-leading content creators who actively generate potentially useful content for marketers (van Reijmersdal et al., 2020). Influencers stand out through content creation and direct interaction with their audience, which enhances perceptions of them being authentic, knowledgeable, and appealing, known as source credibility (Ohanian, 1991). Influencer marketing is a strategy for enlisting influencers to promote products and facilitate consumer purchase decision-making (Leung et al., 2022).[2] According to the Influencer Marketing Benchmark Report (2024), spending on influencer marketing surged to $24 billion in 2024, highlighting it as a crucial advertising strategy. However, marketers struggle to use it effectively, especially in selecting appropriate influencers to achieve different non-transactional (e.g., behavioral engagement) and transactional (e.g., sales) outcomes (Beichert et al., 2023; Leung et al., 2022). It is challenging to maintain influencers' credibility while promoting products because followers increasingly perceive influencers' recommendations as mere marketing tactics, known as persuasion knowledge (Friestad & Wright, 1994). Additionally, distinct consumer preferences and platform characteristics complicate the promotion of diverse product types (Liu et al., 2020) across social media platforms (Hughes et al., 2019). These challenges underline the need for deeper understanding of the effectiveness of influencer marketing.

The rising popularity of influencer marketing has stimulated related academic research. However, factors contributing to its effectiveness remain unclear. While some studies

[1] This chapter is based on a peer-reviewed article published in the Journal of the Academy of Marketing Science (JAMS) (Pan et al., 2025).

[2] An influencer marketing strategy emphasizes reaching specific consumer groups with messages perceived as genuine and credible (Audrezet et al. 2020), compared with the broader strategy of celebrity endorsements, which focuses on fame and recognition to appeal to a wider consumer audience (Leung et al. 2022).

emphasize the positive effect of the informational value of influencer posts (Ki & Kim, 2019) and the negative impact of overt sponsorship disclosure (Kim & Kim, 2021) on consumer attitude and purchase intention, other findings suggest the opposite (Chen et al., 2023; Hughes et al., 2019). Research shows that consumer knowledge (follower characteristics) can impede behavioral engagement with influencer posts, as informed consumers may perceive advertisements from well-known brands as overly commercial (Wies et al., 2023). However, contrasting findings suggest that consumer knowledge can influence consumer behavior positively (Kay et al., 2020). Additionally, studies report mixed results on the effects of influencer indegree (an influencer's follower count) on marketing outcomes (Hughes et al., 2019; Kay et al., 2020; Park et al., 2021). These contradictory findings call for a comprehensive understanding of the drivers of influencer marketing effectiveness.

The discrepancies in the literature may arise from the challenges that influencers face in balancing their credibility with commercial opportunities (Audrezet et al., 2020; Chen et al., 2023). Persuasion knowledge model can explain these behaviors, as consumer skepticism regarding influencers' motives—viewing them as profit-driven rather than genuine—threatens influencer credibility. This skepticism, a manifestation of persuasion knowledge (Friestad & Wright, 1994), adversely impacts the credibility of influencer recommendations (Kim & Kim, 2021). Although research has explored the mediating roles of persuasion knowledge and source credibility (e.g., Belanche et al., 2021; De Veirman & Hudders, 2020) (see Table 2.1), it remains necessary to examine how various antecedents influence these concepts and collectively affect influencer marketing outcomes.

Finally, studies have yet to offer clear insights into how social media and product types impact influencer marketing effectiveness. Although research provides preliminary insights into the impacts of social media platforms (Instagram vs. YouTube) and product types (hedonic vs. utilitarian) (e.g., Han & Balabanis, 2023), it overlooks the diversity within these

categories. Thus, detailed guidance on strategic allocation of influencer marketing spending across different social media platforms and products is lacking.

Against this backdrop, we conduct a meta-analysis to examine holistically the empirical research and address the following questions: What are the antecedents of influencer marketing effectiveness? What are the mediators between these antecedents and marketing outcomes? What moderators influence these relationships? Building on the PKM (Friestad & Wright, 1994), we develop a conceptual framework for influencer marketing effectiveness. First, we examine the impacts of various characteristics of posts (e.g., informational value), followers (e.g., consumer materialism), and influencers (e.g., influencer indegree) on different transactional and non-transactional marketing outcomes. We then explore the mediating effects of persuasion knowledge and source credibility between antecedents and these marketing outcomes, deepening insights into consumers' cognitive processes during interactions with influencer recommendations. Furthermore, we assess whether social media types (profile-/content-based, utilitarian/hedonic) and product types (experience/search, functional/self-expressive) influence the relationships between antecedents and marketing outcomes. These analyses enhance understanding of consumer responses to persuasion attempts across different social media platforms and product types. Meta-analyses are considered appropriate for such evaluations as they are more powerful than individual studies (Blut et al., 2016).

Table 2.1 Selective literature review of influencer marketing

Author(s) (Year)	Sample size	Method	Platform	Product	Antecedents	Outcomes	Testing Mediator?			Testing Moderator?	
							PK	SC	PK & SC	Platform	Product
No persuasion knowledge and source credibility as the mediators											
Ao et al. (2023)	176 effect sizes from 62 studies	Meta-analysis	—	—	Influencer–brand fit, entertainment, and informative value	Engagement and purchase intention	N	N	N	N	N
Beichert et al. (2023)	1,881,533 purchases	Field data	Instagram	Fashion	Influencer indegree	Revenue and ROIs	N	N	N	N	N
Han and Balabanis (2023)	250 effect sizes from 53 studies	Meta-analysis	Instagram vs. YouTube	Hedonic vs. utilitarian products	Influencer–brand fit and informative value	Attitude, engagement, and purchase intention	N	N	N	Y	Y
Hughes et al. (2019)	1237 posts	Field data and experiment	Facebook and Twitter	Travel, food, lifestyle, etc.	Hedonic value	Engagement	N	N	N	Y	N
Leung et al. (2022)	2412 influencers	Field data	Weibo	29 categories	Influencer marketing spend	Engagement	N	N	N	N	N
Liu et al. (2020)	363	Survey and experiment	—	Mobile phone	Influencer communication, actual and ideal self-congruence	Purchase intention	N	N	N	N	Y
Wies et al. (2023)	802 campaigns	Field data and experiment	Instagram	Beauty, fashion, jewelry, etc.	Influencer indegree	Engagement	N	N	N	N	N
Persuasion knowledge as the mediator											
Boerman (2020)	192	Experiment	Instagram	Dress	Sponsorship disclosure type	Engagement	Y	N	N	N	N
De Cicco et al. (2021)	195	Experiment	Instagram	Books	Influencer–product fit	Influencer attitude and engagement	Y	N	N	N	N
Kim and Kim (2021)	185 (Study 1); 229 (Study 2)	Experiment	Instagram, Facebook, etc.	Beverage, smoothie blender, air fryer, hair dryer, and vacuum cleaner	Sponsorship disclosure type and influencer–brand fit	Product attitude	Y	N	N	N	N
Source credibility as the mediator											
De Jans et al. (2018)	160	Experiment	YouTube	Juice	Sponsorship disclosure type	Purchase intention	N	Y	N	N	N
Munnukka et al. (2019)	203	Experiment	YouTube	Traveling	Audience participation	Brand attitude	N	Y	N	N	N
Zogaj et al. (2021)	197 (Study 1); 307 (Study 2)	Survey	Facebook, Twitter, and Instagram	Samsung products, etc.	Actual and ideal self-congruence	Purchase intention	N	Y	N	N	N
Persuasion knowledge and source credibility as the mediators											
Belanche et al. (2021)	341	Survey	Instagram	—	Influencer–product fit	Engagement	Y	Y	Y	N	N
De Veirman and	355	Experiment	Instagram	Energy bars	Sponsorship disclosure type	Brand attitude	Y	Y	Y	N	N

Author(s) (Year)	Sample size	Method	Platform	Product	Antecedents	Outcomes	Testing Mediator?			Testing Moderator?	
							PK	SC	PK & SC	Platform	Product
Hudders (2020)											
This study	**1,531 effect sizes from 251 studies**	**Meta-analysis**	**Nature of connection and usage**	**Information availability and status-signaling capability**	**Post, follower, and influencer characteristics**	**Non-transactional and transactional outcomes**	Y	Y	Y	Y	Y

PK: persuasion knowledge; SC: source credibility

2.2 Theoretical Framework - PKM

Persuasion knowledge refers to consumer beliefs regarding the motives and tactics of persuasion agents (Friestad & Wright, 1994). The PKM describes how individuals utilize such beliefs to cope with persuasive attempts. Its application in marketing is growing, with research focusing on activation triggers and consequences of persuasion knowledge.

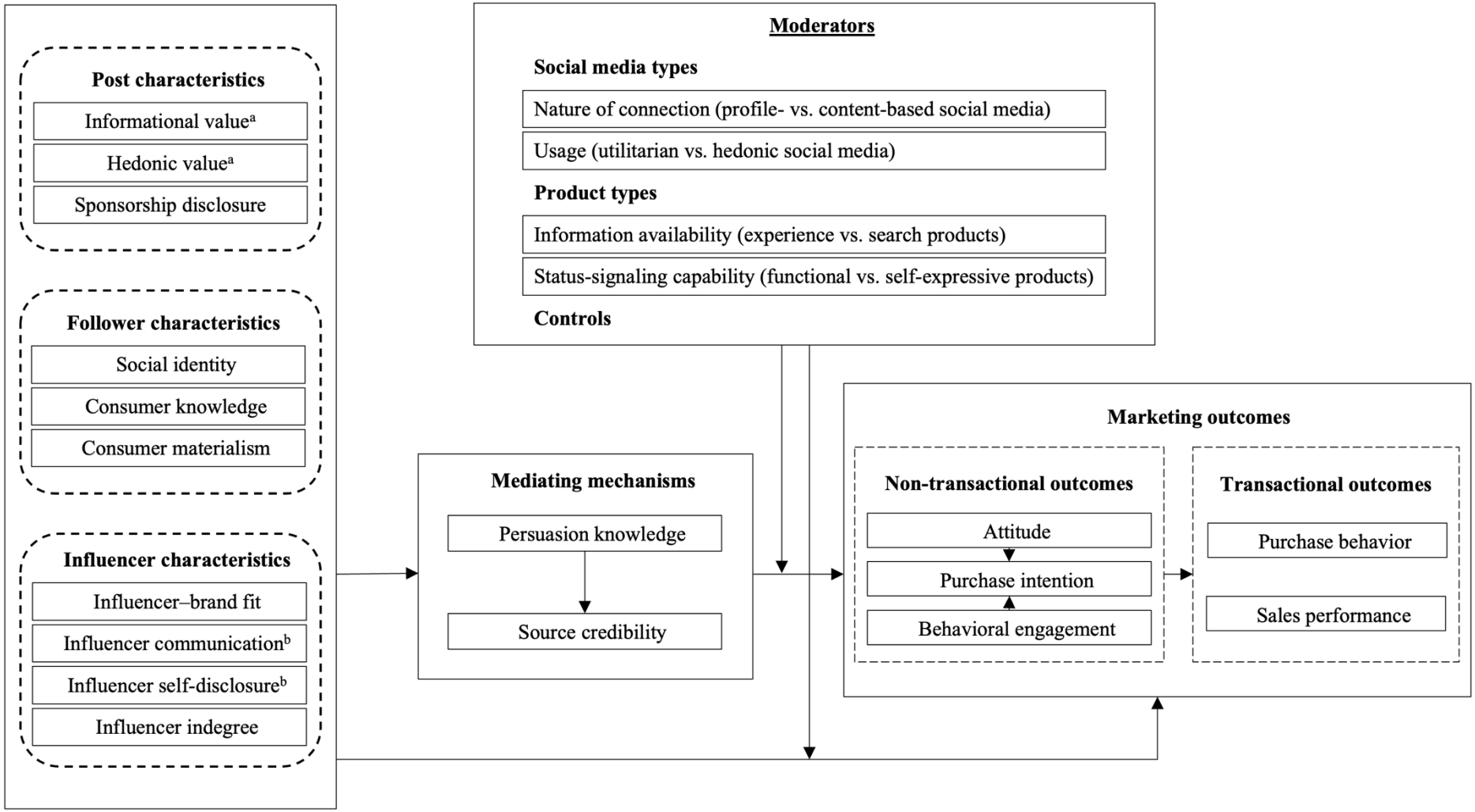
According to the PKM, the direction (e.g., awareness of manipulative intent) and depth (e.g., cognitive capability) of information processing influence the activation of persuasion knowledge (Friestad & Wright, 1994). In the advertising context, post, follower, and influencer characteristics impact this activation by revealing manipulative intent and affecting depth of cognitive processing. Followers with more cognitive resources are more likely to process persuasive messages deeply (Eisend & Tarrahi, 2022; van Reijmersdal et al., 2020); contextual factors such as post and influencer characteristics that signal hidden motives or manipulative intent can lead individuals to think more critically and skeptically about persuasive messages (Eisend & Tarrahi, 2022).

According to the PKM, persuasion knowledge influences perceived source credibility by enabling individuals to assess critically the underlying intentions and tactics of persuasion agents (e.g., influencers) (Friestad & Wright, 1994). When motives are perceived as self-serving or manipulative, influencers' perceived credibility diminishes (Audrezet et al., 2020). Persuasion knowledge may also influence marketing outcomes, although results are inconclusive. Most studies indicate a negative role of persuasion knowledge in consumer

attitude (Kim & Kim, 2021), behavioral engagement, and purchase intention (Hwang & Zhang, 2018). However, some studies suggest positive (De Cicco et al., 2021) or non-significant (De Jans et al., 2018) effects. The effect of persuasion knowledge varies depending on the cues (e.g., channels and messages) provided to consumers during persuasion attempts (Eisend & Tarrahi, 2022). For example, consumers may evaluate persuasive attempts differently across social media platforms, depending on the attributes of each platform (Eisend & Tarrahi, 2022; Hughes et al., 2019). Consumers are more sensitive to persuasive attempts when the information on platforms does not align with their motivation for using those platforms (Kelly et al., 2010). Additionally, product types may moderate the persuasion processes (Eisend & Tarrahi, 2022); consumers are more skeptical about marketing messages for products that necessitate detailed product information before purchase (Huang et al., 2009; Steinhart et al., 2014).

To sum up, this meta-analysis utilizes the PKM to examine the drivers and mediators of influencer marketing effectiveness and the factors moderating these effects. Figure 2.1 depicts the conceptual framework, and the following section discusses our hypotheses.

Figure 2.1 Conceptual model of influencer marketing effectiveness



a. We combine informational value and hedonic value as content value (Hughes et al. 2019) in SEM. b. We also combine influencer communication and influencer self-disclosure as interaction strategies (Aw et al. 2022) in the same analysis.

2.3 Hypothesis development

Like other meta-analyses (e.g., Blut et al. 2023), instead of deriving formal hypotheses for direct and indirect effects, we present the meta-analytical evidence and discuss how our results resolve discrepancies. However, we do formally derive hypotheses for moderators because of their novelty. Table 2.2 shows the hypothesized relationships.

Table 2.2 Expected relationships in influencer marketing

Variables	Expected Relationships	Direction	Representative Studies
Post Characteristics			
Informational value	Influencer posts with informational value have positive effects on non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Ki and Kim (2019); Ren et al. (2023)
Hedonic value	Influencer posts with hedonic value have positive effects on non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Croes and Bartels (2021); Hughes et al. (2019)
Sponsorship disclosure	Sponsorship disclosure of influencer posts positively influences non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Hwang and Jeong (2016)
Follower Characteristics			
Social identity	The more consumers identify with influencers, the more consumers will have higher non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Croes and Bartels (2021)
Consumer knowledge	Consumers with more knowledge are more likely to have higher non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Park et al. (2021); Sanosra and Susanti (2023)
Consumer materialism	Consumer materialism has positive effects on non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Lee et al. (2022); Lou and Kim (2019)
Influencer Characteristics			
Influencer–brand fit	Congruence between the influencer and brand has positive effects on non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Belanche et al. (2021); Torres et al. (2019)
Influencer communication	The more influencers interact with followers, the more consumers will have higher non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Ki et al. (2022); Ki and Kim (2019)

Variables	Expected Relationships	Direction	Representative Studies
Influencer self-disclosure	Perceived influencer self-disclosure has positive effects on non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Aw et al. (2022); Chen et al. (2023)
Influencer indegree	Influencer indegree has positive effects on non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	–	Gu et al. (2024); Hashem (2021); Park et al. (2021)
Mediators			
Persuasion knowledge	Persuasion knowledge negatively mediates the positive effects of (a) post characteristics, (b) follower characteristics, and (c) influencer characteristics on non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance. Persuasion knowledge negatively influences the perceived source credibility of influencers.	–	Belanche et al. (2021); De Veirman and Hudders (2020)
Source credibility	Perceived source credibility of influencers positively mediates the positive effects of (a) post characteristics, (b) follower characteristics, and (c) influencer characteristics on non-transactional outcomes, including consumer attitude, behavioral engagement, and purchase intention, as well as transactional outcomes, including purchase behavior and sales performance.	+	Belanche et al. (2021); De Veirman and Hudders (2020)

2.3.1 Antecedents of influencer marketing effectiveness

Post characteristics According to the PKM and influencer marketing literature, influencer post characteristics can indicate manipulative intent, directly influencing marketing outcomes (De Veirman and Hudders 2020; Kim et al. 2019). We examine the effects of three post characteristics on marketing outcomes: informational value, hedonic value, and sponsorship disclosure (Hughes et al. 2019; Leung et al. 2022).

Informational value refers to the informativeness of influencer posts (Hughes et al. 2019). Access to informative content helps consumers understand a product and facilitates decision-making. Therefore, posts rich in informational value enhance consumer behavioral engagement and purchase intention (Ki and Kim 2019), leading to positive purchase behavior (Fakhreddin and Foroudi 2021) and increased sales (Ren et al. 2023).

Hedonic value refers to the enjoyment consumers experience from influencer posts (Hughes et al. 2019). Hedonic posts tap into emotional and sensory experiences, offering

enjoyment and pleasure (Park and Lin 2020). They appeal to consumers emotionally and foster a connection with the product, enhancing consumer engagement with the brand (Hughes et al. 2019) and increasing purchase intention (Park and Lin 2020) as well as purchase behavior (Croes and Bartels 2021).

Sponsorship disclosure refers to the acknowledgment that a brand sponsors the post or shared content (Hwang and Jeong 2016). Such disclosure promotes perceived transparency, enhancing the perceived honesty of influencers (Hwang and Jeong 2016). It can improve consumer attitude and engagement (Hwang and Jeong 2016), potentially increasing purchase behavior (Croes and Bartels 2021) and sales (Beichert et al. 2023).

Follower characteristics According to the influencer marketing literature, follower characteristics shape how consumers process influencer recommendations, impacting the effectiveness of influencer marketing strategies (Kay et al. 2020; Lee et al. 2022). We examine the impacts of social identity, consumer knowledge, and consumer materialism on these processes (Croes and Bartels 2021; Lee et al. 2022; Park et al. 2021).

Social identity refers to individuals' self-perceptions based on emotional and value significance of group memberships (Tajfel 1974). For followers, social identity stems from a sense of belonging within influencer communities, fostering a psychological identity-based attachment and brand commitment (Croes and Bartels 2021). This identification strongly predicts behavioral engagement and purchase behavior (Croes and Bartels 2021).

Consumer knowledge reflects consumers' perceived familiarity and expertise in product- and brand-related information (Kay et al. 2020). Consumers with more knowledge can evaluate different options more effectively, facilitating informed decision-making (Kay et al. 2020). This enhanced understanding profoundly impacts their attitude toward the product, behavioral engagement, purchase intention, and, ultimately, purchase behavior and sales (Kay et al. 2020; Park et al. 2021).

Consumer materialism refers to the importance individuals assign to material possessions as a means of value representation, including success, centrality, and happiness (Lee et al. 2022). Materialists seek to compensate for psychological deficiencies through material acquisition, positively influencing consumer attitude (Lee et al. 2022) and purchase intention (Lou and Kim 2019), leading to purchase behavior (Croes and Bartels 2021).

Influencer characteristics According to the influencer marketing literature, influencer characteristics can signal ulterior motives, directly influencing marketing outcomes (De Cicco et al. 2021). Some key influencer characteristics include influencer–brand fit, influencer communication, influencer self-disclosure, and influencer indegree (Belanche et al. 2021; Chen et al. 2023; Hughes et al. 2019).

Influencer–brand fit refers to the sim ilarity between influencers and brands (Torres et al. 2019). This alignment facilitates efficient communication of the brand's meanings and values to consumers (Park and Lin 2020). When influencers share strong similarities with a brand, they are more likely to display positive attitudes and purchase intention (Torres et al. 2019). This congruence can lead to improved purchase behavior and increased sales (Beichert et al. 2023; Croes and Bartels 2021).

Influencer communication refers to the degree to which consumers perceive influencers communicate and exchange information (Ki et al. 2022). This personalized interaction makes consumers feel valued and acknowledged, leading them to consider influencer recommendations more deeply (Ki and Kim 2019). Higher perceived interactivity boosts consumers' processing of influencers' opinions (Ki and Kim 2019), enhancing behavioral engagement and sales (Beichert et al. 2023).

Influencer self-disclosure refers to the extent to which influencers reveal personal information (Chung and Cho 2017). With social media facilitating widespread and frequent personal content sharing (Leite and Baptista 2022), self-disclosure promotes a deeper

understanding of influencers' inner state (Chung and Cho 2017) and feelings of friendliness and connection (Leite and Baptista 2022). Research highlights the crucial impact of self-disclosure on enhancing behavioral engagement and purchase intention (Aw et al. 2022; Chen et al. 2023), which contributes to increased sales (Beichert et al. 2023).

Influencer indegree refers to an influencer's follower count (Wies et al. 2023). Influencers with a more extensive follower base enjoy greater popularity and visibility (Wies et al. 2023). This increases the likelihood of reaching broader audiences, thereby effectively influencing behavioral engagement (Hughes et al. 2019), purchasing behavior (Hashem 2021), and sales (Gu et al. 2024).

2.3.2 Mediators of influencer marketing effectiveness

In line with the PKM and advertising literature, we examine the indirect effects of different antecedents on transactional and non-transactional marketing outcomes through the mediators of persuasion knowledge and source credibility (De Veirman and Hudders 2020).

Persuasion knowledge The characteristics of posts, followers, and influencers can significantly affect persuasion knowledge and thus impact marketing outcomes (Eisend and Tarrahi 2022; Kim and Kim 2021). Post characteristics, including content value and sponsorship disclosure, can indicate manipulative intent behind the content, prompting more cautious engagement with the post and potentially altering consumer purchase decisions. Research shows that persuasion knowledge mediates the effect of content value and sponsorship disclosure on consumer responses (e.g., brand attitude and purchase intention) (De Veirman and Hudders 2020; Kim et al. 2019).

Follower characteristics, including social identity, consumer knowledge, and materialism, shape how consumers process persuasive messages (Farivar and Wang 2022; van Reijmersdal et al. 2020), affecting their evaluation of marketing strategies. For example, social identity can lead to in-group favoritism (Croes and Bartels 2021), potentially making

followers overlook critical evaluation of influencer recommendations and thus impacting marketing outcomes. Moreover, materialistic followers are more receptive to persuasive posts that resonate with their aspirations for success and happiness (Lee et al. 2022), reinforcing materialistic behaviors such as purchasing. Conversely, knowledgeable consumers are adept at recognizing persuasive tactics (Kay et al. 2020), enabling them to assess influencer endorsements critically and thus impact their behaviors.

Finally, influencer characteristics, such as influencer–brand fit, self-disclosure, communication, and indegree, are crucial in revealing or obscuring the marketing intent behind influencers' posts. These factors influence consumer responses to persuasive efforts and consumer behavior. Studies indicate that persuasion knowledge mediates the impact of influencer–brand fit on consumer attitude and purchase intention (De Cicco et al. 2021; Kim and Kim 2021). Additionally, influencer self-disclosure and communication foster interaction, reducing consumer persuasion knowledge and thus enhancing purchase intention (Hwang and Zhang 2018; Leite and Baptista 2022). Conversely, an influencer's high indegree makes consumers more aware of possible commercial exploitation (Park et al. 2021).

Source credibility The PKM suggests that consumers evaluate influencer credibility by assessing whether underlying intentions and tactics are self-serving or manipulative (Friestad and Wright 1994). They evaluate various characteristics, including the personal attributes of influencers (Aw et al. 2022; Leite and Baptista 2022), the nature of their followers (Lee et al. 2022), and the content of their posts (De Cicco et al. 2021; Ki and Kim 2019). The perceived credibility of influencers contributes to communication efficiency and openness to receiving persuasive messages (Ohanian 1991), influencing consumer attitude (Torres et al. 2019), behavioral engagement (Hughes et al. 2019), and purchase intention (Ki and Kim 2019).

Influencers can enhance their credibility by delivering valuable content and disclosing sponsorships (post characteristics), which can elevate their posts' perceived quality and

honesty, leading to enhanced marketing outcomes (De Cicco et al. 2021; Ki and Kim 2019). Furthermore, follower characteristics influence perceived influencer credibility through various dimensions. Social identity can enhance influencer credibility by fostering a sense of community among followers who identify with influencers (Tajfel 1974). Consumers with greater knowledge of a subject (consumer knowledge) are better equipped to evaluate influencer posts critically (Kay et al. 2020), impacting their judgment of influencer credibility. Consumer materialism influences perceptions of influencer credibility because materialistic followers are drawn to influencers who reflect their aspirations and material value through their endorsements and lifestyles (Lee et al. 2022).

Regarding influencer characteristics, influencer–brand fit enhances influencers' image and perceptions of their credibility (Park and Lin 2020). Social interaction, exemplified by influencer communication and self-disclosure, nurtures the influencer–follower bond, making followers more inclined to accept influencer recommendations and enhancing influencer credibility (Ki and Kim 2019). A broad social network (indegree) signals influencers' experience and expertise in their niche, implying successful engagement and retention of a wide consumer base, further consolidating their credibility (Park et al. 2021).

2.3.3 Moderators of influencer marketing effectiveness

Studies on PKM and advertising indicate that social media (Hughes et al. 2019) and product types (Park et al. 2021) can significantly affect consumers' responses to persuasion attempts and promotional activities (Eisend and Tarrahi 2022). Therefore, we assess the moderating effects of these variables on marketing outcomes. Due to limited effect sizes for transactional outcomes, we focus here on non-transactional outcomes. Hypotheses 1 to 6 focus on social media types; Hypotheses 7 to 12 focus on product types.

Table 2.3 Classification of social media and product types

Panel A: Social media types considered in the meta-analysis

			NATURE OF CONNECTION (A)	
			Content-based social media (1)	Profile-based social media (2)
			These social media platforms connect users based on shared interests in the content (Zhu and Chen, 2015).	These social media platforms connect users around their personal and/or professional profiles (Zhu and Chen, 2015).
USAGE (B)	Utilitarian social media (3)	These social media platforms are utilitarianly oriented and purposed (Reich and Pittman 2020).	e.g., Bilibili, Little Red Book, Pinterest	e.g., LinkedIn, Twitter
	Hedonic social media (4)	These social media platforms are hedonically oriented and purposed (Reich and Pittman 2020).	e.g., Snapchat, TikTok	e.g., Facebook, WeChat, Weibo

Panel B: Product types considered in the meta-analysis

			INFORMATION AVAILABILITY (A)	
			Search products (1)	Experience products (2)
			These products' attributes are objective, can be easier to discover, compare, and evaluate objectively without having direct product integrations (Huang et al. 2009).	These products' attributes are inherently subjective and are more readily discernible through personal behavioral interaction with the product (Huang et al. 2009).
STATUS-SIGNALING CAPABILITY (B)	Self-expressive products (3)	These products are commonly perceived to serve as manifestations of the identity of individuals, shaping their self- concepts (Steinhart et al. 2014).	e.g., Electronic products: Apple iPhone, Canon camera; Jewelry accessories: gold bracelets, diamond rings, jade pendant	e.g., Fashion products: luxury bags, clothes; Automobiles: BMW, Mercedes
	Functional products (4)	These products are essential and utilitarian instruments that empower individuals to accomplish a specific and practical undertaking (Steinhart et al. 2014).	e.g., Home appliances: microwave, refrigerator; Cleaning supplies: detergent, dishwashing liquid	e.g., Personal hygiene: toothpaste, shampoo; Medicine

In terms of social media types, consumers are more sensitive to influencer content on social media when it does not align with their motivations for using such platforms (Kelly et al. 2010). Ensuring persuasive attempts resonate with user motivations can enhance market effectiveness by reducing resistance to influencer recommendations. Social media can be distinguished by the nature of connection (profile- vs. content-based) (Zhu and Chen 2015) (see Panel A in Table 2.3). Profile-based social media platforms (e.g., Facebook and LinkedIn) focus on individual identities and activities where consumers follow or connect

with others to build networks centered around personal or professional profiles. Content-based social media platforms (e.g., YouTube and Pinterest) revolve around shared interests in particular content, leading to connections focused more on content than individual identities. Social media platforms also differ by usage, offering either practical or entertainment value (utilitarian vs. hedonic social media) (Reich and Pittman 2020) (see Panel A in Table 2.3). Platforms cater to various user needs, from learning new skills or professional networking to seeking entertainment and leisure. For example, Snapchat and TikTok are known for their high hedonic value, whereas LinkedIn is perceived as more utilitarian (Lou et al. 2022).

Nature of connection (profile- vs. content-based social media) Profile-based platforms are mainly used for managing relationships with "friends," focusing on personal connections. In contrast, content-based platforms center around "followers," where consumers' preferences for specific content drive interactions (Zhu and Chen 2015). In influencer marketing, the interaction process is more follower- than friend-focused, such that followers are more engaged in influencer posts on content-based (vs. profile-based) social media. The PKM posits that the effectiveness of persuasive communication is influenced by consumers' recognition and interpretation of the persuasion attempt (Friestad and Wright 1994). The communication model highlights that messages (post characteristics), receivers (follower characteristics), and senders (influencer characteristics) can be disrupted by so-called noise—additional signals that interfere with the primary message (Foulger 2004). In profile-based social media, influencer recommendations often act as noise, disrupting the primary user experience and making consumers more skeptical and less receptive to messages. Conversely, in content-based social media, the lower level of platform distraction leads to more effective marketing outcomes (Hughes et al. 2019).

H1: The positive effects of (a) post characteristics, (b) follower characteristics, and (c) influencer characteristics on marketing outcomes (attitude, behavioral engagement, purchase intention) are stronger on content-based than profile-based social media platforms.

In profile- based social media platforms, where interactions are often rooted in personal relationships (Zhu and Chen 2015), consumers exhibit heightened sensitivity to persuasive attempts (Kelly et al. 2010). When consumers detect persuasive content amidst personal interactions, their persuasion knowledge leads to stronger negative reactions, as the marketing effort invades their personal space and is perceived as intrusive or manipulative (Eisend and Tarrahi 2022), adversely affecting consumer behaviors. Conversely, content-based social media platforms revolve around content linked to shared interests (Zhu and Chen 2015). The inherent purpose of content-based platforms is to mitigate the negative impact of persuasion knowledge, as consumers are predisposed to discover and interact with content, even if it is promotional. Therefore, although persuasion knowledge still influences consumer reactions on content-based platforms, its negative effects on attitudes, engagement, and purchase intentions are likely to be attenuated compared to profile-based social media.

H2: The negative effects of persuasion knowledge on (a) attitude, (b) behavioral engagement, and (c) purchase intention are stronger on profile-based than content-based social media platforms.

The positive effects of source credibility on marketing outcomes vary across content-based and profile-based social media. On content-based social media, where connections and interactions are driven by shared interests, consumers rely on persuasion knowledge to evaluate the credibility of content creators because of the lack of personal connections, making source credibility crucial for influencer marketing success (Belanche et al. 2021). In contrast, profile-based social media builds connections based on existing personal relationships (Zhu and Chen 2015), fostering familiarity and trust among individuals. This

reduces reliance on persuasion knowledge, weakening the impact of perceived source credibility on consumer behaviors on profile-based (vs. content-based) social media.

H3: The positive effects of source credibility on (a) attitude, (b) behavioral engagement, and (c) purchase intention are stronger on content-based than profile-based social media platforms.

Usage (utilitarian vs. hedonic social media) Hedonic social media is primarily used to pursue enjoyment and pleasure, while utilitarian social media use is motivated by the need to search for and exchange information (Reich and Pittman 2020). On utilitarian social media, consumers seek specific information, making them aware of potential persuasive attempts and prompting them to use persuasion knowledge to process marketing-related information, including characteristics of influencers, followers, and posts (Friestad and Wright 1994; Reich and Pittman 2020). In contrast, on hedonic social media, the focus on enjoyment may result in less engagement with content and critical evaluation of the intent behind marketing messages. Hence, the effects of posts, followers, and influencer characteristics on marketing outcomes are stronger on utilitarian than hedonic social media platforms.

H4: The positive effects of (a) post characteristics, (b) follower characteristics, and (c) influencer characteristics on marketing outcomes (attitude, behavioral engagement, purchase intention) are stronger on utilitarian than hedonic social media platforms.

On hedonic (vs. utilitarian) social media, the effect of persuasion knowledge on marketing outcomes can vary with consumers' mindsets (Reich and Pittman 2020). Hedonic social media platforms, designed for leisure and emotional gratification (Lou et al. 2022), put consumers in a leisure-oriented mindset, making them less prepared for the critical processing of persuasive attempts. Consequently, persuasive content feels like an unwanted disruption, leading to stronger adverse reactions. Conversely, utilitarian social media platforms, focuses on professional development, learning, and practical information exchange

(Lou et al. 2022), cultivate an environment where consumers expect and are prepared for persuasive attempts that align with their utilitarian goals. This goal-oriented mindset makes them less sensitive to persuasion. When persuasion knowledge is activated, the persuasive attempt contrasts more starkly on hedonic (vs. utilitarian) social media, resulting in a more pronounced negative reaction.

H5: The negative effects of persuasion knowledge on (a) attitude, (b) behavioral engagement, and (c) purchase intention are stronger on hedonic than utilitarian social media platforms.

Source credibility has a more positive influence on marketing outcomes on utilitarian (vs. hedonic) social media due to its focus on informational and professional value (Lou et al. 2022). On utilitarian social media, consumers have explicit objectives and rely on persuasion knowledge to discern credible sources that offer reliable, relevant information aligned with their goals. This recognition of source credibility leads to more favorable marketing outcomes. Conversely, on hedonic social media, which caters to consumers' desires for entertainment and relaxation, consumers may prioritize enjoyment over assessing the intentions behind the source (Lou et al. 2022). Consequently, although a credible source enhances content appreciation, its impact on marketing outcomes is less pronounced.

H6: The positive effects of source credibility on (a) attitude, (b) behavioral engagement, and (c) purchase intention are stronger on utilitarian than hedonic social media platforms.

In terms of product types, consumers are more skeptical of marketing messages for products that require detailed information and functionality before purchase (Huang et al. 2009; Steinhart et al. 2014). This skepticism stems from the need for rigorous evaluation of product attributes and performance, leading to critical assessment of the information reliability (Eisend and Tarrahi 2022). Products can be categorized into search and experience products based on the accessibility of information about product quality (information

availability) before purchase (Huang et al. 2009) (see Panel B in Table 2.3). Search products (e.g., camera) can be more accessible to evaluate and compare without direct interaction with the product, while experience products (e.g., vacation packages) rely on personal interaction (Huang et al. 2009). Another influential product type is characterized by status-signaling capability (self-expressive vs. functional) (Steinhart et al. 2014) (see Panel B in Table 2.3). Functional products are essential goods that enable individuals to achieve practical tasks; self-expressive products reflect and define users' identity, with purchasing decisions driven by the product's ability to convey self-identities and social meanings (Steinhart et al. 2014).

Information availability (experience vs. search products) Influencer marketing impacts how consumers benefit from information availability of search and experience products. Research indicates that third-party recommendations (e.g., influencers) have a stronger effect on consumer search and purchase behavior for experience products (Huang et al. 2009; Park and Lee 2009). According to the PKM (Friestad and Wright 1994), influencer and post characteristics can signal manipulative intent behind the persuasive agent and message, affecting how consumers use their persuasion knowledge to process influencer recommendations. When influencers share product details and personal experiences, they reduce uncertainty regarding the product quality and performance. This is useful for experience (vs. search) products, where subjective attributes and personal endorsements influence consumer decision-making. Follower characteristics also shape the interpretation and evaluation of marketing messages (Eisend and Tarrahi 2022). Consumer knowledge, including familiarity and expertise with product- and brand-related information, has advantages when product attributes are more subjective and less accessible from other sources. Experience (vs. search) products benefit from social identity effects because influencers' personal experiences make them more relatable and influential. Consumers with low levels of materialism also prioritize objective product information (Audrin et al. 2018).

Consequently, experience (vs. search) products amplify the positive effect of consumer materialism on marketing outcomes.

H7: The positive effects of (a) post characteristics, (b) follower characteristics, and (c) influencer characteristics on marketing outcomes (attitude, behavioral engagement, purchase intention) are stronger for experience than search products.

The negative effect of persuasion knowledge is stronger for search (vs. experience) products because consumers rely more on pre-purchase information than on post-purchase experiences. For search products, the consumer decision-making process is heavily anchored in the pre-purchase phase, where detailed product information is scrutinized to make informed decisions (Huang et al. 2009). For experience products, the evaluation process primarily occurs post-purchase through direct consumption (Huang et al. 2009). Hence, when consumers detect persuasion attempts, their skepticism toward the advertised benefits of search products increases. This skepticism stems from their reliance on detailed product information before purchase, but they understand that the value of experience products unfolds only through utilization. Thus, persuasion knowledge can more markedly influence consumer behaviors regarding search (vs. experience) products.

H8: The negative effects of persuasion knowledge on (a) attitude, (b) behavioral engagement, and (c) purchase intention are stronger for search than experience products.

The impact of source credibility on marketing outcomes is contingent on experience (vs. search) products. According to the PKM (Friestad and Wright, 1994), consumers leverage their persuasion knowledge to assess the credibility of endorsers, which directly influences their purchase decisions. For experience products, whose value and satisfaction are realized through utilization (Huang et al. 2009), influencer endorsements carry substantial weight because they serve as surrogates for the firsthand experience consumers cannot obtain before purchase (Park and Lee 2009). For search products, however, consumers can independently

verify attributes and quality before purchase. Thus, the perception of influencer credibility exerts a stronger influence on consumer behaviors regarding experience (vs. search) products.

H9: The positive effects of source credibility on (a) attitude, (b) behavioral engagement, and (c) purchase intention are stronger for experience than search products.

Status-signaling capability (functional vs. self-expressive products) The beneficial impact of self-expressive products in conveying their owners' identity (Berger and Heath 2007) is heightened in influencer marketing contexts. According to the PKM (Friestad and Wright 1994), consumers' understanding of persuasive intent, combined with their emotional and social engagement with influencers, leads to more immediate and significant marketing outcomes. Within the dynamic social environments fostered by influencer marketing, followers form interactive and supportive relationships with influencers and their communities, creating a microculture with shared norms (Farivar and Wang 2022). The resulting sense of identification and perceived membership profoundly impact consumer behavior, with self-expressive products symbolizing individuals' social identity (Steinhart et al. 2014). Moreover, self-expressive products that cater to social status, including preferences, values, or beliefs, rely heavily on the emotional resonance and pleasure conveyed by influencers (Morgan and Townsend 2022). Consequently, influencer marketing elements, including the characteristics of posts, followers, and influencers, have a stronger impact on consumer behaviors for self-expressive (vs. functional) products.

H10: The positive effects of (a) post characteristics, (b) follower characteristics, and (c) influencer characteristics on marketing outcomes (attitude, behavioral engagement, purchase intention) are stronger for self-expressive than functional products.

The negative effects of persuasion knowledge are more pronounced for functional (vs. self-expressive) products because of the distinct intrinsic motivations behind consumer interactions. Consumers purchase functional products for their practicality in meeting specific

needs (Steinhart et al. 2014) and thus are more critical when evaluating product specifications. Conversely, consumers purchase self-expressive products not just for their utility but also their ability to convey status or identity with a particular group (Steinhart et al. 2014). When choosing self-expressive products, consumers prioritize alignment with their self-concept and emotional satisfaction. This makes them more susceptible to peripheral cues such as endorsements by influencers they identify with (Hogg 2018). When consumers detect persuasion attempts while evaluating functional (vs. self-expressive) products, they become more skeptical of the marketing messages during such information processing. This activates persuasion knowledge, which dampens marketing outcomes.

H11: The negative effects of persuasion knowledge on (a) attitude, (b) behavioral engagement, and (c) purchase intention are stronger for functional than self-expressive products.

Source credibility has a more significant influence on consumer behaviors toward self-expressive (vs. functional) products, as consumers rely on peripheral cues to make purchasing decisions when evaluating self-expressive consumption (Park et al. 2021). Self-expressive products serve as symbols of identity and personal values (Steinhart et al. 2014), making the credibility of the source crucial in reinforcing consumers' self-concept and social standing. The PKM indicates that consumers utilize persuasion knowledge to evaluate the credibility of a source, impacting their responses (Friestad and Wright 1994). For self-expressive products, a credible source enhances influencer marketing effectiveness by aligning with consumers' identity and values. Research demonstrates that using a celebrity increases positive consumer responses to a self-expressive (vs. functional) product (Kim et al. 2017), leading to enhanced attitudes, behavioral engagement, and purchase intentions.

H12: The positive effects of source credibility on (a) attitude, (b) behavioral engagement, and (c) purchase intention are stronger for self-expressive than functional products.

2.4 Method

2.4.1 Data collection and coding

We collected data from EBSCO, ProQuest, CNKI, and Scopus, using search terms including "influencer*", "blogger*", and "vlog*" (Ye et al. 2021). We also identified relevant articles through Google Scholar and the reference lists of collected articles. Finally, we emailed requests for unpublished data sets, including reports, book chapters, working papers, and conference papers. The inclusion criteria were as follows. First, studies had to be empirical (not theoretical, qualitative studies or book reviews). Second, papers needed to contain sufficient data (e.g., correlation coefficients, beta coefficients, F- or t-values) to calculate effect sizes among variables in the constructs. Third, we excluded research on traditional celebrity endorsement. Application of these criteria yielded 251 studies (Appendix N), including articles, conference papers, and dissertations.

