

Blurring the Line Between Real and Artificial: Virtual Influencers, Visual Communication, and the Third-Person Effect

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Abstract

With the advent of AI-based virtual influencers, there are new opportunities and ethical issues in online marketing. Although the literature on human influencers is rich, little has been said about audiences' perceptions and reactions to artificial personas. Based on the Visual Communication Theory and the Third-Person Effect, this study performs a qualitative content analysis of five well-known virtual influencers on Instagram. Post and audience interaction (manually coded) demonstrated patterns of authenticity, consumer trust, purchasing behaviour, and ethical issues. The results indicate that virtual influencers have a strong impact on fashion and lifestyle decisions and that viewers tend to interact with them as real people. It also introduced transparency and manipulation issues, especially since the followers didn't know these personas didn't exist. The paper identifies marketing opportunities and ethical risks associated with virtual influencers, which can inform current discussions of digital trust, consumer persuasion, and the ethical use of AI in advertising.

Keywords: Virtual influencers; artificial intelligence; digital marketing; visual communication theory; third-person effect

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1. INTRODUCTION

The accelerated development of artificial intelligence (AI) has transformed how individuals interact online and the way organizations pursue marketing. The most significant trend in this sphere is the rise of so-called virtual influencers: personalities created by artificial intelligence to provide entertainment, sell products, and simulate human interaction. Such virtual characters confuse the distinction between the real and the fake (Hofeditz et al., 2022). In contrast to human influencers whose actions and online personas can be unpredictable, the actions and images of virtual influencers are controlled by brands or developers. This regulation is an opportunity for communicating similar messages, polished images, and protected reputations (Vrontis et al., 2021). Although this has provided a promising prospect for

brands to reach their audiences, it also poses critical ethical concerns regarding honesty, authenticity, and trust.

“Influencer marketing” has proven to be one of the most powerful preference manipulators, and millions of dollars are spent each year on endorsements and sponsored content (Hudders et al., 2020). The rise of AI influencers is not only an example of a technological breakthrough but also a sign of broader cultural shifts in digital self-representation and emerging ethical concerns related to authenticity, trust, and persuasion. These online personae are actively influencing how individuals perceive products, shape their purchasing behavior, and connect with brands. Hence, it is important that marketers, regulators and researchers are aware of their roles.

Although they are on the rise, there is very limited research about virtual influencers. We already understand the traditional influencers much better (Hudders et al., 2020; Hernandez-Mendez & Baute-Diaz, 2023) than their AI-based counterparts, which are only just beginning to attract scholarly attention (Allal-Cherif et al., 2024). The lack of systematic research is troubling: although brands are already spending a lot of money on these virtual personalities, the long-term effects on consumer trust, persuasion, and ethical marketing are not well understood.

The literature points to two notable gaps. First, little is known about whether consumers are aware of the artificiality of virtual influencers and how this awareness affects their perceptions of authenticity and trust (Jayasingh et al., 2025). Second, the ethical aspects, particularly the potential for manipulation, unrealistic beauty standards, and transparency, are not sufficiently discussed (Jamil & Qayyum, 2021; Li et al., 2023). These apertures need to be filled in a way that leads to theoretical information and practical principles on ethical online marketing.

Research Objectives and Questions

To address the aforementioned gaps, this study pursues following two main objectives.

1. To analyse the extent to which AI-generated virtual influencers affect consumer attitudes and behaviours, in comparison to human influencers.
2. To analyse the ethical concerns related to virtual influencers, it is important to consider the impact of transparency, authenticity, and manipulation on consumer perceptions and trust.

These objectives are addressed through the following research questions:

3. What are the implications of AI-generated virtual influencers for consumer behaviour compared to human influencers?

4. What are the ethical issues brought forth by virtual influencers, and how do these issues affect the perception of consumers and their trust?

This research will help advance the current debate on AI in marketing as it provides give empirical evidence regarding how consumers interact with virtual influencers. It will forge ahead the literature on digital trust and persuasion through applying the theory of ‘Visual Communication’ and ‘The Third Person Effect’ and it draws attention to the ethical risks that need to be considered in future policy and regulatory discussions Eventually, the aim of this work is to bridge the gap between technological innovation and responsible practice on account of contributing to the strategic effectiveness and ethical responsibility of marketing in AI.

2. LITERATURE REVIEW

One of the most dramatic trends in contemporary marketing has been the emergence of virtual influencers, digitally generated personalities powered by artificial intelligence (Vrontis et al., 2021; Allal-Chérif et al., 2024). Unlike human influencers, whose reputations can be influenced by unpredictable actions, virtual influencers are completely brand-managed characters (Hudders et al., 2020). This is what makes them reliable and provocative, capable of creating high-quality and consistent material, whilst also presenting meaningful ethical issues of transparency and manipulation (Hofeditz et al., 2022; Li et al., 2023). To get a clearer picture of how these digital personae are transforming consumer culture, this review summarizes the current literature on four related themes: authenticity and perceived credibility, consumer decision-making and purchase intent, audience engagement and relationship-building, and ethical issues regarding transparency, manipulation, and aesthetic ideals (Hudders et al., 2020; Vrontis et al., 2021; Fauzi et al., 2024).

