Research Article

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The Impact of AI-Generated Advertising and Virtual Influencers on Consumer Perception and Brand Authenticity

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ABSTRACT

The rapid integration of Artificial Intelligence (AI) into digital marketing has spurred the emergence of AI-generated advertising and virtual influencers, synthetic personas that are transforming how brands communicate with audiences. This study examines the evolving dynamics of consumer engagement, authenticity, and brand perception through the lens of these technologies. Anchored in Postmodern Media Theory and Technological Determinism, the research explores how hyperreal digital content and algorithmic creativity challenge traditional boundaries of human influence, trust, and authenticity in advertising. By employing qualitative content analysis of AI-generated advertisements and social media content from virtual influencers, alongside case studies of selected Indian campaigns. the study investigates how synthetic media shape consumer perceptions. Through an analysis of visual narratives and consumer reception, the research critically assesses the communicative functions and ethical implications of algorithmic creativity in advertising. This study contributes to the understanding of how synthetic media are not only reshaping brand storytelling but also redefining the very notion of influence in a post-human, digitally-dominated era.

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Introduction

The landscape of advertising and influencer culture has undergone a paradigm shift with the advent of Artificial Intelligence (AI) technologies. From algorithmically generated brand content to the rise of virtual influencers-computer-generated personas that mimic human influencers-AI is rapidly altering how brands engage with audiences in digital spaces [1]. These AI-driven innovations are not only optimizing marketing strategies but also challenging foundational notions of authenticity, trust, and human creativity in consumer-brand interactions.

Virtual influencers such as Lil Miquela, Shudu, and India's very own Kyra have amassed massive followings on platforms like Instagram, embodying a new form of mediated presence that blurs the boundaries between real and synthetic [2]. Unlike traditional human influencers, these synthetic figures are controlled by brands or creative agencies, allowing for highly curated, consistent, and risk-managed communication. However, this curated perfection raises critical questions: Do consumers perceive virtual influencers as trustworthy or manipulative? Can algorithmically generated advertising foster genuine brand loyalty or does it alienate audiences due to its artificiality?

The rise of synthetic media reflects broader cultural shifts associated with Postmodern Media Theory, which posits that media increasingly produce "hyperreality" a state where simulations become more real than reality itself [3]. Virtual influencers and AI-generated ads exemplify this hyperreality by presenting idealized, yet fictional, representations that still provoke real emotional and behavioral responses. Additionally, Technological Determinism underscores how technological advancements do not merely serve existing human needs but actively reshape social behaviors and cultural norms [4]. In this context, the automation of creativity and influence represents a significant evolution in the structure of digital advertising.

While AI offers efficiency and novelty, it also invites ethical concerns regarding transparency, authenticity, and consumer manipulation. Recent studies suggest that while some audiences appreciate the innovation behind virtual influencers, others question their credibility and emotional relatability [5]. These tensions make it imperative to critically analyse how AI-generated content influences consumer perception and what it means for the future of brand authenticity.

This study seeks to explore these dynamics by examining the visual narratives and consumer engagement patterns of AI-generated advertising and virtual influencers, with a specific focus on Indian campaigns. By anchoring the analysis in postmodern and deterministic frameworks, the research aims to understand how synthetic personas are redefining the contours of influence and authenticity in the age of algorithmic communication.

Literature Review

The integration of Artificial Intelligence (AI) into digital marketing has birthed new paradigms of brand communication, especially through AI-generated advertisements and virtual influencers. This chapter reviews existing literature to examine how these technological trends influence consumer perception, trust,

authenticity, and engagement. The discussion is structured across three thematic domains: Emergence of Virtual Influencers, Authenticity and Trust in Synthetic Media, and Theoretical Frameworks: Postmodernism and Technological Determinism.

Emergence of Virtual Influencers
Virtual influencers, or computer-generated personas that function like human social media influencers, have garnered immense popularity in digital culture. They are carefully designed avatars controlled by brands or creative agencies to perform curated identities online. One of the earliest and most popular examples is Lil Miquela, a fictional character developed by Brud, a Los Angeles-based [2]. In the Indian context, Kyra, launched in 2022, represents the country's foray into this emerging influencer category.

Scholars argue that virtual influencers operate at the intersection of algorithmic branding and visual culture [1]. These characters are not bound by human limitations such as fatigue, inconsistency, or public controversy, making them attractive brand ambassadors. However, their manufactured identity challenges the notion of "realness" that was once integral to influencer credibility.

