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Evaluating the Impact of Artificial Intelligence on Influencer Marketing Through Product Perceptions and Virtual Personas

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Abstract

Influencer marketing has emerged as a huge player in the realm of digital advertising in a short period of time due to the ever-increasing popularity of social media personalities and brands reorienting themselves towards online engagement. As technology continues to make changes in the way we are interacting online, artificial intelligence has come in as a game-changer to enhance the effectiveness of influencer promotions. More and more, AI tools are being used to help optimize the content generation process, improve targeting to their target audience, and help influencers manage their online presence more professionally. The emergence of virtual personas has also sparked consumer interest, as consumers are not only connecting with human influencers but also with AI-generated personas who influence the consumers' perception of product quality and brand trustworthiness. This study applies a quantitative approach in research and a non-probability approach to the use of convenience sampling. A structured questionnaire was the principal tool of data collection. The findings demonstrate that artificial intelligence has a positive role in influencer marketing growth. Key, independent factors such as celebrity endorsements, perceived quality of transactions, and virtual social presence had a strong positive link to influencer marketing when considered in light of artificial intelligence as a mediating factor. Statistical analyses were completed with the use of the program (SPSS) to verify these relationships. Overall, this research can give important insights to influencers and marketers to understand how artificial intelligence can improve the performance of their campaigns, while opening the door to new influencer identities based on artificial intelligence.

Keywords: Artificial Intelligence, Influencer Marketing, Virtual Influencers, Celebrity Endorsements
JEL Codes: M31, M37, O33

1. INTRODUCTION

Marketing is generally considered to be the way to share the value of products and services provided by organizations to consumers. When effective marketing strategies are put in place by the companies, they can promote interest, heighten awareness, and shape the ways their offerings are perceived by the consumers (Morgan et al., 2019). Lately, influencer marketing has become a big game in the promotional world as it has allowed brands to take advantage of the reach of digital personalities through different online platforms. Thanks to the influence of influencers, consumers have the opportunity to access marketing campaigns more quickly at a more tailored level, and celebrities and people of public prominence will find promoting brands through their social media channels much more easygoing (Vrontis et al., 2021; Chandra & Singh, 2022; Amir et al., 2025). But influencer marketing is not just for the well-known; many people who were off the radar in the offline world have developed significant online followings (Aw & Labrecue, 2020; Shaukat et al., 2025). Despite the benefits that influencer marketing comes with, there are also some challenges. Consumers are often affected by their trust in the influencer, and influencers must be able to sustain their social presence to retain their credibility and popularity (Jin et al., 2019; Patel & Rao, 2023). As the digital platforms continue to grow, it is becoming more complex to stay influential; one must be strategic and be able to adapt to new technologies.

Artificial intelligence and machine learning are turning the world of marketing on its head and driving some serious changes in the ways in which brands connect with their audiences. As these technologies continue to develop, they're becoming an important tool for influencers and brands alike to help them further target their audience, individualize content, and better

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manage content campaigns (Argyris et al., 2020; Hamid & Baig, 2021; Karim et al., 2025). Marketing has been one of the most redefining industries and this has been incited by the digital age, thus, Artificial Intelligence now plays a key role in everything from Analytics to content creation to engaging with consumers (Argyris et al, 2020; Mahmood and Kim, 2023; Ali et al., 2025. The shift to these new technologies has amounted to a shift in marketing which has actually become more effective as it's easier for the brands to keep up with changes in consumer taste which is fast paced. The influencer marketing scene is booming, with a market value in 2023 at a whopping $21.1m, with various industries seeing effectiveness in the market at over 80% (Belanche et al., 2021; Ortega et al., 2022). This success is a result of a combination of individuality and sense of authenticity and great influence of social presence. However, the industry is not without its challenges, with ethics such as influencer credibility, conflict overload, and even ethical issues of using data-driven technologies such as Khan and Bello (2024) while Hashmi et al (2025) noted that social media is not free of numerous challenges that are arising. However, the industry is not without its challenges, with issues such as the credibility of influencers, content overload, and even the use of data-driven technologies (Martinez-Lopez et al., 2020; Khan & Bello, 2024; Hashmi et al.,

