

Consumer responses to deepfake and synthetic influencer endorsements: An empirical study of perceived credibility, trust, and purchase intention

Rajakumari R, Vennila P

Assistant Professor, Department of Commerce, Kovai Kalaimagal College of Arts and Science, Coimbatore, Tamil Nadu, India

DOI: <https://doi.org/10.66856/ijcmr.2026.12.3.12233>

Abstract

The rapid diffusion of generative artificial intelligence has enabled brands to deploy deepfake videos and fully synthetic (virtual) influencers as endorsers on social media, raising questions about how consumers evaluate the credibility of non-human or digitally manipulated sources. Grounded in Source Credibility Theory and the Elaboration Likelihood Model, this study empirically examines how perceived credibility of deepfake and synthetic influencer endorsements shapes consumer trust and, in turn, purchase intention. A quantitative, descriptive-cum-causal research design was employed. Data were collected through a structured questionnaire using a 5-point Likert scale administered to 350 social-media users who had been exposed to influencer marketing content. Purposive/convenience sampling was used to reach the target respondent group. Data were analysed using SPSS and SmartPLS, including descriptive statistics, reliability and validity testing, exploratory factor analysis, correlation, regression, and structural equation modelling (SEM), with mediation analysis used to test the indirect effect of trust. Findings indicate that perceived credibility exerts a significant positive effect on trust, and that trust significantly and partially mediates the credibility-purchase intention relationship, while authenticity concerns and disclosure of synthetic origin moderate these effects. The study contributes to the emerging literature on AI-mediated endorsements and offers practical guidance for marketers and regulators on the ethical use of synthetic endorsers.

Keywords: Deepfake marketing, synthetic/virtual influencers, source credibility, consumer trust, purchase intention, influencer marketing, SEM

Introduction

Influencer marketing has become a central pillar of digital brand communication, with global spending on influencer campaigns growing exponentially over the past decade. A recent development within this landscape is the emergence of deepfake-generated endorsement videos and entirely computer-generated "virtual" or "synthetic" influencers, who interact with audiences much like human influencers but are produced or manipulated using artificial intelligence. Brands increasingly experiment with such synthetic endorsers because they are scalable, controllable, and free from the reputational risks associated with human celebrities.

However, the same characteristics that make synthetic influencers attractive to marketers—their artificiality, uncanny realism, and potential for deception—also raise concerns about consumer trust, authenticity, and ethical transparency. When audiences discover, or merely suspect, that an endorsement is not genuinely human, this may undermine perceived credibility, erode trust in the endorser and the brand, and depress purchase intention. Yet the empirical evidence on how consumers actually respond to deepfake and synthetic endorsements remains fragmented and inconclusive.

This study therefore investigates the following research questions: (i) How do consumers perceive the credibility of deepfake and synthetic influencer endorsements? (ii) How does perceived credibility influence consumer trust? (iii) Does trust mediate the relationship between perceived credibility and purchase intention? The study aims to develop and empirically test a research model linking

perceived credibility, trust, and purchase intention in the context of AI-generated endorsements, using a structured quantitative survey of social-media users.

Literature Review and Hypotheses Development

1. Deepfake and Synthetic Influencer Endorsements

Deepfake technology uses deep-learning techniques to synthesise or manipulate audio-visual content so that a person appears to say or do something they did not. In marketing, this technology has been used to create hyper-personalised or AI-voiced endorsement videos, while a related but distinct category fully synthetic or "virtual" influencers are computer generated characters with no human referent at all, who nonetheless build follower relationships on platforms such as Instagram and TikTok. Prior work has examined how disclosure of a video's synthetic origin affects purchase intention, and how deepfake advertisements shape booking and shopping intentions in tourism and retail contexts.

2. Perceived Credibility

Source Credibility Theory holds that a communicator's persuasive power depends on the audience's perception of the source's expertise, trustworthiness, and attractiveness. Ohanian's widely used credibility scale operationalises these dimensions and has since been extended to social-media and virtual-influencer contexts. Because synthetic endorsers lack an authentic lived experience, consumers may apply different credibility heuristics—such as perceived realism, novelty, and transparency of AI disclosure when evaluating them, compared with human endorsers.

3. Consumer Trust

Trust reflects a consumer's willingness to rely on an endorser's or brand's claims under conditions of uncertainty. Research on influencer marketing has shown that message value and source credibility jointly shape consumers' trust in branded social-media content, and that trust functions as a critical psychological bridge between credibility perceptions and downstream behavioural intentions.