Two coders extracted information, classified variables, and calculated effect sizes according to construct definitions (Appendix A), achieving over 93% agreement and resolving inconsistencies through discussion.[3] We extracted information about sample sizes, measurement reliability, and effect sizes related to antecedents, mediators, and marketing outcomes, as well as social media types and product types. The effect sizes in our meta-analysis were correlation coefficients chosen for their scale-independence and common reporting in most studies (Blut et al. 2023). When such coefficients were lacking, we

[3] Two coders discussed the specific item, referring to the source paper to clarify the definition. If the discrepancy persisted, a third coder was consulted.

transformed alternative statistics into correlation coefficients, such as standardized regression coefficients, F- or t-values, using the formula $r=.98\beta + .05\lambda$ with $\lambda=1$ when $\beta>0$ and $\lambda=0$ when $\beta<0$ (Blut et al. 2023). We averaged multiple effect sizes from the same sample to avoid giving any sample excessive weight in subsequent analyses (Palmatier et al. 2006). Thus, we obtained 1,531 effect sizes from 279 independent samples across 251 articles, representing 2,009,314 individuals from 27 countries. These samples included 240 journal publications and 39 from conference proceedings and dissertations.

2.4.2 Integration of effect sizes

We employed a random-effects model to integrate effect sizes (Grewal et al. 2018). First, to correct effect sizes for measurement error, we divided each correlation by the product of the square root of the respective reliabilities of the constructs (Hunter and Schmidt 2004), substituting it with average reliability for missing data. Second, we transformed the reliability-adjusted effect sizes into Fisher-z coefficients (Borenstein et al. 2009) before weighting them by the inverse variance for sampling error (Hedges and Vevea 1998). Third, we reconverted Fisher-z to correlation coefficients (Borenstein et al. 2009) and reported 95% confidence intervals (Blut et al. 2016). Fourth, we assessed effect size variance using the Q statistic (Hunter and Schmidt 2004) and I^2 statistic tests, with significant Q test and I^2 values over 75% indicating substantial heterogeneity in effect sizes (Grewal et al. 2018). Fifth, to assess potential publication bias, we calculated the fail-safe Ns (FSNs) (Rosenthal 1979), indicating the number of null-result studies needed to affect the significance level (p=.05). FSNs should be larger than 5*k+10, where k is the number of stu dies (Rosenthal 1979). To adjust for publication bias, we employed funnel plots where effect sizes were plotted against sample sizes to identify asymmetry. We then applied the trim-and-fill method, allowing for deletion (trimming) and potential addition (filling) of effect sizes to assess the symmetry of funnel plots (Duval and Tweedie 2000).

2.4.3 Structural equation modeling

We tested the mediating effects using structural equation modeling (SEM), including variables for which correlations with all other variables could be identified and using a correlation matrix as the input for Mplus 8. To address the small sample size, we combined informational and hedonic value as post content value (Hughes et al. 2019), and influencer communication and self-disclosure as interaction strategies (Aw et al. 2022). Finally, we included post content value, social identity, consumer knowledge, influencer–brand fit, interaction strategies, and influencer indegree in the SEM. We excluded sponsorship disclosure and consumer materialism because of the number of effect sizes.[4]

2.4.4 Moderator analysis

We tested the moderation effects using sub-group analysis (Grewal et al. 2018). We coded four moderators: nature of connection (1=content-based social media, 0=profile-based social media), usage (1=utilitarian social media, 0=hedonic social media), information availability (1=experience products, 0=search products), and status-signaling capability (1=self-expressive products, 0=functional products).

2.5 Results

2.5.1 Effect size integration

Direct effect Table 2.4 indicates significant effect sizes for post, follower, and influencer characteristics. Regarding *post characteristics*, both informational value and hedonic value had stronger effects on purchase intention ($rcw_{informational\text{-}intention}$=.55, $rcw_{hedonic\text{-}intention}$=.65) than consumer attitude ($rcw_{informational\text{-}attitude}$=.40, $rcw_{hedonic\text{-}attitude}$=42) and behavioral engagement ($rcw_{informational\text{-}engagement}$=.43, $rcw_{hedonic\text{-}engagement}$=.36). Informational

[4] We had fewer than three effect sizes among sponsorship disclosure, consumer materialism, and other variables.

value positively influenced purchase behaviors ($rcw_{informational\text{-}behavior}$=.36), while hedonic value showed no significant impacts. However, neither informational nor hedonic value impacted sales, and we observed no significant effects for sponsorship disclosure.

For *follower characteristics*, social identity ($rcw_{identity\text{-}attitude}$=.53, $rcw_{identity\text{-}engagement}$=.52, $rcw_{identity\text{-}intention}$=.54, $rcw_{identity\text{-}behavior}$=.42) showed stronger influences on marketing outcomes than consumer knowledge ($rcw_{knowledge\text{-}attitude}$=.34, $rcw_{knowledge\text{-}engagement}$=.29, $rcw_{knowledge\text{-}intention}$=.36) and consumer materialism ($rcw_{materialism\text{-}attitude}$=.29, $rcw_{materialism\text{-}engagement}$=.23, $rcw_{materialism\text{-}intention}$=.39, $rcw_{materialism\text{-}behavior}$=.34). However, we observed no significant effects for follower characteristics on sales.

When examining *influencer characteristics*, regarding non-transactional outcomes, we found that influencer–brand fit, influencer self-disclosure, and influencer indegree were more important for consumer attitude ($rcw_{fit\text{-}attitude}$=.45, $rcw_{self\text{-}attitude}$=.47, $rcw_{indegree\text{-}attitude}$=.15) and purchase intention ($rcw_{fit\text{-}intention}$=.45, $rcw_{self\text{-}intention}$=.47) than behavioral engagement ($rcw_{fit\text{-}engagement}$=.20, $rcw_{self\text{-}engagement}$=.19). However, influencer communication was more important for behavioral engagement ($rcw_{communication\text{-}engagement}$=.47) than consumer attitude ($rcw_{communication\text{-}attitude}$=.42) and purchase intention ($rcw_{communication\text{-}intention}$=.43). Regarding transactional outcomes, influencer communication had the strongest effects on purchase behavior ($rcw_{communication\text{-}behavior}$=.51, $rcw_{fit\text{-}behavior}$=.40, $rcw_{indegree\text{-}behavior}$=.21). However, there were no significant effects for influencer characteristics on sales.

All effect size integration results were robust to publication bias; the FSNs exceeded the suggested threshold (Rosenthal 1979), and the funnel plots showed no publication bias (Appendix B). The Q and I^2 test results indicated the presence of moderation in all instances (Table 2.4). The effect size integration results for marketing outcomes aligned with the results of effect size integration without outliers (Appendix C). We observed only one sample size outlier that impacted the relationship between influencer indegree and behavioral

engagement, influencer indegree and sales performance, as well as behavioral engagement and sales performance. After we removed this outlier, the effect sizes remained significant.

Table 2.4 Results of effect size integration for marketing outcomes

Relationship	k	N	rcw	CI_{95-}	CI_{95+}	Q	I^2	FSN
Post Characteristics								
Informational value → Attitude	23	7983	.40**	.26	.53	793**	98	13270
Informational value → Behavioral engagement	20	10103	.43**	.27	.56	1224**	99	9787
Informational value → Purchase intention	27	8950	.55**	.44	.64	1006**	98	31707
Informational value → Purchase behavior	6	2057	.36**	.20	.50	60**	94	547
Informational value → Sales performance	2	450	.87	-.84	1.00	739	100	—
Hedonic value → Attitude	9	2747	.42**	.31	.51	64**	90	1775
Hedonic value → Behavioral engagement	8	5388	.36**	.13	.55	434**	99	1099
Hedonic value → Purchase intention	9	3365	.65**	.52	.76	291**	97	6304
Hedonic value → Purchase behavior	3	1290	.42	-.22	.81	305**	99	—
Hedonic value → Sales performance	1[a]	385	.86	.83	.88	—	—	—
Sponsorship disclosure→ Attitude	35	11048	-.01	-.09	.07	482**	94	—
Sponsorship disclosure → Behavioral engagement	23	8082	.01	-.05	.06	104**	78	—
Sponsorship disclosure → Purchase intention	30	6745	.06	-.04	.16	412**	94	—
Sponsorship disclosure → Purchase behavior	—	—	—	—	—	—	—	—
Sponsorship disclosure → Sales performance	—	—	—	—	—	—	—	—
Follower Characteristics								
Social identity → Attitude	34	11814	.53**	.44	.60	1184**	97	47806
Social identity → Behavioral engagement	27	11587	.52**	.43	.61	1549**	98	37395
Social identity → Purchase intention	38	13650	.54**	.46	.62	1556**	98	60951
Social identity → Purchase behavior	3	1138	.42**	.28	.55	16**	87	247
Social identity → Sales performance	1[a]	200	.08	-.06	.22	—	—	—
Consumer knowledge → Attitude	26	7931	.34**	.23	.44	897**	96	10786
Consumer knowledge → Behavioral engagement	22	10688	.29**	.10	.46	2093**	99	5507
Consumer knowledge → Purchase intention	27	8052	.36**	.27	.45	613**	95	13345
Consumer knowledge → Purchase behavior	5	1038	.50	-.16	.85	796**	99	—
Consumer knowledge → Sales performance	1[a]	108	.45	.29	.59	—	—	—
Consumer materialism → Attitude	11	4132	.29*	.06	.49	346**	98	1495
Consumer materialism → Behavioral engagement	7	2898	.23**	.17	.30	19**	68	395
Consumer materialism → Purchase intention	7	1923	.39**	.17	.57	144**	96	713
Consumer materialism → Purchase behavior	2	696	.34[+]	-.02	.62	25**	96	59
Consumer materialism → Sales performance	—	—	—	—	—	—	—	—
Influencer Characteristics								
Influencer–brand fit → Attitude	24	8233	.45**	.33	.56	991**	98	16129
Influencer–brand fit → Behavioral engagement	10	6662	.20*	.02	.35	363**	98	414
Influencer–brand fit → Purchase intention	18	6660	.45**	.31	.57	764**	98	7953
Influencer–brand fit → Purchase behavior	2	825	.40**	.15	.61	16**	94	113
Influencer–brand fit → Sales performance	2	3043	-.00	-.07	.06	—	—	—
Influencer communication → Attitude	14	5350	.42**	.25	.58	696**	98	5364
Influencer communication → Behavioral engagement	7	4855	.47**	.29	.61	209**	97	1734
Influencer communication → Purchase intention	11	4408	.43**	.24	.59	563**	98	3345
Influencer communication → Purchase behavior	13	4394	.51**	.33	.65	590**	98	6121
Influencer communication → Sales performance	3	3243	.11	-.11	.31	27**	93	—
Influencer self-disclosure → Attitude	8	3253	.47**	.30	.61	251**	97	2549
Influencer self-disclosure → Behavioral engagement	7	2377	.19*	.03	.34	91**	94	164
Influencer self-disclosure → Purchase intention	7	2379	.47**	.24	.65	234**	98	1451
Influencer self-disclosure → Purchase behavior	—	—	—	—	—	—	—	—
Influencer self-disclosure → Sales performance	—	—	—	—	—	—	—	—
Influencer indegree → Attitude	14	6097	.15*	.01	.29	313**	97	666
Influencer indegree → Behavioral engagement	18	1863836[b]	.07	-.11	.25	875**	100	—
Influencer indegree → Purchase intention	7	1574	-.28	-.68	.25	444*	99	—
Influencer indegree → Purchase behavior	3	1700	.21*	.00	.40	26**	90	109
Influencer indegree → Sales performance	5	1896097[b]	.10	-.06	.24	331**	100	—
Mediators								
Persuasion knowledge→ Attitude	22	7664	-.15[+]	-.32	.02	1630**	98	1587
Persuasion knowledge → Behavioral engagement	22	7753	-.20[+]	-.39	.01	2178**	99	2519
Persuasion knowledge → Purchase intention	16	5138	-.17	-.36	.03	944**	98	—
Persuasion knowledge → Purchase behavior	—	—	—	—	—	—	—	—

Relationship	k	N	rcw	CI_{95-}	CI_{95+}	Q	I^2	FSN
Persuasion knowledge → Sales performance	—	—	—	—	—	—	—	—
Source credibility → Attitude	89	29576	.55**	.51	.60	2965**	97	356678
Source credibility → Behavioral engagement	62	26156	.49**	.42	.55	3157**	98	143208
Source credibility → Purchase intention	86	39132	.51**	.47	.56	3023**	97	296090
Source credibility → Purchase behavior	21	8162	.49**	.39	.58	720**	97	15342
Source credibility → Sales performance	1[a]	417	.09^{+}	-.01	.18	—	—	—
Non-transactional outcomes								
Attitude → Purchase intention	66	22347	.62**	.57	.66	16567**	96	264939
Attitude → Purchase behavior	7	2387	.51**	.18	.74	768**	99	2159
Attitude → Sales performance	1[a]	417	-.01	-.11	.08	—	—	—
Behavioral engagement → Purchase intention	41	26110	.56**	.48	.62	4321**	98	90201
Behavioral engagement → Purchase behavior	14	5707	.75**	.43	.90	4753**	100	24720
Behavioral engagement → Sales performance	6	1896211[b]	.21**	.07	.34	2205**	100	34701
Purchase intention → Purchase behavior	6	1922	.68**	.53	.80	149**	97	2646
Purchase intention → Sales performance	—	—	—	—	—	—	—	—

k = number of effects sizes, N = cumulative sample sizes, rcw = inverse variance-weighted, reliability-adjusted average correlation, CI = confidential interval, Q = Q statistic, I^2 = I^2 statistic, FSN = fail-safe N. $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$.
a. We report these effect sizes to ensure a comprehensive synthesis of evidence, which provides insights into the range of study outcomes and allows for a more accurate interpretation. b. We observe a large sample size outlier for the effect sizes of "influencer indegree → behavioral engagement", "influencer indegree → sales performance" and "behavioral engagement → sales performance". After removing this effect size, the significant results remain unchanged. However, the impact of behavioral engagement on sales performance shifted from being statistically significant at the 0.01 level to the 0.05 level.

Mediators We uncovered significant effects on persuasion knowledge and source credibility (Table 2.5). Of the 20 antecedent–mediator relationships, 16 (80%) were significant, indicating the mediating roles of persuasion knowledge and source credibility. We tested the proposed mediating effects in the SEM, and the effect size integration results for the mediators remained robust after removing outliers (Appendix D).

Table 2.5 Results of effect size integration for mediators

Relationship	k	N	Rcw	CI_{95-}	CI_{95+}	Q	I^2	FSN
Post Characteristics								
Informational value → Persuasion knowledge	3	773	-.32*	-.52	-.09	24**	91	101
Hedonic value → Persuasion knowledge	1[a]	155	.22**	.06	.36	—	—	—
Sponsorship disclosure → Persuasion knowledge	33	8276	.36**	.20	.46	823**	98	9242
Informational value → Source credibility	30	11770	.52**	.42	.61	1674**	98	35329
Hedonic value → Source credibility	10	4762	.52**	.30	.69	851**	99	3493
Sponsorship disclosure → Source credibility	17	4437	.10	-.19	.39	1845**	99	—
Follower Characteristics								
Social identity → Persuasion knowledge	5	1982	-.15^{+}	-.30	.01	35**	92	58
Consumer knowledge → Persuasion knowledge	7	2079	.12^{+}	-.02	.26	77**	90	76
Consumer materialism → Persuasion knowledge	1[a]	389	-.29**	-.37	-.19	—	—	—
Social identity → Source credibility	42	15080	.48**	.41	.54	947**	96	60970
Consumer knowledge → Source credibility	24	9197	.35**	.20	.47	1796**	98	9591
Consumer materialism → Source credibility	7	2875	.28**	.10	.44	119**	96	512
Influencer characteristics								
Influencer–brand fit → Persuasion knowledge	6	2262	-.17^{+}	-.37	.05	183**	96	—
Influencer communication → Persuasion knowledge	2	645	-.09	-.30	.13	6*	83	—
Influencer self-disclosure → Persuasion knowledge	2	646	.20	-.65	.83	140**	99	—
Influencer indegree → Persuasion knowledge	3	999	.13*	.01	.24	6*	70	17
Influencer–brand fit → Source credibility	22	7506	.45**	.36	.53	498**	95	12992
Influencer communication → Source credibility	20	6799	.45**	.35	.55	485**	96	10958
Influencer self-disclosure → Source credibility	9	3079	.55**	.39	.68	216**	97	3880
Influencer indegree → Source credibility	11	4970	.05	-.26	.36	703**	99	—

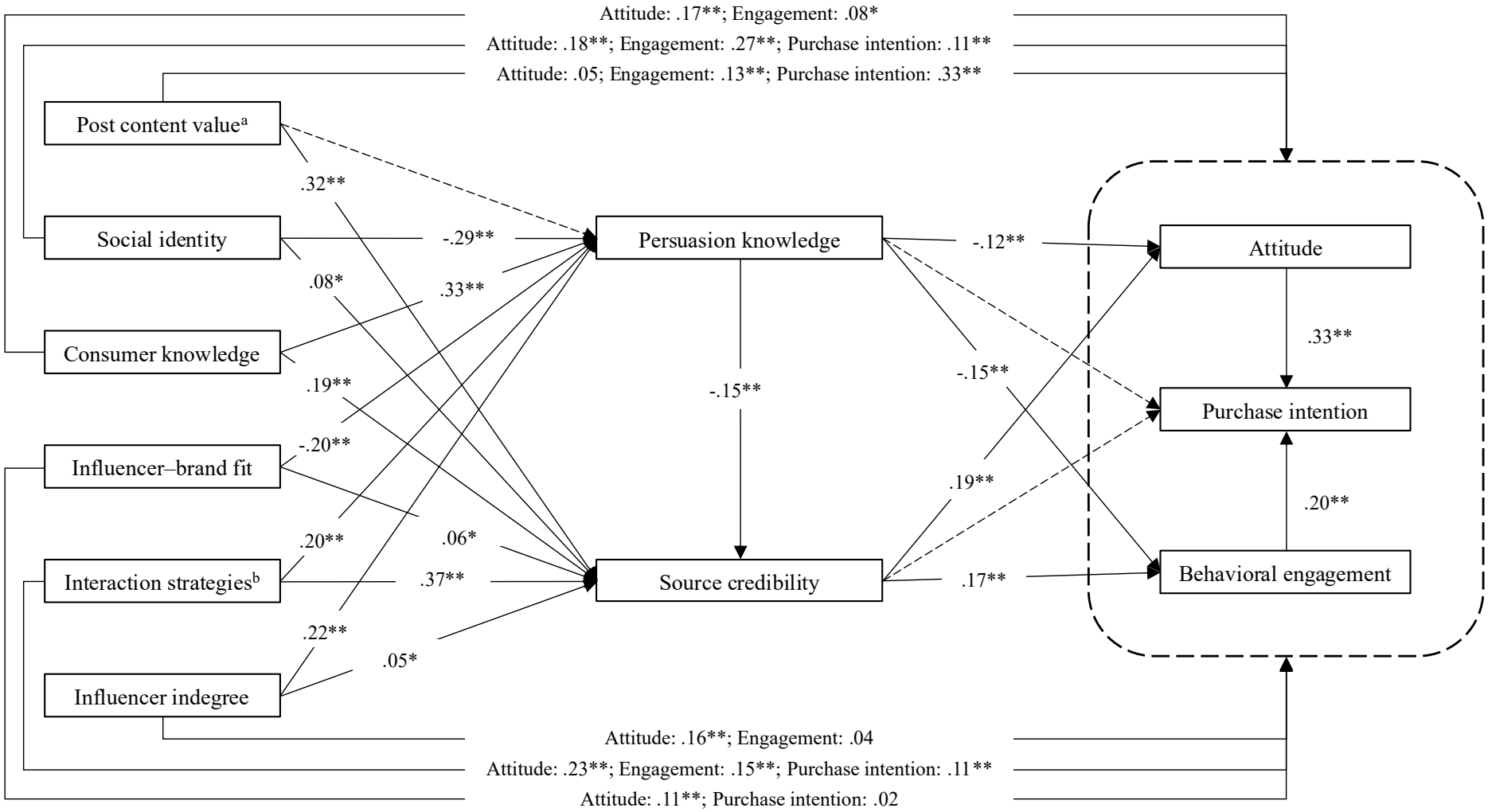
Persuasion knowledge → Source credibility	22	7554	-.16^{+}	-.35	.03	1702**	99	—

k = number of effects sizes, N = cumulative sample sizes, rcw = inverse variance-weighted, reliability-adjusted average correlation, CI = confidential interval, Q = Q statistic, I^2 = I^2 statistic, FSN = fail-safe N. **$p < .01$, *$p < .05$, $^{+}p < .10$.
a. We report these effect sizes to ensure a comprehensive synthesis of evidence, which provides insights into the range of study outcomes and allows for a more accurate interpretation.

2.5.2 SEM

We tested the meta-analytic framework and mediating effects via SEM, inputting the correlation matrix (Appendix E) into Mplus 8. The proposed model displayed good fit ($\chi^2/8=159$, $p=.00$; CFI=.95; RMSEA=.15; SRMR=.05) (Figure 2.2). Given the lack of effect sizes for transactional outcomes, we explored only non-transactional outcomes in the SEM.

Figure 2.2 Results of structural equation model of non-transactional outcomes



Model fit: $\chi 2/8 = 159$, $p = .00$; CFI = .95; RMSEA = .15; SRMR = .05. a. Post content value contains informational value and hedonic value (Hughes et al. 2019). b. Interaction strategies contain influencer communication and influencer self-disclosure (Aw et al. 2022). $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$.

Persuasion knowledge The results suggest that persuasion knowledge was an important mediator. Social identity (γ=-.29, p<.01) and influencer–brand fit (γ=-.20, p<.01) related negatively to persuasion knowledge. Conversely, consumer knowledge (γ=.33, p<.01), interaction strategies (γ=.20, p<.01), and influencer indegree (γ=.22, p<.01) related positively to persuasion knowledge. Post content value had no effect. Consumers with greater persuasion knowledge typically viewed the source as less credible (β=-.15, p<.01), exhibited more negative attitudes (β=-.12, p<.01), and showed lower behavioral engagement (β=-.15, p<.01), although persuasion knowledge did not significantly impact purchase intention.

Source credibility Post content value (γ=.32, p<.01), social identity (γ=.08, p<.05), consumer knowledge (γ=.19, p<.01), influencer–brand fit (γ=.06, p<.05), interaction strategies (γ=.37, p<.01), and influencer indegree (γ=.05, p<.05) positively impacted source credibility. Source credibility significantly affected consumer attitude (β=.19, p<.01) and behavioral engagement (β=.17, p<.01), but not purchase intention.

To assess mediation effects, we first analyzed the ratio of indirect effects to total effects (Appendix F), finding significant indirect effects and high ratios for most antecedents. The direction of direct and indirect effects aligned for most antecedents, while the positive direct effects of consumer knowledge and influencer indegree on attitude and behavioral engagement were offset by negative indirect effects. Second, we tested potential reverse causality and serial mechanism between persuasion knowledge and source credibility. We compared the hypothesized model (Model 1) (Figure 2.2) with three alternative models. Model 2 (Appendix G) exhibited comparable fit but rendered the influencer indegree–source

credibility relationship non-significant. Models 3 and 4 (Appendixes H and I) exhibited worse model fit, which suggests that the hypothesized model performed best.[5]

Transactional outcomes We evaluated another model considering transactional and non-transactional outcomes (Appendix J), using the correlation matrix in Appendix K and excluding sales due to the lack of effect sizes. This model displayed satisfactory fit ($\chi^2/5=166$, $p=.00$; CFI=.95; RMSEA=.28; SRMR=.14). Positive indirect effects on purchase behavior included post content value ($\gamma=.39$, $p<.01$), social identity ($\gamma=.28$, $p<.01$), and consumer knowledge ($\gamma=.09$, $p<.05$). The impact of influencer indegree on source credibility became non-significant. Behavioral engagement ($\beta=.49$, $p<.01$) and purchase intention ($\beta=.83$, $p<.01$) significantly impacted purchase behavior.

2.5.3 Moderator analysis

We summarized the moderating effects of two social media types and two product types in terms of explaining when the effects of antecedents (post, follower, and influencer characteristics) and mediators (persuasion knowledge and source credibility) on marketing outcomes varied in importance (Table 2.6).

Table 2.6 Results of sub-group analysis

			Platform types				Product types		
Relationship		**k**	**Nature of connection (1=content-based, 0=profile-based)**	**k**	**Usage (1=utilitarian, 0=hedonic)**	**k**	**Information avail. (1=experience, 0=search)**	**k**	**Status-sign. capab. (1=self-expressive, 0=functional)**
Post Characteristics									
Informational value → Attitude	r_1	4	.31	12	.05	11	.49^{+}	11	.34**
	r_0	11	.41	3	.46	2	-.24	1[a]	.68
Informational value → Behavioral engagement	r_1	6	.38	5	.35	11	—	7	.38**
	r_0	8	.44	7	.54	0	—	3	.83
Informational value → Purchase intention	r_1	6	.66**	5	.66**	13	.58	10	.59
	r_0	13	.42	14	.44	3	.36	5	.44
Hedonic value → Attitude	r_1	2	.52^{+}	1	.51	4	.41	4	—
	r_0	3	.26	4	.34	1	.26	0	—

[5] In Model 2, persuasion knowledge and source credibility acted as parallel mediators, with source credibility influencing persuasion knowledge. In Model 3, they functioned as serial mediators, with persuasion knowledge influencing source credibility. Conversely, in Model 4, they also served as serial mediators, but with source credibility influencing persuasion knowledge.

			Platform types				Product types		
Relationship		**k**	**Nature of connection (1=content-based, 0=profile-based)**	**k**	**Usage (1=utilitarian, 0=hedonic)**	**k**	**Information avail. (1=experience, 0=search)**	**k**	**Status-sign. capab. (1=self-expressive, 0=functional)**
Hedonic value → Behavioral engagement	r_1	3	.42**	2	.40	3	—	2	—
	r_0	2	.01	1	.46	0	—	0	—
Hedonic value → Purchase intention	r_1	3	.69	2	.72	3	.61	2	.69
	r_0	2	.68	3	.66	1	.46	1	.46
Sponsorship disclosure → Attitude	r_1	8	.05	9	.04	23	.02	12	.12**
	r_0	21	-.04	21	-.03	8	-.04	21	-.08
Sponsorship disclosure → Behavioral engagement	r_1	3	.04	4	.00	19	-.02**	7	.00
	r_0	19	-.01	18	.00	1[a]	.23	13	-.01
Sponsorship disclosure → Purchase intention	r_1	5	.28	6	.22	25	.04	16	.03
	r_0	23	.00	22	.00	4	.07	13	.06
Follower Characteristics									
Social identity → Attitude	r_1	7	.60	5	.52	20	.54**	12	.50
	r_0	14	.48	18	.52	1[a]	.72	7	.60
Social identity → Behavioral engagement	r_1	10	.49	8	.49	17	—	9	.58
	r_0	9	.61	12	.58	0	—	7	.52
Social identity → Purchase intention	r_1	8	.60	6	.58	26	.58	17	.56
	r_0	15	.57	18	.56	3	.37	11	.59
Consumer knowledge → Attitude	r_1	6	.40	6	.40	19	.34	11	.37
	r_0	15	.22	16	.23	3	.41	8	.34
Consumer knowledge → Behavioral engagement	r_1	9	.32	9	.32	11	—	5	.35
	r_0	11	.12	9	.14	0	—	4	.18
Consumer knowledge → Purchase intention	r_1	6	.23	6	.23	18	.31^{+}	10	.28
	r_0	15	.30	15	.30	3	.55	9	.38
Influencer Characteristics									
Influencer–brand fit → Attitude	r_1	1	.53	1	.53	20	.46**	13	.54**
	r_0	17	.46	17	.46	1[a]	-.24	8	.23
Influencer–brand fit → Behavioral engagement	r_1	3	.27	2	.12	7	.14	5	.14
	r_0	6	.17	7	.23	0	—	2	.40
Influencer–brand fit → Purchase intention	r_1	3	.71**	1[a]	.80**	15	—	9	.49
	r_0	9	.36	11	.43	0	—	6	.29
Interaction strategies → Attitude	r_1	1[a]	.84**	0	—	10	.52**	8	.43
	r_0	7	.42	8	—	1[a]	-.24	2	.61
Interaction strategies → Behavioral engagement	r_1	5	.44	5	.44	6	—	1	.21
	r_0	6	.22	6	.22	0	—	4	.50
Interaction strategies → Purchase intention	r_1	3	.73**	2	.63	9	.58**	6	.47
	r_0	3	.20	4	.45	1[a]	-.15	3	.73
Influencer indegree → Attitude	r_1	1[a]	.42**	1[a]	.42**	9	—	5	.18*
	r_0	12	.10	12	.10	0	—	4	-.12
Influencer indegree → Behavioral engagement	r_1	3	.42*	1[a]	.67**	6	—	5	-.16
	r_0	12	-.06	12	-.02	0	—	1	.10
Moderators									
Persuasion knowledge → Attitude	r_1	3	.17*	3	.17*	11	-.21	7	-.27
	r_0	15	-.17	15	-.17	4	-.14	8	-.11
Persuasion knowledge → Behavioral engagement	r_1	5	.00*	5	.00**	14	-.27	7	-.18
	r_0	14	-.33	15	-.31	2	-.06	9	-.30
Persuasion knowledge → Purchase intention	r_1	5	.08*	4	.12*	8	.01*	4	.05
	r_0	8	-.25	8	-.24	1[a]	-.17	5	-.06
Source credibility → Attitude	r_1	20	.54	16	.56	56	.56	41	.58
	r_0	42	.56	49	.55	5	.60	16	.52
Source credibility → Behavioral engagement	r_1	23	.47	21	.52	36	.52*	24	.56
	r_0	27	.47	30	.49	3	.73	13	.49
Source credibility → Purchase intention	r_1	20	.53	16	.49	53	.52	39	.52
	r_0	37	.50	43	.51	6	.40	17	.48

[a]It is advisable to be careful when applying those results even though they are relatively robust when dropping outliers. We only include effect sizes containing certain platform and product information, so the number of effect sizes is different from that in Table 2.4 or Table 2.5. The table shows inverse variance-weighted, reliability-adjusted average correlation. $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$

Nature of connection (content-based vs. profile-social media) This moderating effect was relevant to both the direct and indirect effects of antecedents. For post characteristics, as

predicted, the effects of informational value (r_1=.66, r_0=.42, p<.01)[6] on purchase intention, as well as hedonic value on attitude (r_1=.52, r_0=.26, p<.1) and engagement (r_1=.42, r_0=.01, p<.01), were stronger for content-based (vs. profile-based) social media. For influencer characteristics, influencer–brand fit had a greater positive effect on purchase intention (r_1=.71, r_0=.36, p<.01), while influencer interaction strategies enhanced consumer attitude (r_1=.84, r_0=.42, p<.01) and purchase intention (r_1=.73, r_0=.20, p<.01) more effectively on content-based than on profile-based social media. Similarly, content-based social media outperformed profile-based social media in the effect of influencer indegree on consumer attitude (r_1=.42, r_0=.10, p<.01) and behavioral engagement (r_1=.42, r_0=-.06, p<.05). For mediators, compared to profile-based social media, the potential negative effects of persuasion knowledge on consumer attitude (r_1=.17, r_0=-.17, p<.05), behavioral engagement (r_1=.00, r_0=-.33, p<.05), and purchase intention (r_1=.08, r_0=-.25, p<.05) were weaker for content-based social media. Contrary to H1b and H3, we found no effects on the impact of follower characteristics and source credibility on marketing outcomes.

Usage (utilitarian vs. hedonic social media) Like nature of connection, this moderator was more important for the effects of post and influencer characteristics and persuasion knowledge. Informational value (r_1=.66, r_0=.44, p<.01) and influencer–brand fit (r_1=.80, r_0=.43, p<.01) had greater positive effects on purchase intention for utilitarian than hedonic social media. Similarly, we observed stronger positive effects of influencer indegree on attitude (r_1=.42, r_0=.10, p<.01) and behavioral engagement (r_1=.67, r_0=-.02, p<.01) for utilitarian than hedonic social media. The effect sizes of persuasion knowledge and consumer attitude (r_1=.17, r_0=-.17, p<.05), behavioral engagement (r_1=.00, r_0=-.31, p<.01), and purchase intention (r_1=.12, r_0=-.24, p<.05) were significantly higher in utilitarian (vs. hedonic) social

[6] r_1 and r_0 are inverse variance-weighted, reliability-adjusted average correlations.

media. Contrary to H4b and H6, we saw no differences in follower characteristics or source credibility.

Information availability (experience vs. search products) Experience products exhibited stronger moderating effects than search products on the impact of influencer characteristics on marketing outcomes, while the opposite was true for follower characteristics. Consistent with our predictions, informational value (r_1=.49, r_0=-.24, p<.1) and influencer–brand fit (r_1=.46, r_0=-.24, p<.01) had stronger effects on consumer attitude for experience than search products. Similarly, the effects of interaction strategies on consumer attitude (r_1=.52, r_0=-.24, p<.01) and purchase intention (r_1=.58, r_0=-.15, p<.01), and the influence of persuasion knowledge on purchase intention (r_1=.01, r_0=-.17, p<.05), were stronger for experience (vs. search) products. Contrary to predictions, sponsorship disclosure (r_1=-.02, r_0=.23, p<.01), social identity (r_1=.54, r_0=.72, p<.01), and consumer knowledge (r_1=.31, r_0=.55, p<.1) exhibited weaker effects on marketing outcomes for experience (vs. search) products. Source credibility had stronger effects on behavioral engagement for search products (vs. experience) (r_1=.52, r_0=.73, p<.05).

Status-signaling capability (self-expressive vs. functional products) This moderating effect included direct effects of antecedents. As hypothesized, sponsorship disclosure had a greater impact on attitudes toward self-expressive (vs. functional) products (r_1=.12, r_0=-.08, p<.01). Self-expressive products outperformed functional products regarding the impact of influencer–brand fit (r_1=.54, r_0=.23, p<.01) and influencer indegree (r_1=.18, r_0=-.12, p<.05) on consumer attitude. For functional products, informational value had a stronger correlation with attitude (r_1=.34, r_0=.68, p<.01) and behavioral engagement (r_1=.38, r_0=.83, p<.01) than self-expressive products, contradicting our hypotheses. The effects of follower characteristics, persuasion knowledge, and source credibility were non-significant, so we

cannot support H10b, H11, and H12. The results largely aligned with the meta-regression analysis that considered various control variables (Appendix L).[7]

2.6 General discussion

We conducted a meta-analysis integrating 1,531 effect sizes from 251 papers to offer a comprehensive understanding of influencer marketing effectiveness through the PKM. The results provide new insights into the impacts of post, follower, and influencer characteristics on different marketing outcomes, as well as the mediating roles of persuasion knowledge and source credibility. More importantly, the results highlight the moderating effects of social media types (nature of connection and usage) and product types (information availability and status-signaling capability) on the effects of antecedents and mediators on marketing outcomes. These results have implications for both research and practice.

2.6.1 What are the antecedents of influencer marketing effectiveness?

The results of the effect size integration suggest that, except for sponsorship disclosure, most of our proposed antecedents have positive effects on marketing outcomes. Among these antecedents, the *informational* and *hedonic values* of posts have the largest effect sizes on purchase intention. By creating informational and hedonic content, influencers provide utilitarian information and enjoyable experiences. When consumers perceive content as valuable, they are less likely to activate persuasion knowledge, reducing skepticism and enhancing receptiveness to the post and thus improving marketing outcomes. This suggests that content value is more impactful in influencer endorsements than traditional celebrity endorsements. Unlike celebrities who rely on fame and appeal (Park et al. 2021), influencers achieve effectiveness by providing valuable content that resonates effectively with followers.

[7] We examined additional moderators (Appendix M), with data type showing minimal variance. The ranking of significant moderating effects was as follows: research design (7) > publication quality (5) = publication year (5) > age (4) = US vs. non-US (4) = publication types (4) > gender (2).

Moreover, follower *social identity* has relatively larger effect sizes on consumer attitude and behavioral engagement. This identification can result in less criticism of influencer persuasive messages, as consumers perceive them as recommendations from a credible peer rather than a persuasive attempt by a marketer. This suggests that fostering a sense of community and alignment with follower values can enhance influencer marketing effectiveness, in contrast to the broader and less personalized appeal of celebrities.

Furthermore, *influencer communication* exerts the most substantial effect on purchase behavior due to its unique blend of direct interaction and personal connection. This makes influencer endorsements feel more like friendly advice than a marketing pitch, reducing the activation of persuasion knowledge and enhancing influencer marketing effectiveness. This direct communication contrasts with celebrity endorsement, which relies more on star power than personal interaction.

Regarding the non-significant effect of *sponsorship disclosure*, one possible explanation is consumers' gradual acceptance of sponsorship disclosures as a legitimate aspect of influencer marketing. As consumers become more familiar with such disclosures, they may perceive them as routine and not necessarily manipulative, reducing the activation of persuasion knowledge and allowing consumers to focus on the benefits of sponsored influencer posts, such as high-quality content (Chen et al. 2023). Additionally, the non-significant direct effects on sales suggest that whereas persuasion knowledge can be effectively managed to some extent, actual sales are influenced by broader factors beyond immediate persuasive communication, such as price, product quality, inflation, and unemployment rate (Kopalle et al. 2017).

2.6.2 What is the interplay between persuasion knowledge and source credibility?

The SEM results reveal that persuasion knowledge and source credibility play crucial mediating roles between antecedents and marketing outcomes. While persuasion knowledge

negatively affects source credibility, the latter has stronger effects on marketing outcomes. This indicates that despite consumers' awareness of persuasive strategies, the perceived credibility of influencers ultimately shapes consumer behaviors. Thus, influencer endorsements can achieve positive outcomes by ensuring a strong sense of influencer credibility. Scholars should investigate strategies to enhance influencer credibility and mitigate the negative effects of persuasion knowledge.

2.6.3 What is the role of social media types?

Our results indicate that social media types (nature of connection and usage) moderate the impact of post and influencer characteristics, as well as persuasion knowledge, on consumer attitude, behavioral engagement, and purchase intention. Regarding the *nature of connection*, content-based (vs. profile-based) social media amplifies the positive impact of post (informational value and hedonic value) and influencer characteristics (influencer–brand fit, interaction strategies, and influencer indegree) and weakens the negative effect of persuasion knowledge on consumer attitude, behavioral engagement, and purchase intention. These results contribute to the PKM by underscoring consumer responses to persuasion attempts when the primary focus is on the value and quality of content rather than personal connection or familiarity with the influencer. When influencers provide valuable content, followers are less likely to view influencer posts merely as persuasive attempts and activate persuasion knowledge, which increases purchase likelihood. Furthermore, strong influencer–brand fit, effective interaction strategies, and high influencer indegree create an environment on content-based social media platforms where persuasive intent is less obvious and makes the promotional content more like genuine recommendations.

Regarding *usage*, utilitarian (vs. hedonic) social media enhances the effect of informational value on purchase intention and the effect of influencer characteristics (influencer–brand fit and influencer indegree) and persuasion knowledge on consumer

attitude, behavioral engagement, and purchase intention. These findings enrich the PKM by revealing how consumers react to persuasive attempts when their persuasion knowledge is active. On utilitarian social media (e.g., LinkedIn and Pinterest), consumers anticipate and are more prepared for persuasive attempts. When influencer posts are perceived as valuable and align with followers' utilitarian motives (informational value), more positive reception and reduced skepticism toward influencers can result. Furthermore, when influencers demonstrate strong influencer–brand fit and high indegree, this can substantially mitigate skepticism toward their posts, positively impacting purchase intention.

However, our findings show that social media type (nature of connection and usage) has non-significant moderating effects on the influence of follower characteristics and source credibility on marketing outcomes. Followers' intrinsic attributes are deeply rooted in their cognitive and social frameworks for assessing the persuasiveness of a message and remain stable across social media environments. Thus, although tailoring messages to the unique features of each platform is useful, it should not distract from the overarching strategy of leveraging follower characteristics. Furthermore, consumers value credible sources regardless of how they connect or use platforms. This indicates that once persuasion knowledge is activated, the fundamental evaluation of an influencer's credibility is a key factor in determining consumer responses. This finding highlights the importance of maintaining high source credibility across social media to ensure effective influencer marketing.

2.6.4 What is the role of product types?

Regarding product types, information availability (experience vs. search products) moderates the impact of post, follower, and influencer characteristics, persuasion knowledge, and source credibility on consumer attitude, behavioral engagement, and purchase intention. Meanwhile, status-signaling capability (self-expressive vs. functional products) moderates the effect of post and influencer characteristics on consumer attitude and behavioral engagement.

For *information availability*, experience (vs. search) products intensify the positive effect of informational value on consumer attitude and the positive effect of influencer characteristics (influencer–brand fit and interaction strategies) on attitude and purchase intention. It reduces the negative impact of persuasion knowledge on purchase intention. These insights broaden the PKM by revealing diverse consumer responses to persuasion attempts based on the varying levels of risk and information asymmetry of products. When assessing experience products, consumers rely more on detailed information influencers provide to alleviate uncertainty than when assessing search products. The effectiveness of delivering such information hinges on the informational value of influencer posts, how seamlessly influencers integrate the product into their content (influencer–brand fit), and their use of interactive strategies to provide personalized information and address consumers' inquiries.

Conversely, experience products diminish the positive effect of sponsorship disclosure on behavioral engagement, social identity on attitude, consumer knowledge on purchase intention, and source credibility on behavioral engagement compared to search products. In line with the PKM, consumers are less likely to activate their persuasion knowledge when prioritizing personal experience over detailed information in influencer endorsements. For experience products, the priority is obtaining specific information to mitigate the perceived risk and uncertainty associated with these products. Therefore, factors like social identity, consumer knowledge, and source credibility, which do not significantly aid influencers in providing the necessary detailed information to reduce consumer uncertainty, negatively impact marketing outcomes for experience (vs. search) products.

Regarding *status-signaling capability*, self-expressive (vs. functional) products enhance the beneficial effect of sponsorship disclosure, influencer–brand fit, and influencer indegree on consumer attitude. These findings enhance our understanding of the PKM by highlighting how consumers process persuasive attempts for products with varying status-signaling

capabilities. When assessing self-expressive products, consumers use their persuasion knowledge to evaluate cues that signal symbolic value and social validation. Thus, transparency in persuasive intent (through sponsorship disclosure), a strong influencer–brand fit, and a high indegree help consumers discern whether influencer recommendations genuinely reflect the symbolic value of the product or enhance their social standing. Conversely, for self-expressive (vs. functional) products, the impact of informational content on consumer attitude and engagement is diminished as consumers use their persuasion knowledge to seek out social resonance over product functionality.