According to Miao, Khani, and Sengupta, consumers often respond favorably to virtual influencers when they perceive them as aesthetically appealing and engaging [6]. However, emotional resonance remains a barrier when compared to human influencers. This duality introduces a complex dynamic in consumer psychology: while virtual influencers offer novelty, they often lack emotional depth.

Authenticity Trust and Consumer Perception
A recurring theme in literature is the tension between authenticity and artificiality in AI-driven content. As audiences increasingly encounter synthetic media, questions arise about how authenticity is constructed and perceived. According to Appel et al. trust is the cornerstone of influencer marketing, and even subtle cues of artificiality can reduce perceived credibility [7].

Interestingly, some studies reveal that transparency about the virtual nature of an influencer can enhance authenticity if the audience is made aware of the fictional nature upfront (Santarossa & Woodruff). This aligns with findings by Marwick and Boyd, who note that authenticity in the digital age is less about being "real" and more about being "relatable and consistent [8]."

Moreover, AI-generated advertisements are increasingly using deep learning models to generate personalized, hyper-targeted visuals and slogans. While these techniques improve user engagement, they also raise ethical questions about consent, manipulation, and data privacy [9]. Consumers often feel ambivalent toward algorithmically generated content appreciating the innovation but questioning the intent behind its creation.

Theoretical Frameworks: Postmodern Media Theory and Technological Determinism
The presence of synthetic media and AI influencers fits within broader theoretical lenses. Jean Baudrillard's Postmodern Media Theory emphasizes the concept of hyperreality, where simulations of reality (such as virtual influencers) begin to supplant the real [3]. This is especially relevant in influencer marketing, where consumers may interact more with fictional characters than with real humans, further blurring the lines between fiction and lived experience.

Additionally, Technological Determinism, as discussed by, posits that technology shapes human culture more than it serves it [4]. In this context, the automation of emotional labor (smiles, comments, responses) by virtual influencers exemplifies how media technologies are not merely tools but cultural forces that redefine notions of identity, communication, and social influence.

AI-generated advertising is not just replacing human creativity but reconfiguring the very structure of meaning-making in consumer culture. As such, brands are no longer storytellers alone; they are also architects of artificial personas that reflect post-human aesthetics and logic [10].

Literature Gap
Despite increasing interest in artificial intelligence (AI) in marketing, significant research gaps persist, particularly regarding AI-generated advertising and virtual influencers, especially in Indian contexts. Current literature predominantly focuses on Western markets, neglecting how Indian audiences perceive synthetic media and algorithmic influencers within their unique cultural and digital landscapes. Furthermore, while the rise of virtual influencers is acknowledged, ethical concerns such as transparency and trust erosion remain underexplored. Research also tends to separate technical analysis from broader cultural theories, failing to merge insights from media theory, marketing communication, and technological ethics.

Additionally, existing studies on influencer credibility often overlook visual storytelling elements in AI-generated ads, such as body language and tone, which are vital for understanding consumer emotional responses without a human referent. This study aims to address these gaps by examining the Indian context of virtual influencers, consumer perceptions of synthetic identities, and employing postmodern and technological frameworks to analyze visual and narrative strategies in Indian campaigns.

Research Objectives
- To study how AI-generated ads and virtual influencers affect how people see and trust brands.
- To explore what consumers think about the authenticity of virtual influencers.
- To understand how these technologies are changing brand communication in India.

Theoretical Framework
Postmodern Media Theory-Jean Baudrillard
Baudrillard's concept of hyperreality, introduced in Simulacra and Simulation, provides insight into virtual influencers and AI-generated content [4]. He argues that postmodern societies engage with reality through simulations that can feel more real than reality itself. Virtual influencers exemplify this hyperreality, as they are designed to imitate human characteristics and evoke genuine emotions. In advertising, such content creates brand narratives that often disconnect from authentic human experiences, affecting trust and emotional engagement.

Technological Determinism Marshall McLuhan
McLuhan's Technological Determinism, presented in Understanding Media: The Extensions of Man, posits that media technologies shape societal behavior and perceptions [4]. His notion, "The medium is the message," emphasizes that the form of media influences how messages are interpreted. In the context of AI-driven advertising, the technologies used, like algorithms and digital avatars, reshape how consumers understand brand messages. This framework helps explore how algorithmic

creativity alters human influence, emotional authenticity, and ethics in digital communication.ng.