2.1. Authenticity and Perceived Credibility

Authenticity is one of the most important dimensions of influencer marketing. When audiences view influencers as real and credible, they tend to be more interested in the influencer even when they are conscious of the commercial aspect of endorsements. Hudders, De Jans & De Veirman (2020) provide a useful framework by adapting the ‘Stern Revised Communication Model’ to influencer marketing, which focuses on the interaction among the source (the influencer), the message (the content), and the audience (the consumer). In this context, the persuasion process revolves around the credibility of the influencer.

The virtual influencers add another dimension to the aforementioned model. On the one hand, they eliminate the risks posed by human influencers,

such as scandals, deviations, or reputational damage (Hudders et al., 2020). At the same time, they also challenge traditional notions of authenticity. They can be treated like human beings by the audience at first, but once their artificiality is exposed, their credibility is a concern. As Hofeditz et al. (2022) show, trust in virtual influencers is easily shattered; their carefully crafted perfection is appealing, but the unmasking of their artificiality can undermine the authenticity viewers seek.

The idea of authenticity is especially tricky when it comes to AI-driven personae since these influencers are created to imitate human warmth and relatability. According to Sokolova & Perez (2021), influencers who seem spontaneous and emotionally genuine are more popular with the audience. Virtual influencers can replicate such signals, facial expressions, casual speech, and personal narratives. But the question is: does simulated authenticity have the same persuasive power as human authenticity? This is even more urgent in markets such as Pakistan, where cultural identity and trust are inseparably linked with the sense of credibility. According to Jayasingh et al. (2025), consumers' awareness of AI's status plays a significant role in determining whether they will believe these influencers. Therefore, the irony is that the more ideal a virtual influencer is, the more likely they are to be dismissed as fake and unreal.

2.2. Consumer Decision-Making and Purchase Intent

The second theme in literature relates to how influencers, human and virtual, influence consumer decisions. Many studies have reported that influencers' credibility directly affects consumer attitudes towards products and brands. For example, in the context of tourism, an influencer can have a significant impact on consumer purchase intentions when they are perceived as trustworthy by their audience, according to Hernandez-Mendez & Baute-Diaz (2023).

Virtual influencers take this dynamic further by providing more flexibility. Rahman (2022) categorizes influencers into mega, macro, micro-, and nano-influencers based on follower count and describes how consumers are influenced by imitation across each type. However, virtual influencers may mimic the features of any of these types depending on how they are created and promoted. This allows them to serve as multidimensional marketing channels that can focus equally on niche communities and mass audiences (Hernandez-Mendez & Baute-Diaz, 2023).

Li et al. (2023) also provides further evidence by examining sales of luxury brands through live-streaming. They discovered that virtual influencers tend to perform better than human streamers because they align more closely

with brand identity. They are also a safe bet for sticking to the script, unlike human influencers, who could go rogue, making them a better choice for companies that want consistent representation. This has obvious consequences for the emerging markets like Pakistan, where consumer confidence towards e-commerce is still developing. On the one hand, the uniformity of messages of AI influencers can make reluctant buyers feel safer; on the other hand, their unnatural beauty can make them suspect manipulation.

The possibility of behavioural impact is not limited to direct buying. Credible influencers generate positive feelings that lead to indirect lifestyle changes, as Hernandez-Mendez & Baute-Diaz (2023) claim. For example, followers can not only buy a product suggested by an influencer but also start to imitate the influencer's overall lifestyle. Virtual influencers, who can maintain a consistent display of idealized lifestyles, can be especially useful in promoting such aspirational mimicry.

2.3. Audience Engagement and Relationship-Building

A third canon of literature emphasizes the relational dimension of influencer marketing. Influencers do not just make transactions; they build long-term relationships with audiences that increase brand loyalty. According to Vrontis et al. (2021), emotional ties are the most powerful influencer of the effectiveness factor, as it helps establish the relationship between consumers and brands.

Virtual influencers are uniquely positioned to succeed in this field. Because they are created through AI and algorithmic design, they can be customized to resonate with specific demographics. This includes not only their physical appearance, but their tone of voice, cultural references, and online behaviour. In other words, Fauzi et al. (2024) highlight the use of algorithmic engagement strategies by virtual influencers who respond to their audience's preferences in real time and tailor their interactions accordingly. They do not get tired, have personal crises, or face the challenges of balancing work and life that human influencers do, which enables them to maintain a steady level of engagement.