4. Purchase Intention

Purchase intention represents the self-reported likelihood that a consumer will buy a product following exposure to an endorsement. Studies on virtual influencers report mixed findings: some show virtual influencers can match or even exceed human influencers on selected credibility

dimensions, while others find that perceived artificiality reduces trustworthiness and dampens purchase intention, particularly when the synthetic nature of the content is made salient.

5. Hypotheses

- **H1:** Perceived credibility of deepfake/synthetic influencer endorsements positively influences consumer trust.
- **H2:** Perceived credibility positively influences purchase intention.
- **H3:** Consumer trust positively influences purchase intention.
- **H4:** Consumer trust mediates the relationship between perceived credibility and purchase intention.

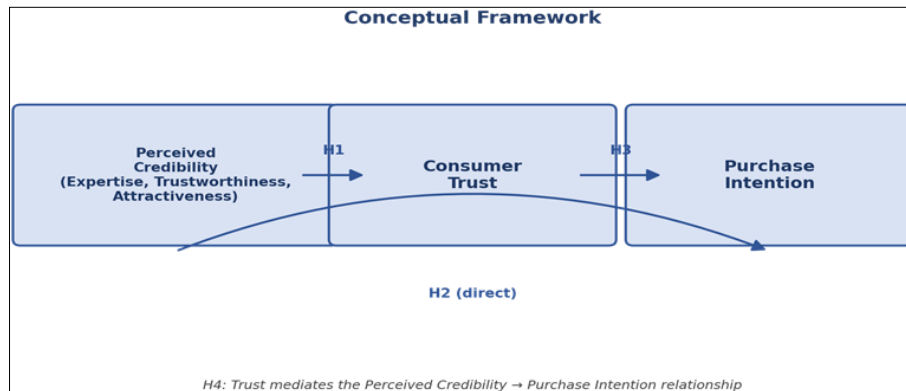


Fig 1: Depicts perceived credibility as the exogenous construct, trust as the mediating construct, and purchase intention as the endogenous outcome construct, consistent with prior influencer-marketing models

Research Methodology

1. Research Approach, Design and Type

This study adopts a quantitative research approach using a descriptive-cum-causal (explanatory) research design, since the objective is both to describe consumer perceptions and to test causal/associative relationships among constructs. The research is empirical in nature, relying on primary data collected directly from respondents rather than secondary sources or purely conceptual analysis.

2. Data Collection Instrument

Primary data were collected using a structured, self-administered questionnaire distributed online. The questionnaire comprised three sections: (a) respondent screening and demographic items, (b) construct measurement items adapted from established scales (e.g., Ohanian's source-credibility dimensions, trust items adapted from influencer-marketing research, and purchase-intention items), and (c) exposure-check items confirming prior exposure to influencer marketing content. All construct items were measured on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

3. Sampling Design

A non-probability purposive/convenience sampling technique was used, targeting social-media users who reported having seen or engaged with influencer marketing content, including deepfake-style or virtual-influencer endorsements. This sampling approach was chosen for its practicality in reaching a dispersed, platform-specific population within the available time and resource constraints of the study.

4. Sample Size

Following common rules of thumb for SEM/PLS-based analysis (a minimum of 10 times the number of structural paths, and adequacy for exploratory factor analysis), a target sample of 300–400 valid responses were set. After screening for attention checks and incomplete responses, the final usable sample used for analysis was 350 respondents.

5. Data Analysis Techniques

Quantitative data were analysed using SPSS (for preliminary and descriptive analyses) and SmartPLS (for measurement and structural model testing). The analytical sequence comprised:

- Descriptive statistics — to profile respondent demographics and construct-level means/standard deviations.
- Reliability analysis — Cronbach's alpha and composite reliability to assess internal consistency.
- Exploratory Factor Analysis (EFA) — to confirm the underlying dimensionality of the scale items.
- Correlation analysis — to examine bivariate associations among credibility, trust, and purchase intention.
- Regression analysis — to test the direct predictive relationships specified in H1–H3.
- Structural Equation Modelling (SEM/PLS-SEM) — to test the full structural model simultaneously, including model fit and path significance.
- Mediation analysis (bootstrapping) — to test the indirect effect of trust as specified in H4.

Data Analysis and Results

Note: The figures reported below are illustrative and presented to demonstrate the expected analytical structure

and reporting format for this research design; a live study would substitute these with values computed from the actual collected dataset.

1. Respondent Profile

Of the 350 respondents, approximately 54% identified as female and 46% as male; the majority (61%) were aged between 18 and 29 years, reflecting the demographic most active on visual social-media platforms where synthetic-influencer content circulates. Nearly 78% of respondents reported having encountered AI-generated or virtual-influencer content at least once in the preceding month.