However, we find no difference in the effect of follower characteristics, persuasion knowledge, and source credibility between self-expressive and functional products. These findings suggest that followers' inherent traits consistently shape their reactions to persuasive attempts for such products. The fundamental evaluation of marketing messages by followers remains stable across both product types. Furthermore, the psychological mechanisms of persuasion knowledge and source credibility operate consistently, with the fundamental principles of skepticism and trust in marketing communications transcending the status-signaling capability of the product. These results highlight the universal importance of followers' intrinsic attributes and source credibility in influencer marketing.

2.6.5 Practical contributions

Our findings provide insights for marketers into selecting influencers, crafting content, and allocating investment in influencer marketing across various social media platforms and for different products (Table 2.7). First, marketers should prioritize evaluating the content value of posts to make consumers less skeptical when processing influencer messages. To enhance informational value, marketers should ensure the content is relevant and provides depth: tutorials, product demonstrations, and detailed reviews that offer genuine insights. For example, Marques Brownlee, a leading tech influencer, is renowned for his in-depth gadget

reviews and unboxing videos on YouTube, making him a credible source for the latest tech products. To deliver hedonic value, brands can incorporate hedonic appeal elements that evoke emotions and stimulate consumers' interests and curiosity (Chiu et al. 2014), such as sensory stimulation, humor, and storytelling. For example, renowned fitness influencer Genghong Liu enhances his workout livestreams with upbeat music and cosplay, transforming exercise into an entertaining and engaging experience for his followers.

Second, brands can encourage influencers to foster a sense of community to enhance followers' identification with the influencer. Marketers should select influencers whose personal values and lifestyle align closely with the brand identity. This alignment helps to create a seamless influencer–consumer–brand connection and less activation of persuasion knowledge. Additionally, highlighting value-expressive elements in advertising can motivate consumers to make purchases consistent with their self-concept. For example, Li Jiaqi, the "King of Lipsticks" with 65 million followers on Taobao, hosts monthly online makeup parties to showcase trends and encourage followers to share their looks, boosting product visibility and fostering a tight-knit beauty community.

Third, marketers should help influencers build personal bonds with their followers by using interactive content, such as polls, quizzes, and live streaming. Personal responses to comments and messages, even simple acknowledgments, make followers feel valued. These strategies enhance follower loyalty and strengthen the influencer–follower–brand relationship by highlighting genuine connections rather than persuasive intent. For example, Nikkie de Jager, a famous beauty influencer on Instagram, engages her followers with question-and-answer sessions, polls, and personal stories, making them feel connected and valued.

Fourth, marketers should tailor influencer selection and content strategies based on social media types to reduce the activation of persuasion knowledge. Specifically, content-based and utilitarian social media platforms, such as Little Red Book and Pinterest, may be

more suitable for influencer marketing. Influencers chosen for these platforms should excel in dynamic interaction strategies, strong brand alignment, and broad reach. On content-based social media, posts should prioritize high-quality, engaging content that appeals to consumers seeking both entertainment and information. On utilitarian social media, the focus should be on providing valuable information to meet the utilitarian motives of the audience. For example, top Pinterest designer Joy Cho, with her aesthetically rich content and engaging interaction, stands out as a leading influencer in design and lifestyle.

Fifth, marketers should craft marketing strategies for distinct product types. For search products, they should select influencers who resonate with the target audience's values and establish transparent and lasting partnerships. For experience products, the strategy should amplify the informational content with strong influencer–brand fit and engaging interaction strategies. This approach helps mitigate skepticism by providing the information needed to reduce uncertainty. For example, Airbnb partners with influencers such as Murad Osmann to highlight unique stays and experiences, emphasizing engaging content and a strong influencer–brand fit. Additionally, self-expressive products should feature transparent sponsorship disclosure to clarify persuasive intent and prioritize influencers with a large following and brand fit to reinforce social validation. Functional products also demand content that highlights practical benefits, addressing consumers' need for utilitarian information. For example, IKEA partners with interior design influencers such as Emily Henderson to highlight the practical benefits of their products.

Table 2.7 Managerial implications

Issues	**Key illustrative recommendations**
What content should be included in an influencer marketing post?	Marketers should enhance influencer content by focusing on its informational and hedonic value. This approach ensures content is both insightful and engaging.

Who are the best influencers?	Marketers should select influencers whose characteristics align with the brand and who are willing to share personal information. However, our findings reveal that how influencers communicate with followers is more crucial. Marketers should help influencers foster personal connections by encouraging interactive content and responding to comments.
How can marketers interact with their best followers?	Marketers can encourage influencers to educate consumers and provide them with adequate information to enrich their knowledge base, as well as support influencers in crafting posts that emphasize materialistic visual cues. More importantly, marketers should encourage influencers to build a community, aligning influencer values with the brand to strengthen consumer connections.
What are the best social media platforms?	Marketers should align influencer choices and content strategies with the unique advantages of content-based and utilitarian social media platforms like Little Red Book and Pinterest. • Marketers should select influencers who are interactive, align well with the brand, and have wide reach to ensure effective and broad audience engagement. • For content-based platforms, the brand should prioritize creating engaging, high-quality content for entertainment and information. • For utilitarian platforms, marketers should focus more on informational content.
Is influencer marketing more effective for certain product categories?	Marketers should customize marketing to match product types. • For search products, marketers should focus on choosing influencers who align with the target audience's values and forming transparent and enduring partnerships. • Experience products need informative content with strong influencer–brand fit and engaging interaction strategies. • For self-expressive products, marketers should focus on transparent sponsorship disclosure and influencers with large followings and good brand fit. • Functional products benefit from demonstrations highlighting practical uses.

2.6.6 Research agenda

Our meta-analysis has several limitations due to the limited number of studies that reported all potential effects across various contexts using diverse methodologies. We outline several directions for further research, including examination of influencer marketing effectiveness, contextual differences, and methodological and data-related issues (Table 2.8).

First, there is a need for more in-depth research into influencer marketing effectiveness and the factors affecting consumer skepticism and receptiveness. Because of the insufficient number of effects available in prior research, the present study may not capture all pertinent antecedents and mediators. Scholars could investigate other important antecedents (e.g.,

customization) and mediators (e.g., perceived risk) that influence the activation and application of persuasion knowledge. We also call for more research on transactional marketing outcomes (e.g., return on investment, sales, and shares), which are more useful for decision-makers (Hulland and Houston 2021). Furthermore, future studies can explore the interplay among antecedents and moderators. For example, follower characteristics may determine the effect of post and influencer characteristics on marketing outcomes. By analyzing the interplay of social media and product types, we can examine their synergistic effects on influencer marketing effectiveness. Moreover, scholars can test moderators for the relationship between antecedents and mechanisms. Social media and product types may also moderate the effect of post, follower, and influencer characteristics on persuasion knowledge and source credibility.

Second, we advocate more research into the contextual factors under which consumers draw upon their persuasion knowledge in influencer marketing settings. Consumers use their persuasion knowledge differently according to context. While our results show that content-based and utilitarian social media can boost the effectiveness of influencer marketing, further investigation should examine the conditions under which profile-based and hedonic social media are more effective. Future research can also explore the effects of new characteristics of social media types (e.g., customized vs. broadcast, single vs. multiple) and product types (e.g., conspicuous vs. non-conspicuous, high- vs. low-involvement, and new vs. mature). Researchers could discuss other moderators, such as influencer type (virtual vs. real), content formats (e.g., posts, stories, videos, live), industry characteristics (e.g., degree of competition), and firm types (e.g., startups vs. established firms), as these may influence consumer expectations and suspicion.

Third, the influencer marketing literature would benefit from a wider range of methodologies. While most existing studies use cross-sectional data, which prohibits causal

inference, researchers can expand on our study by employing experimental or longitudinal research to check further for causality. Longitudinal research using panel data would help compare the effectiveness of long-term strategies versus one-off campaigns, revealing the effects of prolonged exposure to persuasive tactics on the activation of persuasion knowledge. More qualitative approaches could also help explain unexpected findings. Additionally, future research could employ computational models to gain a deeper understanding of the dynamic process of adopting influencer marketing. This could involve quantifying the extent of influence from an influencer based on their influence system and scheduling influencer postings in dynamically updating schedules.

Table 2.8 Research agenda on influencer marketing

Issues	Exemplary research directions
Influencer marketing effectiveness	
Main effects	• Explore the effect of other important antecedents, such as customization, influencer originality, social influence, and campaign incentives. • Focus more on objective behavioral outcomes, such as return on investment, sales, and shares.
Mechanisms	• Explore the potential mechanisms, including trust in the platform, perceived risk, and social media dependency, on influencer marketing outcomes. • Examine when persuasion knowledge is stronger than source credibility, such as when marketers employ skeptical persuasive techniques in their messaging. • Investigate how to leverage the positive effects of persuasion knowledge, although our research examined the negative effects of persuasion knowledge.
Interactive effects	• Assess the interplay among antecedents: follower characteristics may alter the effect of post and influencer characteristics on marketing outcomes. • Analyze the synergistic effects of social media and product types in influencer marketing effectiveness. • Investigate the moderators of the effect of post, follower, and influencer characteristics on persuasion knowledge and source credibility.
Contextual differences	
Nature of connection (profile-based vs. content-based social media)	• Check for when the effect of follower characteristics and source credibility benefits from content-based social media, and contexts where influencer marketing effectiveness is enhanced on profile-based social media.
Usage (utilitarian vs. hedonic social media)	• Examine when the effect of follower characteristics and source credibility on marketing outcomes is increased on utilitarian social media, and when influencer marketing effectiveness is enhanced on hedonic social media.
Further social media types	• Test the moderating effects of new social media types (e.g., customized vs. broadcast, and single vs. multiple).
Further product types	• Examine new product types (e.g., conspicuous vs. non-conspicuous, high-involvement vs. low-involvement, and new vs. mature) as moderators.
Influencer types	• Explore how influencer types (virtual vs. real) moderate the effect of antecedents on influencer marketing effectiveness.

Content formats	• Assess the moderating effects of content formats (e.g., posts, stories, videos, and live) in influencer marketing.
Industry and firm types	• Evaluate industry characteristics (e.g., degree of competition) and firm types (e.g., startups vs. established firms) as the moderators.
Methodological and data-related issues	
Experimental research	• Adopt experimental designs to establish causal inferences regarding the impact of post, follower, and influencer characteristics on marketing outcomes.
Longitudinal research	• Employ panel data sets to evaluate the success of either short- or long-term influencer marketing strategy.
Qualitative research	• Use qualitative research to explain why and how to enhance the effect of post, follower, and influencer characteristics on marketing outcomes. • Use qualitative research to provide more insights into the unexpected outcomes of this meta-analysis.
Computational modeling	• Adopt computational models to gain dynamic insights into influencer marketing effectiveness.

Chapter 3 The effectiveness of AI influencer: AI clone versus pure AI influencers

3.1 Introduction

The incorporation of AI techniques into influencer marketing is increasing, with 69.1% of marketers having integrated AI into their marketing operations (InfluencerHub, 2025). AI influencers generally fall into two categories: pure AI influencers and AI clone influencers. Pure AI influencers are entirely digital personas with no real-world counterpart, created using advanced AI technologies such as natural language processing, image recognition, speech recognition, problem-solving, and machine learning (Kietzmann et al., 2018). For example, JD.com's AI-powered livestream hosts and Meituan's digital human presenters represent a closer approximation of autonomous AI influencers, as they are capable of independently promoting products, interacting with consumers in real time, and sustaining continuous engagement with minimal human intervention during operations (Dong, 2023; Gastel, 2023). In contrast, AI clone influencers are AI-powered digital replicas of real individuals, trained on personal data and behavioral traits to mimic a human's voice, appearance, and communication style (Thomas and Fowler, 2021; Yan, 2024). For instance, JD.com creates an AI clone of its founder Liu Qiangdong, which generates over 20 million views and RMB 50 million ($6.9 million) in sales during a livestream campaign (Gastel, 2023). [8] Similarly, Calvin Chen, an influencer from Taiwan, deploys an AI-generated clone to host a 15-hour livestream promoting snack products on Taobao Live. However, some viewers perceive it as lacking authenticity, resulting in a noticeable loss of followers for Chen (JingDaily, 2024). Therefore, these examples highlight the importance of understanding how AI influencers

[8] JD.com created an AI clone of its founder Liu Qiangdong, using its proprietary large language model, ChatRhino. This digital replica successfully mimicked Liu's voice, accent, facial expressions, and characteristic gestures, such as hand-waving and finger movements, while engaging with consumers in real time (Wang, 2024).

should be strategically deployed to align with product characteristics and increase marketing effectiveness.

Besides, while AI influencers have proven commercially successful, particularly among younger demographics[9], questions remain regarding how consumers respond to different types of AI influencers. Although some studies have compared AI and human influencers (Lee and Ham, 2023; Sands et al., 2022; Thomas and Fowler, 2021), less attention has been paid to distinctions within the category of AI influencers. Specifically, the relative effectiveness of AI clone influencers versus pure AI influencers remains underexplored. This distinction is increasingly important, as the effectiveness of AI clone versus pure AI influencers likely depends not only on outward realism but also on deeper experiential factors that shape how consumers perceive and engage with AI influencers.

Recent studies have begun to uncover psychological mechanisms grounded in static trait evaluations, such as perceptions of responsibility (Thomas and Fowler, 2021), social-psychological distance (Sands et al., 2022), and source credibility (Lee and Ham, 2023) , in shaping consumer responses to AI influencers. However, existing research has largely overlooked experiential mechanisms related to how consumers experience curated authenticity and immersive engagement, which more dynamically explain how consumers interact with AI influencers. Moreover, little is known about how product type (symbolic vs. functional) may moderate the impact of AI influencer type. For example, consumers may prefer AI influencers that closely resemble real humans for identity-driven product categories like fashion, which serve to signal personal identity to others, whereas they may favor more visibly artificial personas for functional, innovation-focused products like electronics (Berger and Heath, 2007). Understanding how product symbolism shapes consumer preferences for

[9] These AI-driven influencers are gaining traction, particularly among younger demographics. A growing number of Gen Z (54%) and Millennials (58%) report using AI in their daily routines (Mearian, 2023), and many individuals aged 18–24 in the United States now follow at least one virtual influencer (Statista, 2022).

different AI influencer types is critical for developing more targeted and effective marketing strategies.

Against this drawback, based on the theory of simulacra and simulation (Baudrillard, 1994), we propose the following research questions: (1) How do consumers respond differently to AI clone versus pure AI influencers? While prior research has compared human and AI influencers, the distinction within AI influencer types remains underexplored, despite growing commercial use of both pure AI and AI clone personas. (2) Do these effects vary by product type (symbolic vs. functional)? Given the importance of identity signaling in symbolic product categories (Berger and Heath, 2007), understanding how product symbolism moderates AI influencer effectiveness is crucial for both theory and practice. (3) How do staged authenticity and immersion mediate the influence of AI influencer type on consumer responses? Moving beyond static psychological trait evaluations, this question addresses the need to understand how consumers dynamically experience AI-driven marketing interactions, offering a richer explanation for when and why different AI influencer types succeed. The remainder of this paper is structured as follows. First, we review the relevant literature on AI influencer marketing. Next, we develop our hypotheses grounded in the theory of simulacra and simulation (Baudrillard, 1994) and test them through two experimental studies. We then present the empirical results and discuss their theoretical and practical implications. Finally, we conclude by outlining directions for future research.

3.2 Literature review

This section reviews existing literature to establish the conceptual basis for examining how consumers respond to different types of AI influencers. As AI influencers gain traction in digital marketing, managers face important decisions about selecting between AI clone and pure AI influencers. Despite their growing adoption, academic research has yet to examine how these two forms of AI influencers differently affect consumer perceptions and behaviors.

This section reviews existing research to establish a conceptual basis for investigating how AI influencer type influences marketing outcomes.

3.2.1 Definition and differentiation of AI influencer types

AI Influencers, which simulate human presence using AI, can be broadly categorized into two types: pure AI influencers and AI clone influencers. Pure AI influencers are entirely digital personas with no real-world counterpart, created using advanced AI technologies such as natural language processing, image recognition, speech recognition, problem-solving, and machine learning to autonomously perform tasks algorithmically in a human-like manner (Luo et al., 2021; Thomas and Fowler, 2021). In contrast, AI clone influencers are AI-powered digital replicas of real individuals. Developed using technologies including large language models (LLMs), these AI clones can simulate complex language tasks and closely mimic a person's voice, appearance, and behaviors, including facial expressions and gestures (Yan, 2024). LLMs, as a sophisticated form of natural language processing, are often integrated with other AI functions to enable realistic, interactive, and human-like engagement (Thomas and Fowler, 2021). AI clone and pure AI influencers can leverage AI for interactions, decision-making, and content creation. Powered by these AI capabilities, they can analyze facial expressions (Yan, 2024), engage in personalized interactions (Campbell et al., 2020; Kietzmann et al., 2018), maintain consistency in brand voice (Del Rowe, 2019), and self-optimize in real time (Campbell et al., 2020). These advanced functionalities often surpass the limitations of human influencers, making AI-driven influencer marketing an increasingly attractive opportunity for brands seeking scalable and data-driven engagement.

3.2.2 Strategic capabilities of AI in marketing contexts

Functionally, AI clone influencers and pure AI influencers diverge most notably in scalability, tone consistency, and depth of personalization, while they are relatively similar in

message consistency and breadth of personalization (Table 3.1)[10]. Human influencers, while high in authenticity and emotional depth, are limited by time, energy, and language constraints (Izryadnov, 2023). In contrast, AI influencers address these limitations through high scalability and standardized communication. Pure AI influencers achieve the highest scalability, operating continuously across platforms without interruption, while AI clone influencers, although highly scalable, must moderate their activity to align with human behavioral expectations (Influencity, 2024). Both AI clone and pure AI influencers exhibit strong message consistency, reducing variability and minimizing brand risk compared to human influencers. Similarly, both types offer broad personalization across large audiences (Influencity, 2024). However, they differ in emotional depth: human influencers provide genuine emotional storytelling as well as selective and intimate engagement (Farivar and Wang, 2022), pure AI influencers deliver scalable but emotionally detached interactions (Baodan, 2024; Sands et al., 2022; Zhang et al., 2025), and AI clone influencers occupy an intermediate position, simulating emotional tone and storytelling style based on their human counterparts but lacking the depth of authentic lived emotion. These functional distinctions highlight important strategic trade-offs: campaigns seeking identity connection and realism may benefit from AI clones, while those prioritizing innovation or imaginative storytelling may find pure AI influencers more effective.

Table 3.1 The functionalities of different types of influencers

Aspect	Human Influencers	AI Clone Influencers	Pure AI Influencers
Scalability			
Time	Low: Limited by human schedules and daily availability.	Medium: High scalability but constrained by the need to align with human-like behavioral pacing.	High: 24/7 engagement with no interruptions.

[10] While the primary focus of this research is the comparison between AI clone and pure AI influencers, human influencers are presented in the table to provide a reference point for understanding how functional attributes evolve across different levels of AI influencers.

Energy	Low: Fatigue and burnout limit activity.	Medium: No fatigue but moderated to maintain human realism.	High: Unlimited operation without energy constraints.
Language	Low: Restricted to personal language fluency, specific languages only.	Medium: Multilingual, aligned with the real person's linguistic style.	High: Highly adaptive multilingual capability.
Consistency			
Tone	Low: tone may shift due to mood or personal factors.	Medium: Programmed to maintain consistent tone and communication style based on the original human model.	High: Fully programmable and adaptable tone; can adjust dynamically to audience or context without emotional inconsistency.
Message	Low: Responses can vary significantly for similar questions due to personal interpretation.	High: Identical responses to similar questions, ensuring predictability across interactions.	
Personalization			
Depth	High: Deep emotional resonance from lived experiences.	Medium: Mimics emotional expressions and storytelling based on the human model but lacks genuine emotional origins.	Low: Emotional content is algorithmically generated, lacking authentic emotional grounding.
Breadth	Low: Selective personalization, focusing on most engaged followers due to time and energy constraints.	High: Can engage in personalized interactions with extensive audiences simultaneously, without human constraints.	
Real world representation	High: Authentic embodiment of a real person.	Medium: Digital replication anchored to a real identity.	Low: Fully synthetic with no real-world anchor.
Room for fantasy/fiction	Low: Grounded in real-world authenticity.	Medium: Some flexibility for staged and idealized representation.	High: Full creative freedom for fantasy and fictional storytelling.

3.2.3 AI influencer marketing

Current research on AI influencer marketing often fails to clearly distinguish between virtual influencers and AI influencers, despite their fundamental differences. Virtual influencers are computer-generated characters designed and operated by humans, without necessarily incorporating AI capabilities (Arsenyan and Mirowska, 2021). Their actions, responses, and content are typically scripted and managed manually, making them more akin to digital puppets than autonomous agents. In contrast, AI influencers are powered by

advanced AI technologies such as natural language processing, image and speech recognition, machine learning, and problem-solving (Kietzmann et al., 2018). These technologies enable AI influencers to perform human-like tasks with a degree of autonomy and adaptability. While the present research focuses specifically on AI influencers, findings from the broader virtual influencer literature remain relevant, which provides a valuable foundation for understanding how simulated personas influence consumer behavior. However, to provide conceptual clarity and analytic precision, this study emphasizes AI influencers with autonomous, AI-driven capabilities, distinguishing them from manually controlled virtual figures. Current research on AI influencer marketing can be broadly categorized into two main streams: (1) investigations into the psychological mechanisms and persuasive effectiveness of AI influencers, and (2) comparative studies examining the effectiveness of AI or virtual influencers relative to human influencers. Findings from the virtual influencer literature are referenced selectively when directly relevant to these comparisons, but are not the primary focus of this research. The details can be seen in Table 3.2.

Recent research on AI influencers highlights a range of psychological and contextual factors that shape consumer behavior. These factors can be organized into three categories: emotional mechanisms, source-related perceptions, and consumer predispositions. First, emotional mechanisms are critical to consumer receptivity to AI influencers. For example, arousal mediates the relationship between AI influencers' attributes (e.g., coolness, congruence, and mind perception) and consumer outcomes such as parasocial interaction and impulse buying (Zhang et al., 2023). Second, a wide range of source-related perceptions, including credibility, perceived humanness, identity cues, and symbolic traits, affect consumer evaluations of AI influencers. While visual appeal and entertainment value boost engagement, only credibility, informative content, and human-likeness translate into actual

purchase intentions (Jayasingh et al., 2025). Alboqami (2023) further emphasizes that source attractiveness (e.g., physical appeal, homophily), authenticity, expertise, and influencer–product–consumer congruence jointly shape consumer trust. Expanding on these insights, Zhang et al. (2023) identify other salient attributes, such as anthropomorphism, trendiness, luminary status, and even robophobia, as factors that influence consumers' symbolic interpretation and acceptance of AI influencers. Similarly, the perceived humanness of AI influencers fosters empathy and engagement, which in turn enhances purchase intention, while eeriness evokes reactance, particularly among users with high trait reactance or concerns about identity threats (Jin, 2023). Finally, consumer predispositions, including prior beliefs and personality traits, moderate responses to AI influencers. While participants initially favor human agents, this preference diminishes with exposure, showing no significant difference in willingness to engage with human versus digital influencers after experience. This suggests that biases toward AI influencers are malleable, and positive consumer attitudes can emerge through familiarity and interaction (Seymour et al., 2024).

Researchers have also begun to compare the effectiveness of AI influencers and human influencers across various psychological and performance dimensions. Existing research indicates that while AI influencers are gaining prominence, human influencers continue to outperform AI influencers across several critical dimensions of consumer perception and persuasion. Human influencers are generally seen as more credible, with greater source trust (Sands et al., 2022) and a stronger ability to convey autonomy and intentionality (Lee and Ham, 2023). Consumers tend to interpret human influencers' actions at a higher construal level, attributing broader goals and purpose, whereas AI influencers are perceived as acting with low-level and task-specific intentions (Lee and Ham, 2023). This results in lower purchase intentions and weaker attitudes toward AI-generated recommendations. Similarly, when an AI influencer commits a brand-related transgression, replacing them with a human

celebrity endorser significantly improves brand attitudes and purchase intentions, while substituting another AI influencer fails to produce the same effect, largely due to perceived differences in responsibility attribution (Thomas and Fowler, 2021). These findings suggest that consumers apply different cognitive schemas (agent knowledge) to AI versus human influencers, favoring human influencers for their perceived authenticity and social agency.

However, studies also reveal specific strengths associated with AI influencers. Despite their credibility gap, AI influencers are more likely to stimulate word-of-mouth intentions, possibly due to their novelty and technological appeal (Sands et al., 2022). Furthermore, while virtual influencers may lack proximal sensory realism (e.g., touch, taste, smell), consumers perceive their distal sensory capacities (e.g., visual, auditory) as comparable to human influencers (Zhou et al., 2023). Interestingly, some studies highlight areas where consumer perceptions of AI and human influencers converge. For instance, consumers perceive no significant difference in personalization capabilities between the two and report similar intentions to follow AI or human influencers (Sands et al., 2022).

While research on AI or virtual influencer marketing has drawn from a range of theoretical perspectives, such as cognitive models (e.g., the associative network model, action identification theory) (Lee and Ham, 2023; Thomas and Fowler, 2021), technology adoption frameworks (e.g., the Technology Acceptance Model, CASA paradigm) (Seymour et al., 2024; Wan and Jiang, 2023), and social-psychological theories (e.g., anthropomorphism, social comparison, expectancy violation) (Deng and Jiang, 2023; Yang et al., 2023; Zhou et al., 2023). These frameworks primarily focus on how consumers evaluate AI influencers as persuasive agents or technological tools. Although these frameworks offer valuable insights, they overlook how AI influencers function not only as marketing instruments but also as symbolic representations that challenge traditional notions of authenticity and human presence.

As AI influencers increasingly emulate human behavior, generate emotionally resonant content, and exist independently of real-world referents, they challenge conventional assumptions about what it means to be authentic and how immersive engagement is created. To address this deeper representational shift, the present study draws on the theory of simulacra and simulation (Baudrillard, 1994), which offers a critical lens for understanding how consumers engage with AI influencers in hyperreal environments. The following section outlines the theory of simulacra and simulation and its relevance to the emerging domain of AI influencer marketing.

Table 3.2 Summary of findings from the performance between human and AI/virtual influencers

Reference	Roles/IV(s)	DV(s)	Mediator	Moderator	Theory	Methods	Products	AI description	Stimulus	Key Findings	Superiority
Thomas and Fowler (2021)	Influencer type (Human vs. AI)	Brand attitude, and purchase intention	Perceptions of responsibility	—	The associative network model of memory, the technology acceptance model	Experiment	Sunglasses	Digitally created artificial humans, like Brandt and Patrick, generate their own social media posts without human intervention and act as endorsers.	Scenario-based text about influencer transgressions.	When an AI influencer commits a transgression, replacing them with a celebrity endorser improves brand attitudes and purchase intentions, mediated by perceived responsibility. However, replacing them with another AI influencer is insufficient.	Human
Lee and Ham (2023)	Influencer type (Human vs. AI)	Autonomy, construal level, and perceived superordinate goal intentions	—	—	Persuasion knowledge model, action identification theory, and construal-level theory	Experiment	Salad, jeans, sunglasses, and watches	"Laura" is an algorithm-powered AI robot who generates automated recommendation.	A fictitious Instagram profile page of an influencer to manipulate the agent knowledge of AI and human influencers.	AI influencers (vs. human) are perceived to lack autonomy. Besides, the actions of the AI influencer (vs. human influencer) were identified at a low (vs. high) construal level and perceived with fewer (vs. greater) superordinate goal intentions.	Human
		Purchase intention, attitudes toward recommendations, and brand attitude	Source credibility, and perceived persuasion effectiveness	—			Salad	The AI influencer showed an image of a robot and revealed that it is an algorithm-driven AI robot that generates automated recommendation.		AI influencers (vs. human) are perceived less credible. Consumers' agent knowledge of AI (vs. human) influencers results in less favorable attitudes toward social media recommendations and less favorable purchase intentions.	
Sands et al. (2022)	Influencer type (Human vs. AI)	Word-of-mouth intentions	Novelty, and Social-psychological distance	—	—	Experiments	—	Adriana's posts, brand collaborations, and follower	Text description	An AI influencer is more likely to evoke word-of-mouth intentions.	AI

Reference	Roles/IV(s)	DV(s)	Mediator	Moderator	Theory	Methods	Products	AI description	Stimulus	Key Findings	Superiority
		Source trust	Social-psychological distance	—	—		—	interactions are fully managed by an AI algorithm, which		An AI influencer is generally perceived as having lower source trust.	Human
		Intention to follow, and personalization	Social-psychological distance	Need for uniqueness	—		—	autonomously selects content based on trending topics and follower interests.		There is no difference in follow intention or perceived personalization; AI influencers are seen as personalizing content similarly to human influencers.	Same
Alboqami (2023)	Attractiveness, congruence, and source credibility	Consumer trust in AI influencers	—	—	Complexity theory	Survey	—	Respondents were asked to choose the AI which had influenced them most in the past six months.	—	The findings revealed that a configuration of source attractiveness (i.e., physical attractiveness, homophily), source credibility (i.e., authenticity, expertise) and congruences (i.e., influencer product, consumer) act as drivers of consumers' trust in an AI influencer.	—
Feng et al. (2023)	Anthropomorphism, artificiality, attractiveness, luminary, quality, trendiness, and robophobia	Influencer attitude	Influencer trust, and influencer-product fit	—	—	A mixed-methods approach (i.e., big data and machine learning, qualitative analysis, and a survey).	—	It retrieved users' comments on three AI influencers' YouTube videos (i.e., Lil Miquela, Bermuda, and Blawko).	—	Six of these key attributes (i.e., anthropomorphism, attractiveness, luminary, quality, trendiness, and robophobia) significantly affected consumers' acceptance of AI influencers as product/brand endorsers.	—
Seymour et al. (2024)	Digital human agents (DHA) vs human agents vs chatbots	Perceived humanness, affinity, trustworthiness, and a user's willingness to work with them (prior beliefs)	—	—	CASA paradigm (Computers Are Social Actors)	Experiment	Travel agents	—	A description with a picture of an online travel agent (a human agent), a chatbot, or a DHA	Participants' a priori beliefs (without having experienced the DHA) favor a human agent but only to a small extent.	Human

Reference	Roles/IV(s)	DV(s)	Mediator	Moderator	Theory	Methods	Products	AI description	Stimulus	Key Findings	Superiority
	Digital human agents (DHA) vs chatbots	Perceived humanness, affinity, trustworthiness, and a user's willingness to work with them (user perceptions after using a DHA and a chatbot)	—	—	CASA paradigm (Computers Are Social Actors)	Experiment	—	It used the most advanced and most widely deployed commercially available DHA at the time of data collection (October 2022).	It used Soul Machines' "Viola" for the DHA (with video and voice, text window off) and the chatbot (text window only, no video or voice), controlling for perceived intelligence across conditions.	The DHA was perceived to be significantly more human than the chatbot, and users had greater affinity for it; however, there were no significant differences in trustworthiness or willingness to use.	—
	DHA vs DHP vs human agents	Willingness to work	—	—	—	—	Travel agents	In the DHA treatment, participants were led to believe that the digital human was controlled by IBM Watson, an AI known to our participants through media exposure. However, the DHA was, in fact, puppeteered by the same human as in the DHP treatment.	The human agent treatment used a Zoom-like video app with a consistent nighttime background. Both the human and digital agents wore similar clothing and were side-lit.	The participants were more willing to work with the human agent compared with the DHP. There were no significant differences in the willingness to work with the DHP versus the DHA.	Human
Zhou et al. (2023)	Influencer type (Human vs. virtual)	Purchase intention, and the advertisement stimulated a click	Imagery difficulty, and perceived sensory capacity	Proximal sensory (i.e., haptic, olfactory, and gustatory); distal sensory (i.e., visual and auditory)	Sensory marketing, and anthropomorphism	Experiments	—	—	Weibo profile page	Consumers perceive virtual influencers as having lower proximal sensory (i.e., haptic, olfactory, and gustatory) capacities, but rated the distal senses (i.e., visual, auditory) similarly. However, the effect disappeared when the endorsement centered on distal sensory (i.e.,	Human —

Reference	Roles/IV(s)	DV(s)	Mediator	Moderator	Theory	Methods	Products	AI description	Stimulus	Key Findings	Superiority
										visual and auditory) experiences.	
Claudia et al. (2023)	Influencer type (Human vs. virtual)	Purchase intention	Perceived expertise, attitude toward the endorser	Cosmetic products	Match-up hypothesis	Experiment	Body lotion, smart speaker	—	Picture	Human endorser outperforms the virtual with respect to attitude toward the endorser and the ad, since consumers find it difficult to identify virtual influencers.	Human
		Brand innovativeness	Perceived ad novelty	—	—	—	Technical products	—	—	Virtual endorsers can lead to higher perceived ad novelty.	Virtual
Wan & Jiang (2023)	Influencer type (Human vs. virtual)	Influencer attitude, lower levels of perceived warmth, trust, and usefulness, dialogue	—	Product category (tea vs. yoga pants vs. lip oil)	Technology acceptance model	Experiment	Product category (tea vs. yoga pants vs. lip oil)	—	Screenshot of livestream	Virtual (versus human) influencers generated fewer positive attitudes and lower levels of perceived warmth, trust, usefulness, and dialogue.	—
Yang et al. (2023)	Influencer type (Human vs. virtual)	CSR engagement, brand reputation	Source credibility (expertise, trustworthiness, attractiveness, and authenticity)	Interactivity (high versus low)	Expectancy violation theory	Experiment	Food	—	Instagram post picture	Influencers with higher humanness increased source credibility, which in turn enhanced CSR engagement and brand reputation. This mediation was stronger under low interactivity than high interactivity.	Human
Deng & Jiang (2023)	Influencers/Exposure images (HI vs. VI vs. control group)	State appearance anxiety	State appearance comparison	—	Uncanny valley, social comparison	—	—	—	Photos of Ayayi	The participants who were exposed to VI images reported significantly lower appearance anxiety than those who were exposed to HI images.	Virtual
Li et al. (2023)	Influencer type (Human vs. virtual)	Endorsement effectiveness (brand attitude, purchase intention)	Perceived sensory capability and credibility	Sensory cue salience	Mind perception theory, endorsement theory	Secondary data analysis and three scenario-based experiments	Food, ear phones	—	Screenshots of Little Red book and Instagram	Virtual influencers are less effective than human influencers as endorsers in terms of brand attitude and purchase intention. The endorsement	Human

Reference	Roles/IV(s)	DV(s)	Mediator	Moderator	Theory	Methods	Products	AI description	Stimulus	Key Findings	Superiority
										effectiveness of virtual influencers can be enhanced when the sensory cue salience is low.	
		Engagement	—	—	—	—	—	—		Consumers have a higher level of engagement with virtual influencers than human influencers.	Virtual
Our study	Influencer type (Human vs. AI)	Behavioral outcomes (engagement); purchase intention	Ad creativity	AI capabilities, product types, media modality, media interactivity	Innovation diffusion theory	Experiment	—	—	—	—	—

3.3 Theoretical background – the theory of simulacra and simulation

The theory of simulacra and simulation (Baudrillard, 1994) explains how representations of reality, called simulacra (e.g., Disneyland-style theme parks), can eventually replace the reality they were meant to reflect. Simulation is the process through which these representations are constructed and come to replace the original. As this process deepens, individuals no longer engage with reality itself but with signs that imitate or construct it, resulting in hyperreality, a condition where the distinction between real and simulated collapses. In marketing, this framework helps explain how consumers may respond to AI influencers: not based on whether they are human or real, but on how effectively they simulate emotional authenticity and presence, blurring the boundary between digital construction and genuine interaction.

The theory of simulacra and simulation (Baudrillard, 1994) has been widely applied in marketing to explain how modern brands operate, where brands increasingly function as simulacra, representations that no longer simply reflect an original reality but create their own perceived authenticity, thus blurring the line between authentic and counterfeit products (Cherenkov et al., 2020). Specifically, some brands no longer just reflect the quality or function of their products. They build carefully crafted identities that feel authentic, even if they are entirely constructed. This can be seen in immersive brand environments and curated social media content, where curated realities and simulated experiences overshadow real interactions (Christanti et al., 2021; Olson, 2004). In relational marketing, strategies like personalized emails, loyalty programs, and automated customer service create an illusion of connection without real human engagement, prioritizing appearance over authenticity (Østergaard and Fitchett, 2012). In this hyperreal context, the signs of a relationship, such as tailored ads, become more important than genuine engagement (Østergaard and Fitchett, 2012). In the metaverse, this hyperreality is further amplified, with consumers placing greater

value on virtual goods than physical products, reinforcing the dominance of simulations in modern consumer behavior (Mohamed and Bukhari, 2023).

Baudrillard outlines three orders of simulacra, each representing a different relationship between reality and its representations (Baudrillard, 1994). First-order simulacra reflect an original faithfully, like traditional human influencers who represent their actual selves. Second-order simulacra, like AI clone influencers, involve representations that distort, idealize, or mask reality; they are no longer direct reflections but have started to modify the original. AI clone influencers fall into this category—they are digital replicas of real people, often designed to enhance desirable traits such as physical attractiveness or flawless behavior. While they maintain some connection to a real referent, their perfection and polish begin to diverge from the truth, offering a hyper-idealized version of the human they simulate. Lastly, third-order simulacra, such as pure AI influencers, exist as pure simulation, entirely disconnected from any underlying reality. Unlike AI clones, they are not modeled after real individuals but are created entirely from code and imagination. These entities are self-contained simulations. Their existence has no referent in the real world, yet they can still evoke emotional engagement, foster social interaction, and even build trust with audiences. Despite their artificial nature, they function as if they were real, embodying hyperreality where the boundary between simulation and authenticity collapses.

Baudrillard (1994) suggests that higher-order simulacra outperform lower-order ones because they function more effectively in simulating authenticity itself rather than imitating the real. While lower-order simulacra (e.g., AI clone influencers) remain tethered to the real, reflecting or distorting an original, higher-order simulacra (e.g., pure AI influencers) are entirely detached from reality, creating a "real without origin or reality" (Baudrillard, 1994, p. 1). Central to this process is staged authenticity, a mechanism through which higher-order simulacra simulate the appearance of genuine human traits, such as warmth and relatability,

while remaining fully constructed and controlled. This strategic performance of authenticity sustains the illusion of realness, aligning with Baudrillard's claim that the hyperreal is not a distortion of reality but a substitute that feels more compelling than the real (Baudrillard, 1994). At the same time, "it is no longer a question of imitation, nor duplication, nor even parody. It is a question of substituting the signs of the real for the real" (Baudrillard, 1994, p. 2). In other words, simulations no longer reflect or distort reality. They replace it entirely, becoming self-contained and seamless systems that feel real on their own terms. In this context, immersion is not just something users feel, but a built-in feature of hyperreality itself. Higher-order simulacra are designed to draw consumers into smooth and polished environments, where flaws of artificiality are carefully removed. This immersive quality helps keep users engaged and blurs the line between what is real and what is simulated. Thus, within Baudrillard's system, staged authenticity and immersion play key roles in making simulation persuasive. They are not peripheral features, but core mechanisms through which higher-order simulacra produce and sustain hyperreality by offering experiences that feel more real than reality itself.

While Baudrillard (1994) presents hyperreality as a seductive realm where simulations dominate experience, he also acknowledges its emotional and symbolic risks. He warns that "when the real is no longer what it used to be, nostalgia assumes its full meaning" (Baudrillard, 1994, p. 7), suggesting that in a world saturated with simulation, individuals may long for something more grounded. The hyperreal may be flawless and abundant, but it also leads to emotional flatness: "We live in a world where there is more and more information, and less and less meaning" (Baudrillard, 1994, p. 79). These ideas imply that audiences may at times retreat from the hyperreal when it fails to offer emotional resonance. In influencer marketing, this plays out when consumers perceive AI influencers as overly artificial. Unlike traditional marketing tactics such as celebrity endorsements, influencer

marketing relies on perceived intimacy, emotional engagement, and human interaction (Pan et al., 2025). Influencers thrive not merely by broadcasting content, but by cultivating a sense of authenticity, fostering parasocial relationships, and trust. While pure AI influencers offer flawless delivery and futuristic appeal, they may underperform when emotional resonance or symbolic alignment is required. In contrast, AI clones, though simulated, retain traces of humanness that may align better with symbolic or identity-driven products.

In this way, the theory of simulacra and simulation provides a theoretical basis for understanding why AI clone and pure AI influencers differ in effectiveness depending on context. Their success depends not only on their degree of simulation but on how well they activate staged authenticity and immersion in ways that meet consumers' emotional and symbolic expectations.

3.4 Hypothesis development

Building on the theory of simulacra and simulation (Baudrillard, 1994), this section outlines the hypothesized relationships among AI influencer type, experiential mechanisms, and consumer outcomes. Specifically, it contrasts AI clone and pure AI influencers, which represent second- and third-order simulacra, respectively. Although both are artificial, their differing connections to reality are expected to produce distinct consumer experiences.

To explain how consumers respond to these types of influencers, the model proposes staged authenticity and immersion as experiential mediators. These mechanisms capture the depth of the consumer's experience that is central to how hyperreality functions in digital environments. Furthermore, the effectiveness of each influencer type may depend on the type of product being endorsed. Products with different levels of symbolism may shape how consumers interpret and respond to different AI influencers. Figure 3.1 shows the theoretical framework, and the following subsections present the hypotheses in detail.