The other important factor in establishing trust is cultural adaptation. Naina is the first AI influencer in India whose style is both traditional and modern and resonates with local people. Her example suggests that the more cultural references virtual influencers can integrate, the more relatable and resonant they can become. This capacity to localize digital personae can increase acceptance in Pakistan, where cultural norms strongly influence consumer perceptions (Imran et al., 2025). At the same time, however, it raises

ethical concerns if audiences are not informed that the influencer is an artificial.

Engagement is not uniform across all virtual influencers, however. Influencers like “Lil Miquela” manage to create community discourse about activism and social problems, but others, like “Shudu,” are more aesthetically than socially relevant. This difference suggests that although AI can simulate some types of engagement and relationship-building, the extent of openness regarding identity remains a matter of content strategy.

2.4. Ethical Concerns

The ethical implications of virtual influencers are perhaps the most controversial in literature. According to Jamil & Qayyum (2021), consumers are more likely to believe information from influencers when it is framed positively, a distinct advantage for AI influencers, who can be programmed to provide only brand-friendly information. However, it is this advantage that makes manipulation and propaganda so dangerous, because viewers are unaware of just how carefully the messages are filtered.

One ethical concern is transparency. Other virtual influencers, like “Lil Miquela,” do not hide their artificial nature, which increases trust by minimizing the feeling of deception. Some are, though, unclear as to whether they are non-human, and the followers are left unsure whether they are dealing with an actual person. This lack of information can negatively impact informed consumer choice and be viewed as a form of deception (Li et al., 2023).

The other issue is the marketing of unrealistic beauty standards. An example of this is “Shudu,” who has been criticized for hyper-realistic perfection that no human being can achieve. Virtual influencers can contribute to the worsening of body image and self-esteem problems amongst their followers by normalizing such ideals. “Imma”, on the other hand, has been accused of being too materialistic with its regular consumer-related content. While AI-managed personae do not suffer from human frailty, the two examples demonstrate how AI can perpetuate harmful cultural scripts.

These dynamics are explained with the theoretical concepts of Visual Communication Theory and Third-Person Effect. The Visual Communication Theory focuses on the role of carefully selected images in influencing perception at a subconscious level. (Messaris, 1997). Virtual influencers are idealized visual objects optimized for persuasion. In the meantime, the Third-Person Effect (Davison, 1983) implies that people believe others are more affected by the media than they are. In this case, it implies that viewers may be unaware of their susceptibility to virtual influencers and may be influenced

by them in subtle ways. This subconscious impact and perceived invincibility are exactly why ethical regulation of virtual influencer marketing is such a pressing need.

These challenges only become more complex in countries such as Pakistan, where digital literacy and regulation are only now beginning to evolve (Imran & Maqsood, 2024). The lack of clear disclosure standards leaves consumers very vulnerable to manipulation. Meanwhile, the perfect AI character can attract people to follow it vehemently, leading to the urgency for its ethical regulation.

2.5. Synthesis

Taken together, the literature indicates that virtual influencers combine the aspirational credibility of human influencers with the flawless consistency of algorithmic design. They can be used to influence consumer attitudes, purchase intent, and engagement. However, these benefits cannot be discussed outside the ethical realm of transparency, manipulation, and normalization of unrealistic standards

Virtual influencers are already known to be effective marketing tools worldwide. Their potential is even higher in Pakistan and similar markets, where social media use is increasing and a Westernized digital culture has aspirational appeal (Imran et al., 2025). But the trust deficit is a concern, as consumers are unaware of their artificiality, which is further aggravated by the absence of regulatory oversight.

Organizing this review into four themes: authenticity, decision-making, engagement, and ethics. This study examines how virtual influencers operate and where the potential dangers lie. Ultimately, it points to the need for further culturally situated research projects that assess longer-term impacts and consider regulatory landscapes that balance innovation with ethical responsibility.

3. THEORETICAL FRAMEWORK

This research is based on two theories: Visual Communication Theory and the Third Person Effect. These two theoretical models are crucial for examining the performance of virtual influencers in the context of digital marketing and the ethical concerns that accompany this field.

Visual Communication Theory emphasizes the powerful impact that images can have on viewers' perceptions, emotions, and behaviour. Messaris (1997) observes that visual messages are received more quickly than verbal messages, and they tend to influence perceptions at a subconscious level. This has made visual media a useful tool of persuasion and self-identification.

This theory applies to virtual influencers. Personae created with AI are carefully crafted to be attractive to specific demographics, with visuals selected for facial expressions, posture, skin tone, clothing, and even lighting. In contrast to classical human influencers, virtual influencers never go off-brand and maintain a perfect, visually edited on-brand image, unlike real people (Hofeditz et al., 2022). They are highly mediated visual objects, i.e., brands can supply the idealized image of lifestyle, models, or ideology with very little risk.

Thus, Visual Communication Theory provides a basis for examining the role of virtual influencers as persuasive visual symbols. Their perfection and aesthetic continuity can complement messages of aspiration, trigger emotions, and shift consumer desires in subtle, subconscious ways.