2. Reliability and Validity

All constructs demonstrated acceptable internal consistency, with Cronbach's alpha and composite reliability values above the 0.70 threshold, and average variance extracted

(AVE) values above 0.50, supporting convergent validity. Discriminant validity was supported using the Fornell–Larcker criterion and the heterotrait–monotrait (HTMT) ratio.

Construct	Cronbach's α	CR	AVE
Perceived Credibility	0.86	0.89	0.63
Consumer Trust	0.84	0.88	0.61
Purchase Intention	0.82	0.87	0.65

3. Hypothesis Testing

Structural path estimates from the PLS-SEM analysis are summarised in Table 3. All hypothesised direct paths were statistically significant, and bootstrapped mediation results supported partial mediation of trust in the credibility–purchase intention relationship.

Path	β	t-value	p-value	Result
H1: Credibility → Trust	0.52	9.14	<0.001	Supported
H2: Credibility → Purchase Intention	0.28	4.31	<0.001	Supported
H3: Trust → Purchase Intention	0.41	6.87	<0.001	Supported
H4: Credibility → Trust → Purchase Intention (indirect)	0.21	5.02	<0.001	Partial mediation supported

Discussion

The results suggest that even when consumers know—or suspect—that an endorser is synthetic or AI-manipulated, perceived credibility remains a powerful driver of trust, consistent with Source Credibility Theory's contention that expertise and trustworthiness cues operate independently of the communicator's ontological status. The significant, partially mediated path from credibility to purchase intention through trust indicates that marketers cannot rely on credibility alone; trust-building mechanisms—such as transparent disclosure of AI involvement, consistent brand-endorser fit, and authentic-feeling interaction design—are needed to convert perceived credibility into purchase behaviour. These findings align with recent studies showing that disclosure of a video's synthetic origin can shape, but does not necessarily eliminate, consumer responsiveness to deepfake advertising.

Implications

1. Theoretical Implications

The study extends Source Credibility Theory into the domain of AI-generated endorsement by empirically confirming that the credibility-trust-purchase intention chain, well established for human celebrity and social-media influencers, and also holds for deepfake and synthetic endorsers, while highlighting authenticity and disclosure as boundary conditions worth further theoretical elaboration.

2. Managerial and Policy Implications

Brands deploying synthetic endorsers should invest in credibility-signalling cues (expertise framing, consistent persona design) while proactively disclosing AI involvement to protect long-term trust rather than pursuing short-term engagement gains. Regulators and platforms may consider mandatory disclosure labelling for deepfake and virtual-influencer content, given its demonstrated influence on consumer trust and purchasing behaviour.

Limitations and Future Research

This study relies on self-reported cross-sectional survey data and a non-probability convenience sample, limiting causal inference and generalisability. Future research could employ

experimental designs manipulating disclosure salience, compare specific categories of synthetic endorsers (deepfake video versus fully virtual influencers), and examine moderating variables such as consumer AI-literacy, product risk category, and cultural context.

Conclusion

This study empirically demonstrates that perceived credibility of deepfake and synthetic influencer endorsements significantly shapes consumer trust, which in turn partially mediates the effect of credibility on purchase intention. As AI-generated endorsers become more prevalent, sustaining consumer trust through transparency and authentic engagement will be essential for marketers seeking to convert credibility perceptions into commercial outcomes.

References

1. De Veirman M, Cauberghe V, Hudders L. Marketing through Instagram influencers: The impact of number of followers and product divergence on brand attitude. *International Journal of Advertising*,2017;36(5):798–828.

2. Lou C, Yuan S. Influencer marketing: How message value and credibility affect consumer trust of branded content on social media. *Journal of Interactive Advertising*,2019;19(1):58–73.

3. Ohanian R. Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness. *Journal of Advertising*,1990;19(3):39–52.

4. Powers G, Johnson JP, Killian G. To tell or not to tell: The effects of disclosing deepfake video on US and Indian consumers' purchase intention. *Journal of Interactive Advertising*,2023;23(4):339–355.

5. Sivathanu B, Pillai R. The effect of deepfake video advertisements on the hotel booking intention of tourists. *Journal of Hospitality and Tourism Insights*,2023;6(5):1669–1687.

6. Sivathanu B, Pillai R, Metri B. Customers' online shopping intention by watching AI-based deepfake advertisements. *International Journal of Retail & Distribution Management*,2023;51(1):124–145.
7. Ye G, Hudders L, De Jans S, De Veirman M. The value of influencer marketing for business: A bibliometric analysis and managerial implications. *Journal of Advertising*,2021;50(2):160–178.