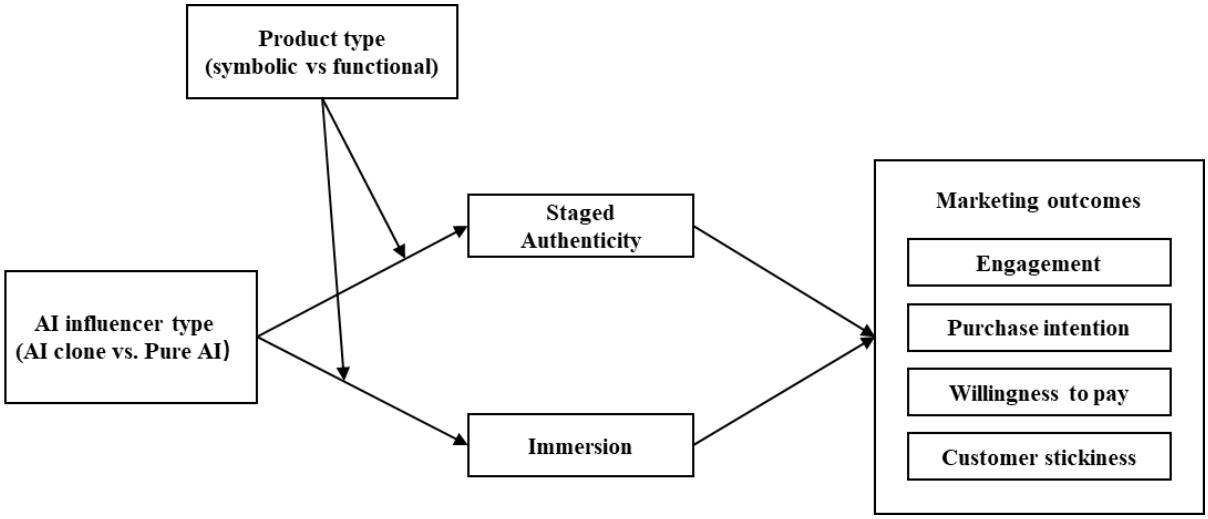


Figure 3.1 Theoretical framework

3.4.1 AI influencer type (AI clone vs pure AI) and marketing outcomes

In the age of social media, which often fosters a simulated reality, blurring the line between the authentic and the idealized (Christanti et al., 2021), consumer interactions with influencers are increasingly shaped by curated and polished content that blurs the line between the real and the artificial. These hyper-curated representations create an environment where the distinction between what is real and what is artificial becomes increasingly difficult to discern. Baudrillard (1994)'s theory of simulacra and simulation provides a valuable lens to understand this shift. According to the theory, representations evolve from reflecting reality to simulating it entirely, culminating in hyperreality, where simulated experiences become more compelling than the real. Social media platforms, by consistently promoting idealized personas and curated perfection, normalize this hyperreality, making audiences not only accept but expect simulated experiences as part of their everyday interactions (Christanti et al., 2021).

AI influencers align seamlessly with this postmodern environment. AI clone influencers, digital replicas of real humans, represent second-order simulacra. They preserve a connection to real-world identity but offer a digitally enhanced and idealized version of it (Yan, 2024). This fusion of human familiarity and hyperreal perfection allows AI clones to satisfy

consumer expectations for both authenticity and polish (Christanti et al., 2021). By contrast, pure AI influencers, as third-order simulacra, are fully synthetic creations with no real-world counterpart. Their detachment from reality enables them to create futuristic and fantasy-driven personas that align well with social media's tendency toward the hyperreal (Franke et al., 2023). While pure AI influencers may lack human warmth, they captivate audiences seeking novelty and immersive digital experiences (Sands et al., 2022), offering a complete mental escape and delivering an idealized experience that feels unbounded by reality.

Although the theory of simulacra and simulation suggests that higher-order simulacra often dominate within hyperreality due to their detachment from the real, he also cautions that this hyperreality can lead to emotional flatness and a longing for grounded experiences (Baudrillard, 1994). In contexts like influencer marketing, where emotional resonance, perceived intimacy, and trust are critical, consumers may at times retreat from the hyperreal if it fails to meet these relational expectations. In such contexts, second-order simulacra like AI clone influencers may offer a more compelling alternative by striking a balance between authenticity and perfection. Their human-like traits, combined with digital enhancement, may foster stronger psychological connections with consumers and lead to more favorable marketing outcomes. Thus:

H1: AI clone influencers (vs. pure AI influencers) elicit higher (a) engagement, (b) purchase intention, (c) willingness to pay, and (d) customer stickiness.

3.4.2 Staged authenticity as the mediator

According to the theory of simulacra and simulation, higher-order simulacra simulate authenticity itself, producing realities that feel even more compelling than the original (Baudrillard, 1994). Lower-order simulacra (e.g., AI clone influencers) remain tethered to reality by reflecting or distorting an original, whereas higher-order simulacra (e.g., pure AI influencers) create a "real without origin or reality", offering fully synthetic yet seemingly

authentic experiences. In the influencer marketing context, staged authenticity refers to the curated presentation of content that creates a sense of genuineness while strategically highlighting idealized aspects of the influencer's identity and lifestyle (Gardiner et al., 2022). It captures how convincingly an influencer simulates authenticity, even when the persona is entirely or partially digital, by blending emotional relatability with visual and narrative polish. In the context of AI influencers, the degree of staged authenticity plays a pivotal role in shaping how consumers engage with and respond to influencer content.

Staged authenticity mediates the effect of AI influencer type on consumer responses by shaping how convincingly each type of AI influencer simulates a persona that feels genuine despite being digitally constructed. AI clone influencers, as second-order simulacra, achieve higher perceived staged authenticity by blending real human familiarity with digitally enhanced polish. Their connection to a real-world identity enables them to construct curated personas that feel both recognizable and idealized. This hybrid design aligns with consumer expectations shaped by social media, where authenticity is often valued when paired with visual and narrative control. For instance, an AI clone of a fashion influencer maintains that recognizable persona while delivering consistent and curated content, thereby reinforcing perceived authenticity in a way that feels both familiar and carefully managed.

In contrast, pure AI influencers, as third-order simulacra, are entirely artificial and lack any real-world referent. They present futuristic and stylized personas that reflect innovation and technical sophistication (Franke et al., 2023; Sands et al., 2022) without drawing on an existing human identity. This disconnect can make their personas feel less grounded and harder for consumers to interpret as authentic. Without the human cues that typically support staged authenticity, these influencers may appear more detached, reducing their effectiveness in contexts where a sense of realness is expected. Therefore:

H2: Staged authenticity mediates the relationship between AI influencer type and marketing outcomes, such that AI clone influencers (vs. pure AI influencers) elicit higher (a) engagement, (b) purchase intention, (c) willingness to pay, and (d) customer stickiness through greater perceptions of staged authenticity.

3.4.3 Immersion as the mediator

Simulations become so complete and convincing that they no longer need to refer back to anything real (Baudrillard, 1994). In a hyperreality environment, immersion is not just something the user feels; it is built into the simulation itself. Pure AI influencers, for example, are created to be smooth, consistent, and flawless. This design makes the experience feel seamless and believable, keeping users engaged without interruption. In marketing, this immersive quality is a powerful tool: it helps AI influencers hold attention and create persuasive experiences that feel more real than reality itself. In marketing literature, immersion refers to a psychological state in which individuals feel surrounded by, engaged with, and actively participating in an environment that delivers a steady flow of sensory inputs and experiences (Cuny et al., 2015). This concept becomes particularly vital in the context of AI influencer marketing, where immersion serves as a substitute for physical presence. Because AI influencers lack tangible reality, they must simulate presence in ways that engage both attention and emotion. Immersion, in this context, functions as a cognitive and emotional illusion of presence (Cuny et al., 2015), drawing consumers into a compelling digital experience that feels both mentally absorbing and emotionally engaging, which can influence downstream behaviors.

Immersion mediates the influence of AI influencer type on consumer responses by shaping the depth of consumer involvement with the influencer's content. AI clone influencers construct immersive environments through behavioral realism and polished interaction design. As digital replicas of real people, they can adopt the tone, style, and social

gestures that mirror established human communication patterns (Wang, 2024). These human-like signals create smoother and more intuitive interactions, reduce extraneous cognitive load by eliminating the need to decode unfamiliar social cues (Sweller, 1988; Van Dillen et al., 2013). Familiar behavioral scripts stored in long-term memory enable automatic processing and reduce extraneous cognitive load, which minimizes the demands on working memory, and allows consumers to focus more easily on the content itself (Paas et al., 2003).

In contrast, pure AI influencers cultivate immersion through imaginative aesthetics and stylized personas unconstrained by real-world identities. These influencers are not tied to real-world identities, which frees them to create stylized personas, explore fantastical aesthetics, or embody abstract brand values (Luo et al., 2021; Thomas and Fowler, 2021). However, these stylized personas often lack the familiar cues, such as human goals, behaviors, or social contexts that help consumers make sense of narratives. Without these anchors, it becomes more cognitively demanding for consumers to interpret the storyline, integrate character actions, and maintain immersion. This is because effective narrative understanding relies on coherent event structures, recognizable causal relations, and accessible character goals (Graesser et al., 1994). The cognitive demands required to interpret such abstract characters and integrate them into meaningful narrative frameworks can hinder narrative integration. Therefore,

H3: Immersion mediates the relationship between AI influencer type and marketing outcomes, such that AI clone influencers (vs. pure AI influencers) elicit higher (a) engagement, (b) purchase intention, (c) willingness to pay, and (d) customer stickiness through greater perceived immersion.

3.4.4 The product type as the moderator of the first-stage indirect effects

3.4.4.1 Moderated mediation via staged authenticity

Baudrillard (1994) suggests that higher-order simulacra simulate authenticity itself, creating realities that are not anchored in any original referent but still perceived as real. However, the reception of these hyperreal simulations is shaped by the symbolic context in which they appear. In marketing research, symbolic goods (e.g., fashion) and functional goods (e.g., technology) offer different interpretive environments (Berger and Heath, 2007). While symbolic products may amplify the appeal of influencers tied to real-world identity (e.g., AI clones), functional products may be more congruent with the disembodied abstraction of pure AI (Berger and Heath, 2007). This context-dependence suggests that perceptions of staged authenticity are not inherent to the influencer type alone but dynamically co-constructed through the symbolic meaning of the product category.

Product type (fashion vs. tech) acts as a contextual factor that conditions how audiences respond to the influencer's staged authenticity. Product domains differ in their identity relevance, and consumers are more sensitive to social meaning and symbolic alignment in domains used to signal identity (Berger and Heath, 2007). In symbolic categories such as fashion, consumers purposively seek authenticity cues that support self-expressive goals, often relying on relatable human behaviors and familiar social scripts to construct a sense of realness (Beverland and Farrelly, 2009). Within this context, AI clone influencers, who closely simulate human influencers, are more likely to be seen as authentic performers because their realism aligns with the identity-relevant nature of the product.

In contrast, technology products are typically evaluated through a lens of functionality, innovation, and futurism (Berger and Heath, 2007). Identity signaling is less pronounced in these domains, and consumers are more likely to judge authenticity based on technological sophistication or symbolic alignment with progress and digital advancement (Berger and Heath, 2007). Therefore, for such products, the association with innovation and abstraction may make pure AI influencers more effective in constructing authenticity. Within this

context, authenticity is less about mimicking human traits and more about aligning with futuristic and utility-oriented expectations. In tech domains, consumers may pursue authenticity by seeking control, mastery, and efficacy, valuing influencers who symbolize innovation and technological advancement (Beverland and Farrelly, 2009). Staged authenticity in such contexts is constructed around goals like control, efficacy, and novelty. Therefore, pure AI influencers, with their stylized and non-human personas, may be seen as more authentic in tech settings precisely because their abstraction reflects the hyperreal and boundary-pushing symbolism consumers expect from technology brands. Therefore,

H4a: Product type moderates the effect of AI influencer type on perceived staged authenticity, such that AI clone influencers elicit higher staged authenticity than pure AI influencers in the fashion product, whereas pure AI influencers elicit higher perceived staged authenticity in the tech product condition.

In line with the theory of simulacra and simulation (Baudrillard, 1994), these differentiated perceptions of staged authenticity across product types do more than shape how real an influencer feels. They also have downstream behavioral consequences. When consumers perceive an influencer as authentically aligned with the symbolic expectations of a product category, they are more likely to exhibit stronger engagement with the content (Audrezet et al., 2020), develop greater purchase intention (Pan et al., 2025), express a higher willingness to pay (Kadirov, 2015), and demonstrate increased customer stickiness (Cheng et al., 2025). In symbolic product domains like fashion, where identity alignment is key, staged authenticity rooted in human-like social performance can foster authenticity (Beverland and Farrelly, 2009). As such, AI clone influencers are more likely to drive favorable consumer responses through their perceived staged authenticity in the fashion context.

Conversely, in functional or futurism-oriented categories like technology, staged authenticity may be interpreted through the lens of innovation and novelty (Beverland and

Farrelly, 2009). In this context, pure AI influencers, with their stylized personas, may be more effective at stimulating consumer responses. Their perceived staged authenticity as digital natives aligns with expectations of consumers for tech-forward products, which can enhance engagement and motivation to act.

H4b: Product type moderates the indirect effect of AI influencer type (AI clone vs. pure AI) on marketing outcomes—specifically (1) engagement, (2) purchase intention, (3) willingness to pay, and (4) customer stickiness—through perceived staged authenticity, such that the indirect effect is stronger for AI clone influencers in the fashion product condition, but stronger for pure AI influencers in the tech product condition.

3.4.4.2 Moderated mediation via immersion

Based on the theory of simulacra and simulation (Baudrillard, 1994), simulations create a hyperreal environment that feels self-contained and compelling, detached from any original reality. However, the product category literature (Berger and Heath, 2007) suggests that the extent to which consumers become immersed in these hyperreal experiences depends on the symbolic context in which they are encountered. Specifically, symbolic products (e.g., fashion) activate identity-driven goals and deeper personal involvement, while functional products (e.g., technology) encourage more pragmatic and goal-oriented engagement (Berger and Heath, 2007). These different motivational orientations shape how deeply consumers cognitively and emotionally engage with an influencer's content. Therefore, the level of immersion elicited by an AI influencer is shaped by the symbolic meaning of the product being promoted, which activates different consumer goals and cognitive processing styles.

In symbolic product categories like fashion, consumers engage with content in ways that support identity construction and social expression (Berger and Heath, 2007). These domains heighten sensitivity to familiar social cues and emotionally resonant presentations. As a result, consumers are more likely to feel immersed when content features familiar cultural

cues or invites narrative interpretation, allowing consumers to construct meaning that aligns with personal identity goals (Phillips and McQuarrie, 2010). AI clone influencers, which simulate human tone, appearance, and social presence, align with these expectations. Their realism facilitates intuitive processing and emotional connection, making the content feel socially relevant and psychologically engaging, thereby enhancing immersion.

In contrast, technology products tend to fall within functional or innovation-driven domains, where identity signaling is less central (Berger and Heath, 2007). These products are typically evaluated through the lens of innovation and novelty rather than social alignment. Interactive digital environments increase cognitive involvement by enabling users to control their experience and actively engage with novel content formats (Liu and Shrum, 2002). This form of mental stimulation resonates with consumer expectations in tech categories, where motivation is often rooted in curiosity, exploration, and functionality. Within this context, pure AI influencers, with their stylized and non-human personas, align with the symbolic cues of technological progress. Their abstraction supports a more imaginative and exploratory form of immersion, one that is particularly effective for engaging consumers in technology-related content. Thus,

H4c: Product type moderates the effect of AI influencer type on perceived immersion, such that AI clone influencers elicit higher immersion than pure AI influencers in the fashion product condition, whereas pure AI influencers elicit higher immersion in the tech product condition.

This immersive experience influences consumer behavior. When content feels immersive, consumers are more likely to exhibit stronger engagement (Grinberg et al., 2014), develop higher purchase intention (Pathak and Prakash, 2023), express a greater willingness to pay (Hsiao et al., 2024), which can increase customer stickiness (So et al., 2024). However, the strength of these effects depends on how well the influencer's immersive

potential aligns with the symbolic logic of the product category. In fashion, immersive experiences created by AI clone influencers are more likely to drive positive consumer responses. In tech, it is the abstract immersion created by pure AI influencers that resonates more effectively. Thus,

H4d: Product type moderates the indirect effect of AI influencer type (AI clone vs. pure AI) on marketing outcomes—specifically (1) engagement, (2) purchase intention, (3) willingness to pay, and (4) customer stickiness—through perceived immersion, such that the indirect effect is stronger for AI clone influencers in the fashion product condition, but stronger for pure AI influencers in the tech product condition.

3.5 Method

This research comprises two experimental studies designed to investigate how consumers respond to different AI influencers. The overall aim is to compare AI clone and pure AI influencers, which correspond to Baudrillard's second-order (idealized copy) and third-order (pure simulation) simulacra, respectively. Study 1 also includes a human influencer condition as a theoretical benchmark to validate prior findings that real human influencers tend to generate the strongest marketing outcomes.

Study 1 is designed to examine the psychological and engagement effects of influencer type (human, AI clone, and pure AI). It tests three alternative psychological mechanisms: perceived perfection, ideal self, and consumer escapism. These variables are theoretically relevant in the context of hyperreality and are tested to assess whether they meaningfully differentiate between influencer types. In addition, Study 1 includes a set of traditional psychological mechanisms widely studied in the context of human influencer marketing: source credibility, perceived warmth, perceived competence, and parasocial relationship. These constructs capture relational and interpersonal perceptions that are typically associated with influencer effectiveness (Breves et al., 2021; Dubois et al., 2016; Zogaj et al., 2021).

Their inclusion in Study 1 allows for testing whether such mechanisms extend to the context of AI influencers or whether more simulation-specific constructs may be needed.

Study 2 builds on the insights gained from Study 1 and focuses on a direct comparison between AI clone and pure AI influencers. It introduces two experiential mechanisms, staged authenticity and immersion, as theoretically grounded mediators that may more directly reflect how simulation level influences consumer engagement. These constructs are particularly relevant in the context of hyperreality, where consumer experience may be shaped more by how "real" and immersive the influencer feels than by traditional interpersonal traits. Study 2 also introduces product type (symbolic vs. functional) as a potential moderator to examine whether contextual fit influences consumer responses to different types of AI influencers. The human influencer condition is excluded from Study 2, having served its theoretical role in Study 1. In sum, the two studies help understand the psychological and experiential mechanisms that shape consumer responses to AI influencers.

3.5.1 Study 1: Exploring consumer responses and traditional psychological mechanisms across different types of influencers

3.5.1.1 Design and procedure

Study 1 employed a between-subjects experimental design with three conditions, each corresponding to a different AI influencer type based on Baudrillard's (1994) orders of simulacra: human influencer (first-order simulacrum), AI clone influencer (second-order simulacrum), and pure AI influencer (third-order simulacrum). The aim was to explore how different AI influencers influence consumer perceptions and to evaluate a range of psychological constructs as potential mechanisms of influence. These included both alternative mechanisms (perceived perfection, ideal self, and consumer escapism) and traditional mechanisms commonly used in human influencer research (source credibility, perceived warmth, perceived competence, and parasocial relationship).

Participants were informed that they would view a short clip from a livestream shopping session in which an influencer presents and recommends a product. The product featured was a formal handbag, chosen for its broad consumer appeal and relevance to fashion-oriented livestreaming. Prior to viewing the video, participants were presented with a brief written scenario designed to simulate the livestreaming context and frame the influencer's identity according to their assigned condition.

In the human influencer condition, participants viewed a video featuring a real person promoting the handbag in a typical livestreaming format. In the AI clone and pure AI conditions, participants viewed an AI-generated video created using the CapCut AI avatar tool. This video digitally replicated the human influencer's appearance, expressions, and voice. The same AI-generated video was used for both conditions, but the scenario description differed to manipulate perceptions of the influencer as either an AI clone (i.e., a digital copy of a real human) or a pure AI (i.e., a fully synthetic influencer with no real-world counterpart). Full details of the manipulation are provided in Appendix O.

Participants were randomly assigned to one of the three conditions. After reading the scenario and watching the video, they completed a questionnaire assessing their perceptions of the influencer, their engagement with the content, and the full set of psychological mechanisms under investigation.

3.5.1.2 Participants

Female participants fluent in English were recruited through Prolific to ensure consistency in language comprehension and alignment with the product category. A total of 400 individuals participated in the study. All participants were randomly assigned to one of the three experimental conditions: human influencer, AI clone influencer, or pure AI influencer. The sample was restricted to female participants to reflect the target demographic

for the promoted product (a formal handbag) and to control for gender-based differences in influencer and product perception.

3.5.1.3 Measures

Participants completed a questionnaire assessing a range of psychological constructs and engagement outcomes. These included perceived perfection, ideal self, consumer escapism, engagement, source credibility, perceived warmth, perceived competence, and parasocial relationship. To ensure participants correctly understood the experimental manipulation, manipulation check items were included (e.g., "I realize that I am exposed to 1) a human influencer, 2) an AI clone influencer (the digital version of Lila, with a human counterpart), or 3) a pure AI influencer (with no human counterpart)"). Full details of the measurement scales are presented in Table 3.3.

Table 3.3 Measurement of Study 1

Variables	Measurements (Revise)	References	Cronbach Alpha
Perceived perfection	This influencer seems to strive for perfection in everything they do. I feel like one of this influencer goals is to be perfect in everything they do. It feels like this influencer is trying to avoid mistakes in their content. This influencer acts as though their followers expect them to be perfect. I think this influencer presents a flawless, curated version of their lives.	Flett et al. (1998); Hewitt and Flett (1991)	.85
Ideal self	The personality of this influencer is consistent with how I would like to be. The personality of this influencer reflects the person I aspire to be.	Malär et al. (2011)	.96
Consumer escapism	I want to watch or follow this influencer to avoid thinking about my personal concerns. This influencer helps me keep my mind off things that are bothering me. This influencer helps me keep my mind off things that are bothering me. Engaging with the influencer's content helps me escape from reality. Watching the influencer allows me to forget about the real world for a while. I immerse myself in the influencer's world to escape into a reality of my own.	Orazi et al. (2023)	.96

	Following the influencer gives me relief from my day-to-day activities. This influencer helps me find relief from everyday worries. Watching or interacting with the influencer provides me with a much-needed break.		
Engagement	I would like to follow this influencer. I would like to comment on the content created by this influencer. I would like to share the content created by this influencer. I would like to recommend the content created by this influencer.	Wies et al. (2023)	.96
Source credibility	Expertise I consider this influencer sufficiently experienced to make assertions about her area. I consider this influencer an expert in her area. I feel this influencer is competent to make assertions about things that they are good at. I feel this influencer knows a lot about his/her area. I consider this influencer earnest. I feel this influencer is truthful. I consider this influencer trustworthy. I feel this influencer is honest. I think this influencer is quite pretty. I think this influencer is good looking. I consider this influencer very stylish. I consider this influencer very attractive.	Yuan and Lou (2020)	.94
Perceived warmth	This influencer is sociable. This influencer is friendly. This influencer is kind. This influencer is likeable. This influencer is warm.	Kim et al. (2019)	.91
Perceived competence	This influencer is competent. This influencer is intelligent. This influencer is skillful. This influencer is efficient. This influencer is capable.	Kim et al. (2019)	.92
Parasocial relationship	The influencer makes me feel comfortable, as if I am with a friend. I look forward to seeing this influencer's need post. I see the influencer as a natural, down-to-earth person. If the influencer starts another social media channel, I will also follow. The influencer seems to understand the kinds of things I want to know. If I see a story about the influencer in other places, I would read it. I miss seeing the influencer when he/she did not post on time. I would like to meet this influencer in person. If something happens to this influencer, I will feel sad.	Yuan and Lou (2020)	.96

	I would invite this influencer to my party. This influencer is the kind of person I would like to play or hang out with. If the influencer lived in my neighborhood, we would be friends. The influencer would fit in well with my group of friends.

3.5.1.4 Results

Descriptive analysis The study recruited 400 participants, who were randomly assigned to one of three influencer type conditions: human influencer, AI clone influencer, or pure AI influencer. Following the attention check, 14 participants were excluded, resulting in 386 valid responses. After applying a manipulation check, 283 participants remained in the final sample. The distribution across conditions was as follows: human influencer (n = 104), AI clone influencer (n = 104), and pure AI influencer (n = 75). All participants in the final sample were identified as female. Ages ranged from 18 to 64 years, with a mean of 32 (SD = 0.66). Regarding educational background, 46.29% of participants held at least a bachelor's degree, 21.20% reported a master's degree or higher, 18.02% had completed some college or a two-year degree, and 14.49% held a high school diploma. Annual household income varied, with the most frequently selected income bracket being £25,001–£50,000 (23.32%), followed by £15,001–£25,000 (21.55%).

Measurement The study measured key constructs using established multi-item scales adapted from prior literature. All items were rated on a 5-point Likert scale (1 = strongly disagree, 5= strongly agree). The main constructs included perceived perfection, ideal self, consumer escapism, engagement, source credibility, perceived warmth, perceived competence, and parasocial relationship.

Cronbach's alpha was used to assess the internal consistency of each construct. All scales demonstrated acceptable to excellent reliability, with alpha values exceeding the commonly accepted threshold of 0.70. The following reliability coefficients were obtained: perceived perfection (α = .85), ideal self (α = .96), consumer escapism (.96), engagement (α =

.96), source credibility (α = .94), perceived warmth (α = .91), perceived competence (α = .92), and parasocial relationship (α = .96) (Table 3.3).

ANOVA results A one-way ANOVA was conducted to examine the effect of influencer type (human, AI clone, and pure AI) on a range of consumer responses (see Table 3.4). For ideal self, there was a significant main effect of influencer type, $F(2, 280) = 4.62$, $p < .05$. Human influencers ($M = 2.10$) were rated highest, followed by AI clones ($M = 1.88$), and pure AI influencers ($M = 1.56$). Pairwise comparisons showed that pure AI influencers were rated significantly lower than human influencers (Contrast = –.55, $p = .00$), and marginally lower than AI clone influencers (Contrast = –.32, $p = .07$).

For consumer escapism, although the overall effect of influencer type was not statistically significant, $F(2, 280) = 2.40$, $p = .09$, pairwise comparisons showed that pure AI influencers were rated significantly lower than human influencers (Contrast = –.32, $p = .03$). However, given the non-significant omnibus test, this result should be interpreted with caution.

For consumer engagement, the effect of influencer type was also significant, $F(2, 280) = 4.45$, $p < .05$. Human influencers ($M = 2.19$) elicited higher engagement than AI clones ($M = 1.88$) and pure AI influencers ($M = 1.65$). Pairwise comparisons showed that pure AI influencers were rated significantly lower than human influencers (Contrast = –.54, $p = .00$), while the difference between AI clones and pure AI was not significant (Contrast = –.24, $p = .20$). The contrast between AI clones and human influencers approached significance (Contrast = –.31, $p = .07$). H1(b) is not supported.

For source credibility, there was a significant main effect, $F(2, 280) = 11.58$, $p < .001$. Human influencers ($M = 3.33$) and AI clones ($M = 3.19$) were rated significantly higher than pure AI influencers ($M = 2.72$), with contrast values of –.60 ($p = .00$) and –.47 ($p = .00$),

respectively. The difference between AI clones and human influencers was not significant (Contrast = –.14, p = .25).

A significant effect also emerged for perceived warmth, F (2, 280) = 16.06, p < .001. Human influencers (M = 3.88) were rated highest, followed by AI clones (M = 3.48), and pure AI influencers (M = 3.16). Pairwise comparisons showed that pure AI influencers were rated significantly lower than human influencers (Contrast = –.72, p = .00) and AI clone influencers (Contrast = –.33, p = .01). The difference between AI clone and human influencers was also significant (Contrast = –.40, p = .00).

For perceived competence, the effect of influencer type was significant, F (2, 280) = 7.27, p < .001. Human influencers (M = 3.61) were rated slightly higher than AI clones (M = 3.55), while pure AI influencers (M = 3.14) scored significantly lower. Pure AI influencers were rated significantly lower than both human (Contrast = –.47, p = .00) and AI clone influencers (Contrast = –.42, p = .00), while the difference between AI clones and human influencers was not significant (Contrast = –.05, p = .66).

For parasocial relationship, a significant effect was observed, F (2, 280) = 8.16, p < .01. Human influencers (M = 2.35) elicited stronger parasocial relationships than AI clones (M = 2.04) and pure AI influencers (M = 1.72). The difference between pure AI and human was significant (Contrast = –.63, p = .00), as was the difference between pure AI and AI clone influencers (Contrast = –.32, p = .04). The contrast between AI clone and human influencers was also significant (Contrast = –.31, p = .03).

Finally, no significant differences were found for perceived perfection, F (2, 280) = .95, p = .39. Ratings were similar across human (M = 3.74), AI clone (M = 3.83), and pure AI influencers (M = 3.65), with all pairwise comparisons yielding non-significant results (AI clone vs. human: Contrast = .09, p = .47; pure AI vs. human: Contrast = –.10, p = .46; pure AI vs. AI clone: Contrast = –.18, p = .16).

Focusing specifically on the comparison between AI clone and pure AI influencers, AI clones were rated significantly higher on source credibility (p = .00), perceived warmth (p = .01), perceived competence (p = .00), and parasocial relationship (p = .04). However, no significant differences were found between AI clone and pure AI influencers on perceived perfection (p = .16), ideal self (p = .07), consumer escapism (p = .08), or consumer engagement (p = .20). This pattern suggests that while AI clones are perceived more favorably on traditional psychological and relational dimensions, these differences do not necessarily translate into higher engagement, pointing to the need to explore deeper experiential mechanisms in Study 2.

Table 3.4 ANOVA results

Dependent Variable	**Influencer type**	**N = 283**	**Influencer type contrast**	**N = 283**	
				Contrast	**P>|t|**
Perceived perfection	Human	3.74	AI clone (2) vs Human (1)	.09	.47
	AI clone	3.83	Pure AI (3) vs Human (1)	-.10	.46
	Pure AI	3.65	Pure AI (3) vs AI clone (2)	-.18	.16
Ideal self	Human	2.10	AI clone (2) vs Human (1)	-.23	.15
	AI clone	1.88	Pure AI (3) vs Human (1)	-.55	.00
	Pure AI	1.56	Pure AI (3) vs AI clone (2)	-.32	.07
Consumer escapism	Human	2.46	AI clone (2) vs Human (1)	-.07	.63
	AI clone	2.40	Pure AI (3) vs Human (1)	-.32	.03
	Pure AI	2.13	Pure AI (3) vs AI clone (2)	-.26	.08
Consumer engagement	Human	2.19	AI clone (2) vs Human (1)	-.31	.07
	AI clone	1.88	Pure AI (3) vs Human (1)	-.54	.00
	Pure AI	1.65	Pure AI (3) vs AI clone (2)	-.24	.20
Source credibility	Human	3.33	AI clone (2) vs Human (1)	-.14	.25
	AI clone	3.19	Pure AI (3) vs Human (1)	-.60	.00
	Pure AI	2.72	Pure AI (3) vs AI clone (2)	-.47	.00
Perceived warmth	Human	3.88	AI clone (2) vs Human (1)	-.40	.00
	AI clone	3.48	Pure AI (3) vs Human (1)	-.72	.00
	Pure AI	3.16	Pure AI (3) vs AI clone (2)	-.33	.01
Perceived competence	Human	3.61	AI clone (2) vs Human (1)	-.05	.66
	AI clone	3.55	Pure AI (3) vs Human (1)	-.47	.00
	Pure AI	3.14	Pure AI (3) vs AI clone (2)	-.42	.00
Parasocial relationship	Human	2.35	AI clone (2) vs Human (1)	-.31	.03
	AI clone	2.04	Pure AI (3) vs Human (1)	-.63	.00
	Pure AI	1.72	Pure AI (3) vs AI clone (2)	-.32	.04

Mediation results To examine whether static traits mediate the effect of AI influencer type (AI clone versus pure AI) on consumer engagement, a parallel mediation analysis was conducted using PROCESS Model 4 with 5,000 bootstrap samples. The mediators included source credibility, perceived warmth, perceived competence, and parasocial relationship.

The direct effect of AI influencer type on engagement was not statistically significant (effect = -0.11, p = 0.23), indicating that when controlling for the proposed mediators, the AI influencer type did not directly impact engagement. However, the total indirect effect through the combined mediators was statistically significant (effect = 0.35, 95% CI [0.07, 0.65]), suggesting that the relationship between AI influencer type and engagement was fully mediated by one or more psychological mechanisms.

Closer examination of the individual mediators revealed that source credibility (effect = 0.07, 95% CI [-0.01, 0.17]), perceived warmth (effect = -0.01, 95% CI [-0.07, 0.03]), and perceived competence (effect = 0.00, 95% CI [-0.07, 0.07]) did not significantly mediate the relationship between AI influencer type and engagement, as their respective confidence intervals included zero. Although the parasocial relationship showed a statistically significant indirect effect (effect = 0.29, SE = 0.14, 95% CI [0.04, 0.57]), its robustness remains uncertain, and it will be explored in Study 2.

In sum, Study 1 found that AI clone influencers were rated significantly higher than pure AI influencers on several traditional psychological mechanisms (i.e., source credibility, perceived warmth, perceived competence, and parasocial relationship). However, the differences between AI clone and pure AI on alternative psychological mechanisms (i.e., perceived perfection, ideal self, and consumer escapism) and consumer engagement were not significant. Mediation analysis further showed that none of the psychological traits, except parasocial relationship, significantly mediated the relationship between influencer type and engagement. Moreover, several alternative psychological mechanisms, including perceived perfection, ideal self, and consumer escapism, failed to show significant differences between AI clone and pure AI conditions. This pattern suggested that neither traditional nor alternative psychological mechanisms sufficiently explained how consumers respond to different levels of simulation in influencer marketing. The lack of a significant difference in engagement,

despite consistent perceptual advantages for AI clones, highlighted a theoretical gap and points to the need for deeper mechanisms that better align with the hyperreal nature of simulation. To address this, Study 2 focused on staged authenticity and immersion as theoretically grounded mediators that may capture the experiential processes through which simulation level influenced consumer responses.

3.5.2 Study 2: Testing experiential mechanisms and contextual moderators across different types of AI influencers

Building on the insights from Study 1, Study 2 focuses on a direct comparison between AI clone and pure AI influencers, to investigate two experiential mechanisms, staged authenticity and immersion, which capture how convincingly AI influencers simulate human traits and how deeply consumers become experientially absorbed in the influencer experience. These mechanisms are grounded in the theory of simulacra and simulation and are proposed as key drivers of consumer behavior in digital environments. In addition, Study 2 introduces product type (fashion vs. technology) as a contextual moderator to test whether the effect of different types of AI influencer differs across domains with distinct symbolic and functional demands. The model predicts a set of downstream consumer outcomes, including engagement, purchase intention, willingness to pay, and customer stickiness. By integrating experiential mechanisms and product context, this study aims to move beyond trait-based perceptions and advance a deeper understanding of the experiential processes underpinning digital marketing environments.

3.5.2.1 Design and procedure

Study 2 employed a 2 (AI influencer type: AI clone vs. pure AI) × 2 (Product type: symbolic vs. functional) factorial between-subjects experimental design. Building on the findings of Study 1, this study aimed to refine the AI influencers manipulation and focus more precisely on the experiential mechanisms shaping consumer responses to AI

influencers, specifically, staged authenticity and immersion. In addition, this study introduced product type as a contextual moderator to examine whether the influence of simulation varied across domains with distinct symbolic and functional characteristics.

Participants were informed that they would view a short clip from a livestream shopping session in which an influencer presents and recommends a product. The featured products were either sunglasses (fashion condition) or headphones (technology condition), selected to represent different product categories relevant to online influencer marketing. Prior to watching the video, participants were presented with a brief written scenario designed to simulate the livestreaming environment and frame the influencer's identity according to their assigned condition. Full manipulation text and scenario details are provided in Appendix P.

In the AI clone influencer condition, participants were introduced to the influencer as the digital version of Lila, who is a real human influencer. The scenario emphasized that the livestream was hosted by her AI-powered digital twin, created using advanced AI technologies. In the pure AI influencer condition, Lila was described as a pure AI influencer, created entirely by AI, with no real-world counterpart. The same AI-generated video was used in both conditions, created using the CapCut AI avatar tool. Only the scenario framing was manipulated to shape participants' perceptions of the influencer as either an AI clone or a pure AI.

To reinforce the manipulation, the influencer's identity was reiterated in a line just before the video playback (e.g., "Now, let us watch the livestreaming session hosted by the digital version of Lila…"). Participants were randomly assigned to one of the four conditions and, after reading the scenario and watching the video, completed a questionnaire assessing the proposed experiential mechanisms (staged authenticity and immersion), the contextual moderator (product type), and a set of downstream consumer outcomes: engagement, purchase intention, willingness to pay, and customer stickiness.

A manipulation check was included to verify participants' understanding of the AI influencer type they were exposed to. Participants were asked to indicate whether they believed the influencer was (1) an AI clone influencer (the digital version of Lila, with a real human counterpart), or (2) a pure AI influencer (created entirely by AI, with no human counterpart).

3.5.2.2 Participants

A total of 365 individuals were recruited from Prolific and randomly assigned to one of four experimental conditions. Participants were required to be fluent in English to ensure comprehension of the scenario and survey materials. Unlike Study 1, which included only female participants to reflect the gendered relevance of the promoted product (a handbag), Study 2 included both male and female participants because headphones are considered gender-neutral products (Davtyan et al., 2021). This approach allows for a more comprehensive examination of consumer responses to AI influencers across different product contexts.

3.5.2.3 Measures

Participants completed a questionnaire assessing a range of experiential (i.e., staged authenticity, immersion) and behavioral responses (i.e., engagement, purchase intention, willingness to pay, and customer stickiness) related to AI influencer marketing. To verify that participants correctly understood the experimental manipulation, a manipulation check was included asking them to identify whether they were exposed to (1) an AI clone influencer (the digital version of Lila, with a real human counterpart) or (2) a pure AI influencer (created entirely by AI, with no human counterpart). Full-scale items and reliability information are presented in Table 3.5.

Table 3.5 Measurement of Study 2

Variables	Measurements	References	Cronbach Alpha
Staged authenticity	This livestream shopping experience feels authentic. An authentic shopping atmosphere can be recreated during the livestream. This livestream could authentically stage a product demonstration. An authentic shopping environment can be simulated in this livestream.	Gardiner et al. (2022)	.91
Immersion	I felt as if I were personally interacting with this influencer during the livestream. While watching this influencer's livestream, I became detached from my surroundings. I felt completely immersed in the experience created by this influencer. I forgot about my everyday concerns while engaging with this livestream.	Hudson et al. (2019)	.88
Engagement	I would like to follow this influencer. I would like to comment on the content created by this influencer. I would like to share the content created by this influencer. I would like to recommend the content created by this influencer.		.95
Purchase intention	I am interested in buying these headphones after watching this influencer's livestream. This influencer's livestream makes me more likely to purchase these headphones in the future. I will consider buying these headphones because of this livestream. I am likely to purchase these headphones soon after watching this livestream.	So et al. (2024)	.97
Customer stickiness	I would stay for a long time watching this influencer's livestream. I intend to spend more time interacting with this influencer's livestream content. I would frequently check this influencer's profile for new livestreams or updates.	So et al. (2024)	.96
Willingness to pay	Please enter the amount in pounds (£) that you would be willing to bid for the headphones promoted in the influencer's livestream. Your bid for the headphones promoted in this livestream (in pounds): _____	Eichinger et al. (2022)	/

3.5.2.4 Results

Descriptive analysis A total of 365 participants were recruited and randomly assigned to one of four conditions. Following the attention check, 15 participants were excluded. An additional 18 participants were removed based on the manipulation check, resulting in a final sample of 332 participants. The final distribution across AI influencer type and product

condition is shown in Table 3.6. Specifically, 170 participants were assigned to the AI clone influencer condition and 162 to the pure AI influencer condition, with 84 and 82 participants in the sunglasses condition, and 86 and 80 participants in the headphone condition, respectively. The sample consisted of 160 male, 169 female, and 3 non-binary participants. Ages ranged from 18 to 74 years, with a mean age of 39 (SD = 13.33). In terms of educational background, 43.67% of participants held at least a bachelor's degree, 22.89% reported a master's degree or higher, 16.87% had completed some college or a two-year degree, and 16.57% held a high school diploma. Annual household income varied across the sample, with the most frequently selected income bracket being £25,001–£50,000 (41.57%), followed by £15,001–£25,000 (23.19%).

Table 3.6 Participant distribution across influencer type and product type

	AI Clone	**Pure AI**
Sunglasses	84	82
Headphone	86	80

Measurement The study measured key constructs using established multi-item scales adapted from prior literature. All items were rated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The main constructs included staged authenticity, immersion, engagement, purchase intention, and customer stickiness. An open-ended item was used to assess willingness to pay.

Internal consistency for each multi-item scale was assessed using Cronbach's alpha. All constructs demonstrated high reliability, with alpha values exceeding the commonly accepted threshold of 0.70. The following reliability coefficients were obtained: staged authenticity (α = .91), immersion (α = .88), engagement (α = .95), purchase intention (α = .97), and customer stickiness (α = .96) (Table 3.5).

Two-way ANOVA and mediation results To test H1, we conducted a series of two-way ANOVA (Table 3.7) to examine the direct effects of AI influencer type (AI clone vs. pure AI) on four marketing outcomes: engagement, purchase intention, willingness to pay, and customer stickiness. The results revealed no significant main effects for engagement ($F(1, 328) = .74$, $p = .39$), purchase intention ($F(1, 328) = .48$, $p = .49$), or customer stickiness ($F(1, 328) = .71$, $p = .40$). Thus, H1a, H1b, and H1d were not supported. However, there was a significant interaction for willingness to pay ($F(1, 328) = 7.34$, $p = .01$), whereby participants were most willing to pay when a pure AI influencer promoted headphones ($M = 24.13$), while AI clone influencers maintained relatively consistent willingness to pay across product types ($M = 15.78$ for headphones vs. 14.86 for sunglasses). Despite this significant interaction, the absence of a main effect of AI influencer type ($F(1, 328) = .55$, $p = .46$) means that H1c was not supported, though the interaction pattern informed subsequent hypotheses.

To test H2 and H3, we conducted mediation analyses using PROCESS Model 4 with 5,000 bootstrap samples to examine whether staged authenticity and immersion mediated the relationship between AI influencer type (AI clone vs. pure AI) and the four outcome variables: engagement, purchase intention, willingness to pay, and customer stickiness (Table 3.8). The results reveal that none of the indirect effects through staged authenticity and immersion are statistically significant, because the confidence intervals for all indirect effects included zero. Therefore, H2 and H3 were not supported.

To test H4, besides two-way ANOVA (Table 3.7), we conducted moderated mediation analyses using PROCESS Model 7 with 5,000 bootstrap samples to examine whether product type would moderate the effects of influencer type on both experiential mechanisms and their downstream outcomes (Table 3.9). In Table 3.7, support for H4a was evident in the significant interaction between influencer type and product type on staged authenticity ($F(1,$

328) = 4.62, p = .03). Pure AI influencers were perceived as more authentic in the headphones condition (M = 2.44 vs. 2.27), whereas AI clones were perceived as more authentic in the sunglasses condition (M = 2.43 vs. 2.08), confirming the importance of influencer-product fit. H4c was also supported, as immersion showed a similar interaction pattern (F(1, 328) = 4.18, p = .04). Participants reported higher immersion when pure AI promoted headphones (M = 2.00 vs. 1.75) and higher immersion when AI clones promoted sunglasses (M = 1.92 vs. 1.74).

H4b proposed that staged authenticity would mediate the effect of AI influencer type on marketing outcomes, moderated by product type. The index of moderated mediation was significant for all four dependent variables. Specifically, staged authenticity significantly mediated the effect of AI influencer type on engagement (Index = 0.15, 95% CI [0.01, 0.31]), willingness to pay (Index = 2.98, 95% CI [0.11, 7.36]), purchase intention (Index = 0.12, 95% CI [0.01, 0.26]), and customer stickiness (Index = 0.13, 95% CI [0.01, 0.27]). These results provide full support for H4b(1) - H4b(4). The indirect effect of AI influencer type on outcomes via perceived authenticity was consistently stronger for headphones when the influencer was pure AI, and stronger for sunglasses when the influencer was an AI clone.