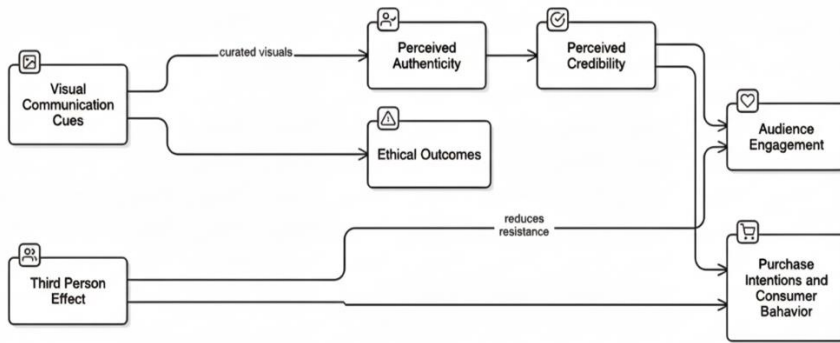
The Third-Person Effect (TPE) is a concept first proposed by Davison (1983) and describes the phenomenon in which people believe others are more affected by what they hear or see in the media than they are. This sense of invulnerability usually contributes to the underestimation of individual susceptibility to persuasive media and to the overestimation of the influence on others.

This psychological phenomenon is especially applicable to virtual influencers. The followers might think they are not susceptible to the effects of a digital persona because it lacks a real human presence. But this is not usually the case. Virtual influencers could prove more subtle and influential, thanks to their polished look, emotionally powerful content, and the ease with which they can be branded into a standard operating system. According to Allal-Cherif et al. (2024), such a distancing effect may lead audiences to be more willing to interact with virtual influencers without critical assessment and more susceptible to suggestions.

Thus, the Third-Person Effect can be used to the advantage of virtual influencers, who can position themselves as aesthetically attractive, apolitical, and non-threatening, thereby minimizing resistance and scepticism. This framework helps explain why consumers can trust virtual influencers, despite their intellectual understanding that they are artificial, and why their buying behavior can be manipulated without their awareness.

The theoretical framework is shown in Figure 1.

Figure 1: Theoretical Framework



4. RESEARCH METHODOLOGY

4.1. Research Design

The research design adopted in this study is qualitative. Content analysis has been used to understand the effects of AI-generated virtual influencers on consumer perceptions, trust, and purchasing behaviour, and to investigate ethical issues associated with their use in marketing. The qualitative approach is the most appropriate, as the aim is not to produce statistical generalizations but to develop deeper insight into meanings, interpretations, and ethical aspects. Employing qualitative content analysis, the researchers used the traditional method described by Hsieh & Shannon (2005).

This inductive approach enabled the categories and themes to be generated from the data rather than predefined codes. This method was especially suitable, given that the current body of literature on the ethical and behavioural consequences of virtual influencers is rather limited, thereby allowing new insights to emerge during the analysis.

The main objective of this methodological design was to investigate, on the one hand, the impact of virtual influencers on consumer trust, engagement, and purchasing intentions, and, on the other hand, ethical risks of AI-based personae, especially the problem of transparency, authenticity, and manipulation, as reflected in consumer-influencer relationships. This two-fold emphasis led to the selection of qualitative content analysis, which offers the flexibility to address both consumer behaviour and ethical dilemmas within a single analytical framework.

4.2. Sampling and Selection of Influencers

The researcher used purposive sampling to identify five leading virtual influencers whose social media activities provided a varied cultural and market insight. Purposive sampling was suitable since it allowed the researcher to select cases deliberately, which in turn are rich in information

and pertinent to research aims (Palinkas et al., 2015). The inclusion criteria were based on four factors: popularity, as measured by the number of followers; geographical diversity; evidence of brand collaborations with reputable fashion, beauty, or lifestyle companies; and frequency of posting, which ensured sufficient data for analysis. On this basis, the study selected Naina (@naina_avtr), Lil Miquela (@lilmiquela), Shudu (@shudu.gram), Imma (@imma.gram), and Rozy (@rozy.oh). These influencers hailed from India, the United States, the United Kingdom/South Africa, Japan, and South Korea, thereby providing a heterogeneous cultural distribution. In addition, their follower counts ranged from over one hundred thousand to several million, which provided variation in levels of reach and engagement. Special focus was placed on Shudu, a hyper-realistic AI model that is linked to luxury brands, whose profile is described in detail in the table of data collection.

4.3. Data Collection

The data was based on publicly accessible Instagram posts by the five chosen virtual influencers during the period from January 2023 to March 2024. The data was collected by capturing the influencers' visuals, captions, endorsements, calls to action, and audience comments and likes. To achieve consistency and comparability across cases, 50 posts were collected per influencer, yielding a corpus of 250 posts and over 12,000 follower comments. The posts were selected to capture a balance between blatantly promotional and lifestyle-focused posts, thus allowing exploration of how various post types aroused consumer trust, interest, and possible buying behaviour.