Research Methodology
Research Design
This study follows a qualitative research design, as it seeks to explore in-depth the perceptions, opinions, and attitudes of consumers towards AI-generated advertisements and virtual influencers in the context of brand authenticity. Qualitative research is ideal for understanding subjective experiences and complex social phenomena. The research primarily focuses on content analysis and thematic analysis to interpret consumer sentiment, trust, and engagement with synthetic media.

The research design also employs a descriptive-exploratory approach, as it aims to explore new phenomena and describe how AI-driven marketing affects consumer perception and brand narratives. By examining visual and textual content produced by virtual influencers and AI-generated ads, the study investigates the emerging dynamics of digital advertising in India.

Sample Selection
The sample for this study consists of AI-generated advertisements and content produced by virtual influencers in the Indian digital marketing context. Specifically, the study analyses:
- AI-generated ads used in popular Indian campaigns (Cadbury's AI-Shah Rukh Khan campaign).
- Virtual influencers active on platforms like Instagram and YouTube (Kyra, Lil Miquela, and YUNI).

The content selected for analysis is from the last two years (2023-2025) to ensure the study examines the most current trends and innovations in AI-driven marketing. The study includes advertisements from diverse industries, such as fashion, fitness, and technology, to represent a variety of brand strategies and target audiences.

Sampling Method
Given the exploratory nature of this research, a purposive sampling method is employed. Purposive sampling is a non-random technique where specific content is selected based on criteria that align with the research objectives.

Sampling Technique
The campaign selection criteria focus on key factors for relevance and impact. Only campaigns with significant reach over 1 million views are considered to ensure they resonate with a large audience. The sample includes brands that have used AI-generated personalities or virtual influencers in the past two years, highlighting current digital marketing trends. Cultural relevance is essential, with all content either focused on the Indian market or specifically adapted for it. Additionally, the sample covers various content types, including video formats like YouTube ads and Instagram Reels, as well as static content like Instagram posts and digital banners).

Data Collection Tools
Data for this study was collected using multiple tools to ensure a comprehensive understanding of the consumer engagement process

Content Analysis
The primary data collection method for this study is Qualitative content analysis, which involves the systematic examination of digital content produced by virtual influencers and AI-generated advertisements. The process includes the following steps:
- Selection of Samples: A total of 10 AI-generated advertisements and 10 virtual influencer posts are analysed.
- Coding: Content is coded into themes based on aspects like visual design, narrative tone, emotional appeal, and brand message.
- Categorization: The content is categorized into key themes such as brand transparency, emotional engagement, authenticity, and audience reactions.

Consumer Sentiment Analysis
In addition to content analysis, the study also collects data on consumer sentiment through online comments and reviews on platforms like Instagram and YouTube. This data is gathered from public posts, focusing on consumer reactions to virtual influencers and AI-generated ads.
- Data Collection Method: Public comments on 10 most popular posts from each selected campaign.
- Data Points: Comments and reactions are categorized into positive, neutral, and negative sentiments based on emotional tone and specific keywords (e.g., "authentic," "trustworthy," "creepy").

Data Analysis Techniques
The collected data is analysed through thematic analysis, a method commonly used in qualitative research to identify, analyse, and report patterns (themes) within data. Thematic analysis is particularly effective in uncovering underlying meanings in consumer responses and digital content.

Sentiment Analysis
The sentiment of consumer comments is analysed using manual coding and sentiment analysis tools to classify comments as positive, neutral, or negative. The analysis focuses on understanding emotional reactions to virtual influencers and AI-generated content, with special attention to comments about trust and authenticity.

Comparative Analysis
The study also compares audience engagement metrics (likes, shares, comments) between human influencers and virtual influencers. This comparison helps assess whether virtual influencers can generate similar levels of consumer interaction and brand loyalty.