H4d predicted immersion as a moderated mediator. Moderated mediation indices were significant for engagement (Index = 0.26, 95% CI [0.01, 0.52]), purchase intention (Index = 0.24, 95% CI [0.00, 0.50]), and customer stickiness (Index = 0.24, 95% CI [0.01, 0.50]), offering support for H4d(1), H4d(2), and H4d(4). However, the effect of immersion on willingness to pay was not significant (Index = 1.77, 95% CI [–0.06, 4.99]), as the confidence interval included zero, indicating a lack of support for H4d(3). These findings suggested that immersion serves as a mechanism driving behavioral outcomes like engagement and stickiness, but plays a limited role in economic valuation, such as willingness to pay.

In summary, while no consistent main effects were found for AI influencer type (H1), the results highlighted the critical role of experiential mediators and contextual moderators. Staged authenticity emerged as a robust and consistent moderated mediator across all outcomes, while immersion played a secondary role that depended on the specific response variable. These results underscore the theoretical importance of simulation level and product context in shaping consumer perceptions and behaviors in AI-driven marketing. A summary of all hypotheses and their outcomes can be found in Table 3.10.

In addition to testing the proposed experiential mechanisms, Study 2 also revisited traditional psychological traits initially examined in Study 1, specifically, source credibility, perceived warmth, perceived competence, and parasocial relationship, to assess whether they might explain the effects of AI influencer type on marketing outcomes: engagement, purchase intention, willingness to pay and customer stickiness. ANOVA results showed that only source credibility differed significantly between AI influencer types, with AI clones outperforming pure AI influencers ($F = 11.89$, $p < .001$). However, perceived warmth, perceived competence, and parasocial relationship did not show significant differences (see Appendix Q). More importantly, none of these traits significantly mediated the effects of AI influencer type on engagement, purchase intention, willingness to pay, and customer stickiness in moderated mediation models, as all indirect effects had 95% confidence intervals that included zero (see Appendix R). These findings replicate and extend the results from Study 1, reinforcing the conclusion that traditional psychological constructs do not account for how consumers respond to varying AI influencer types. Therefore, the results across both studies underscore the importance of staged authenticity and immersion as more theoretically grounded and context-sensitive mediators that capture the experiential pathways shaping consumer behavior in AI influencer marketing.

Table 3.7 Two-way ANOVA results

Dependent variable	Influencer type		Product type		Interaction (influencer × product type)		Mean			
	F	p-value	F	p-value	F	p-value	AI clone, sunglasses	Pure AI, sunglasses	AI clone, headphones	Pure AI, headphones
Staged authenticity	0.54	0.46	0.61	0.44	4.62	0.03 *	2.43	2.08	2.27	2.44
Immersion	0.10	0.76	0.14	0.71	4.18	0.04 *	1.92	1.74	1.75	2.00
Engagement	0.74	0.39	3.55	0.06 +	1.33	0.25	1.78	1.55	1.87	1.91
Willingness to pay	0.55	0.46	9.16	0.00 **	7.34	0.01 **	14.86	10.11	15.78	24.13
Purchase intention	0.48	0.49	6.18	0.01 *	2.45	0.12	1.61	1.52	1.72	1.98
Customer stickiness	0.71	0.40	2.89	0.09 +	1.76	0.19	1.60	1.37	1.65	1.70

**$p < .01$, *$p < .05$, $^{+}p < .10$.

Table 3.8 Moderated mediation results (Model 4)

DVs	Mediator	Effect_Type	Effect	SE	t_value	P_Value	LLCI	ULCI
Engagement	**Staged authenticity**	Direct Effect	-0.05	0.09	-0.52	0.60	-0.22	0.13
Engagement	**Staged authenticity**	Indirect Effect	-0.06	0.08			-0.21	0.09
Engagement	**Immersion**	Direct Effect	-0.13	0.08	-1.63	0.10	-0.29	0.03
Engagement	**Immersion**	Indirect Effect	0.03	0.09			-0.15	0.20
Willingness to pay	**Staged authenticity**	Direct Effect	2.43	2.27	1.07	0.29	-2.04	6.91
Willingness to pay	**Staged authenticity**	Indirect Effect	-0.72	0.98			-2.69	1.20
Willingness to pay	**Immersion**	Direct Effect	1.44	2.31	0.62	0.53	-3.10	5.98
Willingness to pay	**Immersion**	Indirect Effect	0.27	0.90			-1.50	2.06
Purchase intention	**Staged authenticity**	Direct Effect	0.12	0.09	1.33	0.19	-0.06	0.31
Purchase intention	**Staged authenticity**	Indirect Effect	-0.05	0.07			-0.18	0.08

Purchase intention	**Immersion**	Direct Effect	0.05	0.08	0.61	0.54	-0.11	0.22
Purchase intention	**Immersion**	Indirect Effect	0.02	0.08			-0.13	0.17
Customer stickiness	**Staged authenticity**	Direct Effect	-0.04	0.09	-0.51	0.61	-0.21	0.12
Customer stickiness	**Staged authenticity**	Indirect Effect	-0.05	0.07			-0.19	0.08
Customer stickiness	**Immersion**	Direct Effect	-0.12	0.08	-1.57	0.12	-0.27	0.03
Customer stickiness	**Immersion**	Indirect Effect	0.02	0.08			-0.13	0.18

Table 3.9 Moderated mediation results (Model 7)

DVs	Mediator	Direct_Effect	Direct_t	Direct_p	Direct_LLCI	Direct_ULCI	Index_Moderated_Mediation	Index_LLCI	Index_ULCI
Engagement	**Staged authenticity**	-0.05	-0.53	0.60	-0.22	0.13	0.15	0.01	0.31
Engagement	**Immersion**	-0.13	-1.63	0.10	-0.29	0.03	0.26	0.01	0.52
Willingness to pay	**Staged authenticity**	2.43	1.07	0.29	-2.04	6.91	2.98	0.11	7.36
Willingness to pay	**Immersion**	1.44	0.62	0.53	-3.10	5.98	1.77	-0.06	4.99
Purchase intention	**Staged authenticity**	0.12	1.33	0.19	-0.06	0.31	0.12	0.01	0.26
Purchase intention	**Immersion**	0.05	0.61	0.54	-0.11	0.22	0.24	0.00	0.50
Customer stickiness	**Staged authenticity**	-0.04	-0.51	0.61	-0.21	0.13	0.13	0.01	0.27
Customer stickiness	**Immersion**	-0.12	-1.57	0.12	-0.27	0.03	0.24	0.01	0.50

Table 3.10 Hypotheses results summary of Study 2

Hypothesis	Statement	Supported?
H1a	AI clone influencers (vs. pure AI influencers) elicit higher engagement	Not supported
H1b	AI clone influencers (vs. pure AI influencers) elicit higher purchase intention	Not supported
H1c	AI clone influencers (vs. pure AI influencers) elicit higher willingness to pay	Not supported
H1d	AI clone influencers (vs. pure AI influencers) elicit higher customer stickiness	Not supported
H2a	Staged authenticity mediates the relationship between influencer type and engagement, such that AI clone influencers (vs. pure AI influencers) elicit higher engagement through greater perceptions of staged authenticity	Not supported
H2b	Staged authenticity mediates the relationship between influencer type and purchase intention, such that AI clone influencers (vs. pure AI influencers) elicit higher purchase intention through greater perceptions of staged authenticity	Not supported
H2c	Staged authenticity mediates the relationship between influencer type and willingness to pay, such that AI clone influencers (vs. pure AI influencers) elicit higher willingness to pay through greater perceptions of staged authenticity	Not supported
H2d	Staged authenticity mediates the relationship between influencer type and customer stickiness, such that AI clone influencers (vs. pure AI influencers) elicit higher customer stickiness through greater perceptions of staged authenticity	Not supported
H3a	Immersion mediates the relationship between influencer type and engagement, such that AI clone influencers (vs. pure AI influencers) elicit higher engagement through greater perceived immersion	Not supported
H3b	Immersion mediates the relationship between influencer type and purchase intention, such that AI clone influencers (vs. pure AI influencers) elicit higher purchase intention through greater perceived immersion	Not supported
H3c	Immersion mediates the relationship between influencer type and willingness to pay, such that AI clone influencers (vs. pure AI influencers) elicit higher willingness to pay through greater perceived immersion	Not supported
H3d	Immersion mediates the relationship between influencer type and customer stickiness, such that AI clone influencers (vs. pure AI influencers) elicit higher customer stickiness through greater perceived immersion	Not supported

H4a	Product type moderates the effect of influencer type on perceived staged authenticity, such that AI clone influencers elicit higher staged authenticity than pure AI influencers in the fashion product, whereas pure AI influencers elicit higher perceived staged authenticity in the tech product condition	Supported
H4b(1)	Product type moderates the indirect effect of influencer type (AI clone vs. pure AI) on engagement through perceived staged authenticity	Supported
H4b(2)	Product type moderates the indirect effect of influencer type (AI clone vs. pure AI) on purchase intention through perceived staged authenticity	Supported
H4b(3)	Product type moderates the indirect effect of influencer type (AI clone vs. pure AI) on willingness to pay through perceived staged authenticity	Supported
H4b(4)	Product type moderates the indirect effect of influencer type (AI clone vs. pure AI) on customer stickiness through perceived staged authenticity	Supported
H4c	Product type moderates the effect of influencer type on perceived immersion, such that AI clone influencers elicit higher immersion than pure AI influencers in the fashion product condition, whereas pure AI influencers elicit higher immersion in the tech product condition	Supported
H4d(1)	Product type moderates the indirect effect of influencer type (AI clone vs. pure AI) on engagement through perceived immersion	Supported
H4d(2)	Product type moderates the indirect effect of influencer type (AI clone vs. pure AI) on purchase intention through perceived immersion	Supported
H4d(3)	Product type moderates the indirect effect of influencer type (AI clone vs. pure AI) on willingness to pay through perceived immersion	Not supported
H4d(4)	Product type moderates the indirect effect of influencer type (AI clone vs. pure AI) on customer stickiness through perceived immersion	Supported

3.5.3 Conclusion

The results of Study 1 and Study 2 examine how consumers respond to varying AI influencer types. Study 1 found that although AI clone influencers were consistently rated higher than pure AI influencers on several psychological constructs, such as source credibility, perceived warmth, perceived competence, and parasocial relationship, these perceived advantages did not translate into significantly higher consumer engagement. Additionally, no significant differences were observed between AI clone and pure AI influencers on alternative mechanisms such as perceived perfection, ideal self, and consumer escapism. These findings suggest that traditional trait-based mechanisms may be insufficient for explaining the effectiveness of AI influencers, particularly in driving consumer engagement or behavioral responses.

Study 2 builds upon these insights by investigating two experiential mechanisms, staged authenticity and immersion, and testing whether their effects varied across product type (symbolic vs. functional). Results reveal that pure AI influencers are perceived as more authentic and immersive when promoting functional products (e.g., headphones), while AI clone influencers are perceived more favorably on these same dimensions when promoting symbolic products (e.g., sunglasses). Significant interaction effects are found for staged authenticity, immersion, and willingness to pay, suggesting that the effectiveness of an AI influencer depends on the fit between AI influencer and product type. In contrast, no significant interaction effects are observed for general behavioral outcomes such as engagement, purchase intention, or customer stickiness.

To further unpack these effects, moderated mediation analyses were conducted to test whether the impact of AI influencer type on key outcomes was mediated by experiential mechanisms, and whether these mediation paths were contingent on product type. Results confirm significant moderated mediation for staged authenticity across all key outcomes, and

for immersion in several cases. Specifically, pure AI influencers lead to stronger staged authenticity and immersion when promoting technology products, which in turn increases engagement, purchase intention, and willingness to pay. Conversely, for fashion products, AI clone influencers produce higher experiential responses and marketing outcomes. These results indicate that the experiential processes underlying AI influencer effectiveness are shaped not only by the influencer's simulation level but also by the symbolic or functional characteristics of the product.

In sum, the findings highlight that the effectiveness of AI clone and pure AI influencers is highly context-dependent. While both types of AI influencers can be effective, their success hinges on their ability to simulate authenticity and create immersive experiences that align with the symbolism of the product being promoted. These insights extend the theory of simulacra and simulation by demonstrating that hyperreality in marketing is not monolithic—rather, its impact depends on the experiential resonance between AI influencer type and product domain.

3.6 General discussion

3.6.1 Theoretical contributions

This research makes several important theoretical contributions. First, it extends the theory of simulacra and simulation into the domain of influencer marketing by empirically testing how consumers respond to influencers that represent different orders of simulation: human influencers (first-order simulacra), AI clone influencers (second-order simulacra), and pure AI influencers (third-order simulacra). While Baudrillard's theory has often been explored conceptually, this research offers one of the first experimental validations of the theory within a digital marketing context. The finding demonstrates that AI clone influencers (lower-order simulacra) generally outperform pure AI influencers (higher-order simulacra) in

driving positive marketing outcomes, particularly in symbolic product contexts. The impact of simulation level on marketing outcomes, including engagement, willingness to pay, purchase intention, and customer stickiness, is moderated by product type, with pure AI influencers performing better in functional product categories (e.g., technology) and AI clone influencers performing better in symbolic product categories (e.g., fashion). By uncovering these boundary conditions, this research refines and extends the theory of simulacra and simulation into the realm of digital marketing and consumer behavior.

Second, this research contributes to the emerging literature on AI and virtual influencers by introducing and empirically validating staged authenticity and immersion as core experiential mechanisms through which AI influencers shape consumer responses. These experiential constructs move beyond traditional psychological trait-based evaluations (i.e., source credibility, warmth, competence, and parasocial relationship) and provide a more dynamic understanding of how consumers engage with hyperreal personas in digital environments. Although parasocial relationships initially appear as a significant mediator, further analysis reveals that their explanatory power is unstable across contexts, underscoring the limitations of trait-based models in explaining consumer behavior within hyperreal digital environments.

Third, this work refines Baudrillard's theory by demonstrating that the impact of AI influencers is not universal but context-dependent, moderated by the symbolic versus functional nature of the product being promoted. The findings reveal that pure AI influencers are more effective in technology contexts, such as headphones, where functionality and innovation are prioritized, while AI clone influencers are more persuasive in fashion contexts, such as sunglasses, where identity expression and aesthetic alignment are more critical. This context-sensitivity introduces an important boundary condition to Baudrillard's claims, enriching simulacra theory by integrating consumer psychology and product symbolism and

highlighting how the effectiveness of hyperreal personas varies depending on the cultural meanings associated with the product category.

3.6.2 Practical contributions

From a managerial standpoint, this research offers actionable insights for marketers operating in the evolving landscape of AI-driven influencer marketing. First, by clearly distinguishing between human, AI clone, and pure AI influencers, the study provides a strategic framework for selecting influencer types based on campaign goals and desired consumer perceptions. For example, brands aiming to project technological innovation may benefit from leveraging pure AI influencers. JD.com, widely known for selling technological products, offers AI-powered livestream hosts that autonomously manage real-time interactions and product promotions at scale (Gastel, 2023).

Second, the identification of staged authenticity and immersion as key experiential drivers of influencer effectiveness underscores the importance of designing AI personas that simulate realness convincingly. Marketers are encouraged to go beyond visual realism and focus on crafting emotionally engaging, narratively immersive content that feels authentic even if strategically constructed. This is particularly crucial in environments like livestream commerce and virtual platforms, where hyperreal experiences are the norm. A real-world illustration of these dynamics can be seen in the case of Douyin business influencer Liu Run, who successfully deployed an AI clone to deliver management insights and entrepreneurial anecdotes with minimal detection by viewers. His clone preserves his personal style, speech patterns, and brand voice, thereby achieving staged authenticity, while sustaining immersion by maintaining the illusion of direct and authentic communication. This example reinforces that staged authenticity and immersion, rather than superficial visual realism, are critical mechanisms sustaining consumer engagement in hyperreal marketing environments (JingDaily, 2024).

Third, the study demonstrates that product-influencer fit matters: AI influencers do not universally outperform human influencers. The findings suggest that pure AI influencers are better suited for functional, innovation-focused products (e.g., electronics), where efficiency, consistency, and technical sophistication are prioritized. In contrast, AI clone influencers may be more appropriate for symbolic or self-expressive goods (e.g., fashion), where emotional resonance and perceived authenticity are central to consumer engagement. This encourages marketers to align influencer strategy with product positioning. For example, Calvin Chen's AI clone hosts a 15-hour livestream promoting snack products (JingDaily, 2024); however, because the AI clone attempts to mimic human behavior while performing a superhuman task, eating nonstop for an extended period, viewers detect inauthenticity and respond with distrust and follower loss. This outcome highlights that pure AI influencers, openly positioned as nonhuman, may better align with functional products and extraordinary performances, as they avoid creating unrealistic expectations of human authenticity and preserve consumer trust.

3.7 Limitations and future research directions

While the findings of this study offer novel insights into consumer responses to AI clone and pure AI influencers through the lens of the theory of simulacra and simulation, several limitations should be acknowledged, each of which opens pathways for future research.

First, while the use of video stimuli enhances ecological validity by simulating a more realistic livestreaming experience, the videos were pre-scripted and controlled across conditions to ensure consistency. This standardization, while methodologically necessary, may not fully reflect the interactive, unscripted, and adaptive nature of real AI influencer livestreams. Future studies could employ live or semi-live environments, or embed the experiment within actual social media platforms, to better capture the dynamic interplay between AI influencers and audiences.

Second, the current studies focus on two product categories, fashion and technology, as proxies for symbolic versus functional consumption. While these categories offer a useful contrast, they do not represent the full range of consumer goods. Future research could expand by testing additional product categories (e.g., high-involvement versus low-involvement) or by directly manipulating the symbolic versus functional framing of the same product to more precisely isolate product-level effects.

Third, all outcome measures are self-reported, capturing perceptions, engagement, and intentions rather than actual behavior. While these measures offer insights into consumer attitudes, they may not directly translate to real-world outcomes. Future work should consider integrating behavioral metrics such as watch time, click-throughs, or actual purchasing behavior to strengthen external validity.

Fourth, while the current research focuses on English-speaking participants in a Western context, cultural perceptions of AI, authenticity, and influence may vary. Future studies should explore cross-cultural differences in responses to simulated influencers to enhance the generalizability of findings.

Chapter 4 Key findings and integration

This chapter integrates the findings from two distinct yet complementary research components: a meta-analytic review of influencer marketing effectiveness (Chapter 2) and two experimental studies investigating consumer responses to AI influencers (Chapter 3). These chapters offer a multi-level understanding of what drives influencer effectiveness across traditional and emerging contexts. The following part revisits the five research questions posed in Chapter 1 and synthesizes the findings from both the meta-analytic and experimental studies to answer them.

RQ1: What are the key drivers of influencer marketing effectiveness in human-driven contexts, and how do they vary across different outcomes? (Chapter 2)

Chapter 2 presents a comprehensive meta-analysis that synthesizes 1,531 effect sizes across 251 studies to clarify what drives influencer marketing effectiveness. Drawing on the PKM (Friestad and Wright, 1994), the analysis identifies post, follower, and influencer characteristics as key antecedents. These drivers operate differently depending on the type of outcome. For non-transactional outcomes (e.g., attitudes, engagement, purchase intention), follower characteristics, particularly social identity, have the strongest influence on attitudes and engagement. This supports recent findings (e.g., Croes and Bartels 2021), which highlight the importance of identity congruence between followers and influencers in generating emotional resonance and engagement. Besides, post characteristics such as informational and hedonic value most strongly affect purchase intention, suggesting that content design plays a decisive role when intent to buy is formed, complementing prior qualitative insights (e.g., Ki and Kim 2019, and Hughes et al. 2019).

For transactional outcomes (e.g., actual purchase behavior and sales), influencer characteristics, especially influencer communication style, are the most predictive. This finding aligns with Ki and Kim' (2019) work, which emphasizes the persuasive strength of

personalized interaction and perceived interactivity. These relationships are further shaped by mediators like persuasion knowledge and source credibility and are moderated by platform and product types. Specifically, content-based (vs. profile-based) and utilitarian (vs. hedonic) platforms generally strengthen the positive impact of influencer and post characteristics while mitigating the negative effects of persuasion knowledge. Experience and self-expressive products tend to enhance the influence of experiential and social cues, whereas search and functional products respond more strongly to informational content. These findings help understand how and when different influencer strategies are most effective.

RQ2: Do traditional psychological mechanisms (e.g., source credibility, perceived warmth, competence, and parasocial relationship) adequately explain consumer behaviors with AI influencers? (Study 1 and Study 2 in Chapter 3)

Study 1 reveals that while AI clone influencers are perceived more favorably than pure AI influencers on traditional traits, such as source credibility, perceived warmth, perceived competence, and parasocial relationship, these advantages do not translate into significantly higher engagement. This finding contrasts with traditional influencer marketing research (e.g., Hughes et al. 2019, Ki and Kim 2019), which consistently shows these traits as reliable predictors of engagement and purchase intent in human influencer contexts. Mediation analyses confirm that most trait-based constructs, with the exception of parasocial relationship, do not significantly mediate consumer responses. These results suggest that traditional mechanisms alone are insufficient to explain how consumers engage with different types of AI influencers.

Study 2 reinforces this conclusion by testing the same trait-based variables on key marketing outcomes: engagement, purchase intention, willingness to pay, and customer stickiness. While source credibility shows a significant difference between AI influencer types, perceived warmth, perceived competence, and parasocial relationship do not.

Crucially, none of these traits significantly mediate the effects of influencer type on the outcome variables. Overall, these findings across both studies demonstrate that trait-based explanations may be less robust in AI-mediated persuasion. Instead, they underscore the need for more experiential and context-sensitive explanations, pointing to the central role of staged authenticity and immersion in shaping consumer responses in AI-driven marketing.

RQ3: How do consumers experientially respond to AI clone and pure AI influencers through experiential mechanisms, such as staged authenticity and immersion, and how does this differ from responses to traditional human influencers? (Study 2 in Chapter 3)

Study 2 explores how consumers experientially respond to AI clone and pure AI influencers through the mechanisms of staged authenticity and immersion, offering a contrast to the trait-based responses observed in Study 1. While Study 2 does not include a human influencer condition, it builds on insights from Study 1, which tests traditional psychological mechanisms often associated with human influencers, such as source credibility, perceived warmth, perceived competence, and parasocial relationship. These traits significantly favour human influencers and, to some extent, AI clones over pure AI. However, they fail to explain the differences in consumer engagement between AI clone and pure AI influencers. This represents a theoretical shift away from traditional human-centric constructs, which have long been foundational in explaining influencer effectiveness (e.g., Hughes et al. 2019, Ki and Kim 2019).

To address this gap, Study 2 introduces experiential mechanisms that capture how consumers interact with AI influencers in dynamic and emotionally engaging ways. The results show that staged authenticity (the perception that the influencer is presenting a curated yet believable version of reality), and immersion (the degree to which consumers feel absorbed in the content) significantly mediate the effectiveness of AI influencers.

Specifically, AI clone influencers are perceived as more authentic and immersive than pure AI influencers, leading to higher engagement, willingness to pay, and purchase intention.

These experiential pathways represent a departure from the trait-based mechanisms that underpin consumer responses to human influencers. While human influencers succeed by leveraging interpersonal traits that foster trust and emotional connection, AI influencers, particularly AI clones, engage consumers through their ability to simulate realism and deliver compelling, immersive experiences. This shift highlights that different types of influencers require different mechanisms of persuasion, and that the effectiveness of AI influencers is best understood through experiential, rather than traditional psychological, lenses.

RQ4: Does product type (e.g., symbolic vs. functional) moderate the relationship between AI influencer type and marketing outcomes? (Study 2 in Chapter 3)

Study 2 provides empirical evidence that product type significantly moderates the relationship between AI influencer type (AI clone vs. pure AI) and marketing outcomes such as engagement, purchase intention, willingness to pay, and customer stickiness. Specifically, AI clone influencers are more effective in symbolic product contexts (e.g., fashion), while pure AI influencers perform better in functional contexts (e.g., technology). This moderation extends to both direct effects and the indirect effects through staged authenticity and immersion, underscoring the importance of aligning AI influencer type with product category. These findings extend prior research on product-influencer fit (e.g., Morgan and Townsend 2022), which suggests that symbolic products are best promoted by influencers who project aspirational identity cues, while functional products benefit from expertise and informational clarity. This study advances the literature by demonstrating that such fit also applies in AI-mediated contexts, where consumers' responses are shaped by the alignment between AI influencer type and product symbolism.

Chapter 5 Conclusions

This thesis investigates how influencer marketing effectiveness can be improved by identifying key antecedents, psychological mechanisms, and contextual factors in human-led campaigns through meta-analysis, and by examining experiential mechanisms in AI-mediated contexts through experimental studies.

The first stage of the research involves a meta-analysis, synthesizing 1,531 effect sizes from 251 studies to identify key antecedents, mediators, and moderators of influencer effectiveness. The findings highlight the central role of post value (informational and hedonic), follower identity, and influencer communication in shaping consumer responses. It further reveals that persuasion knowledge and source credibility act as key mediators, while contextual factors, such as social media type and product characteristics, moderate these effects. These results advance the PKM by illustrating how consumers adjust their receptiveness to influencer content based on both cognitive processing and platform or product cues.

Importantly, the meta-analysis also identifies a significant gap: most studies rely on trait-based psychological mechanisms and are conducted almost exclusively in human influencer contexts, with little attention to how influencer type (e.g., virtual or AI-generated) may alter the effectiveness of these mechanisms. This observation motivates the second stage of the research, which investigates whether the mechanisms identified for human influencers apply in AI-driven environments and explores whether new mechanisms are needed to account for consumer responses to Ai influencers.

To address this, the thesis presents a two-part experimental study comparing consumer responses to AI clone influencers (AI-generated replicas modeled after real individuals) and pure AI influencers (entirely computer-generated characters with no link to real people). Findings show that while AI clone influencers outperform pure AI on traditional trait-based attributes such as warmth and competence, these differences do not significantly affect

engagement, indicating that static traits may not fully explain how AI influencers impact consumer behavior. This disconnect prompts a shift toward experiential mechanisms, staged authenticity and immersion, and finds that their influence varied depending on product type. Specifically, pure AI influencers are more effective when promoting functional technology products, while AI clone influencers resonate more in symbolic fashion contexts. These effects are driven by contextual alignment between the simulation level and product category, as confirmed through moderated mediation analyses.

Therefore, the findings demonstrate that influencer effectiveness is a multifaceted phenomenon, contingent not only on individual traits or content quality but also on the experiential realism of the influencer and the symbolic meaning of the product. It reveals that different simulation levels are effective in different contexts, and their success depends on their ability to simulate authentic and immersive experiences that align with consumer expectations and product relevance.

To consolidate these insights and extend their implications, the following sections explore the thesis's theoretical and practical contributions. Section 5.1 focuses on the theoretical integration across influencer marketing, PKM, and Baudrillard's theory of simulacra and simulation. Section 5.2 outlines actionable guidance for marketers navigating the human–AI influencer spectrum. Section 5.3 identifies limitations of the current research and offers recommendations for future work.

5.1 Theoretical contributions

This thesis contributes to three core domains: influencer marketing, the PKM, and the theory of simulacra and simulation. This section highlights the integrative insights and theoretical advances that emerge from synthesizing the meta-analytic and experimental work presented earlier.

5.1.1 Contribution to influencer marketing literature

By combining a meta-analysis and a two-part experimental study, this thesis offers a framework for understanding influencer marketing effectiveness across both human and AI contexts. It consolidates fragmented findings on human influencers and extends theoretical boundaries by empirically introducing AI influencers as a new lens for analysis. The thesis contributes to influencer marketing theory in three ways.

First, this thesis moves beyond static trait-based explanations to experiential mechanisms. The meta-analysis confirms that traditional traits such as source credibility remain central to influencer effectiveness in human-driven campaigns. However, the experimental studies demonstrate that these trait-based mechanisms, such as source credibility, perceived warmth, perceived competence, and parasocial relationship, are insufficient in explaining responses to AI influencers. Instead, experiential mechanisms like staged authenticity and immersion better capture the experiential processes shaping consumer engagement with AI influencers. This shift represents a more flexible and context-sensitive model of consumer evaluation across both human and non-human influencers.

Second, the research emphasizes contextual sensitivity over generalizability. The findings highlight how platform characteristics (e.g., content- vs. profile-based, hedonic vs. utilitarian) and product types (e.g., symbolic vs. functional) moderate influencer effectiveness. The experiments further demonstrate that product–influencer fit significantly impacts outcomes: symbolic products such as fashion align more effectively with AI clone influencers, while functional products such as technology are better suited to pure AI influencers. This shows that a successful influencer strategy depends on aligning the platform, product, and influencer type with consumer expectations.

Third, the thesis moves from human-centric perspectives to hybrid models of influence. By empirically incorporating AI influencers into the theoretical landscape, this thesis extends

the scope of influencer marketing beyond human agents. In doing so, it engages with the emerging AI influencers who increasingly shape consumer perceptions and behavior. The introduction of simulation level, first-order (human), second-order (AI clone), and third-order (pure AI), offers a novel conceptual dimension for understanding persuasion in hyperreal environments. This perspective highlights that persuasive communication is no longer solely the domain of human influencers but can be effectively executed by non-human influencers designed to simulate presence, emotion, and relatability.

5.1.2 Contribution to the PKM

This thesis extends the PKM by examining how consumers detect and respond to persuasive intent in influencer marketing. Drawing on the meta-analysis, it identifies key antecedents of persuasion knowledge activation, such as content value (e.g., informational and hedonic value), influencer communication style, and follower social identity alignment.

Beyond identifying what triggers persuasion knowledge, the analysis reveals how its impact on consumer responses is shaped by platform type (e.g., content-based vs. profile-based, utilitarian vs. hedonic) and product type (e.g., utilitarian vs. hedonic). These moderators suggest that persuasion knowledge operates differently across digital environments and product categories, challenging the assumption that it uniformly undermines message effectiveness.

Moreover, the findings clarify the relationship between persuasion knowledge and source credibility, showing that while persuasion knowledge may reduce perceived source credibility, source credibility remains a more powerful predictor of consumer outcomes. This underscores the value of designing influencer content that is perceived as informative or emotionally engaging, rather than overtly promotional.

5.1.3 Contribution to Baudrillard's theory of simulacra and simulation

This thesis contributes to the empirical development of the theory of simulacra and simulation by applying it to the emerging context of AI influencer marketing. While the theory has been widely discussed in critical and conceptual literature, its relevance to consumer behavior and marketing effectiveness remains underexplored in empirical research. By testing how different simulation levels, human, AI clone, and pure AI, affect consumer responses, this thesis integrates Baudrillard's ideas with marketing and consumer psychology, offering a more grounded and actionable extension of the theory.

First, this research operationalizes Baudrillard's three orders of simulacra and demonstrates that the simulation level (e.g., AI clone vs. pure AI) affects consumer behavior in ways that are not universally hierarchical. Rather than assuming higher-order simulacra are always more effective, the findings show that their effectiveness depends on product symbolism. AI clone influencers (second-order simulacra) perform better in symbolic categories like fashion, while pure AI influencers (third-order simulacra) are more effective in functional domains like technology. This refines Baudrillard's theory by introducing product context as a boundary condition.

Second, the thesis enhances theoretical understanding of how simulations influence consumers. Specifically, it identifies staged authenticity and immersion as experiential mechanisms that mediate the relationship between simulation level and marketing outcomes. These findings show that consumers engage more deeply with simulations not merely because they imitate reality, but because they produce experiences that feel real and seamless. This emphasis on experiential realism advances the theory by explaining how hyperreality operates in digital marketing, making the theory more applicable and actionable for empirical research.

5.2 Practical contribution

This thesis offers a set of actionable insights for marketers seeking to optimize influencer marketing campaigns across both human-led and AI-mediated contexts. By integrating meta-analysis with experimental findings on AI influencer effectiveness, it provides a practical framework for strategic decision-making in three key areas: influencer selection, content design, and alignment with platform and product characteristics.

First, the research highlights the importance of aligning influencers with their target audience and product type. The findings (Chapter 2) suggest that influencers who embody their followers' values, lifestyles, and social identities are perceived as more credible. Marketers should prioritize partnerships with influencers who naturally align with their brand image and ethos. In addition, fostering a sense of community through tactics like live Q&A sessions, personal storytelling, or interactive polls can deepen follower loyalty and enhance trust by creating a stronger sense of social connection. Besides, the influencer format must also be adapted based on the nature of the product. Experimental findings (Chapter 3) show that AI clone influencers are more effective for symbolic, identity-driven products, while pure AI influencers perform better for functional, innovation-oriented goods. These results indicate that influencer formats should be selected based on whether the product serves symbolic or utilitarian purposes.

Second, this thesis emphasizes the critical role of content design and message crafting in driving influencer marketing success. The meta-analysis (Chapter 2) reveals that content value, particularly informational and hedonic appeal, is the most influential driver of purchase intentions. Marketers are encouraged to invest in high-quality content formats such as tutorials, product reviews, humorous segments, and storytelling-based approaches. For experience products, narrative-driven content can reduce uncertainty, while for search products, clearly structured and credible endorsements are most effective. These insights

guide practitioners in developing content strategies that integrate both functional value and emotional resonance.

In addition, content design serves as the bridge connecting platform, product, and influencer. Design elements such as staged authenticity and immersive storytelling (Chapter 3) are especially effective in hyperreal digital environments, where emotional presence and experiential realism resonate more strongly with consumers than polished visuals. By simulating human-like spontaneity and emotional depth, marketers can enhance consumer engagement, improve message coherence, and strengthen overall campaign performance.

Third, this research underscores the importance of aligning platform choice and product characteristics to enhance influencer marketing effectiveness. Platform choice plays a critical role in shaping consumer receptiveness. Meta-analytic findings (Chapter 2) show that content-driven and utilitarian platforms, such as Pinterest and Little Red Book, are particularly effective at mitigating the negative effects of persuasion knowledge. Marketers should tailor their strategies to match platform-specific audience expectations: on content-based platforms, posts should combine entertainment and information to engage users seeking inspiration and discovery, while on utilitarian platforms, content should focus on delivering practical and informative value aligned with users' goal-oriented motives.

Product characteristics further moderate the effectiveness of influencer campaigns (Chapter 2). For experience products, narrative-driven content can help reduce uncertainty and build trust, while search products benefit from straightforward, credible endorsements. For self-expressive goods, symbolic cues, influencer–brand fit, and authenticity are key to enhancing social validation, whereas functional products require an emphasis on practical utility and performance.

5.3 Limitations and future research directions

This thesis synthesizes and extends influencer marketing research using a multi-method approach: a meta-analysis to generalize findings in human-led campaigns, and experimental studies to explore emerging dynamics in AI-mediated contexts. While the findings provide valuable insights, several limitations highlight avenues for future research.

First, the conceptual scope of both studies could be expanded to capture a broader range of influencer marketing dynamics. In the meta-analysis (Chapter 2), limited data availability constrained the inclusion of several potentially important antecedents (e.g., customization), mediators (e.g., perceived risk), and outcomes (e.g., ROI, sales, shares). Additionally, the interplay between influencer, follower, and post characteristics remains underexplored. Future research could investigate how these variables interact across different platform types and product categories, potentially testing moderation effects involving consumer traits, content format, or brand-follower relationships. Similarly, the experimental studies (Chapter 3) focused on two psychological mechanisms, staged authenticity and immersion, but future work could explore other experiential mediators. Researchers may also examine how different combinations of influencer, follower, and post characteristics interact, and how platform and product contexts shape these relationships.

Second, there are several methodological opportunities for refinement. The meta-analysis (Chapter 2) relied heavily on cross-sectional data, limiting causal interpretation. Future research should adopt experimental, longitudinal, or panel-based designs to examine the evolving effects of influencer campaigns and the development of persuasion knowledge over time. Qualitative and computational approaches may also offer deeper insights into how influencer marketing unfolds dynamically in real-world settings. In Chapter 3, while the use of video stimuli added realism, the scripted format lacked the interactive and adaptive qualities of actual AI influencer livestreams. Future studies could embed experiments within live-streaming or interactive social media platforms to simulate more authentic consumer

experiences and behavioral engagement. Additionally, moving beyond self-reported outcomes to include behavioral metrics, such as watch time, click-through rates, or purchase behavior, would significantly improve external validity.

Third, contextual and sample limitations constrain the generalizability of the findings. Chapter 3 focuses on two product categories, fashion and technology, as theoretically grounded proxies for symbolic and functional consumption. While this distinction allows for a meaningful comparison, it provides only a partial view of how consumers respond to influencers across diverse product types. Other important dimensions, such as involvement level (e.g., high vs. low), tangibility (e.g., goods vs. services), or status signaling (e.g., luxury vs. everyday items), are not explored. To improve generalizability and deepen theoretical insight, future research should examine a broader variety of products and, importantly, manipulate the symbolic versus functional framing of the same product. This approach would help isolate the psychological mechanisms underlying consumer responses and avoid confounding effects tied to specific product categories.

Platform context also warrants further exploration: although this thesis highlights the advantages of content-based and utilitarian platforms (e.g., Pinterest, Little Red Book) (Chapter 2), future work should explore conditions under which profile-based or hedonic platforms are more effective. Additional social media attributes (e.g., customized vs. broadcast, single vs. multiple feeds) may moderate consumer responses to influencer content. Lastly, both studies primarily involved English-speaking, Western participants. Given that cultural attitudes toward AI, authenticity, and influence vary globally, future research should investigate how cross-cultural differences, such as technological acceptance, collectivism vs. individualism, and societal attitudes toward automation, shape consumer perceptions of human, AI clone, and pure AI influencers.

References

Alboqami, H. (2023). Trust me, I'm an influencer! - Causal recipes for customer trust in artificial intelligence influencers in the retail industry. *Journal of Retailing and Consumer Services*, *72*, 103242.

Ao, L., Bansal, R., Pruthi, N., & Khaskheli, M. B. (2023). Impact of social media influencers on customer engagement and purchase intention. *Sustainability*, *15*(3), 2744.

Arsenyan, J., & Mirowska, A. (2021). Almost human? A comparative case study on the social media presence of virtual influencers. *International Journal of Human-Computer Studies*, *155*, 102694.

Audrezet, A., De Kerviler, G., & Moulard, J. G. (2020). Authenticity under threat: When social media influencers need to go beyond self-presentation. *Journal of Business Research*, *117*, 557-569.

Audrin, C., Brosch, T., Sander, D., & Chanal, J. (2018). More than meets the eye. *Frontiers in Behavioral Neuroscience*, *12*, 172.

Aw, E. C.-X., Tan, G. W.-H., Chuah, S. H.-W., Ooi, K.-B., & Hajli, N. (2022). Be my friend! Cultivating parasocial relationships with social media influencers: Findings from PLS-SEM and fsQCA. *Information Technology and People*, *36*(1), 66-94.

Baodan, L. (2024). *JD.com AI is targeting e-commerce marketing*. https://www.moomoo.com/news/post/47105731/jdcom-ai-is-targeting-e-commerce-marketing?utm_source=chatgpt.com&level=1&data_ticket=1744388936830158

Baudrillard, J. (1994). Simulacra and simulation. *University of Michigan Press*, *312*.

Beichert, M., Bayerl, A., Goldenberg, J., & Lanz, A. (2023). Revenue generation through influencer marketing. *Journal of Marketing*, *88*(4), 40-63.

Belanche, D., Casaló, 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.

Berger, J., & Heath, C. (2007). Where consumers diverge from others: Identity signaling and product domains. *Journal of Consumer Research*, *34*(2), 121-134.

Beverland, M. B., & Farrelly, F. J. (2009). The quest for authenticity in consumption: Consumers' purposive choice of authentic cues to shape experienced outcomes. *Journal of Consumer Research*, *36*(5), 838-856.

Blut, M., Kulikovskaja, V., Hubert, M., Brock, C., & Grewal, D. (2023). Effectiveness of engagement initiatives across engagement platforms. *Journal of the Academy of Marketing Science*, *51*, 941-965.

Blut, M., Wang, C., & Schoefer, K. (2016). Factors influencing the acceptance of self-service technologies: A meta-analysis. *Journal of Service Research*, *19*(4), 396-416.

Boerman, S. C. (2020). The effects of the standardized Instagram disclosure for micro-and meso-influencers. *Computers in Human Behavior*, *103*, 199-207.

Borenstein, M., Cooper, H., Hedges, L., & Valentine, J. (2009). Effect sizes for continuous data. *The Handbook of Research Synthesis and Meta-analysis*, *2*, 221-235.

Breves, P., Amrehn, J., Heidenreich, A., Liebers, N., & Schramm, H. (2021). Blind trust? The importance and interplay of parasocial relationships and advertising disclosures in explaining influencers' persuasive effects on their followers. International *Journal of Advertising*, *40*(7), 1209-1229.

Campbell, C., Sands, S., Ferraro, C., Tsao, H.-Y. J., & Mavrommatis, A. (2020). From data to action: How marketers can leverage AI. *Business Horizons*, *63*(2), 227-243.