There were also cases of ethical issues being apparent in the dataset, including transparency issues regarding the status of AI, the endorsement of unrealistic beauty ideals, or the blatantly commercial nature of the endorsements. Such content was added to provide a practical foundation for evaluating ethical risks, rather than basing the evaluation on pure assumptions. A summary of influencer profiles, including the number of followers, geographic focus, and defining features, is provided in Table 1. The Table provides a summary of the sampling framework and makes the extent of the data transparent.

Table 1: Profiles of Selected Virtual Influencers and Sampling Details

Virtual Influencer	Approximate Followers	Country/Region	Description and Relevance to Study
Naina (@naina_avtr)	398K	India	India's first AI influencer, blending traditional and modern cultural trends.
Lil Miquela (@lilmiquela)	3M	USA	Globally recognized AI influencer involved in fashion, music, and social activism.
Shudu (@shudu.gram)	240K	UK/ South Africa	Hyper-realistic AI model known for luxury brand endorsements.
Imma (@imma.gram)	400K	Japan	AI influencer focused on youth fashion and streetwear culture.
Rozy (@rozy.oh)	130K	South Korea	Lifestyle-oriented AI influencer promoting fashion and beauty products.

4.4. Data Analysis

The data was analyzed using the six-stage framework proposed by Braun and Clarke (2006), which is considered the best method for thematic analysis to ensure rigor and transparency. It began with familiarization, wherein the researchers read and reviewed the posts, captions, and comments several times. This was followed by the production of the first codes, which identified certain characteristics of the data, including manifestations of authenticity, trust, or suspicion regarding the identity of the influencers. The third step was the collation of these codes and the identification of possible themes that describe larger patterns, such as authenticity and trust, consumer decision-making, and ethical dilemmas. These themes were compared with the data in the fourth step to determine whether the data were consistent and coherent. The fifth phase was to define and name themes and to develop a coding structure that captured them. The sixth stage was the synthesis of the thematic results with the theoretical models of Visual Communication Theory and the

Third-Person Effect, which placed the results in the context of existing academic discourse.

This coding process illustrates that comments such as “Where can I buy this?” or “Please tag the brand” were coded as indicators of consumer trust and purchasing behaviour, whereas comments such as “Is this a real person?” were coded as ethical concerns related to transparency. Through systematic implementation of Braun and Clarke (2006), the analysis drawn was valid and replicable, and the results were robust and academically defensible.

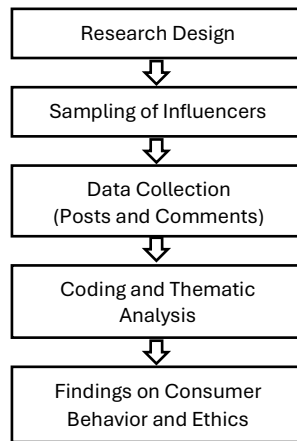
4.5. Ethical Considerations

The research only examined publicly accessible social media content and did not require any direct contact with human subjects. All followers' comments used in the analysis were anonymized to protect individual privacy. In line with existing scholarship on digital ethics (Kapitan & Silvera, 2016), ethical consideration in this study focused not only on protecting participants but also on examining how virtual influencers themselves raise moral concerns about manipulation, transparency, and the setting of unrealistic standards. In this respect, ethical issues were not merely contextual but constituted a central dimension of the study's analytical framework.

4.6. Methodological Flow

The research only examined publicly accessible social media content and did not require any direct contact with human subjects. The general research design is systematic and sequential, beginning with the design of a qualitative content analysis, then moving to purposive sampling and the selection of the five most notable influencers, and ultimately leading to post and follower interactions. The data were then coded inductively and analysed thematically using the six-phase framework of Braun and Clarke (2006). Eventually, the findings have been interpreted in light of the study's theoretical frameworks. An overview of this process is shown in Figure 2, which presents the methodological flow and clarifies how the study has been conducted.

Figure 2: Methodological Flow of the Study



5. FINDINGS

The following section reports the results of the qualitative content analysis of five AI-generated virtual influencers on Instagram. A thematic approach was used to analyze the data, in which recurring patterns were identified through inductive coding of posts, captions, and interactions among followers. The data were revisited several times to identify themes, which were then narrowed and compared with the existing literature to ensure consistency. All themes are presented as individual subsections below to be discussed in detail with examples of Instagram posts and summarized in tables by the reader.

Theme 1: Audience Engagement and Interaction

The analysis showed that virtual influencers gained considerable attention from their followers, though the level and quality of communication differed among profiles. The involvement wasn't limited to the likes; it also led to an active discussion in the comment box.

An example is Naina (@naina_avtr), who posted a Diwali-themed branded outfit featuring a saree (Table 2). Engagement included purchase-oriented queries and cultural affirmation. Illustrative follower comments included: “Where can I get this saree?” and “You represent modern India so well.” These interactions reflect both consumer curiosity and cultural resonance, suggesting that followers connect with the influencer on an aspirational level despite her AI nature.