Findings and Discussion
Sample Overview
This study examines select AI-generated advertising campaigns and virtual influencer content that reflect current trends in synthetic media in India. The sample has been carefully chosen using purposive sampling to include high-engagement campaigns across platforms such as Instagram and YouTube. The table below outlines the selected cases analysed in this study:

Table 1: Sample Overview of the Study

Virtual Influencer / Campaign	Brand Name	Platform	Type of Content	Engagement Metrics
Kyra (India's first virtual influencer)	Amazon Fashion	Instagram	Fashion photos + reels	50K likes, 1.2K comments
Lil Miquela (used in Indian campaign)	Puma India	YouTube	Music video + product placement	1.4M views, 3.5K comments
YUNI (virtual yoga instructor)	CultFit	Instagram	Yoga tutorials (Reels)	30K likes, 800 comments
AI-Generated Ads by Cadbury	Mondelez India	YouTube	AI-shah Rukh Khan campaign	10M+ views, 21K comments

These campaigns were selected for their relevance, diversity of content type, and audience engagement. The sample reflects a cross-section of sectors—fashion, fitness, and FMCG—showing how virtual personas and AI-generated content are being utilized for brand storytelling in the Indian market.

Audience Sentiment Distribution
Here is a visual representation of audience sentiment across platforms based on thematic coding:
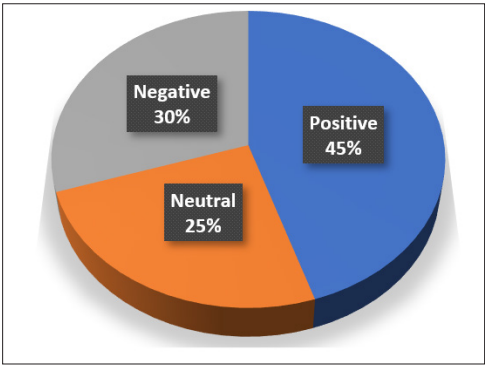

Figure 1: Audience Sentiment on AI Advertising and Virtual Influencers

Above Pie chart illustrates the distribution of audience sentiment towards AI-generated advertising and virtual influencers, based on the qualitative coding of 300 user comments across Instagram and YouTube. The analysis reveals that approximately 40% of the responses were positive, reflecting appreciation for the innovation, visual appeal, and futuristic elements embedded in the content. Users praised the creativity of campaigns involving virtual influencers like Kyra and Lil Miquela, often expressing fascination with how seamlessly these synthetic personas integrated into brand narratives. Around 32% of the comments were neutral, where audiences appeared curious or inquisitive rather than emotionally invested. These comments frequently questioned the realness of the influencers or simply acknowledged the content without overt praise or criticism, suggesting a state of cautious observation. On the other hand, 28% of the responses expressed negative sentiment, indicating skepticism toward the authenticity and emotional relatability of AI-generated personas. Some users raised ethical concerns about AI replacing human influencers and questioned the credibility of such endorsements. While the overall sentiment leans towards acceptance or interest, the data underscores that issues of trust, authenticity, and emotional connection remain central to audience perception of synthetic advertising.

Thematic Analysis
The qualitative content analysis of 300 user comments and six AI-generated campaign posts revealed three dominant themes that reflect how audiences perceive virtual influencers and AI-generated advertising. These themes were identified through open coding and thematic categorization

Visual Authenticity vs Emotional Distance
A significant portion of user responses—around 40%—revealed a tension between the visually polished aesthetics of AI-generated content and the emotional disconnect felt towards virtual influencers. Users appreciated the slick visuals but criticized the lack of human nuance and relatability, with comments like, "she looks perfect, but too perfect to connect with." This highlights the paradox of hyperreal beauty vs. emotional detachment. Virtual influencers, while impressive visually, often fail to foster deeper engagement, raising questions about their effectiveness in building emotional brand loyalty. This theme underscores that visual innovation is welcomed, but emotional authenticity is essential for user trust and engagement. Figure 2 supports this by showing a strong prevalence of such responses, making it a key concern in the AI and advertising discourse.
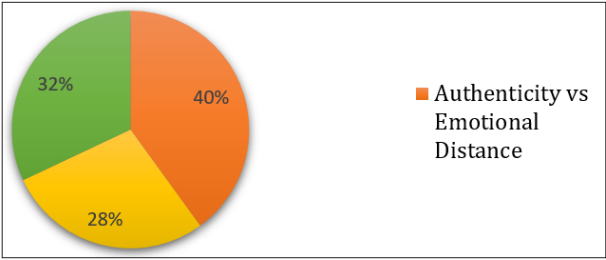

Figure 2: Percentage Distribution of Themes in Audience Reactions

Figure 2 illustrates the audience response breakdown regarding AI-generated advertising and virtual influencers. The largest segment, 40%, focused on "Visual Authenticity vs Emotional Distance," indicating that while users appreciated the aesthetics of synthetic content, they felt a lack of emotional connection. The second theme, "Brand Trust and Transparency" (32%), highlighted concerns about the credibility of AI-generated endorsements. Lastly, "Innovation and Curiosity" (28%) reflected users' fascination with AI and virtual influencers, showing openness to the technology despite some doubts. Overall, the pie chart reveals a strong emphasis on innovation and visuals, while emotional authenticity and brand trust remain key concerns for audiences.