Chen, L., Yan, Y., & Smith, A. N. (2023). What drives digital engagement with sponsored videos? An investigation of video influencers' authenticity management strategies. *Journal of the Academy of Marketing Science*, *51*(1), 198-221

Cheng, L., Ju, Y., Wang, T., Wall, G., Li, J., & Wang, M. (2025). Authentic experiences and visitor stickiness: When landscapes are restored at a world natural heritage site. *Tourism Management*, *108*, 105124.
Chiu, C. M., Wang, E. T., Fang, Y. H., & Huang, H. Y. (2014). Understanding customers' repeat purchase intentions in B2C e-commerce. *Information Systems Journal*, *24*(1), 85-114.
Christanti, M. F., Mardani, P. B., Cahyani, I. P., & Sembada, W. Y. (2021). "Instagramable": Simulation, simulacra and hyperreality on Instagram post. *International Journal of Social Service and Research*, *1*(4), 394-401.
Chung, S., & Cho, H. (2017). Fostering parasocial relationships with celebrities on social media: Implications for celebrity endorsement. *Psychology & Marketing*, *34*(4), 481-495.
Colliander, J., & Dahlén, M. (2011). Following the fashionable friend: The power of social media: Weighing publicity effectiveness of blogs versus online magazines. *Journal of Advertising Research*, *51*(1), 313-320.
Croes, E., & Bartels, J. (2021). Young adults' motivations for following social influencers and their relationship to identification and buying behavior. *Computers in Human Behavior*, *124*, 106910.
Cuny, C., Fornerino, M., & Helme-Guizon, A. (2015). Can music improve e-behavioral intentions by enhancing consumers' immersion and experience? *Information & Management*, *52*(8), 1025-1034.
Davtyan, D., Cunningham, I., & Tashchian, A. (2021). Effectiveness of brand placements in music videos on viewers' brand memory, brand attitude and behavioral intentions. *European Journal of Marketing*, 55(2), 420-443.
De Cicco, R., Iacobucci, S., & Pagliaro, S. (2021). The effect of influencer-product fit on advertising recognition and the role of an enhanced disclosure in increasing sponsorship transparency. *International Journal of Advertising*, *40*(5), 733-759.
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.
De Veirman, M., & Hudders, L. (2020). Disclosing sponsored Instagram posts: The role of material connection with the brand and message-sidedness when disclosing covert advertising. *International Journal of Advertising*, *39*(1), 94-130.
Del Rowe, S. (2019). Get started with natural language content generation. *EContent*, *42*(3), 17-21.
Deng, F., & Jiang, X. (2023). Effects of human versus virtual human influencers on the appearance anxiety of social media users. *Journal of Retailing and Consumer Services*, *71*, 103233.
Dong, J. (2023). *Meituan's Live's monthly GMV exceeded 2 billion, and commercialization may be put on the agenda*. https://news.qq.com/rain/a/20231204A059R700
Dubois, D., Rucker, D. D., & Galinsky, A. D. (2016). Dynamics of communicator and audience power: The persuasiveness of competence versus warmth. *Journal of Consumer Research*, *43*(1), 68-85.
Duval, S., & Tweedie, R. (2000). A nonparametric "trim and fill" method of accounting for publication bias in meta-analysis. *Journal of the American Statistical Association*, *95*, 89-98.
Eichinger, I., Schreier, M., & van Osselaer, S. M. J. (2022). Connecting to place, people, and past: How products make us feel grounded. *Journal of Marketing*, *86*(4), 1-16.
Eisend, M., & Tarrahi, F. (2022). Persuasion knowledge in the marketplace: A meta-analysis. *Journal of Consumer Psychology*, *32*(1), 3-22.

Fakhreddin, F., & Foroudi, P. (2021). Instagram influencers: The role of opinion leadership in consumers' purchase behavior. *Journal of Promotion Management*, *28*(6), 795-825.
Farivar, S., & Wang, F. (2022). Effective influencer marketing: A social identity perspective. *Journal of Retailing and Consumer Services*, *67*, 103026.
Feng, Y., Chen, H., & Xie, Q. (2023). AI influencers in advertising: The role of AI influencer-related attributes in shaping consumer attitudes, consumer trust, and perceived influencer–product fit. *Journal of Interactive Advertising*, *24*(1), 26-47.
Flett, G. L., Hewitt, P. L., Blankstein, K. R., & Gray, L. (1998). Psychological distress and the frequency of perfectionistic thinking. *Journal of Personality and Social Psychology*, *75*(5), 1363.
Foulger, D. (2004). Models of the communication process. *Brooklyn*, *New Jersey*, 1-13.
Franke, C., Groeppel-Klein, A., & Müller, K. (2023). Consumers' responses to virtual influencers as advertising endorsers: novel and effective or uncanny and deceiving? *Journal of Advertising*, *52*(4), 523-539.
Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, *21*(1), 1-31.
Gardiner, S., Vada, S., Yang, E. C. L., Khoo, C., & Le, T. H. (2022). Recreating history: The evolving negotiation of staged authenticity in tourism experiences. *Tourism Management*, *91*, 104515.
Gastel, T. V. (2023). *Why AI influencers are the big winners of this year's Singles' Day*. https://jingdaily.com/why-ai-influencers-are-the-big-winners-of-this-years-singles-day/
Graesser, A. C., Singer, M., & Trabasso, T. (1994). Constructing inferences during narrative text comprehension. *Psychological Review*, *101*(3), 371.
Grewal, D., Puccinelli, N., & Monroe, K. B. (2018). Meta-analysis: Integrating accumulated knowledge. *Journal of the Academy of Marketing Science*, *46*(1), 9-30.
Grinberg, A. M., Careaga, J. S., Mehl, M. R., & O'Connor, M.-F. (2014). Social engagement and user immersion in a socially based virtual world. *Computers in Human Behavior*, *36*, 479-486.
Han, J., & Balabanis, G. (2023). Meta-analysis of social media influencer impact: Key antecedents and theoretical foundations. *Psychology & Marketing*, *41*(2), 394-426.
Hashem, T. (2021). Impact of influencer marketing-three Rs-on impulsive purchase behavior the moderating influence of gender. *Journal of Positive Psychology & Wellbeing*, *4*(5), 1481-1499.
Hedges, L., & Vevea, J. (1998). Fixed-and random-effects models in meta-analysis. *Psychological Methods*, *3*(4), 486.
Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, *60*(3), 456.
Hogg, M. A. (2018). Social identity theory. In J. B. Peter (Ed.), *Contemporary social psychological theories* (pp. 112-138). Stanford University Press.
Hsiao, S.-H., Wang, Y.-Y., & Lin, T. L. J. (2024). The impact of low-immersion virtual reality on product sales: Insights from the real estate industry. *Decision Support Systems*, *178*, 114131.
Huang, P., Lurie, N. H., & Mitra, S. (2009). Searching for experience on the web: An empirical examination of consumer behavior for search and experience goods. *Journal of Marketing*, *73*(2), 55-69.
Hudson, S., Matson-Barkat, S., Pallamin, N., & Jegou, G. (2019). With or without you? Interaction and immersion in a virtual reality experience. *Journal of Business Research*, *100*, 459-468.

Hughes, C., Swaminathan, V., & Brooks, G. (2019). Driving brand engagement through online social influencers: An empirical investigation of sponsored blogging campaigns. *Journal of Marketing*, *83*(5), 78-96.
Hulland, J., & Houston, M. (2021). The importance of behavioral outcomes. *Journal of the Academy of Marketing Science*, *49*, 437-440.
Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings*. SAGE Publications Inc.
Hwang, K., & Zhang, Q. (2018). Influence of parasocial relationship between digital celebrities and their followers on followers' purchase and electronic word-of-mouth intentions, and persuasion knowledge. *Computers in Human Behavior*, *87*, 155-173.
Hwang, Y., & Jeong, S.-H. (2016). "This is a sponsored blog post, but all opinions are my own": The effects of sponsorship disclosure on responses to sponsored blog posts. *Computers in Human Behavior*, *62*, 528-535.
Hwang, Y., & Jeong, S.-H. (2016). The effects of sponsorship disclosure on responses to sponsored blog posts. *Computers in Human Behavior*, *62*, 528-535.
InfluencerHub. (2025). *Artificial intelligence (AI) marketing benchmark report*. https://influencermarketinghub.com/ai-marketing-benchmark-report/?utm_source=chatgpt.com
Influencity. (2024). *AI influencers: How virtual personalities are shaping the future of marketing*. https://influencity.com/blog/en/ai-influencer#:~:text=AI%20influencers%20can%20be%20easily,cultural%20references%20to%20specific%20audiences.
Izryadnov, A. (2023). *The rise of AI influencers: Redefining digital presence*. https://medium.com/@alexanderizryadnov/the-rise-of-ai-influencers-redefining-digital-presence-5a1d687f8881
Jayasingh, S., Sivakumar, A., & Vanathaiyan, A. (2025). Artificial intelligence influencers' credibility effect on consumer engagement and purchase intention. *Journal of Theoretical and Applied Electronic Commerce Research*, *20*, 17.
Jin, S. V. (2023). "To comply or to react, that is the question:" the roles of humanness versus eeriness of AI-powered virtual influencers, loneliness, and threats to human identities in AI-driven digital transformation. *Computers in Human Behavior: Artificial Humans*, *1*(2), 100011.
JingDaily. (2024). *Chinese influencers turn to AI clones for livestreams*. https://jingdaily.com/posts/chinese-influencers-turn-to-ai-clones-for-livestreams
Kadirov, D. (2015). Private labels ain't bona fide! Perceived authenticity and willingness to pay a price premium for national brands over private labels. *Journal of Marketing Management*, *31*(17-18), 1773-1798.
Kay, S., Mulcahy, R., & Parkinson, J. (2020). When less is more: The impact of macro and micro social media influencers' disclosure. *Journal of Marketing Management*, *36*(3-4), 248-278.
Kelly, L., Kerr, G., & Drennan, J. (2010). Avoidance of advertising in social networking sites: The teenage perspective. *Journal of Interactive Advertising*, *10*(2), 16-27.
Ki, C. W. C., & Kim, Y. K. (2019). The mechanism by which social media influencers persuade consumers: The role of consumers' desire to mimic. *Psychology and Marketing*, *36*(10), 905-922.
Ki, C.-W. C., Park, S., & Kim, Y.-K. (2022). Investigating the mechanism through which consumers are "inspired by" social media influencers and "inspired to" adopt influencers' exemplars as social defaults. *Journal of Business Research*, *144*, 264-277.

Kietzmann, J., Paschen, J., & Treen, E. (2018). Artificial intelligence in advertising: How marketers can leverage artificial intelligence along the consumer journey. *Journal of Advertising Research*, *58*(3), 263-267.
Kim, D. Y., & Kim, H.-Y. (2021). Influencer advertising on social media: The multiple inference model on influencer-product congruence and sponsorship disclosure. *Journal of Business Research*, *130*, 405-415.
Kim, J., Lee, J., & Chung, Y. J. (2017). Product type and spokespersons in native advertising–the role of congruency and acceptance. *Journal of Interactive Advertising*, *17*(2), 109-123.
Kim, M., Lee, J., & Lee, K.-Y. (2019). Interplay of content type and product type in the consumer response to native advertising on social media. *Asian Journal of Communication*, *29*, 464-482.
Kim, S. Y., Schmitt, B. H., & Thalmann, N. M. (2019). Eliza in the uncanny valley: anthropomorphizing consumer robots increases their perceived warmth but decreases liking. *Marketing Letters*, *30*(1), 1-12.
Kopalle, P. K., Fisher, R. J., Sud, B. L., & Antia, K. D. (2017). The effects of advertised quality emphasis and objective quality on sales. *Journal of Marketing*, *81*(2), 114-126.
Lee, D., & Ham, C.-D. (2023). AI versus human: Rethinking the role of agent knowledge in consumers' coping mechanism related to influencer marketing. *Journal of Interactive Advertising*, *23*(3), 241-258.
Lee, J. A., Sudarshan, S., Sussman, K. L., Bright, L. F., & Eastin, M. S. (2022). Why are consumers following social media influencers on Instagram? Exploration of consumers' motives for following influencers and the role of materialism. *International Journal of Advertising*, *41*(1), 78-100.
Leite, F. P., & Baptista, P. d. P. (2022). The effects of social media influencers' self-disclosure on behavioral intentions. *Journal of Marketing Theory and Practice*, *30*(3), 295-311.
Leung, F. F., Gu, F. F., Li, Y., Zhang, J. Z., & Palmatier, R. W. (2022). Influencer marketing effectiveness. *Journal of Marketing*, *86*(6), 93-115.
Liu, C., Zhang, Y., & Zhang, J. (2020). The impact of self-congruity and virtual interactivity on online celebrity brand equity and fans' purchase intention. *Journal of Product and Brand Management*, *29*(6), 783-801.
Liu, Y., & and Shrum, L. J. (2002). What is interactivity and is it always such a good thing? Implications of definition, person, and situation for the influence of interactivity on advertising effectiveness. *Journal of Advertising*, *31*(4), 53-64.
Lou, C., & Kim, H. K. (2019). Fancying the new rich and famous? Explicating the roles of influencer content, credibility, and parental mediation in adolescents' parasocial relationship, materialism, and purchase intentions. *Frontiers in Psychology*, *10*, 2567.
Lou, C., Taylor, C. R., & Zhou, X. (2022). Influencer marketing on social media. *Journal of Current Issues and Research in Advertising*, *44*(1), 60-87.
Luo, X., Qin, M. S., Fang, Z., & Qu, Z. (2021). Artificial intelligence coaches for sales agents: Caveats and solutions. *Journal of Marketing*, *85*(2), 14-32.
Malär, L., Krohmer, H., Hoyer, W. D., & Nyffenegger, B. (2011). Emotional brand attachment and brand personality: The relative importance of the actual and the ideal self. *Journal of Marketing*, *75*(4), 35-52.
Mearian, L. (2023). *With AI, there's a trust gap based on gender, age*. https://www.computerworld.com/article/3707795/ai-trust-gap-based-on-gender-age.html#:~:text=Most%20Gen%20Zers%20(54%25),are%20willing%20to%20do%20so.
Mohamed, K., & Bukhari, S. (2023). The media in metaverse; Baudrillard's simulacra, is metaverse that begins the apocalypse? *International Journal of Communication and Media Science*, *10*(1), 14-22.

Morgan, C., & Townsend, C. (2022). Why the drive: The utilitarian and hedonic benefits of self-expression through consumption. *Current opinion in psychology*, *46*, 101320.
Munnukka, J., Maity, D., Reinikainen, H., & Luoma-aho, V. (2019). The effectiveness of YouTube vlogendorsements. *Computers in Human Behavior*, *93*, 226-234.
Ohanian, R. (1991). The impact of celebrity spokespersons' perceived image on consumers' intention to purchase. *Journal of Advertising Research*, *31*(1), 46-54.
Ohiomah, A., Andreev, P., Benyoucef, M., & Hood, D. (2019). The role of lead management systems in inside sales performance. *Journal of Business Research*, *102*, 163-177.
Olson, S. R. (2004). The extensions of synergy: Product placement through theming and environmental simulacra. *Journal of Promotion Management*, *10*(1-2), 65-87.
Orazi, D. C., Yi Mah, K., Derksen, T., & Murray, K. B. (2023). Consumer escapism: Scale development, validation, and physiological associations. *Journal of Business Research*, *160*, 113805.
Østergaard, P., & Fitchett, J. (2012). Relationship marketing and the order of simulation. *Marketing Theory*, *12*(3), 233-249.
Paas, F., Alexander, R., & and Sweller, J. (2003). Cognitive Load Theory and Instructional Design: Recent Developments. *Educational Psychologist*, *38*(1), 1-4.
Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006). Factors influencing the effectiveness of relationship marketing. *Journal of Marketing*, *70*(4), 136-153.
Pan, M., Blut, M., Ghiassaleh, A., & Lee, Z. W. Y. (2025). Influencer marketing effectiveness: A meta-analytic review. *Journal of the Academy of Marketing Science*, *53*, 52-78.
Park, C., & Lee, T. M. (2009). Information direction, website reputation and eWOM effect: A moderating role of product type. *Journal of Business Research*, *62*(1), 61-67.
Park, H. J., & Lin, L. M. (2020). The effects of match-ups 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.
Park, J., Lee, J. M., Xiong, V. Y., Septianto, F., & Seo, Y. (2021). David and Goliath: When and why micro-influencers are more persuasive than mega-influencers. *Journal of Advertising*, *50*(5), 584-602.
Pathak, K., & Prakash, G. (2023). Exploring the role of augmented reality in purchase intention: Through flow and immersive experience. *Technological Forecasting and Social Change*, *196*, 122833.
Phillips, B. J., & McQuarrie, E. F. (2010). Narrative and Persuasion in Fashion Advertising. *Journal of Consumer Research*, *37*(3), 368-392.
Reich, B. J., & Pittman, M. (2020). An appeal to intimacy: Consumer response to platform-appeal fit on social media. *Journal of Consumer Psychology*, *30*(4), 660-670.
Ren, S., Karimi, S., Bravo Velázquez, A., & Cai, J. (2023). Endorsement effectiveness of different social media influencers. *Journal of Business Research*, *156*, 113476.
Rosenthal, R. (1979). The file drawer problem and tolerance for null results. *Psychological Bulletin*, *86*(3), 638.
Sands, S., Campbell, C. L., Plangger, K., & Ferraro, C. (2022). Unreal influence: leveraging AI in influencer marketing. *European Journal of Marketing*, *56*(6), 1721-1747.
Sanosra, A., & Susanti, D. (2023). *Analysis of the effect of influencer and social media engagement on sales level with brand image as intervening variable (study on the coffee industry in Banyuwangi)* Proceedings of the 7th International Conference on Accounting, Management and Economics (ICAME-7 2022)
Seymour, M., Yuan, L., Riemer, K., & Dennis, A. R. (2024). Less Artificial, More Intelligent: Understanding Affinity, Trustworthiness, and Preference for Digital Humans. *Information Systems Research*, *0*(0), null.

So, K. K. F., Li, J., King, C., & Hollebeek, L. D. (2024). Social media marketing activities, customer engagement, and customer stickiness: A longitudinal investigation. *Psychology and Marketing*, *41*(7), 1597-1613.
Statista. (2022). *Share of consumers who follow at least one virtual influencer in the United States as of March 2022, by age group*. https://www.statista.com/statistics/1304080/consumers-follow-virtual-influencers-age-us/
Steinhart, Y., Kamins, M., Mazursky, D., & Noy, A. (2014). Effects of product type and contextual cues on eliciting naive theories of popularity and exclusivity. *Journal of Consumer Psychology*, *24*(4), 472-483.
Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, *12*(2), 257-285.
Tajfel, H. (1974). Social identity and intergroup behaviour. *Social Science Information*, *13*(2), 65-93.
Thomas, V. L., & Fowler, K. (2021). Close encounters of the AI kind: Use of AI influencers as brand endorsers. *Journal of Advertising*, *50*(1), 11-25.
Torres, P., Augusto, M., & Matos, M. (2019). Antecedents and outcomes of digital influencer endorsement: An exploratory study. *Psychology and Marketing*, *36*(12), 1267-1276.
Van Dillen, L. F., Papies, E. K., & Hofmann, W. (2013). Turning a blind eye to temptation: How cognitive load can facilitate self-regulation. *Journal of Personality and Social Psychology*, *104*(3), 427-443.
van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, *13*(3), 253-266.
van Reijmersdal, E. A., Rozendaal, E., Hudders, L., Vanwesenbeeck, I., Cauberghe, V., & van Berlo, Z. M. (2020). Effects of disclosing influencer marketing in videos: An eye tracking study among children in early adolescence. *Journal of Interactive Marketing*, 49(1), 94-106.
VanMeter, R., Syrdal, H. A., Powell-Mantel, S., Grisaffe, D. B., & Nesson, E. T. (2018). Don't just "Like" me, promote me: How attachment and attitude influence brand related behaviors on social media. *Journal of Interactive Marketing*, *43*(1), 83-97.
Wan, A., & Jiang, M. (2023). Can virtual influencers replace human influencers in live-streaming E-commerce? An exploratory study from practitioners' and consumers' perspectives. *Journal of Current Issues and Research in Advertising*, *44*(3), 332-372.
Wang, Y. (2024). *JD.com debuts AI digital representative of founder richard Liu during livestream, drawing 20 million views in under one hour*. https://jdcorporateblog.com/jd-com-debuts-ai-digital-representative-of-founder-richard-liu-during-livestream-drawing-20-million-views-in-under-one-hour/
Wies, S., Bleier, A., & Edeling, A. (2023). Finding goldilocks influencers: How follower count drives social media engagement. *Journal of Marketing*, *87*(3), 383-405.
Yan, K. (2024). *Liu Qiangdong's digital human debuts in livestream on JD.com App*. https://daoinsights.com/news/liu-qiangdongs-digital-persona-debuts-in-livestream-on-jd-com-app/
Yang, J., Chuenterawong, P., Lee, H., Tian, Y., & Chock, T. M. (2023). Human versus virtual influencer: The effect of humanness and interactivity on persuasive CSR messaging. *Journal of Interactive Advertising*, *23*(3), 275-292.
Ye, G., Hudders, L., De Jans, S., & De Veirman, M. (2021). The value of influencer marketing for business. *Journal of Advertising*, *50*(2), 160-178.
Yuan, S., & Lou, C. (2020). How social media influencers foster relationships with followers: the roles of source credibility and fairness in parasocial relationship and product interest. *Journal of Interactive Advertising*, *20*(2), 133-147.

Zhang, X., Shi, Y., Li, T., Guan, Y., & Cui, X. (2023). How do virtual AI streamers influence viewers' livestream shopping behavior? The effects of persuasive factors and the mediating role of arousal. *Information Systems Frontiers*, *26*, 1803-1834.

Zhang, Y., Zhu, J., Chen, H., & Jiang, Y. (2025). Enhancing trust and empathy in marketing: strategic AI and human influencer selection for optimized content persuasion. *Journal of Consumer Behaviour*, *24*(2), 866-885.

Zhou, X., Yan, X., & Jiang, Y. (2023). Making sense? The sensory-specific nature of virtual influencer effectiveness. *Journal of Marketing*, *88*(4), 84-106.

Zhu, Y.-Q., & Chen, H.-G. (2015). Social media and human need satisfaction: Implications for social media marketing. *Business Horizons*, *58*(3), 335-345.

Zogaj, A., Tscheulin, D. K., & Olk, S. (2021). Benefits of matching consumers' personality: Creating perceived trustworthiness via actual self-congruence and perceived competence via ideal self-congruence. *Psychology and Marketing*, *38*(3), 416-430.

Appendix

Appendix A Description of constructs in the meta-analysis

Determinant	Description	Aliases	Representative Studies	Example Operationalization	Coverage Ratio
Post Characteristics					
Informational value	The informational value of a post refers to the information and facts regarding products from influencer-generated posts (Hughes et al., 2019).	Informativeness value, information value, informative value, functional value, information quality, content quality, message quality	Ki and Kim (2019)	Informational value can be measured using a 7-point, 9-item scale from Hughes et al. (2019) (e.g., "How much the posting was genuine, honest, informative, relatable, understandable, believable, relevant, and benefits believable").	3.40%
Hedonic value	The entertainment value of a post refers to the enjoyment and happiness consumers experience from influencer-generated posts (Hughes et al., 2019).	Entertainment value, perceived enjoyment, relaxing entertainment, hedonic content	Hughes et al. (2019); Park and Lin (2020)	Hedonic value can be measured using a 7-point, 9-item scale from Hughes et al. (2019) (e.g., "How much the posting was attention getting, creative, emotional, energetic, humorous, memorable, strong, unique, and warm-hearted").	1.36%
Sponsorship disclosure	Sponsorship disclosure refers to the exposure that the advertising is sponsored by a particular brand (Hwang and Jeong, 2016).	Revelation, sponsorship transparency, perceived transparency, advertising disclosure	Hwang and Jeong (2016)	The sponsorship disclosure can be manipulated by the presence and absence of the hashtag of "#Sponsored"(Kim and Kim, 2021).	4.12%
Follower Characteristics					
Social identity	Social identity refers to the individual's perception of associating with certain groups, brand communities, or even influencers together with some emotional and value significance of the group membership (Tajfel, 1974).	Cognitive social identity, evaluative social identity, affective social identity, social identification, self-identity, similarity	Croes and Bartels (2021)	Social identity can be measured using a 7-point, 2-item scale (Croes and Bartels, 2021) (e.g., "Sometimes I wish I could be more like this influencer", "This influencer is similar to me").	7.38%
Consumer knowledge	Consumer knowledge refers to the perceived level of familiarity and expertise that consumers have with a product (Kay et al., 2020).	Brand familiarity, source familiarity, influencer familiarity, product interest, product involvement, product knowledge, brand image, product image, brand awareness	Kay et al. (2020)	Consumer knowledge can be measured using a 7-point, 3-item scale (Kay et al., 2020) (e.g., "I am interested in this product", "My friends consider me as an expert on this product").	4.19%

Determinant	Description	Aliases	Representative Studies	Example Operationalization	Coverage Ratio
Consumer materialism	Materialism refers to the significance an individual puts on acquiring and owning material possessions as a means of achieving personal success and individual welfare, involving success, centrality, and happiness (Lee et al., 2022).	Success, centrality, happiness	Lee et al. (2022); Lou and Kim (2019)	Consumer materialism can be measured using a 7-point, 3-item scale from Lou and Kim (2019) (e.g., "I would like to be rich enough to buy anything I want", "I'd be happier if I could afford to buy more things").	2.26%
Influencer Characteristics					
Influencer–brand fit	Influencer–brand fit refers to the degree of similarity between influencers and brands (Torres et al., 2019).	Influencer–brand congruence, influencer–brand match-up, influencer-product congruence, influencer-product match-up	Torres et al. (2019)	Influencer–brand fit can be measured using a 7-point, 2-item scale (Torres et al., 2019) (e.g., "How relevant is this influencer to the product?", "What do you think about the influencer appearing in advertising for this product").	2.98%
Influencer communication	Influencer communication refers to the degree to which an individual perceives that influencers communicate and exchange information with consumers (Ki et al., 2022)	Communication, interactivity, interaction, replies	Ki and Kim (2019)	Influencer communication can be measured using a 7-point, 5-item scale (Ki and Kim, 2019) (e.g., "I feel that (Influencer's name) would talk back to me if I send a private message", "I feel that (Influencer's name) would respond to me quickly and efficiently if I post a comment").	2.27 %
Influencer self-disclosure	Influencer self-disclosure refers to the extent to which influencers reveal their personal information to others (Chung and Cho, 2017).	Private-life self-disclosure, opinion self-disclosure, intimate self-disclosure, visibility, openness, self-presence, self-presentation	Aw et al. (2022)	Influencer self-disclosure can be measured using a 7-point, 3-item scale (Chung and Cho, 2017) (e.g., "(Influencer's name) reveals himself/herself", (Influencer's name) shares his/her personal feelings with his/her fans", "(Influencer's name) is honest about his/her feelings or opinions").	1.16%
Influencer indegree	Influencer indegree refers to the number of followers of an influencer (Wies et al., 2023).	Indegree centrality, popularity, number of influencers, influencer type (macro vs. meso vs. micro)	Wies et al. (2023)	Influencer indegree can be measured by calculating the number of an influencer's followers at the time of publishing sponsored content (Wies et al., 2023).	2.85%
Mediators					
Persuasion knowledge	Persuasion knowledge refers to consumers' understanding and beliefs regarding marketers' persuasion goals and tactics, as	Conceptual persuasion knowledge, evaluative persuasion knowledge, attitudinal persuasion knowledge,	Hwang and Zhang (2018)	Persuasion knowledge can be measured using a 7-point, 4-item scale (Hwang and Zhang, 2018) (e.g., "The digital	3.96%

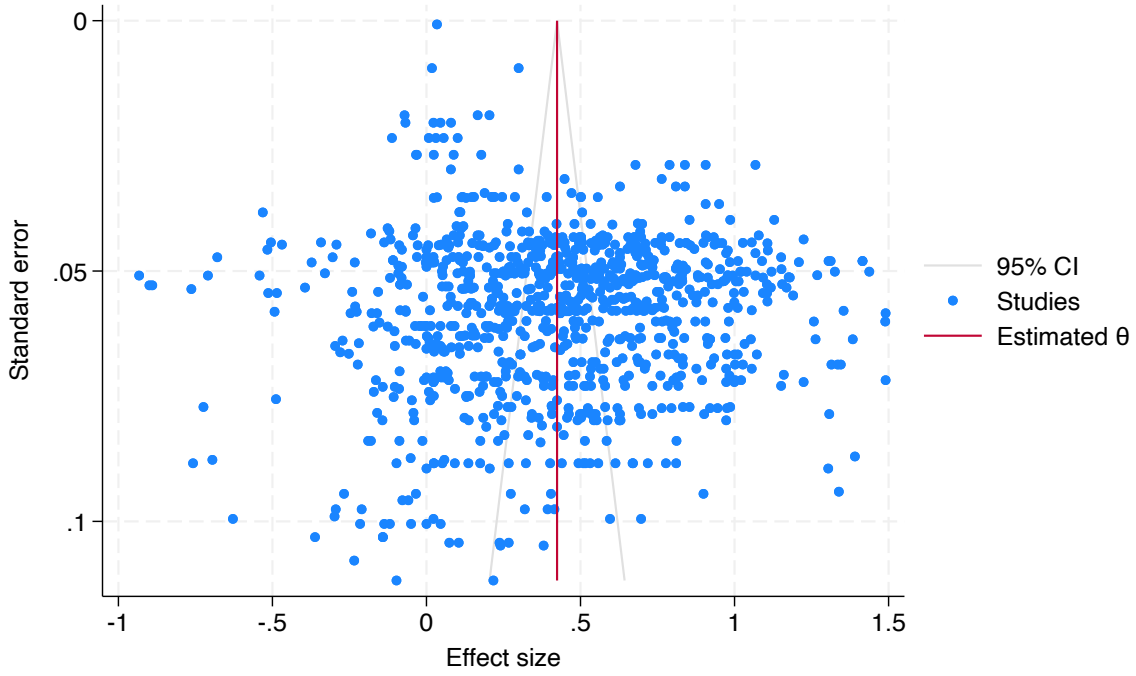
Determinant	Description	Aliases	Representative Studies	Example Operationalization	Coverage Ratio
	well as their ability to recognize the intent behind these tactics (Friestad and Wright, 1994).	advertising recognition, perceived sponsorship, awareness of paid endorsement, perceiving the postings as promotional and advertising, manipulative intent, calculative motive, understanding of selling intent, commercial orientation, understanding sponsoring, insight into the tactic of the brand, insight into the tactic of the influencer		celebrity tries to manipulate the audience in ways that I do not like", and "When I read the ad that the digital celebrity sent, I think it is pretty obvious the ad is trying to persuade me to buy the product").	
Source credibility	Source credibility represents the extent to which a source is perceived as being trustworthy, competent, and attractive (Ohanian, 1991).	Trustworthiness, credibility, trust, authenticity, sincerity, integrity, benevolence, expertise, expert power, opinion leadership, competence, attractiveness	Ki et al. (2022)	Source credibility can be measured using a 7-point, 4-item scale (Belanche et al., 2021) (e.g., "This influencer is trustworthy", and "This influencer is an expert on the topic").	19.65%
Non-transactional outcomes					
Attitude	Attitude is a subjective evaluation that is more "outward-looking" concerning the object of focus (VanMeter et al., 2018).	Attitude toward the brand, attitude toward the product, attitude toward the influencer, attitude toward the advertisements	Torres et al. (2019); Park et al. (2021)	Attitude can be measured using a 7-point, 3-item scale from Colliander and Dahlén (2011) (e.g., "This brand is good", and "This brand is pleasant").	17.37%
Behavioral engagement	Behavioral engagement refers to customer's behavioral manifestation toward influencers or brands (van Doorn et al., 2010).	Comments, likes, mentions, reposts, sharing, following, participation, word-of-mouth, sharing intention, recommend intention, audience participation, involvement, online advertisement clicking, flow experience	Hughes et al. (2019); Wies et al. (2023)	Behavioral engagement can be measured by the number of post likes, comments, and mentions (Wies et al., 2023).	12.48%
Purchase intention	Purchase intention refers to a consumer's willingness to buy products that influencers endorse (Ki and Kim, 2019).	Buying intention, consumer intention, intention to buy, urge to buy, behavioral intention, purchase request, willingness to pay	Ki and Kim (2019); Aw et al. (2022)	Purchase intention can be measured using a 7-point, 3-item scale (Ki and Kim, 2019) (e.g., "In the future, I am likely to try one of the same services that (Influencer's name) endorsed or posted on social media", "In the future, I am likely to try one of the same products that (Influencer's name) endorsed or posted on social media", and "In the future, I am likely to try one of the same brands that (Influencer's	9.18%

Determinant	Description	Aliases	Representative Studies	Example Operationalization	Coverage Ratio
				name) endorsed or posted on social media".	
Transactional outcomes					
Purchase behavior	Purchase behavior refers to the actions and decisions involved when a consumer buys a product (Croes and Bartels, 2021).	Buying behavior, impulse buying, impulsive buying, behavioural loyalty, purchase decision, buy decision, purchase loyalty	Croes and Bartels (2021)	Purchase behavior can be measured by using a question (Croes and Bartels, 2021): "How often do you buy products that this influencer mentions on his/her social media channels?" (1=never to 7=often).	1.76%
Sales performance	Sales performance refers to the effectiveness with which an influencer achieves the sales-related objectives set by a brand (Ohiomah et al., 2019).	Online sales, product sales, transaction rate, brand sales, live sales, revenue	Beichert et al. (2023)	Sales can be measured by return on influencer spend, revenue per follower, revenue per actually reached follower, and revenue per buyer (Beichert et al., 2023).	0.06%

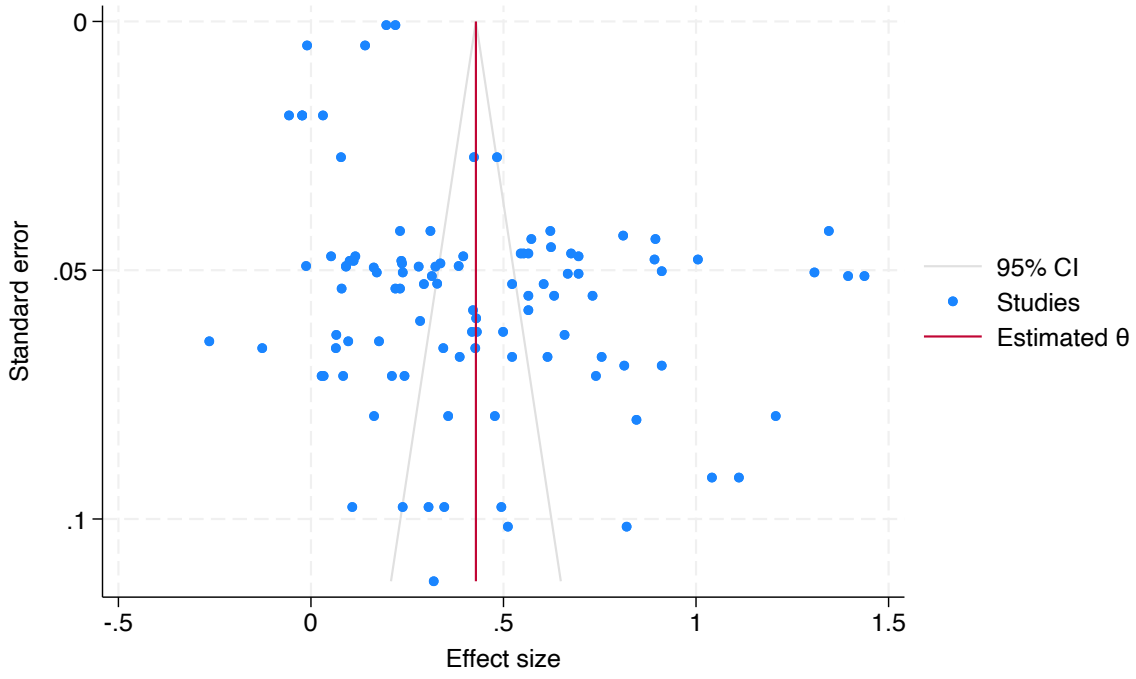
Note: Coverage ratio is the percentage of variables within a dataset that fall into a particular category.

Appendix B Funnel plots for effect sizes of marketing outcomes

Panel A: Funnel plot for non-transactional outcomes



Panel B: Funnel plot for transactional outcomes



Note: No additional effect sizes were included in the funnel plots displayed in panels A and B using the trim-and-fill method. The effect sizes are Fisher-z transformed effect sizes.

Appendix C Results of effect size integration for marketing outcomes (without outliers)

Relationship	k	N	rcw	CI_{95-}	CI_{95+}	Q	I^2	FSN
Post Characteristics								
Informational value → Attitude	21	7560	.40**	.26	.52	630**	98	11547
Informational value → Behavioral engagement	20	10103	.43**	.27	.56	1224**	99	9787
Informational value → Purchase intention	27	8950	.55**	.44	.64	1006**	98	31707
Informational value → Purchase behavior	5	1845	.28**	.22	.34	7**	45	264
Informational value → Sales performance	2	450	.87	-.84	1.00	739	100	—
Hedonic value → Attitude	7	2332	.48**	.45	.51	6**	0	1581
Hedonic value → Behavioral engagement	8	5388	.36**	.13	.55	434**	99	1099
Hedonic value → Purchase intention	9	3365	.65**	.52	.76	291**	97	6304
Hedonic value → Purchase behavior	3	1290	.42	-.22	.81	305**	99	—
Hedonic value → Sales performance	1[a]	385	.86**	.83	.88	—	—	—
Sponsorship disclosure→ Attitude	35	11048	-.01	-.09	.07	482**	94	—
Sponsorship disclosure → Behavioral engagement	23	8082	.01	-.05	.06	104**	78	—
Sponsorship disclosure → Purchase intention	27	6045	-.01	-.06	.04	105**	74	—
Sponsorship disclosure → Purchase behavior	—	—	—	—	—	—	—	—
Sponsorship disclosure → Sales performance	—	—	—	—	—	—	—	—
Follower Characteristics								
Social identity → Attitude	34	11814	.53**	.44	.60	1184**	97	47806
Social identity → Behavioral engagement	27	11587	.52**	.43	.61	1549**	98	37395
Social identity → Purchase intention	38	13650	.54**	.46	.62	1556**	98	60951
Social identity → Purchase behavior	3	1138	.42**	.28	.55	16**	87	247
Social identity → Sales performance	1[a]	200	.08	-.06	.22	—	—	—
Consumer knowledge → Attitude	23	6496	.26**	.19	.33	196**	88	3946
Consumer knowledge → Behavioral engagement	21	10303	.22**	.10	.36	1064**	99	2745
Consumer knowledge → Purchase intention	27	8052	.36**	.27	.45	613**	95	13345
Consumer knowledge → Purchase behavior	4	653	.21	-.18	.55	79**	96	—
Consumer knowledge → Sales performance	1[a]	108	.45**	.29	.59	—	—	—
Consumer materialism → Attitude	9	3785	.31**	.20	.42	132**	92	1086
Consumer materialism → Behavioral engagement	7	2898	.23**	.17	.30	19**	68	395
Consumer materialism → Purchase intention	7	1923	.39**	.17	.57	144**	96	713
Consumer materialism → Purchase behavior	2	696	.34[+]	-.02	.62	25**	96	59
Consumer materialism → Sales performance	—	—	—	—	—	—	—	—
Influencer Characteristics								
Influencer–brand fit → Attitude	23	7883	.42**	.32	.51	645**	96	12209
Influencer–brand fit → Behavioral engagement	10	6662	.20*	.02	.35	363**	98	414
Influencer–brand fit → Purchase intention	18	6660	.45**	.31	.57	764**	98	7953
Influencer–brand fit → Purchase behavior	2	825	.40**	.15	.61	16**	94	113
Influencer–brand fit → Sales performance	2	3043	-.00	-.07	.06	—	—	—
Influencer communication → Attitude	14	5350	.42**	.25	.58	696**	98	5364
Influencer communication → Behavioral engagement	7	4855	.47**	.29	.61	209**	97	1734
Influencer communication → Purchase intention	11	4408	.43**	.24	.59	563**	98	3345
Influencer communication → Purchase behavior	13	4394	.51**	.33	.65	590**	98	6121
Influencer communication → Sales performance	3	3243	.11	-.11	.31	27**	93	—
Influencer self-disclosure → Attitude	7	2832	.54**	.44	.62	68**	91	2668
Influencer self-disclosure → Behavioral engagement	7	2377	.19*	.03	.34	91**	94	164
Influencer self-disclosure → Purchase intention	7	2379	.47**	.24	.65	234**	98	1451
Influencer self-disclosure → Purchase behavior	—	—	—	—	—	—	—	—
Influencer self-disclosure → Sales performance	—	—	—	—	—	—	—	—
Influencer indegree → Attitude	14	6097	.15*	.01	.29	313**	97	666
Influencer indegree → Behavioral engagement	18	1863836	.07	-.11	.25	875**	100	—
Influencer indegree → Purchase intention	6	1574	-.02	-.15	.10	18*	81	—
Influencer indegree → Purchase behavior	3	1700	.21*	.00	.40	26**	90	109
Influencer indegree → Sales performance	5	1896097	.10	-.06	.24	331**	100	—
Mediators								
Persuasion knowledge→ Attitude	21	7153	-.21*	-.326	-.06	901**	98	2851
Persuasion knowledge → Behavioral engagement	21	7321	-.12	-.26	.03	978**	98	—
Persuasion knowledge → Purchase intention	13	3998	.01	-.11	.12	193**	92	—
Persuasion knowledge → Purchase behavior	—	—	—	—	—	—	—	—
Persuasion knowledge → Sales performance	—	—	—	—	—	—	—	—
Source credibility → Attitude	88	29441	.55**	.50	.59	2769**	97	341558
Source credibility → Behavioral engagement	60	25771	.46**	.40	.52	2615**	97	123114
Source credibility → Purchase intention	82	37890	.48**	.44	.52	1837**	95	233704
Source credibility → Purchase behavior	21	8162	.49**	.39	.58	720**	97	15342
Source credibility → Sales performance	1[a]	417	.09[+]	-.01	.18	—	—	—
Non-transactional outcomes								

Relationship	k	N	rcw	CI_{95-}	CI_{95+}	Q	I^2	FSN
Attitude → Purchase intention	66	22347	.62**	.57	.66	16567**	96	264939
Attitude → Purchase behavior	6	1820	.37**	.19	.52	81**	94	530
Attitude → Sales performance	1[a]	417	-.01	-.11	.08	—	—	—
Behavioral engagement → Purchase intention	41	26110	.56**	.48	.62	4321**	98	90201
Behavioral engagement → Purchase behavior	14	5707	.75**	.43	.90	4753**	100	24720
Behavioral engagement → Sales performance	6	1896211	.21**	.07	.34	2205**	100	34701
Purchase intention → Purchase behavior	6	1922	.68**	.53	.80	149**	97	2646
Purchase intention → Sales performance	—	—	—	—	—	—	—	—

k = number of effects sizes, N = cumulative sample sizes, rcw = inverse variance-weighted, reliability-adjusted average correlation, CI = confidential interval, Q = Q statistic, I^2 = I^2 statistic, FSN = fail-safe N. $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$.

a. We report these effect sizes to ensure a comprehensive synthesis of evidence, which provides insights into the range of study outcomes and allows for a more accurate interpretation.

We identify 31 outliers, with some relationships containing between 0 and 4 outliers. Notably, the exclusion of these outliers does not alter most outcomes presented in Table 2.4, indicating the robustness of the results, except for the impact of persuasion knowledge on behavioral engagement where the results transition from significant to nonsignificant upon outlier removal.