Similarly, Lil Miquela (@lilmiquela) drew high engagement on socially conscious posts. For instance, on a post referencing racial justice, followers responded with comments such as: “Thank you for using your platform,” and “You speak up more than most real influencers.” This indicates that audiences

may blur the boundary between human and artificial identities when content aligns with their values.

In contrast, Shudu (@shudu.gram) received largely aesthetic reactions (e.g., “Stunning” or emoji-only replies) on luxury fashion posts, indicating comparatively shallow interaction when cues of human authenticity or dialogue are limited.

Table 2: Patterns of Audience Engagement Across Influencers

Virtual Influencer	Findings
Naina (@naina_avtr)	High engagement with 398K followers, focused on promoting culturally relevant brands. Emotional connection with the Indian audience.
Lil Miquela (@lilmiquela)	Most engagement with 3M followers, focusing on fashion, activism, and music. Strong community building and interaction on social issues.
Shudu (@shudu.gram)	240K followers, limited interaction. Followers admire her hyper-realistic beauty, but she lacks deeper emotional engagement.
Imma (@imma.gram)	400K followers, high interaction related to fashion. Followers frequently engage with her style and ask product-related questions.
Rozy (@rozy.oh)	130K followers, high engagement with lifestyle and product inquiries. Strong trust in her recommendations.

Theme 2: Perceptions of Authenticity

The theme of authenticity emerged as a key factor in how viewers rated virtual influencers. The results show that relatability and cultural alignment significantly affected perceptions of authenticity.

Naina was perceived as genuine as she posted both traditional and modern Indian culture. Her Diwali campaign appealed to her followers, who considered her both modern and culturally rooted (Table 3).

Lil Miquela was also rated highly on perceived authenticity through active engagement in social causes. Although she is an artificial being, her activism and music gained her the trust of her community.

Conversely, the carefully edited posts by Shudu made her more of a digital art object than a person that one could relate to. Rozy (rozy.oh) is a venture capitalist and lifestyle and beauty influencer in South Korea. Rozy was very active but rarely revealed her identity as an AI, which could be called out from a transparency standpoint.

Table 3: Perceived Authenticity of Virtual Influencers

Virtual Influencer	Findings
Naina (@naina_avtr)	Viewed as authentic due to relatable cultural content. Followers perceive her as aspirational but trustworthy.
Lil Miquela (@lilmiquela)	High authenticity through social cause involvement, despite being AI. Engages followers on activism, increasing relatability.
Shudu (@shudu.gram)	Seen more as an art piece than a relatable persona, resulting in lower perceived authenticity despite flawless aesthetics.
Imma (@imma.gram)	High authenticity in the fashion realm. Followers treat her as a credible and stylish figure.
Rozy (@rozy.oh)	Followers view her as an ideal lifestyle figure, though her AI status is less clear, raising questions of transparency.

Theme 3: Influence on Consumer Behaviour

There was a very strong impact on buying behaviour, especially in fashion and lifestyle. Comments often contained product information and demonstrated that endorsements generated consumer interest and buying behaviour.

To illustrate, Imma (@imma.gram) shared a reel of a streetwear outfit that received hundreds of inquiries, such as “Where can I get this jacket?” This trend reveals a linear relationship between AI-generated recommendations and consumer buying behaviour (Table 4).

The purchase intentions were also stimulated by Rozy in skincare and lifestyle items. Questions like “Is this cream appropriate for oily skin?” were asked in a campaign post about a beauty cream, indicating that people trusted her suggestions, even though they were unsure of her digital status.

In addition to the product itself, Lil Miquela also served as a platform for discussing lifestyle and activism, playing a largely positive role by encouraging conversations around environmentalism and racial equality. In this sense, consumerism activated by the virtual being’s impact extended beyond purchasing behaviour to broader social awareness. Although Shudu was considered a representative of luxury fashion, her role was more limited than negative, as her distant, highly aestheticized image reduced her influence on real purchasing behaviour and deeper audience engagement.

Table 4: Influence on Consumer Behaviour Across Virtual Influencers

Virtual Influencer	Findings
Naina (@naina_avtr)	A strong influence on Indian consumers, especially with traditional and modern brand endorsements.
Lil Miquela (@lilmiquela)	Influences both product purchases and lifestyle changes. Significant impact on social awareness and brand loyalty.
Shudu (@shudu.gram)	Primarily influences luxury brand aspirations. Less direct impact on actual purchases compared to other influencers.
Imma (@imma.gram)	A strong influence on fashion purchases. Followers actively seek to emulate her style and purchase endorsed products.
Rozy (@rozy.oh)	strong influence on product purchases, particularly in the beauty and lifestyle sectors. Followers express high trust in her endorsements.