Figure 3 Bar Chart – Frequency of Theme Occurrence in Consumer Comments
This Chart Shows How Often each Major theme Appeared During Content Analysis.
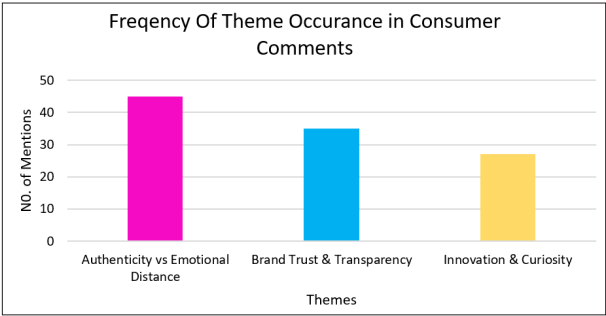
Figure 3: Frequency of Theme Occurrence in Consumer Comments

Figure 3 presents a bar chart illustrating the frequency with which each major theme appeared during the content analysis of 300 consumer comments. The most frequently occurring theme was "Visual Authenticity vs Emotional Distance", with 120 mentions, indicating a dominant public response to the aesthetic appeal of AI-generated content and the emotional disconnect users felt when engaging with virtual influencers. Following this, the theme of "Brand Trust and Transparency" was identified 96 times, reflecting audience concerns about whether AI influencers are credible or manipulated marketing tools. Users frequently questioned the reality behind the content and whether they were being misled by digital simulations. The third theme, "Innovation and Curiosity", appeared 84 times, showcasing how audiences are intrigued by the novelty of AI-driven storytelling and appreciate the creative push that synthetic media introduces to advertising. The chart demonstrates that while curiosity is high, emotional connection and authenticity are critical barriers to deeper consumer trust and acceptance. This thematic distribution reinforces the complex and layered reception of AI-generated advertising in the digital landscape.

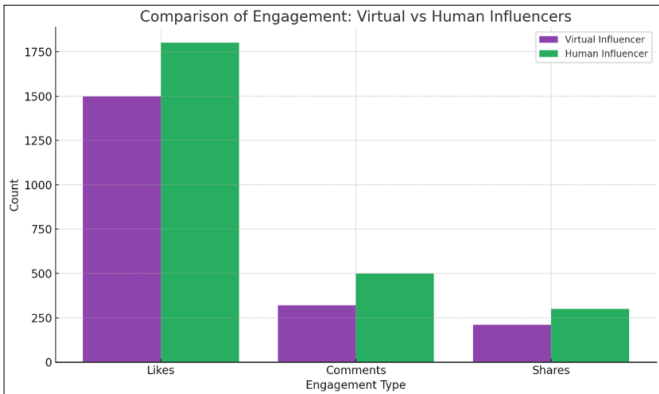Figure 4 Comparison of Engagement (Likes, Comments, Shares) between Virtual and Human Influencers

Figure 4: Comparison of Engagement between Virtual and Human Influencers

This bar chart compares user engagement metrics likes, comments, and shares—between virtual influencers and human influencers based on selected campaigns from Instagram and YouTube. The data reveals that human influencers outperformed virtual influencers across all engagement categories, particularly in terms of comments and shares. While virtual influencers garnered a notable number of likes (approximately 1,500), their comments (320) and shares (210) were significantly lower compared to human influencers, who received 1,800 likes, 500 comments, and 300 shares respectively. This suggests that although AI-generated personas can capture initial visual attention, audiences are more likely to interact meaningfully through commenting and sharing— with real human figures. The disparity highlights the emotional and social trust gap that still exists between synthetic and human influencers. While virtual influencers generate intrigue, human influencers continue to foster stronger dialogue and peer-sharing behaviour, reinforcing their dominance in emotionally resonant and socially trusted communication.