Appendix D Results of effect size integration for mediators (without outliers)

Relationship	k	N	rcw	CI_{95-}	CI_{95+}	Q	I^2	FSN
Post Characteristics								
Informational value → Persuasion knowledge	3	773	-.32*	-.52	-.09	24**	91	101
Hedonic value → Persuasion knowledge	1[a]	155	.22**	.06	.36	—	—	—
Sponsorship disclosure → Persuasion knowledge	31	8081	.36**	.20	.46	823**	98	9242
Informational value → Source credibility	29	11380	.50**	.41	.58	1259**	97	28900
Hedonic value → Source credibility	10	4762	.52**	.30	.69	851**	99	3493
Sponsorship disclosure → Source credibility	15	3865	-.09	-.19	.02	169**	91	—
Follower Characteristics								
Social identity → Persuasion knowledge	4	1781	-.07*	-.14	-.01	6**	48	11
Consumer knowledge → Persuasion knowledge	6	1689	.06	-.03	.14	17**	67	76
Consumer materialism → Persuasion knowledge	1[a]	389	-.29**	-.37	-.19	—	—	—
Social identity → Source credibility	42	15080	.48**	.41	.54	947**	96	60970
Consumer knowledge → Source credibility	21	7952	.29**	.22	.37	406**	91	4279
Consumer materialism → Source credibility	7	2875	.28**	.10	.44	119**	96	512
Influencer characteristics								
Influencer–brand fit → Persuasion knowledge	5	1577	-.07	-.17	.03	15**	76	—
Influencer communication → Persuasion knowledge	2	645	-.09	-.30	.13	6*	83	—
Influencer self-disclosure → Persuasion knowledge	2	646	.20	-.65	.83	140**	99	—
Influencer indegree → Persuasion knowledge	3	999	.13*	.01	.24	6*	70	17
Influencer–brand fit → Source credibility	21	7156	.42**	.35	.48	231**	90	9799
Influencer communication → Source credibility	20	6799	.45**	.35	.55	485**	96	10958
Influencer self-disclosure → Source credibility	7	2569	.56**	.48	.64	68**	91	2533
Influencer indegree → Source credibility	9	4371	.10	-.04	.22	114**	94	—
Persuasion knowledge → Source credibility	20	6799	-.27**	-.39	-.14	684**	97	3834

k = number of effects sizes, N = cumulative sample sizes, rcw = inverse variance-weighted, reliability-adjusted average correlation, CI = confidential interval, Q = Q statistic, I^2 = I^2 statistic, FSN =f ail-safe N. $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .1$.

a. We report these effect sizes to ensure a comprehensive synthesis of evidence, which provides insights into the range of study outcomes and allows for a more accurate interpretation.

We identify 18 outliers, with each relationship containing between 0 and 3 outliers. Most outcomes are in line with the results in Table 2.5, except for the relationship of consumer knowledge and persuasion knowledge, as well as influencer–brand fit and persuasion knowledge, where the results transition from significant to nonsignificant upon outlier removal.

Appendix E Correlations among antecedents, mediators, and non-transactional outcomes

	1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**
1. Content value[a]	[.87]	19	10	3	8	6	5[a]	42[b]	33[c]	28	38[d]
2. Social identity	.45	[.88]	12	11	12	3	5	42	34	27	38
3. Consumer knowledge	.34	.45	[.84]	7	6	8	7	24	26	22	27
4. Influencer–brand fit	.43	.42	.27	[.92]	5	3	6	22	24	10	18
5. Interaction strategies	.19	.33	.06	.39	[.87]	5	4	29	22	14	18
6. Influencer indegree	.14	.12	-.15	-.01	-.01	[.82]	3	11	14	18	7
7. Persuasion knowledge	-.07	-.15	.12	-.17	.04	.13	[.87]	22	22	22	16
8. Source credibility	.53	.48	.35	.45	.48	.05	-.16	[.89]	89	62	86
9. Attitude	.41	.53	.34	.45	.44	.15	-.15	.55	[.90]	48	66
10. Behavioral engagement	.41	.52	.29	.20	.34	.07	-.20	.49	.47	[.88]	41
11. Purchase intention	.58	.54	.36	.45	.44	-.28	-.17	.51	.62	.56	[.89]

Entries on the diagonal in brackets are weighted-mean Cronbach's alpha coefficients. Entries in the lower half are inverse variance-weighted reliability-adjusted correlations; the upper half shows the number of effect sizes.

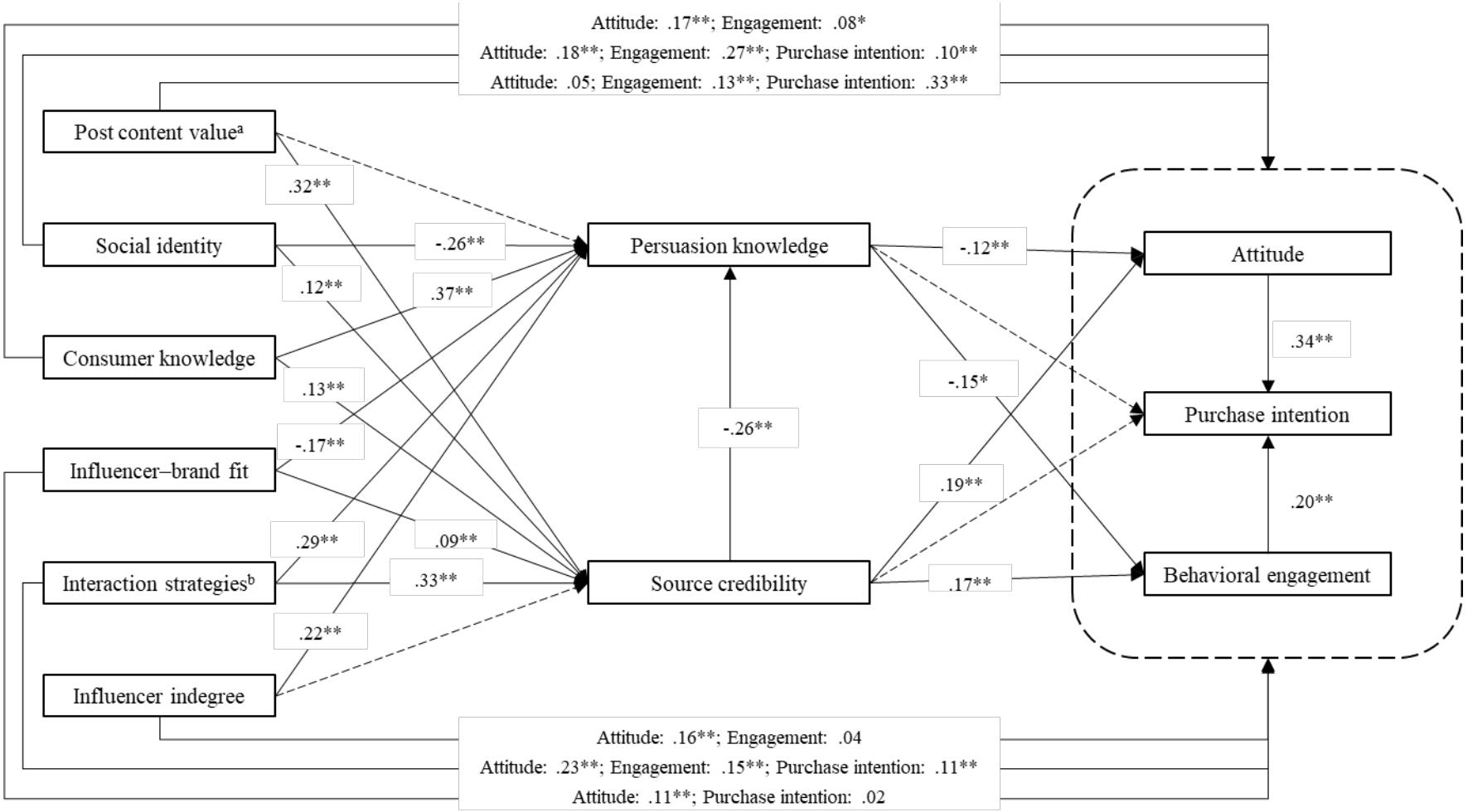
a. Due to "content value" being coded separately, there are two additional effect sizes of "content value → source credibility" and "content value → purchase intention", as well as one additional effect size of "content value → persuasion knowledge" and "content value → attitude", making their total higher than the sum of related effect sizes shown in Table 2.4 and Table 2.5.

Appendix F Direct, indirect, and total effects

Determinants	Attitude				Behavioral Engagement				Purchase Intention			
	Direct Effect	Indirect Effect	Total Effect	Indirect/ Total (%)	Direct Effect	Indirect Effect	Total Effect	Indirect/ Total (%)	Direct Effect	Indirect Effect	Total Effect	Indirect/ Total (%)
Post content value	.05	.06**	.11**	55	.13**	.06**	.19**	32	.33**	.07**	.40**	18
Social identity	.18**	.06**	.24**	25	.27**	.06**	.33**	18	.11**	.14**	.25**	56
Consumer knowledge	.17**	-.01	.16**	6[a]	.08*	-.02[+]	.06[+]	20	—	.07**	.07**	100
Influencer–brand fit	.11**	.05**	.16**	31	—	.05**	.05**	100	.02	.06**	.08**	75
Interaction strategies	.23**	.04**	.27**	15	.15**	.02**	.17**	12	.11**	.12**	.23**	52
Influencer indegree	.16**	-.03**	.13**	16	.04	-.03**	.01[a]	43[a]	—	.05**	.05**	100
Persuasion knowledge	-.12**	-.03**	-.15**	20	-.15**	-.03**	-.18**	17	.02	-.09**	-.07**	82
Source credibility	.19**	.00	.19**	0	.17**	.00	.17**	0	—	.10**	.10**	100
Attitude	—	—	—	—	—	—	—	—	—	.00	.33**	0
Behavioral engagement	—	—	—	—	—	—	—	—	—	.00	.20**	0

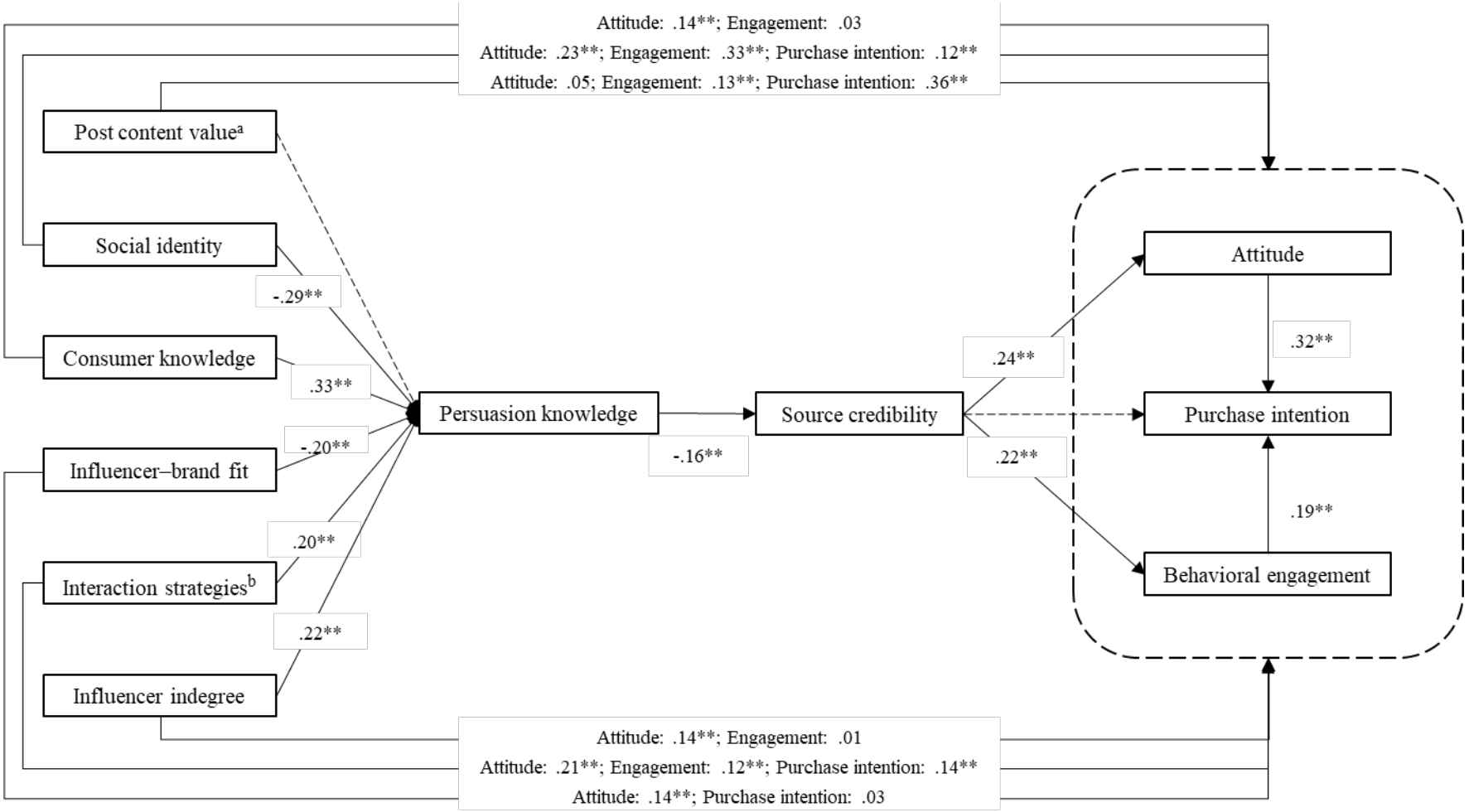
a. Not significant ($p > .1$); **$p < .01$, *$p < .05$, $^{+}p < .10$.

Appendix G Results of structural equation model for model 2



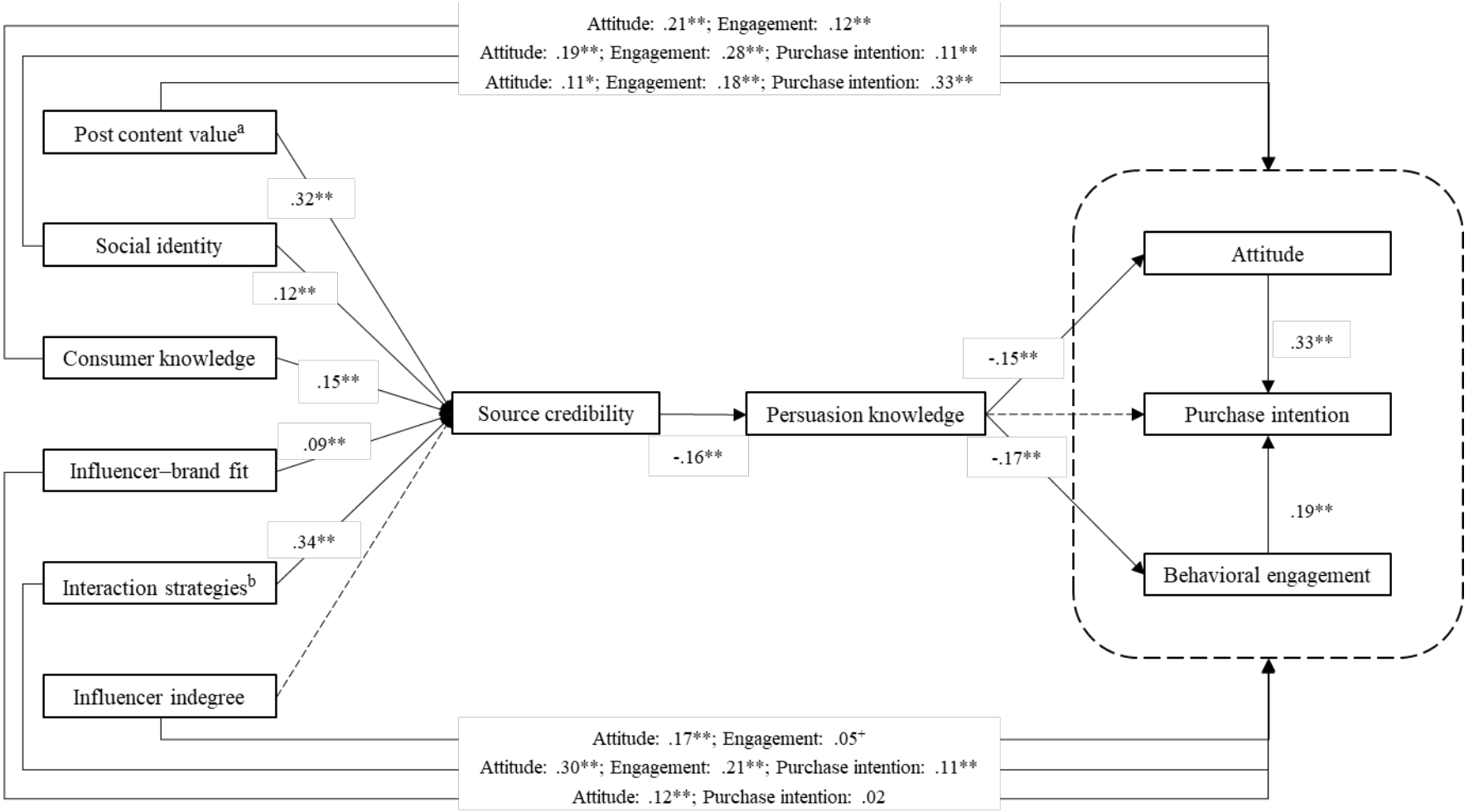
Model fit: $\chi 2/8 = 158$, $p = .00$; CFI = .95; RMSEA = .15; SRMR = .05. a. Post content value contains informational value and hedonic value (Hughes et al. 2019). b. Interaction strategies contain influencer communication and influencer self-disclosure (Aw et al. 2022). $^{**}p < .01$, $^{*}p < .05$.

Appendix H Results of structural equation model for model 3



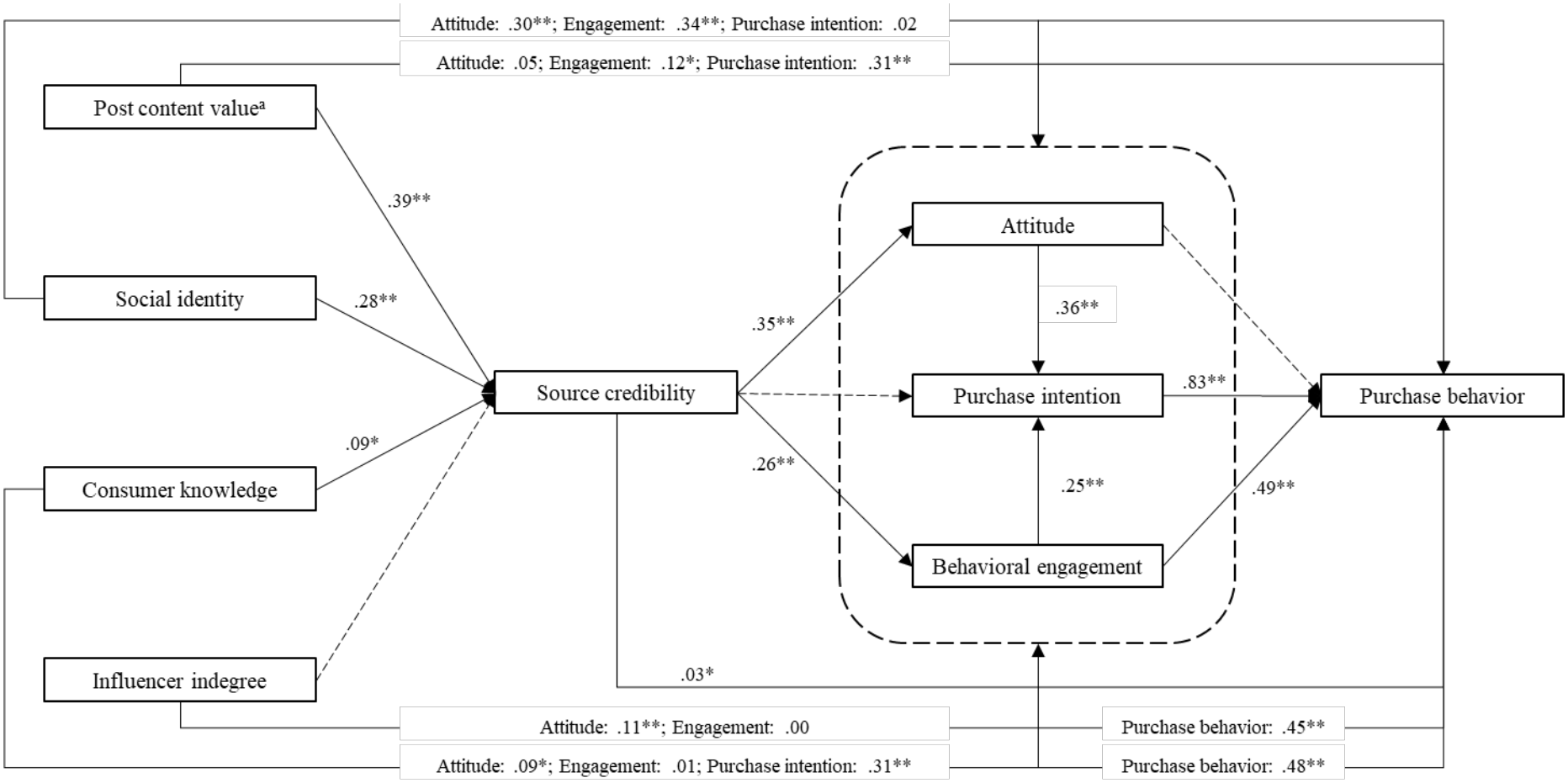
Model fit: $\chi 2/17 = 745$, $p = .00$; CFI = .74; RMSEA = .23; SRMR = .18. a. Post content value contains informational value and hedonic value (Hughes et al. 2019). b. Interaction strategies contain influencer communication and influencer self-disclosure (Aw et al. 2022). $^{**}p < .01$, $^{*}p < .05$.

Appendix I Results of structural equation model for model 4



Model fit: $\chi 2/17 = 368$, $p = .00$; CFI = .87; RMSEA = .16; SRMR = .06. a. Post content value contains informational value and hedonic value (Hughes et al. 2019). b. Interaction strategies contain influencer communication and influencer self-disclosure (Aw et al. 2022). $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$.

Appendix J Results of structural equation model of transactional outcomes



Model fit: $\chi 2/5 = 166$, $p = .00$; CFI = .95; RMSEA = .28; SRMR = .14. a. Post content value contains informational value and hedonic value (Hughes et al. 2019). $^{**}p < .01$, $^{*}p < .05$.

Appendix K Correlations among antecedents, mediators, and transactional outcomes

	1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**
1. Content value[a]	[.87]	19	10	6	42	33	28	38	9
2. Social identity	.45	[.88]	12	3	42	34	27	38	3
3. Consumer knowledge	.34	.45	[.84]	8	24	26	22	27	5
4. Influencer indegree	.14	.12	-.15	[.82]	11	14	18	7	3
5. Source credibility	.53	.48	.35	.05	[.89]	89	62	86	21
6. Attitude	.41	.53	.34	.15	.55	[.90]	48	66	7
7. Behavioral engagement	.41	.52	.29	.07	.49	.47	[.88]	41	14
8. Purchase intention	.58	.54	.36	-.28	.51	.62	.56	[.89]	6
9. Purchase behavior	.38	.42	.50	.21	.49	.51	.75	.68	[.87]

Entries on the diagonal in brackets are weighted-mean Cronbach's alpha coefficients. Entries in the lower half are inverse variance-weighted reliability-adjusted correlations; the upper half shows the number of effect sizes.

a. Due to "content value" being coded separately, there are two additional effect sizes of "content value → source credibility" and "content value → purchase intention", as well as one additional effect size of "content value → attitude", making their total higher than the sum of related effect sizes shown in Table 2.4.

Appendix L Results of meta-regression

		Platform and Product				Controls				
Relationship	**k**	**Nature of connection (1 = content-based, 0 = profile-based)**	**Usage (1 = utilitarian, 0 = hedonic)**	**Information availability (1 = experience, 0 = search)**	**Status-signaling capability (1 = self-expressive, 0 = functional)**	**Publication quality (ABS rating)**	**Research design (1 = survey, 0 = other methods)**	**Publication year**	**Age**	**VIF**
Post Characteristics										
Informational value □ Attitude[a]	23	-.06	-.31	.50*	-.19	-.01	.52	.00	-.01	1.25
Informational value □ Behavioral engagement	20	-.23	—	—	-.40^{+}	-.06	.41	.04	.03	1.31
Informational value □ Purchase intention[a]	27	.36**	.34*	-.07	.18	-.08	.26	-.02	.04**	1.27
Hedonic value □ Attitude	9	.57^{+}	-.17	-.25	-.35	-.08	—	.00	—	3.00
Sponsorship disclosure □ Attitude	35	.08	.05	-.04	.17^{+}	-.05	-.04	.02	.00	1.98
Sponsorship disclosure □ Behavioral engagement	23	.16	-.04	-.25*	.06	-.01	—	—	.01	2.33
Sponsorship disclosure □ Purchase intention	30	.41	-.17	-.09	-.04	.06	.07	.03	.00	2.70
Follower Characteristics										
Social identity □ Attitude	34	.29	-.28	.15	-.15	-.06	.13	-.02	.00	1.93
Social identity □ Behavioral engagement	27	.02	-.10	.22	.09	-.04	-.04	.06	.02	1.94
Social identity□ Purchase intention	38	-.02	-.14	.31^{+}	-.13	-.11	.09	-.08	.03	1.93
Consumer knowledge □ Attitude[a]	26	.36*	.36*	.07	.09	-.10	.14	.09*	.01	1.48
Consumer knowledge □ Behavioral engagement[a]	22	.31	.39	-.44	.18	-.14*	-.05	.05	-.01	1.56
Consumer knowledge □ Purchase intention	27	-.11	—	-.05	-.21*	-.01	.41**	-.01	.01	1.53
Influencer Characteristics										
Influencer–brand fit □ Attitude	24	.15	—	.31	.33^{+}	-.11	-.06	-.04	-.01	1.63
Influencer–brand fit □ Purchase intention	18	.60*	-.02	.10	.26	—	-.28	-.09	.01	2.84
Interaction strategies □ Attitude	22	.39	—	.47*	-.33	.11	-.24	—	-.02	1.21
Interaction strategies□ Behavioral engagement	14	.35^{+}	—	.63	.20	-.03	.02	-.18*	.03	2.04
Interaction strategies□ Purchase intention[a]	18	.43^{+}	-.03	.56**	-.09	-.06	—	.03	—	1.27
Influencer indegree □ Attitude[a]	14	-.19	-.19	—	.31^{+}	.05	.52**	—	-.01	1.92
Influencer indegree □ Behavioral engagement[a]	18	.45*	.90	—	.27	.06	.38	—	-.01	1.44
Mediators										
Persuasion knowledge □ Attitude[a]	22	.31*	.31*	.10	-.32	-.19**	-.09	-.01	.00	1.38
Persuasion knowledge □ Behavioral engagement[a]	22	.34^{+}	.32^{+}	-.09	-.12	-.07	-.04	-.02	.01	1.51
Persuasion knowledge □ Purchase intention	16	.16	.21	.67^{+}	-.38	-.18**	-.16	-.07	.02	2.87
Source credibility □ Attitude	89	-.24	.24	.03	.10	.01	.08	.01	.00	1.72
Source credibility □ Behavioral engagement	62	-.17	.29	-.05	.20	.01	.18	.06	.00	1.87
Source credibility □ Purchase intention	86	.09	-.04	.15	.04	-.02	.19	.02	.01	1.73

a. For some relationships, we analyzed the "nature of connection" and "usage" in separate meta-regressions and then averaged the results for this table to address multicollinearity between both moderators. Where information on one moderator was unavailable, we replaced it with the mean moderator score. $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$.

Appendix M Results of sub-group analysis on additional moderators

Relationship		k	Publication quality (ABS rating)	k	Research design (1 = survey, 0 = other methods)	k	Publication year	k	Age	k	Data type (1 = cross-section, 0 = time-series and panel)	k	US vs. non-US	k	Gender (% males)	k	Publication types (1 = article, 0 = conference and thesis)
Post Characteristics																	
Informational value → Attitude	r_1	16	.07	20	.48*	23	.00	17	-.02	18	.35	6	.46	20	-.01	21	.41
	r_0	—	—	3	-.21	—	—	—	—	0	—	10	.45	—	—	2	.41
Informational value → Behavioral engagement	r_1	15	-.19**	16	.49**	20	.04	14	.02	12	.52	4	.79**	15	.00	18	.45
	r_0	—	—	4	.09	—	—	—	—	3	.28	7	.37	—	—	2	.13
Informational value → Purchase intention	r_1	16	-.17	21	.58	27	-.00	23	.03**	21	.52**	8	.51	26	.00	25	.56
	r_0	—	—	6	.43	—	—	—	—	1	.91	10	.60	—	—	2	.30
Hedonic value → Attitude	r_1	7	-.10	9	.42	9	-.01	6	.00	8	.41	3	.47	7	.01	8	—
	r_0	—	—	0	—	—	—	—	—	0	—	5	.35	—	—	0	—
Hedonic value → Behavioral engagement	r_1	6	-.17*	6	.46	8	-.04	6	.02	3	.46	1	.57	6	.04**	7	.40*
	r_0	—	—	2	.01	—	—	—	—	3	.31	3	.51	—	—	1	.08
Hedonic value → Purchase intention	r_1	6	.10	9	.65	9	.02	8	.02*	8	.64	2	.36**	8	-.00	8	.63**
	r_0	—	—	0	—	—	—	—	—	1	.74	4	.66	—	—	1	.81
Sponsorship disclosure → Attitude	r_1	24	-.00	6	-.01	35	-.00	34	-.00	34	-.02	19	-.02	32	-.00	32	-.02
	r_0	—	—	29	-.01	—	—	—	—	0	—	8	.05	—	—	3	.07
Sponsorship disclosure → Behavioral engagement	r_1	15	.03	2	.10**	23	.02	18	.00	21	.01	5	.08**	17	-.00	21	.00
	r_0	—	—	21	-.01	—	—	—	—	0	—	6	-.05	—	—	2	.03
Sponsorship disclosure → Purchase intention	r_1	16	.21^{+}	5	.09	30	.01	30	-.01	28	.06	10	.03	30	.00	25	.05
	r_0	—	—	25	.05	—	—	—	—	0	—	8	.13	—	—	5	.08
Follower Characteristics																	
Social identity → Attitude	r_1	28	-.14	25	.55	34	-.00	26	-.00	32	.52	12	.49	30	-.00	32	.60**
	r_0	—	—	9	.45	—	—	—	—	0	—	14	.53	—	—	2	.38
Social identity → Behavioral engagement	r_1	22	-.05	21	.50	27	.05	24	.01	24	.51	7	.55	24	-.00	25	.53
	r_0	—	—	6	.56	—	—	—	—	1	.60	13	.51	—	—	2	.32
Social identity → Purchase intention	r_1	29	-.01	28	.54	38	-.04	31	.02*	35	.53**	12	.58	34	-.00	37	.55
	r_0	—	—	10	.53	—	—	—	—	1	.86	17	.56	—	—	1	.35
Consumer knowledge → Attitude	r_1	19	-.16	12	.49	26	.05	21	.00	24	.33	9	.27	23	.00	23	.33
	r_0	—	—	14	.20	—	—	—	—	0	—	10	.38	—	—	3	.38
Consumer knowledge → Behavioral engagement	r_1	17	-.11*	14	.38	22	.03	12	-.01	17	.36^{+}	6	.53	13	-.00	21	.28
	r_0	—	—	8	.13	—	—	—	—	2	.03	7	.38	—	—	1	.47
Consumer knowledge → Purchase intention	r_1	16	-.11	12	.54**	27	.04	24	.01	24	.37**	7	.37	25	.00	24	.34*
	r_0	—	—	15	.21	—	—	—	—	1	.05	11	.35	—	—	3	.56
Influencer Characteristics																	
Influencer–brand fit → Attitude	r_1	19	-.08	10	.52	24	-.05	24	-.01	23	.44	7	.46	21	-.01	22	.44
	r_0	—	—	14	.41	—	—	—	—	0	—	11	.47	—	—	2	.51
Influencer–brand fit → Behavioral engagement	r_1	9	-.12*	7	.24	10	-.02	8	-.04**	7	.29**	2	.28	8	.00	9	.18
	r_0	—	—	3	.05	—	—	—	—	2	-.02	4	.13	—	—	1	.34
Influencer–brand fit → Purchase intention	r_1	13	.11	12	.48	18	-.13*	18	.01	17	.44	3	.70*	18	-.01*	16	.42
	r_0	—	—	6	.39	—	—	—	—	0	—	12	.41	—	—	2	.64
Interaction strategies → Attitude	r_1	18	.15^{+}	21	.44	22	.11^{+}	18	-.01	19	.45	8	.45	21	.00	21	.44
	r_0	—	—	1	.49	—	—	—	—	0	—	7	.29	—	—	1	.47
Interaction strategies → Behavioral engagement	r_1	11	-.30	10	.36	14	-.12^{+}	10	-.01	12	.38*	5	.24	12	-.00	13	.34
	r_0	—	—	4	.25	—	—	—	—	1	.21	4	.40	—	—	1	.32
Interaction strategies → Purchase intention	r_1	13	.01	18	.45	18	.09	15	.01	16	.46	4	.26	17	-.00	17	.45
	r_0	—	—	0	—	—	—	—	—	0	—	8	.48	—	—	1	.40
Influencer indegree → Attitude	r_1	12	-.13	4	.41	14	-.13*	13	.01	10	.23	8	.06	21	-.00	14	.15
	r_0	—	—	10	.03	—	—	—	—	0	—	3	.08	—	—	0	—
Influencer indegree → Behavioral engagement	r_1	13	.05	7	.29*	18	.12^{+}	9	-.01	8	.09	3	-.08	8	-.00	17	.08
	r_0	—	—	11	-.08	—	—	—	—	5	-.05	4	.03	—	—	1	.02
Mediators																	
Persuasion knowledge → Attitude	r_1	14	.02	10	-.20	22	-.01	22	.00	22	-.15	6	-.03	19	.00	20	-.17
	r_0	—	—	12	-.12	—	—	—	—	0	—	10	-.09	—	—	2	-.05
Persuasion knowledge → Behavioral engagement	r_1	16	.09	12	-.16	22	-.03	20	-.03^{+}	21	-.21	4	-.10	20	-.00	21	-.22
	r_0	—	—	10	-.24	—	—	—	—	0	—	11	-.02	—	—	0	—
Persuasion knowledge → Purchase intention	r_1	8	-.05	8	-.30	16	-.08	16	-.00	16	-.17	3	.19	16	-.00	14	-.20
	r_0	—	—	8	-.02	—	—	—	—	0	—	8	-.14	—	—	2	.05
Source credibility → Attitude	r_1	64	.01	61	.57	89	.01	75	.00	83	.55^{+}	27	.53	79	-.00	83	.55
	r_0	—	—	28	.52	—	—	—	—	1	.63	35	.58	—	—	6	.56

Relationship		k	Publication quality (ABS rating)	k	Research design (1 = survey, 0 = other methods)	k	Publication year	k	Age	k	Data type (1 = cross-section, 0 = time-series and panel)	k	US vs. non-US	k	Gender (% males)	k	Publication types (1 = article, 0 = conference and thesis)
Source credibility → Behavioral engagement	r_1	43	-.07	42	.53^{+}	62	.04	49	.00	57	.50**	15	.51	50	-.00	57	.50
	r_0	—	—	20	.40	—	—	—	—	2	.04	25	.52	—	—	5	.40
Source credibility → Purchase intention	r_1	52	-.02	63	.55**	87	.03	76	.01	79	.51**	21	.45	80	-.00	79	.52
	r_0	—	—	23	.41	—	—	—	—	1	.24	40	.52	—	—	7	.50

We use meta-regression to test publication quality, publication year, age, and gender. The table shows inverse variance-weighted, reliability-adjusted average correlation. $^{**}p < .01$, $^{*}p < .05$, $^{+}p < .10$.

Appendix N List of included studies

Year	Author	Title	Source
2010	Chai & Kim	What makes bloggers share knowledge? An investigation on the role of trust	International Journal of Information Management
2013	Hsu, Lin, & Chiang	The effects of blogger recommendations on customers' online shopping intentions	Internet Research
2014	Hahn & Lee	Effect of psychological closeness on consumer attitudes toward fashion blogs: The moderating effect of fashion leadership and interpersonal LOV	Journal of Global Fashion Marketing
2014	Hsu, Huang, Ko, & Wang	Basing bloggers' power on readers' satisfaction and loyalty	Online Information Review
2014	Lu, Chang, & Chang	Consumer attitudes toward blogger's sponsored recommendations and purchase intention: The effect of sponsorship type, product type, and brand awareness	Computers in Human Behavior
2015	Colliander & Erlandsson	The blog and the bountiful: Exploring the effects of disguised product placement on blogs that are revealed by a third party	Journal of Marketing Communications
2015	Wang, Hsu, Huang, & Chen	How readers' perceived self-congruity and functional congruity affect bloggers' informational influence: Perceived interactivity as a moderator	Online Information Review
2017	Braatz	#Influencer marketing on Instagram: Consumer responses toward promotional posts: The effects of message sidedness	Master's Thesis
2017	de Rezende Pinto, Mota, Leite, & Alves	Investigating the influencers of materialism in adolescence	Tourism and Management Studies
2017	Evans, Phua, Lim, & Jun	Disclosing Instagram influencer advertising: The effects of disclosure language on advertising recognition, attitudes, and behavioral intent	Journal of Interactive Advertising
2017	Ewers	#Sponsored–influencer marketing on Instagram: An analysis of the effects of sponsorship disclosure, product placement, type of influencer and their interplay on consumer responses	Master's Thesis
2017	Magno	The influence of cultural blogs on their readers' cultural product choices	International Journal of Information Management
2018	De Jans, Cauberghe, & Hudders	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
2018	Evans, Hoy, & Childers	Parenting "YouTube natives": The impact of pre-roll advertising and text disclosures on parental responses to sponsored child influencer videos	Journal of Advertising
2018	Lê	Impact of social media influencer marketing on consumer at Ho Chi Minh City	The International Journal of Social Sciences and Humanities Invention
2018	Le, Dobele, & Robinson	WOM source characteristics and message quality: The receiver perspective	Marketing Intelligence and Planning
2018	Müller, Mattke, & Maier	#Sponsored# ad: Exploring the effect of influencer marketing on purchase intention	Americas Conference on Information Systems
2018	Nekmat & Gower	Effects of disclosure and message valence in online word-of-mouth (eWOM)	International Journal of Integrated Marketing Communications

Year	Author	Title	Source
		communication: Implications for integrated marketing communication	
2018	Soares	"Subscribe to my channel": The impact of digital influencers on attitude toward brand, purchase intention and brand attachment	Master's Thesis
2018	van Esch, Arli, Castner, Talukdar, & Northey	Consumer attitudes toward bloggers and paid blog advertisements: What's new?	Marketing Intelligence and Planning
2018	Wang	Internet celebrity's characteristics effect on consumer's impulsive purchasing behavior	Master's Thesis
2018	Zhang	Study on the influence of interactive marketing of web celebrity fashion shop on consumer purchasing behavior	Master's Thesis
2019	Al-Qatami	The effects of social media influencer attributes on collaborating brand credibility and advocacy	Master's Thesis
2019	Breves, Liebers, Abt, & Kunze	The perceived fit between Instagram influencers and the endorsed brand: How influencer–brand fit affects source credibility and persuasive effectiveness	Journal of Advertising Research
2019	Dhanesh & Duthler	Relationship management through social media influencers: Effects of followers' awareness of paid endorsement	Public Relations Review
2019	Hughes, Swaminathan, & Brooks	Driving brand engagement through online social influencers: An empirical investigation of sponsored blogging campaigns	Journal of Marketing
2019	Jiménez-Castillo & Sánchez-Fernández	The role of digital influencers in brand recommendation: Examining their impact on engagement, expected value and purchase intention	International Journal of Information Management
2019	Jin, Muqaddam, & Ryu	Instafamous and social media influencer marketing	Marketing Intelligence and Planning
2019	Ki & Kim	The mechanism by which social media influencers persuade consumers: The role of consumers' desire to mimic	Psychology and Marketing
2019	Kim, Lee, & Lee	Interplay of content type and product type in the consumer response to native advertising on social media	Asian Journal of Communication
2019	Liu, Liu, & Zhang	Vlog and brand evaluations: The influence of parasocial interaction	Asia Pacific Journal of Marketing and Logistics
2019	Lou & Kim	Fancying the new rich and famous? Explicating the roles of influencer content, credibility, and parental mediation in adolescents' parasocial relationship, materialism, and purchase intentions	Frontiers in Psychology
2019	Lou & Yuan	Influencer marketing: How message value and credibility affect consumer trust of branded content on social media	Journal of Interactive Advertising
2019	Lou, Tan, & Chen	Brand-promoted ads: The roles of source and disclosure	Journal of Interactive Advertising
2019	Munnukka, Maity, Reinikainen, & Luoma-aho	"Thanks for watching". The effectiveness of YouTube vlogendorsements	Computers in Human Behavior
2019	Nordmann	#Advertisement: The effects of sponsorship disclosure type and sponsorship disclosure position, mediated by advertisement recognition, on consumers' attitude, behavior	Master's Thesis

Year	Author	Title	Source
		and persuasion knowledge in the context of Instagram postings	
2019	Qu	The impact of influencer marketing on consumer purchasing behavior in Weibo	China Collective Economy
2019	Shareef, Mukerji, Dwivedi, Rana, & Islam	Social media marketing: Comparative effect of advertisement sources	Journal of Retailing and Consumer Services
2019	Stubb & Colliander	"This is not sponsored content"–The effects of impartiality disclosure and e-commerce landing pages on consumer responses to social media influencer posts	Computers in Human Behavior
2019	Stubb, Nyström, & Colliander	Influencer marketing: The impact of disclosing sponsorship compensation justification on sponsored content effectiveness	Journal of Communication Management
2019	Torres, Augusto, & Matos	Antecedents and outcomes of digital influencer endorsement: An exploratory study	Psychology and Marketing
2019	Wang	Research on the influence of online celebrity e-commerces' characteristics on fans' consumption behavior-from the perspective of para-social interaction theory	Master's Thesis
2020	Abdullahi	The effects of social media influencers' advertising disclosure on consumer responses on Instagram	International Journal of Contents
2020	Agila & Anthony	The effects of influencer type, brand familiarity, and sponsorship disclosure on purchase intention and brand engagement on Instagram	Dogo Rangsang Research Journal
2020	Argyris, Wang, Kim, & Yin	The effects of visual congruence on increasing consumers' brand engagement: An empirical investigation of influencer marketing on Instagram using deep-learning algorithms for automatic image classification	Computers in Human Behavior
2020	Boerman	The effects of the standardized Instagram disclosure for micro-and meso-influencers	Computers in Human Behavior
2020	Boerman & Van Reijmersdal	Disclosing influencer marketing on YouTube to children: The moderating role of para-social relationship	Frontiers in Psychology
2020	Casaló, Flavián, & Ibáñez-Sánchez	Influencers on Instagram: Antecedents and consequences of opinion leadership	Journal of Business Research
2020	Chetioui, Benlafqih, & Lebdaoui	How fashion influencers contribute to consumers' purchase intention	Journal of Fashion Marketing and Management
2020	Cox	Thanks for the free products! #ad": The effects of the number of followers and sponsorship disclosures on the credibility of Instagram influencers.	Master's Thesis
2020	Darmawan	Unbranded vs. branded direct-to-consumer advertising (dtca) using social media influencers: Examining the effects of message type and disclosure	Doctoral Dissertations
2020	De Jans & Hudders	Disclosure of vlog advertising targeted to children	Journal of Interactive Marketing
2020	De Veirman & Hudders	Disclosing sponsored Instagram posts: The role of material connection with the brand and message-sidedness when disclosing covert advertising	International Journal of Advertising
2020	Ditt	Keeping social media influencers influential: Preserving perceptions of authenticity while brand dropping	Doctoral Dissertations