Theme 4: Ethical Concerns and Transparency

The disclosure of AI identity became a major ethical concern. Although Lil Miquela was quite transparent about her virtual identity, others, such as Naina or Rozy, tended to keep their followers guessing, which raises questions about deceit (Table 5). The fact that numerous fans believed Naina was a real person in comments on her posts shows that some of the endorsements were unclear. The hyper-realistic beauty that Shudu promoted was questionable, as it perpetuated unrealistic beauty ideals, and the consumer-centred posts that Imma was making were potentially dangerous, as they promoted excessive materialism. Ethical issues across profiles stemmed from a lack of

spontaneity, and all content was brand-controlled, making endorsements inherently biased.

Table 5: Ethical Concerns in Virtual Influencer Marketing

Virtual Influencer	Findings
Naina (@naina_avtr)	Lack of transparency about AI status raises concerns. Consumers may be unaware they are engaging with a non-human influencer.
Lil Miquela (@lilmiquela)	Transparent about her AI status, which boosts consumer trust. Ethical concerns are minimized due to this openness.
Shudu (@shudu.gram)	Raises concerns about promoting unrealistic beauty standards. Manipulation is possible due to a lack of human imperfection.
Imma (@imma.gram)	Generally trusted, but ethical concerns arise regarding the constant promotion of consumerism through an idealized digital persona.
Rozy (@rozy.oh)	Lack of clarity on the AI-generated nature raises concerns about transparency and potential manipulation of consumer perceptions.

Thematic analysis has enabled the identification of patterns repeated by all five virtual influencers. These trends show that engagement, authenticity, consumer influence, and ethical issues are connected. Upon analyzing Instagram communication and comparing it with literature, it was revealed that viewers tend to believe that AI influencers are real individuals and interact with them on an emotional and commercial level (Table 6).

Table 6. Summary of Themes Identified Through Thematic Analysis

Theme	Key Insights	Illustrative Examples from Instagram Posts
Audience Engagement and Interaction	Engagement varied from deep conversations to superficial admiration; culturally relevant and	Naina’s Diwali campaign drew comments asking where to buy sarees; Lil Miquela’s racial justice post generated community discussions; Shudu’s posts

Theme	Key Insights	Illustrative Examples from Instagram Posts
	socially conscious posts drove stronger interaction.	received mainly “Stunning” or emoji responses.
Perceptions of Authenticity	Authenticity was linked to relatability, cultural alignment, and openness about AI identity.	Naina seen as aspirational but culturally grounded; Lil Miquela is trusted for activism; Shudu is admired for aesthetics but perceived as less relatable.
Influence on Consumer Behaviour	Followers frequently expressed intent to purchase products or emulate influencer lifestyles, especially in fashion and beauty.	Imma’s streetwear reel drew hundreds of purchase queries; Rozy’s skincare campaign led to questions about product suitability; Lil Miquela’s activism shaped lifestyle attitudes.
Ethical Concerns and Transparency	Transparency about AI identity and the promotion of idealized, brand-controlled personae raised ethical issues of deception and manipulation.	Lil Miquela disclosed her virtual status, boosting trust; Naina and Rozy often left followers confused about their AI nature; Shudu promoted unattainable beauty ideals.

6. DISCUSSION

In this section, the study's findings are discussed in relation to the research objectives. The discussion situates the results in the context of Visual Communication Theory and the Third-Person Effect, and explains how AI-generated influencers impact consumer behaviour, thereby raising ethical concerns.

6.1. Virtual Influencers and Consumer Behavior (RO1)

The results indicated that AI-influencers have a strong influence on consumer interest and buying patterns, especially in fashion and lifestyle. The followers were proactive, asking questions about products, indicating intent to purchase, and imitating the styles they promoted. A good example of this direct consumer influence is the streetwear post by Imma, which received hundreds of questions about where to buy her outfit.

The results can be interpreted in light of the Visual Communication Theory, which attributes a critical role to carefully chosen images, design, and non-verbal messages in shaping the audience's perception (Messaris, 1997). Virtual influencers always use perfect images and brand-appropriate aesthetics that generate high emotional and aspirational value. This reminds us of the works by Hudders et al. (2020) and Vrontis et al. (2021), in which credibility and visual consistency were prioritized over other factors that contribute only moderately to influencer effectiveness.

These findings are credible because they are structured using thematic analysis. The themes of engagement, authenticity, consumer influence, and ethics were inductively identified by manually coding Instagram posts, captions, and interactions based on the instructions of Braun and Clarke (2006). The analysis was consistent and reliable because the dataset was repeatedly reviewed and triangulated. Despite the fact that purposive sampling was limited to five influencers on Instagram, cultural and geographic diversity was ensured, which justifies the findings.

In this way, RO1 is addressed by showing that AI-generated influencers with well-filtered visual communication can influence consumer attitudes and behaviours in a manner similar to human influencers.