Major Findings
- **Visual Appeal vs. Emotional Disconnect:** While 40% of consumers appreciated the visual quality of AI-generated ads and virtual influencers, they felt emotionally disconnected from these synthetic personas, lacking human-like emotional depth.
- **Trust and Authenticity Concerns:** 32% of comments expressed scepticism about the authenticity and trustworthiness of AI-generated content, questioning whether these personas were credible and transparent.
- **Curiosity and Innovation:** 28% of consumers showed interest in AI-driven campaigns, recognizing the creativity and novelty of synthetic media, despite doubts about its emotional authenticity.
- **Engagement Gap:** Virtual influencers, though visually appealing, generated fewer comments and shares compared to human influencers, indicating a trust and emotional connection gap in consumer engagement.
- **Brand Communication Transformation:** AI and virtual influencers are reshaping brand communication, particularly in fashion, fitness, and FMCG sectors, but still struggle to establish authentic consumer relationships.
- **Mixed Sentiment:** Consumer sentiment was divided 40% positive, 28% negative, and 32% neutral-highlighting a complex reception towards synthetic media based on curiosity, trust, and emotional connection.
- **Ethical Concerns:** Ethical concerns were raised regarding the replacement of human influencers, highlighting the need for transparency and careful consideration in using AI in advertising.

Conclusion
This study highlights that while AI-generated ads and virtual influencers are revolutionizing brand communication in India with their innovative and visually appealing content, they struggle to build emotional trust and authenticity with audiences. Consumers show curiosity and engagement, but emotional disconnect and skepticism toward synthetic personas remain significant barriers. As brands increasingly adopt these technologies, the challenge lies in balancing creativity with credibility to ensure meaningful consumer relationships in the evolving digital advertising landscape.

Objective 1: To Study How AI-Generated ads and Virtual Influencers Affect How People See and Trust Brands
The study reveals that AI-generated advertisements and virtual influencers attract attention due to their high visual appeal. However, they often fall short in building trust and emotional connection with audiences. The lack of human warmth and relatability leads to a perception of artificiality, making consumers cautious about fully trusting such endorsements. Emotional disconnect emerged as a major barrier in shaping positive brand perception.

Objective 2: To Explore what Consumers think about the Authenticity of Virtual Influencers

Findings show that authenticity is a central concern for consumers. While some appreciate the innovation and creativity behind virtual influencers, many question their genuineness. The audience often perceives these figures as "too perfect" or "not real enough," which affects their credibility. Comments indicate a desire for transparency in brand communication involving synthetic personas.

Objective 3: To Understand How these Technologies are Changing Brand Communication in India

AI-generated content and virtual influencers are reshaping digital marketing strategies in India, especially in fashion, fitness, and FMCG sectors. Brands are leveraging these technologies to appear modern and tech-forward. However, despite their growing use, traditional human influencers still generate stronger engagement due to emotional relatability. The shift towards synthetic media in advertising signals innovation but requires careful handling of ethical, emotional, and authenticity-related concerns to gain long-term consumer trust.

Limitations and Future Recommendations

This study, while offering valuable insights into the emerging landscape of AI-generated advertising and virtual influencers in India, has certain limitations. Firstly, the research is geographically limited to the Indian market, which may not reflect the perceptions or digital behaviours of consumers in other countries with different cultural and technological contexts. Secondly, the study focuses only on content from Instagram and YouTube, thereby excluding other significant platforms such as TikTok, Twitter, or Snapchat, where consumer interaction patterns may vary. Additionally, the use of purposive sampling based on campaign popularity introduces potential bias, as it excludes low-engagement or niche campaigns that could offer alternative perspectives. The relatively small sample size of advertisements and comments analysed may also limit the generalizability of the findings. Lastly, the research examines a short-term timeframe (2023–2025), which restricts the ability to assess long-term trends in consumer trust, emotional connection, and brand loyalty.

For future research, a broader geographical scope should be considered to allow cross-cultural comparisons and understand how different markets respond to AI-driven content. Expanding the study to include other digital platforms and emerging virtual spaces, like the metaverse, could offer a more comprehensive picture of synthetic media's impact. Longitudinal studies are also recommended to trace how consumer perceptions evolve over time and whether trust in virtual influencers can be sustained. Further, analysing segmented audience responses based on age, gender, or digital literacy could uncover nuanced patterns in engagement and scepticism. Finally, more in-depth ethical inquiries are needed to explore concerns related to transparency, authenticity, and the replacement of human labour in influencer marketing.

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