Year	Author	Title	Source
2020	Eerde	Parasocial relationships and self-congruence in the domain of influencer marketing	Master's Thesis
2020	Han	Marketing internet celebrity and impulsive purchasing behavior—The moderating effects of decision thinking	Master's Thesis
2020	Hayes, Golan, Britt, & Applequist	How advertising relevance and consumer–Brand relationship strength limit disclosure effects of native ads on Twitter	International Journal of Advertising
2020	Iacobucci & Cicco	Users awareness of native advertising from Instagram media publishers: The effects of Instagram's branded content tool on attitudes and behavioral intent	International Journal of Internet Marketing and Advertising
2020	Jun & Yi	What makes followers loyal? The role of influencer interactivity in building influencer brand equity	Journal of Product and Brand Management
2020	Kapoor, Jayasimha, Sadh, & Gunta	eWOM via social networking site: Source versus message credibility	International Journal of Internet Marketing and Advertising
2020	Kay, Mulcahy, & Parkinson	When less is more: The impact of macro and micro social media influencers' disclosure	Journal of Marketing Management
2020	Ki, Cuevas, Chong, & Lim	Influencer marketing: Social media influencers as human brands attaching to followers and yielding positive marketing results by fulfilling needs	Journal of Retailing and Consumer Services
2020	Kuppeveld	The bright side of materialism: Disentangling the relationship between materialism and purchase intention in social influencer marketing	Master's Thesis
2020	Ladhari, Massa, & Skandrani	YouTube vloggers' popularity and influence: The roles of homophily, emotional attachment, and expertise	Journal of Retailing and Consumer Services
2020	Lee & Kim	Influencer marketing on Instagram: How sponsorship disclosure, influencer credibility, and brand credibility impact the effectiveness of Instagram promotional post	Journal of Global Fashion Marketing
2020	Liu	Analyzing and predicting the influences of e-commerce celebrities' sales based on data mining	Master's Thesis
2020	Liu, Zhang, & Zhang	The impact of self-congruity and virtual interactivity on online celebrity brand equity and fans' purchase intention	Journal of Product and Brand Management
2020	Lou, Ma, & Feng	A sponsorship disclosure is not enough? How advertising literacy intervention affects consumer reactions to sponsored influencer posts	Journal of Promotion Management
2020	Martínez-López, Anaya-Sánchez, Esteban-Millat, Torrez-Meruvia, D'Alessandro, & Miles	Influencer marketing: Brand control, commercial orientation and post credibility	Journal of Marketing Management
2020	Martínez-López, Anaya-Sánchez, Fernández Giordano, & Lopez-Lopez	Behind influencer marketing: Key marketing decisions and their effects on followers' responses	Journal of Marketing Management
2020	Park & Lin	The effects of match-ups on the consumer attitudes toward internet celebrities and their	Journal of Retailing and Consumer Services

Year	Author	Title	Source
		live streaming contents in the context of product endorsement	
2020	Quelhas-Brito, Brandão, Gadekar, & Castelo-Branco	Diffusing fashion information by social media fashion influencers: Understanding antecedents and consequences	Journal of Fashion Marketing and Management
2020	Reinikainen, Munnukka, Maity, & Luoma-aho	'You really are a great big sister'–parasocial relationships, credibility, and the moderating role of audience comments in influencer marketing	Journal of Marketing Management
2020	Sakib, Zolfagharian, & Yazdanparast	Does parasocial interaction with weight loss vloggers affect compliance? The role of vlogger characteristics, consumer readiness, and health consciousness	Journal of Retailing and Consumer Services
2020	Schouten, Janssen, & Verspaget	Influencer endorsements in advertising: The role of identification, credibility, and product-Endorser fit	International Journal of Advertising
2020	Shan, Chen, & Lin	When social media influencers endorse brands: The effects of self-influencer congruence, parasocial identification, and perceived endorser motive	International Journal of Advertising
2020	Sokolova & Kefi	Instagram and YouTube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions	Journal of Retailing and Consumer Services
2020	Taillon, Mueller, Kowalczyk, & Jones	Understanding the relationships between social media influencers and their followers: The moderating role of closeness	Journal of Product and Brand Management
2020	Trivedi & Sama	The effect of influencer marketing on consumers' brand admiration and online purchase intentions: An emerging market perspective	Journal of Internet Commerce
2020	van Reijmersdal & van Dam	How age and disclosures of sponsored influencer videos affect adolescents' knowledge of persuasion and persuasion	Journal of Youth and Adolescence
2020	van Reijmersdal, Rozendaal, Hudders, Vanwesenbeeck, Cauberghe, & van Berlo	Effects of disclosing influencer marketing in videos: An eye tracking study among children in early adolescence	Journal of Interactive Marketing
2020	Wang, Huang, & Davison	How do digital influencers affect social commerce intention? The roles of social power and satisfaction	Information Technology and People
2020	Woodroof, Howie, Syrdal, & VanMeter	What's done in the dark will be brought to the light: Effects of influencer transparency on product efficacy and purchase intentions	Journal of Product and Brand Management
2020	Wu	Research on the influence of web celebrity live broadcast on audience's irrational consumption behavior	Master's Thesis
2020	Yuan & Lou	How social media influencers foster relationships with followers: The roles of source credibility and fairness in parasocial relationship and product interest	Journal of Interactive Advertising
2021	Absharina, Yuriani, & Hendriana	The effectiveness of fashion influencers in influencing the purchase interest of millennial generation consumers in Indonesia	Journal of Business and Management Studies

Year	Author	Title	Source
2021	Acikgoz & Burnaz	The influence of 'influencer marketing' on YouTube influencers	International Journal of Internet Marketing and Advertising
2021	Almeida	Digital influencers: The impact that sponsorship disclosure has on consumers' purchase intentions	Doctoral Dissertations
2021	Andreani, Gunawan, & Haryono	Social media influencer, brand awareness, and purchase decision among generation z in Surabaya	Jurnal Manajemen Dan Kewirausahaan
2021	Argyris, Muqaddam, & Miller	The effects of the visual presentation of an influencer's extroversion on perceived credibility and purchase intentions—moderated by personality matching with the audience	Journal of Retailing and Consumer Services
2021	Aw & Chuah	"Stop the unattainable ideal for an ordinary me!" fostering parasocial relationships with social media influencers: The role of self-discrepancy	Journal of Business Research
2021	Balaban, Mucundorfeanu, & Naderer	The role of trustworthiness in social media influencer advertising: Investigating users' appreciation of advertising transparency and its effects	Communications
2021	Balaji, Jiang, & Jha	Nanoinfluencer marketing: How message features affect credibility and behavioral intentions	Journal of Business Research
2021	Belanche, Casaló, Flavián, & Ibáñez-Sánchez	Building influencers' credibility on Instagram: Effects on followers' attitudes and behavioral responses toward the influencer	Journal of Retailing and Consumer Services
2021	Breves, Amrehn, Heidenreich, Liebers, & Schramm	Blind trust? The importance and interplay of parasocial relationships and advertising disclosures in explaining influencers' persuasive effects on their followers	International Journal of Advertising
2021	Carr & Hayes	The effect of disclosure of third-party influence on an opinion leader's credibility and electronic word of mouth in two-step flow	Journal of Interactive Advertising
2021	Chen, Lin, & Shan	Influencer marketing in China: The roles of parasocial identification, consumer engagement, and inferences of manipulative intent	Journal of Consumer Behaviour
2021	Chen, Liu, Liu, Chang, & Yen	The influence of trust and relationship commitment to vloggers on viewers' purchase intention	Asia Pacific Journal of Marketing and Logistics
2021	Chen, Wen, & Silalahi	Parasocial interaction with YouTubers: Does sensory appeal in the YouTubers' video influences purchase intention?	International Conference on Social Sciences and Intelligent Management
2021	Chen, Xie, Zhang, & Li	Internet celebrities' impact on luxury fashion impulse buying	Journal of Theoretical and Applied Electronic Commerce Research
2021	Croes & Bartels	Young adults' motivations for following social influencers and their relationship to identification and buying behavior	Computers in Human Behavior
2021	De Cicco, Iacobucci, & Pagliaro	The effect of influencer–product fit on advertising recognition and the role of an enhanced disclosure in increasing sponsorship transparency	International Journal of Advertising
2021	Dean, Suhartanto, & Pujianti	Millennial behavioural intention in Islamic banks: The role of social media influencers	Journal of Islamic Marketing
2021	Dinh & Lee	"I want to be as trendy as influencers"–How "fear of missing out" leads to buying intention	Journal of Research in Interactive Marketing

Year	Author	Title	Source
		for products endorsed by social media influencers	
2021	Dube	The effect of sponsorship disclosure on consumers perception of source credibility and the likelihood to recommend organic hair care products	Master's Thesis
2021	Duh & Thabethe	Attributes of Instagram influencers impacting consumer brand engagement	International Journal of Internet Marketing and Advertising
2021	Farivar, Wang, & Yuan	para-social relationship: Key factors in influencer marketing	Journal of Retailing and Consumer Services
2021	Gong & Jiang	Analysis of the moderating effect of online celebrity on women's E-commerce price and sales	Journal of Beijing Institute of Fashion Technology (Natural Science Edition)
2021	Gräve & Bartsch	#Instafame: Exploring the endorsement effectiveness of influencers compared to celebrities	International Journal of Advertising
2021	Han, Yi, Jun, & Ahn	How do followers infer the motives behind an influencer's advertising disclosures?	Asia Pacific Journal of Marketing and Logistics
2021	Hashem	Impact of influencer marketing-three RS-on impulsive purchase behavior the moderating influence of gender	Journal of Positive Psychology & Wellbeing
2021	Hu	Research on the impact of live streaming E-commerce influencer performative marketing on consumers' impulsive buying behavior	Master's Thesis
2022	Janssen, Schouten, & Croes	Influencer advertising on Instagram: Product-influencer fit and number of followers affect advertising outcomes and influencer evaluations via credibility and identification	International Journal of Advertising
2021	Jin & Muqaddam	'Fame and Envy 2.0'in luxury fashion influencer marketing on Instagram: Comparison between mega-celebrities and micro-celebrities	Journal of Internet Marketing and Advertising
2021	Johnson, Bradshaw, Davis, Diegue, Frost, Hinds, & Wang	Credible influencers: Sponsored YouTube personalities and effects of warranting cues	Journal of Media Psychology: Theories, Methods, and Applications
2021	Jung & Im	The mechanism of social media marketing: Influencer characteristics, consumer empathy, immersion, and sponsorship disclosure	International Journal of Advertising
2021	Karaila	The role of social media influencer characteristics on consumer behavior	Bachelor's Thesis
2021	Kim & Kim	Influencer advertising on social media: The multiple inference model on influencer-product congruence and sponsorship disclosure	Journal of Business Research
2021	Kim, Duffy, & Thorson	Under the influence: Social media influencers' impact on response to corporate reputation advertising	Journal of Advertising
2021	Kiss	The impact of influencer credibility on purchase intention in the endorsement of sustainable products	Master's Thesis
2021	Lee	The effects of team identification on consumer purchase intention in sports influencer marketing: The mediation effect of ad content value moderated by sports influencer credibility	Cogent Business and Management
2021	Lee & Eastin	Perceived authenticity of social media influencers: Scale development and validation	Journal of Research in Interactive Marketing

Year	Author	Title	Source
2021	Lee & Johnson	Are they being authentic? The effects of self-disclosure and message sidedness on sponsored post effectiveness	International Journal of Advertising
2021	Lee, Chen, & Lee	How endorser-product congruity and self-expressiveness affect Instagram micro-celebrities' native advertising effectiveness	Journal of Product and Brand Management
2021	Lee, Sudarshan, Sussman, Bright, & Eastin	Why are consumers following social media influencers on Instagram? Exploration of consumers' motives for following influencers and the role of materialism	International Journal of Advertising
2021	Leite & Baptista	The effects of social media influencers' self-disclosure on behavioral intentions: The role of source credibility, parasocial relationships, and brand trust	Journal of Marketing Theory and Practice
2021	Leite, & de Paula Baptista	Influencers' intimate self-disclosure and its impact on consumers' self-brand connections: Scale development, validation, and application	Journal of Research in Interactive Marketing
2021	Li & Peng	Influencer marketing: Purchase intention and its antecedents	Marketing Intelligence and Planning
2021	Meng, Duan, Zhao, Lü, & Chen	The impact of online celebrity in livestreaming E-commerce on purchase intention from the perspective of emotional contagion	Journal of Retailing and Consumer Services
2021	Muda & Hamzah	Should I suggest this YouTube clip? The impact of UGC source credibility on eWOM and purchase intention	Journal of Research in Interactive Marketing
2021	Naderer, Matthes, & Schäfer	Effects of disclosing ads on Instagram: The moderating impact of similarity to the influencer	International Journal of Advertising
2021	Park, Lee, Xiong, Septianto, & Seo	David and goliath: When and why micro-influencers are more persuasive than mega-influencers	Journal of Advertising
2021	Pfeuffer & Huh	Effects of different sponsorship disclosure message types on consumers' trust and attitudes	International Journal of Advertising
2021	Pinda	The determinant factors of purchase intention in the culinary business in Indonesia that mediated by parasocial interaction and food vlogger credibility	Turkish Journal of Computer and Mathematics Education (TURCOMAT)
2021	Pinto & Paramita	Social media influencer and brand loyalty on generation Z: The mediating effect of purchase intention	Diponegoro International Journal of Business
2021	Purwanto	#I envy, therefore, I buy!#: The role of celebgram trustworthiness and para-social interactions in consumer purchase intention	Jurnal Manajemen dan Kewirausahaan
2021	Qian & Park	Influencer-brand fit and brand dilution in China's luxury market: The moderating role of self-concept clarity	Journal of Brand Management
2021	Rodrigues	The impact of social media influencers on consumer perception about the product and purchase intention	Doctoral Dissertations
2021	Sánchez-Fernández & Jiménez-Castillo	How social media influencers affect behavioral intentions toward recommended brands: The role of emotional attachment and information value	Journal of Marketing Management
2021	Sokolova & Perez	You follow fitness influencers on YouTube. But do you actually exercise? How parasocial relationships, and watching fitness influencers, relate to intentions to exercise	Journal of Retailing and Consumer Services

Year	Author	Title	Source
2021	Tafesse & Wood	Followers' engagement with Instagram influencers: The role of influencers' content and engagement strategy	Journal of Retailing and Consumer Services
2021	Tan, Geng, Katsumata, & Xiong	The effects of ad heuristic and systematic cues on consumer brand awareness and purchase intention: Investigating the bias effect of heuristic information processing	Journal of Retailing and Consumer Services
2021	Van Cottem & STEILS	A study of influencer marketing on Instagram, TikTok and YouTube: The effects of parasocial interactions, openness, perceived interactivity, persuasion knowledge and correspondence bias	Master's Thesis
2021	von Mettenheim, & Wiedmann	The complex triad of congruence issues in influencer marketing	Journal of Consumer Behaviour
2021	Wang	Research on impulsive purchase behavior of cosmetics consumer under KOL marketing	Master's Thesis
2021	Wang & Hu	Influence of self-disclosure of Internet celebrities on normative commitment: The mediating role of para-social interaction	Journal of Research in Interactive Marketing
2021	Wei, Singh, & Kularajasingam	Impact of social media influencers on purchasing intention toward pet products. a quantitative study among females in Malaysia	Electronic Journal of Business and Management
2021	Xu, Islam, Liang, Akhtar, & Shahzad	'I'm like you, and I like what you like' sustainable food purchase influenced by vloggers: A moderated serial-mediation model	Journal of Retailing and Consumer Services
2021	Yan	Research on influencing factors of consumer's impulsive buying behavior in E-commerce live broadcast	Master's Thesis
2021	Yang	Advertising recognition and persuasion in the context of sponsored influencer content: Effects of disclosure prominence, message involvement, and persuasion knowledge	Doctoral Dissertations
2021	Yılmazdoğan, Doğan, & Altıntaş	The impact of the source credibility of Instagram influencers on travel intention: The mediating role of parasocial interaction	Journal of Vacation Marketing
2021	Zafar, Qiu, Li, Wang, & Shahzad	The impact of social media celebrities' posts and contextual interactions on impulse buying in social commerce	Computers in Human Behavior
2021	Zhang	Analysis of traditional motor structure principle and its teaching strategy	Journal of Changsha University
2021	Zia, Zahra, & Hayat	Instagram beauty influencers and purchase decisions: Exploring The mediating role of source credibility	VFAST Transactions on Education and Social Sciences
2021	Zogaj, Tscheulin, & Olk	Benefits of matching consumers' personality: Creating perceived trustworthiness via actual self-congruence and perceived competence via ideal self-congruence	Psychology and Marketing
2022	AlRabiah, Marder, Marshall, & Angell	Too much information: An examination of the effects of social self-disclosure embedded within influencer eWOM campaigns	Journal of Business Research
2022	Asan	Measuring the impacts of travel influencers on bicycle travelers	Current Issues in Tourism
2022	Aw, Tan, Chuah, Ooi, & Hajli	Be my friend! Cultivating parasocial relationships with social media influencers: Findings from PLS-SEM and fsQCA	Information Technology and People
2022	Baig & Shahzad	Impact of social media influencer's credibility dimensions on consumer behavior: An empirical study related to influencer marketing on Pakistan's fashion industry	Master's Thesis

Year	Author	Title	Source
2022	Balaban, Mucundorfeanu, & Mureşan	Adolescents' understanding of the model of sponsored content of social media influencer Instagram stories	Media and Communication
2022	Boerman & Müller	Understanding which cues people use to identify influencer marketing on Instagram: An eye tracking study and experiment	International Journal of Advertising
2022	Breves & Liebers	The impact of parasocial relationships with social media influencers on advertising effectiveness and followers' pro-environmental intentions	Environmental Communication
2022	Bu, Parkinson, & Thaichon	Influencer marketing: Sponsorship disclosure and value co-creation behavior	Marketing Intelligence and Planning
2022	Bu, Parkinson, & Thaichon	Influencer marketing: Homophily, customer value co-creation behavior and purchase intention	Journal of Retailing and Consumer Services
2022	Cheung, Leung, Aw, & Koay	"I follow what you post!": The role of social media influencers' content characteristics in consumers' online brand-related activities (COBRAs)	Journal of Retailing and Consumer Services
2022	Corovic	The effects of social media influencers sponsored content on materialism, social comparison and life satisfaction	Master's Thesis
2022	Coyle	The impact of brand awareness on purchase intention among consumers using social media	Doctoral Dissertations
2022	Darmawan & Huh	The effects of message type and sponsorship disclosure in influencer marketing of prescription drugs	Journal of Global Marketing
2022	El-Naga, Salam, & Yahya	Investigating the impact of influencers content value on followers purchase intentions: An application on YouTube influencers in developing countries	International Journal of Social Science And Human Research
2022	Fakhreddin & Foroudi	Instagram influencers: The role of opinion leadership in consumers' purchase behavior	Journal of Promotion Management
2022	Farivar & Wang	Effective influencer marketing: A social identity perspective	Journal of Retailing and Consumer Services
2022	Farivar, Wang, & Turel	Followers' problematic engagement with influencers on social media: An attachment theory perspective	Computers in Human Behavior
2022	Fazli-Salehi, Jahangard, Torres, Madadi, & Zúñiga	Social media reviewing channels: The role of channel interactivity and vloggers' self-disclosure in consumers' parasocial interaction	Journal of Consumer Marketing
2022	Geng	The impact of content marketing-based influencer fashion brands on consumer purchase behavior	Liaoning Tussah Silk
2022	Hudders, Lou, & de Brabandere	Understanding the impact of influencers' responses to negative follower comments on the persuasiveness of sponsored Instagram posts	International Journal of Advertising
2022	Hulsmeijer	Influence of food influencers on consumption of healthy food	Master's Thesis
2022	Hwang & Zhang	Influence of parasocial relationship between digital celebrities and their followers on followers' purchase and electronic word-of-mouth intentions, and persuasion knowledge	Computers in Human Behavior
2022	Ibáñez-Sánchez, Flavián, Casaló, & Belanche	Influencers and brands successful collaborations: A mutual reinforcement to promote products and services on social media	Journal of Marketing Communications

Year	Author	Title	Source
2022	Jamil & Qayyum	Word of mouse vs word of influencer? An experimental investigation into the consumers' preferred source of online information	Management Research Review
2022	Ju & Lou	Does influencer–follower relationship matter? Exploring how relationship norms and influencer–product congruence affect advertising effectiveness across product categories	Journal of Interactive Advertising
2022	Kapoor, Balaji, Jiang, & Jebarajakirthy	Effectiveness of travel social media influencers: A case of eco-friendly hotels	Journal of Travel Research
2022	Ki, Chow, & Li	Bridging the trust gap in influencer marketing: Ways to sustain consumers' trust and assuage their distrust in the social media influencer landscape	International Journal of Human–Computer Interaction
2022	Ki, Park, & Kim	Investigating the mechanism through which consumers are "inspired by" social media influencers and "inspired to" adopt influencers' exemplars as social defaults	Journal of Business Research
2022	Kim	How can I be as attractive as a fitness YouTuber in the era of COVID-19? The impact of digital attributes on flow experience, satisfaction, and behavioral intention	Journal of Retailing and Consumer Services
2022	Kim	Keeping up with influencers: Exploring the impact of social presence and parasocial interactions on Instagram	International Journal of Advertising
2022	Kim	Patient influencers' promotion of prescription drugs on Instagram: Effects of illness disclosure on persuasion knowledge through narrative transportation	International Journal of Advertising
2022	Kim & Kim	Factors affecting the attitudes and behavioral intentions of followers toward advertising content embedded within YouTube influencers' videos	Journal of Promotion Management
2022	Kim & Kim	Social media influencers as human brands: An interactive marketing perspective	Journal of Research in Interactive Marketing
2022	Koay, Cheung, Soh, & Teoh	Social media influencer marketing: The moderating role of materialism	European Business Review
2022	Kurdi, Alshurideh, Akour, Tariq, AlHamad, & Alzoubi	The effect of social media influencers' characteristics on consumer intention and attitude toward Keto products purchase intention	International Journal of Data and Network Science
2022	Lee & Lee	Do parasocial interactions and vicarious experiences in the beauty YouTube channels promote consumer purchase intention?	International Journal of Consumer Studies
2022	Leggett	Social media influencers: An examination of influence throughout the customer journey	Doctoral Dissertations
2022	Leung, Gu, Li, Zhang, & Palmatier	Influencer marketing effectiveness	Journal of Marketing
2022	Liang, Yuan, & Xie	Mechanism study of live streaming customers purchase behavior based on ABC belief theory	Soft Science
2022	Lou, Taylor, & Zhou	Influencer marketing on social media: How different social media platforms afford influencer–follower relation and drive advertising effectiveness	Journal of Current Issues and Research in Advertising

Year	Author	Title	Source
2022	Myers, Sen, Syrdal, & Woodroof	The impact of persuasion knowledge cues on social media engagement: A look at pet influencer marketing	Journal of Marketing Theory and Practice
2022	Özbölük & Akdoğan	The role of online source credibility and influencer identification on consumers' purchase decisions	International Journal of Internet Marketing and Advertising
2022	Pop, Săplăcan, Dabija, & Alt	The impact of social media influencers on travel decisions: The role of trust in consumer decision journey	Current Issues in Tourism
2022	Rasmussen, Riggs, & Sauermilch	Kidfluencer exposure, materialism, and US tweens' purchase of sponsored products	Journal of Children and Media
2022	Sanosra & Susanti	Analysis of the effect of influencer and social media engagement on sales level with brand image as intervening variable (Study on the coffee industry in Banyuwangi)	International Conference on Accounting, Management and Economics
2022	Schippers	To buy or not to buy? The role of influencer marketing in the development of materialistic mindsets and intentions	Master's Thesis
2022	Sesar, Martinčević, & Boguszewicz-Kreft	Relationship between advertising disclosure, influencer credibility and purchase intention	Journal of Risk and Financial Management
2022	Shabahang, Aruguete, Shim, Koushali, & Zsila	Desire to be a social media influencer: Desire for fame, materialism, perceived deprivation and preference for immediate gratification as potential determinants	Media Watch
2022	Shamim & Islam	Digital influencer marketing: How message credibility and media credibility affect trust and impulsive buying	Journal of Global Scholars of Marketing Science
2022	Silaban, Silalahi, Octoyuda, Sitanggang, Hutabarat, & Sitorus	Understanding hedonic and utilitarian responses to product reviews on YouTube and purchase intention	Cogent Business & Management
2022	Steils, Martin, & Toti	Managing the transparency paradox of social-media influencer disclosures: How to improve authenticity and engagement when disclosing influencer–sponsor relationships	Journal of Advertising Research
2022	Sugiarto, Simanjuntak, & Hasanah	The role of e-marketing mix, influencer, and followers engagement toward product purchasing decisions	Jurnal Aplikasi Bisnis dan Manajemen
2022	Wies, Bleier, & Edeling	Finding goldilocks influencers: How follower count drives social media engagement	Journal of Marketing
2022	Xie & Feng	How to strategically disclose sponsored content on Instagram? The synergy effects of two types of sponsorship disclosures in influencer marketing	International Journal of Advertising
2022	Yang	A study on the effect of match and interaction on consumers' impulsive purchase in Internet celebrity hosts' marketing	Master's Thesis
2022	Yang	The effects of sponsorship disclosures, advertising knowledge, and message involvement in sponsored influencer posts	International Journal of Advertising
2022	Yangkluna, Ketkaew, Wongwandee, Phacharoen, & Dansiri	Factors of micro influencers affecting purchase decision of millennial consumers via electronic Word-of-Mouth (e-WOM)	UBRU International Journal Ubon Ratchathani Rajabhat University

Year	Author	Title	Source
2022	Yuan, Yeh, Wu, Liu, Chen, & Chen	The study of para-social interaction with e-word-of-mouth for influencer marketing by complex computing	Journal of Organizational and End User Computing
2022	Zakaria, Ahmad, Syed Ahmad Alhady, & Mat Seman	The effectiveness of influencer on consumer's purchase decision	International Journal of Accounting, Finance and Business
2022	Zhang & Huang	Viral marketing: Influencer marketing pivots in tourism–a case study of meme influencer instigated travel interest surge	Current Issues in Tourism
2022	Zhou, Jin, Wu, Wang, Wang, & Chen	Understanding the role of influencers on live streaming platforms: When tipping makes the difference	European Journal of Marketing
2023	Al Kurdi & Alshurideh	The effect of social media influencer traits on consumer purchasing decisions for keto products: Examining the moderating influence of advertising repetition	Journal of Marketing Communications
2023	Al-Sous, Almajali, & Alsokkar	Antecedents of social media influencers on customer purchase intention: Empirical study in Jordan	International Journal of Data and Network Science
2023	Barta, Belanche, Fernández, & Flavián	Influencer marketing on TikTok: The effectiveness of humor and followers' hedonic experience	Journal of Retailing and Consumer Services
2023	Beichert, Bayerl, Goldenberg, & Lanz	Revenue generation through influencer marketing	Journal of Marketing
2023	Brüns & Meißner	Show me that you are advertising: Visual salience of products attenuates detrimental effects of persuasion knowledge activation in influencer advertising	Computers in Human Behavior
2023	Chan, Hung, & Tse	Comparing e-commerce micro-and macro-influencers in TikTok videos: Effects of strategies on audience likes, audience shares, and brand sales	Journal of Interactive Advertising
2023	Chen, Silaban, Hutagalung, & Silalahi	How Instagram influencers contribute to consumer travel decision: Insights from SEM and fsQCA	Emerging Science Journal
2023	Chen, Yan, & Smith	What drives digital engagement with sponsored videos? An investigation of video influencers' authenticity management strategies	Journal of the Academy of Marketing Science
2023	De Keyzer	#ThisIsSustainable: The effect of disclosures in influencer marketing for sustainable food. sustainability	Sustainability
2023	Dewi & Gunanto	The effect of e-WOM, halal awareness, influencer marketing and lifestyle to the purchase decision of imported packaged food products	Indonesian Journal of Islamic Economics Research
2023	Dhun & Dangi	Influencer marketing: Role of influencer credibility and congruence on brand attitude and eWOM	Journal of Internet Commerce
2023	Filieri, Acikgoz, Li, & Alguezaui	Influencers' "organic" persuasion through electronic word of mouth: A case of sincerity over brains and beauty	Psychology and Marketing
2023	Gamage & Ashill	#Sponsored-influencer marketing: Effects of the commercial orientation of influencer-created content on followers' willingness to search for information	Journal of Product and Brand Management

Year	Author	Title	Source
2023	Gu, Zhang, & Kannan	Influencer mix strategies in livestream commerce: Impact on product sales	Journal of Marketing
2023	Han	Marketing Internet celebrity's characteristics effect on impulsive purchasing behavior	Shanghai Management Science
2023	Iqbal, Ali, Iqbal, Ismail, & Ali	Unveiling the black box of influencer marketing: The moderating role of parasocial interaction and persuasion knowledge	International Journal of Social Science and Entrepreneurship
2023	Jiao, Sarigöllü, Lou, & Huang	How streamers foster consumer stickiness in live streaming sales	Journal of Theoretical and Applied Electronic Commerce Research
2023	Kristianto, Kusmaningtyas, & Susanti	Mediating effect of creative information advertising on online marketplace, market reach, and influencer marketing toward product sales	International Journal of Professional Business Review
2023	Kumar, Nawaz, & Samerguy	The power of social media fitness influencers on supplements: How they affect buyer's purchase decision?	International Journal of Pharmaceutical and Healthcare Marketing
2023	Liu	Research on the influence of the characteristics of internet celebrity on consumers' irrational consumption behavior in webcast	Master's Thesis
2023	Mahmud, Heryanto, Muzaki, & Mustikasari	The influence of hedonic motivation, influencer marketing on purchase decision with fomo (fear of missing out) as mediation	International Journal of Professional Business Review
2023	Malik, Thapa, & Paswan	Social media influencer (SMI) as a human brand–a need fulfillment perspective	Journal of Product and Brand Management
2023	Niloy, Alam, & Alom	Influencer marketing: Factors influencing a customer's purchase intention	Asian Journal of Business Environment
2023	Nurniati, Savitri, & Faddila	Electronic word of mouth (e-WOM) and influencer marketing strategy on purchase decision of skincare products in marketplace	International Journal of Economics Development Research
2023	Pradhan, Kuanr, Anupurba Pahi, & Akram	Influencer marketing: When and why gen Z consumers avoid influencers and endorsed brands	Psychology and Marketing
2023	Pratiwi, Hardini, & Digdowiseiso	The effect of product quality, brand image, and social media influencer on purchase decision of Scarlett Whitening Product on social media Instagram in DKI Jakarta	Jurnal Syntax Admiration
2023	Ren, Karimi, Velázquez, & Cai	Endorsement effectiveness of different social media influencers: The moderating effect of brand competence and warmth	Journal of Business Research
2023	Sun	Factors influencing consumer behavior in live marketing models based on structural equation model	China Collective Economy
2023	ur Rehman, Parvaiz, Shakeel, Iqbal, & Zainab	Impact of social media influencer interactivity and authenticity on impulsive buying behavior: Mediating role of attitude and brand attachment	Journal of Policy Research
2023	van der Bend, Gijsman, Bucher, Shrewsbury, van Trijp, & van Kleef	Can I@ handle it? The effects of sponsorship disclosure in TikTok influencer marketing videos with different product integration levels on adolescents' persuasion knowledge and brand outcomes	Computers in Human Behavior
2023	Wang	Research on the influencing factors of "online live broadcast with goods" on higher vocational students' consumption behavior	Journal of Guangdong Communication Polytechnic
2023	Wang & Dai	Research on the influencing factors of college students' consumer behavior in the context of influencer live streaming	Journal of Jiujiang University

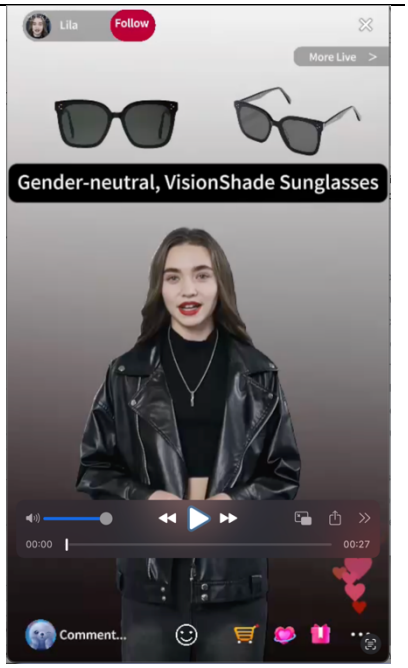
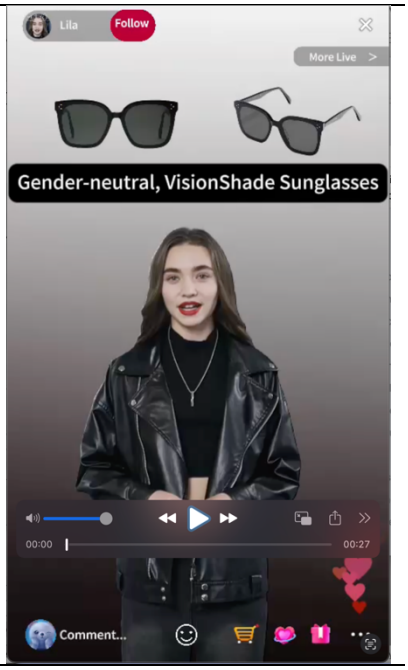
Year	Author	Title	Source
2023	Yaqub, Atif, & Waseem	Unveiling the dynamics: Exploring the stimulus-organism-response (SOR) model in the context of social media influencer marketing, electronic word of mouth, and purchase decisions, with a focus on the mediating role of brand awareness	Bulletin of Business and Economics
2023	Yeo, Tan, Lim, Teo, & Liew	Social media influencer marketing: A game-changer for consumer mobile buying decisions. In 2023 international conference on digital applications	International Conference on Digital Applications, Transformation & Economy
2023	Zheng, Huang, Qiu, & Bai	The role of social media followers' agency in influencer marketing: A study based on the heuristic–systematic model of information processing	International Journal of Advertising

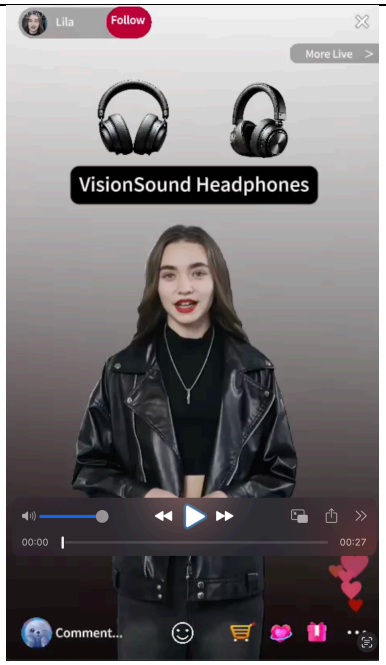
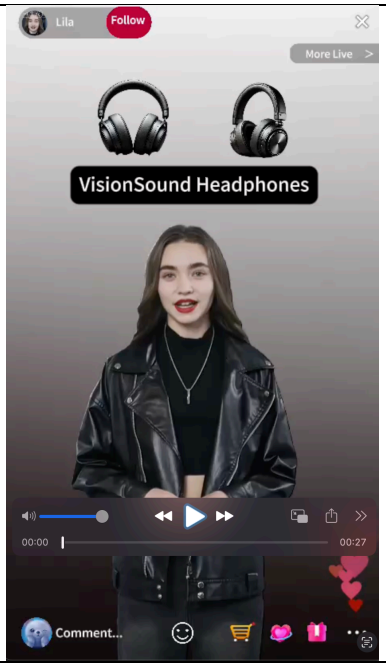
Appendix O Stimuli materials of Study 1

Condition	Word description	Video screenshot
Condition 1: Human influencer	Imagine you are browsing a live streaming platform and come across a session hosted by Lila, a human influencer specializing in lifestyle and fashion. Next page is a video of her live streaming.	
Condition 2: AI clone	Imagine you are browsing a live streaming platform and come across a session hosted by the digital version of Lila (Lila is a real human influencer but here you only see her digital version). With the help of advanced artificial intelligence technologies, Lila, who specializes in lifestyle and fashion, creates a digital twin to host live streams. Next page is a video of her digital twin's live streaming session.	

Condition 3: Pure AI	Imagine you are browsing a live streaming platform and come across a session hosted by Lila, an AI influencer (with no human counterpart) specializing in lifestyle and fashion. Powered by advanced artificial intelligence technologies, Lila delivers a live-streaming experience. Next page is a video of her live streaming.	

Appendix P Stimuli materials of Study 2

Condition	Word description	Video screenshot
Condition 1: AI clone* Sunglasses	Imagine you are browsing a live streaming platform and come across a session hosted by the digital version of Lila (Lila is a real human influencer but here you only see her digital version). While Lila is a real human influencer specializing in fashion products, this session is hosted by her AI-powered digital twin, created using advanced artificial intelligence technologies. On the next page, you will see a video of her digital twin's livestream. Now, let us watch the livestreaming session hosted by the digital version of Lila (Lila is a real human influencer but here you only see her digital version).	
Condition 2: Pure AI * Sunglasses	Imagine you are browsing a live streaming platform and come across a session hosted by Lila, a pure AI influencer created entirely by artificial intelligence with no real human counterpart. Specializing in fashion products, Lila delivers a live streaming session powered by advanced artificial intelligence technologies. On the next page, you will see a video of her livestream. Now, let us watch the livestreaming session hosted by a pure AI influencer created entirely by artificial intelligence with no real human counterpart.	

Condition 3: AI clone * Headphones	Imagine you are browsing a live streaming platform and come across a session hosted by the digital version of Lila (Lila is a real human influencer but here you only see her digital version). While Lila is a real human influencer specializing in high-tech products, this session is hosted by her AI-powered digital twin, created using advanced artificial intelligence technologies. On the next page, you will see a video of her digital twin's livestream. Now, let us watch the livestreaming session hosted by the digital version of Lila (Lila is a real human influencer but here you only see her digital version).	
Condition 4: Pure AI * Headphones	Imagine you are browsing a live streaming platform and come across a session hosted by Lila, a pure AI influencer created entirely by artificial intelligence with no real human counterpart. Specializing in high-tech products, Lila delivers a live streaming session powered by advanced artificial intelligence technologies. On the next page, you will see a video of her livestream. Now, let us watch the livestreaming session hosted by a pure AI influencer created entirely by artificial intelligence with no real human counterpart.	

Appendix Q Two-way ANOVA results of alternative mediators

Dependent Variable	Influencer Type		Product Type		Interaction (Influencer × Product Type)		Mean			
	F	p-value	F	p-value	F	p-value	AI Clone, Sunglasses	Pure AI, Sunglasses	AI Clone, Headphone	Pure AI, Headphone
Source credibility	11.89	0.00 ***	0.62	0.43	0.89	0.35	2.73	2.30	2.71	2.47
Perceived warmth	0.81	0.37	0.63	0.43	0.19	0.67	3.03	2.88	3.07	3.02
Perceived competence	2.41	0.12	1.99	0.16	0.06	0.80	2.99	2.79	3.12	2.98
Parasocial relationship	5.23	0.02 *	2.25	0.13	1.14	0.29	2.13	1.80	2.17	2.05

Appendix R Moderated mediation results of alternative mediators

DVs	Mediator	Direct_Effect	Direct_t	Direct_p	Direct_LLCI	Direct_ULCI	Index_Moderated_Mediation	Index_LLCI	Index_ULCI
Engagement	Source credibility	0.19	2.266	0.024	0.025	0.354	0.16	-0.176	0.503
Engagement	Perceived warmth	-0.037	-0.401	0.688	-0.22	0.146	0.063	-0.233	0.346
Engagement	Perceived competence	0.011	0.115	0.909	-0.173	0.194	0.037	-0.248	0.321
Engagement	PSR	0.143	2.884	0.004	0.046	0.241	0.229	-0.176	0.649
Willingness to pay	Source credibility	4.481	1.881	0.061	-0.206	9.167	1.508	-1.627	4.894
Willingness to pay	Perceived warmth	2.511	1.084	0.279	-2.044	7.066	0.756	-2.544	4.489
Willingness to pay	Perceived competence	3.142	1.362	0.174	-1.397	7.682	0.456	-3.06	4.254
Willingness to pay	PSR	3.942	1.719	0.087	-0.569	8.453	2.069	-1.614	6.271
Purchase intention	Source credibility	0.32	3.527	0	0.141	0.498	0.133	-0.14	0.414
Purchase intention	Perceived warmth	0.13	1.339	0.181	-0.061	0.32	0.052	-0.179	0.295
Purchase intention	Perceived competence	0.167	1.716	0.087	-0.024	0.359	0.029	-0.209	0.267
Purchase intention	PSR	0.283	4.081	0	0.146	0.419	0.193	-0.166	0.545
Customer stickiness	Source credibility	0.159	1.913	0.057	-0.004	0.323	0.138	-0.158	0.427
Customer stickiness	Perceived warmth	-0.038	-0.416	0.678	-0.216	0.141	0.054	-0.189	0.307
Customer stickiness	Perceived competence	0.002	0.021	0.983	-0.178	0.182	0.031	-0.212	0.284
customer stickiness	PSR	0.129	2.493	0.013	0.027	0.23	0.207	-0.164	0.606