6.2 Ethical Concerns and Transparency (RO2)

The second research aim focused on ethical issues, particularly transparency, authenticity, and manipulation. The results also revealed that Lil Miquela revealed her virtual identity, which increased trust; other celebrities, like Naina and Rozy, crossed the boundary between reality and simulation. These influencers were perceived as human by many followers, which raised the issue of deception. The hyper-realistic beauty of Shudu also yielded unrealistic standards, and the fact that Imma was content with excessive consumerism normalized it.

These observations are consistent with Jamil and Qayyum (2021), who caution that influencer marketing may exploit consumer trust, and with Li et al. (2023), who state that the ideal alignment of AI personalities with brands is a potential source of misinformation for consumers. At the same time, the validity issues that Hernandez-Mendez & Baute-Diaz (2023) refer to are confirmed, as authenticity is the basis of trust construction.

The moral consequences can also be viewed through the lens of the Third-Person Effect (TPE). The results of this study, especially, indicate the perceptual aspect of TPE (Davison, 1983), in which people believe that others are more affected by the media than they are. For example, those who had engaged with more influencer content asked questions about the products or

complimented activism, but still reported feeling less vulnerable. Aspects of the behavioural dimension were also present, as these assumptions were translated into actual consumer behaviours, such as requesting purchase information.

These results contribute to the literature by confirming Allal-Cherif et al. (2024) regarding the perceived superiority of AI influencers over human influencers due to their brand-controlled identity, and by highlighting the risk of manipulation in the absence of transparency.

Therefore, RO2 is resolved by demonstrating that ethical issues, particularly transparency and manipulation, lie at the heart of consumer perceptions and trust in AI-generated influencers. Hence, by fulfilling both purposes, this paper demonstrates that AI-generated influencers can not only influence consumer behaviour through visually persuasive techniques but also create acute ethical issues related to transparency and manipulation. The results highlight the need to regulate virtual influencer marketing to promote ethical practices and to contribute to the existing body of literature on visual persuasion and psychological bias in digital consumer culture.

7. CONCLUSION

The aim of this study was to gain knowledge about the influence of AI-generated virtual influencers on consumer behaviour and the ethical issues that can arise when using them in marketing. The study aimed at two objectives by conducting a thematic analysis on five known Instagram-based virtual influencers: first, to observe how these digital characters shape consumer attitudes and behaviours as compared to human influencers, and second, to reflect on ethical issues related to transparency, authenticity, and possible manipulation in the influencers' interaction with their audience.

The results revealed that virtual influencers play a huge role in consumer decision-making, particularly in fashion and lifestyle. For instance, influencers like Imma and Rozy create posts that encourage curiosity and buying intent, while Lil Miquela's socially responsible post started a community discussion that changed consumer behaviour in how they wear clothes and buy things. These results lead to the realization that visual integration and considered aesthetics- the fundamental ideas of the Visual Communication Theory can be quite efficient in creating trust and engagement with the audience.

At the same time, this research study did show a high level of ethical worry. When the identities of Naina and Rozy became unclear, many of their followers began to question whether the two were real people. Shudu had an unnatural appearance of beauty, and Imma was obsessed with brand

promotion, with a heavy leaning towards materialism. These trends justify previous concerns about misleading and manipulative practices and require stronger protection. One possible explanation for this tension is the Third-Person Effect: most followers felt they were not as influenced as others, yet their degree of engagement and interest in purchasing indicated otherwise, and they were perceptually and behaviourally vulnerable.

Overall, the research shows that AI influencers are not mere online gimmicks. They are effective marketing instruments with the power of convincing competitors- at times even more so than human agents- that their influence may be effective. But such influence should be used responsibly. The question is how marketers and policymakers can strike a balance between the marketing advantages of virtual influencers and the ethical perils of crossing the boundary between persuasion and manipulation.

7.1 Future Implications and Directions

The results of this paper point toward promising directions for future research and practice. To begin with, it would be valuable for scholars to look beyond Instagram and examine other fast-growing platforms such as TikTok and YouTube, where the ways people interact with and engage influencers may play out very differently. A combination of methodologies, i.e., surveys, interviews, or maybe some controlled experiments, could be used to justify this extrapolation of this research.

Another important step for future work is to investigate the longer-term impact of virtual influencers. While this study showed clear short-term effects on engagement and purchase behaviour, it is still unclear whether these influences persist over time, particularly regarding trust, loyalty, and how authentic consumers feel the content really is.

The paper also notes that more ethical and regulatory guidelines should be added. The lack of transparency in AI-based marketing is a hot topic, and regulations that enforce such levels of transparency in cases where an influencer is not a human being would do wonders to ensure consumer confidence is maintained. Research could explore how people respond to different ways of making this disclosure, whether being upfront about it builds credibility or makes the message less persuasive.

Finally, cultural context should be looked at more closely. Naina's culturally specific campaigns have shown that tapping into local culture and values can help virtual influencers feel more authentic. Future studies might compare audiences across different countries to see if cultural adaptation is always necessary for credibility, or if it matters more in some regions than others.

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