Social media platforms are also continuously evolving and therefore, new and innovative digital tools are altering the way influencers use to create and published their content. Innovations like those seen with virtual influencers and AI-generated personalities are well-known on the global stage and are opening up new possibilities for the ways that online identities and brand representations can come into being (Jin et al., 2019; Park and Ahmed, 2023). Celebrities are also using their platform not just for advertising but for giving a glimpse into their daily life, hobbies, lifestyle, etc., which helps the audience to have a connection with them and be influenced by their choices (Moustakas et al., 2020; Alvi & Noor, 2021; Rehman & Chowdhury, 2025). This intimate engagement often makes consumers believe that they are using an endorsed product of good quality simply because someone who has influence uses it. This type of parasocial influence strengthens the associations of the brand that influence people's perceptions of quality and purchasing decisions (Guruge, 2018; Dias and Martins, 2023; Dek and Ibrahim, 2025).

Artificial intelligence has become a great tool that is increasingly being adopted in many aspects of influencer marketing, they are giving positive and supportive outcomes for the influencers who rely on digital platforms.(Vlacic et al., 2021). Social media influencers have become an important player in digital promotion and are known as the "new brand" with the increasing involvement in the formation of consumer preferences and the increased visibility of the brand (Gomez, 2019). Lately, we've been seeing a very interesting trend in the world of marketing - virtual AI influencers. These digital personalities have been gaining ground as they appear more real and consistent, and that makes them incredibly appealing to brands. In fact, most of the time, they work better than traditional advertising methods, which really speaks to us how enthralled consumers are by these AI-driven personas (Sands et al., 2022; Rivera et al, 2023). However, as exciting as this development is, the execution of successful influencer marketing campaigns is getting more difficult as there is nothing but stiff competition in the digital landscape. Thankfully, AI technologies are coming to the rescue to help streamline campaign management and execution to make things more efficient and reliable, cut down on human error, and automate those tedious tasks (Lopez et al., 2024). With the social media platforms evolving at an unprecedented pace, the social media influencers (SMIs) still play an important role in the world of digital advertising in terms of the influence of shaping new trends in consumer behavior online (Grave, 2019; Martins et al., 2022). The researcher is particularly interested in this topic because it's quite a new and relevant topic, and it's been increasingly seen as a handy tool among influencers and marketers. However, there's still a gap in the research in terms of understanding the emerging trends of virtual AI influencers and how AI can have a positive impact on influencer marketing. That's why this research is trying to find the valuable influence of AI in terms of and we are worried in the paths of how the virtual social presence and the activities of influencers create new trends in the marketing activity and can boost the integration of AI in the influencer-based marketing strategies (Henderson et al., 2023; Qadir et al., 2025; Yeung and Chung, 2025). Ultimately, the objective of this research will be to achieve some sense around the question of how AI can enhance digital engagement and influencer productivity and inspire innovative marketing practices to accommodate the changing consumers preferences.

2. LITERATURE REVIEW

Influencer marketing has come a long way, as its humble origins mostly consisted of a handful of bloggers and celebrities. Nowadays, social media influencers have indeed moved to the spotlight and they are still the key players in the business world (Jin et al., 2019). While social media platforms such as Instagram and Facebook are still the leaders of the pack, influencers are now filling their wings out to various social media platforms, tailoring it to suit their audience and content style. Companies frequently share their appreciation on the influencers in terms of cash, free experiences and products, services, as well as travel opportunities as part of their marketing partnerships (Campbell et al, 2020). That's interesting, how these influencers elegantly mix promotional content in their post, they blend the sponsored content with their normal content in a way makes it natural and normal in the eyes of their follower (Campbell & Grimm, 2019). The emergence of influencer marketing can be attributed to several strong points. For starters, people are communicating with online media much more than traditional print sources these days. Plus, the moment that users are trying to find their way through the digital space, they are prone to react differently to advertisements, given that they are goal-oriented and therefore less receptive to simple promotional messages (Lindsey-Mullikin & Borin, 2017).

Influencers have become deeply dependent on social media websites in order to enhance their visibility and increase their following. At the same time, these social networks are thriving due to the content produced by influencers, and that keeps the

users in them. This creates a symbiotic relationship where social media and influencer marketing support each other, where the influencers or creators constantly put out new content to remain relevant (Haenlein et al., 2020). When it comes to digital spaces, user-generated content is perceived to be more valuable than the brand in that the former feels more authentic. This authenticity will make these recommendations easier for the audience to trust and be influenced by (Djafarova & Rushworth, 2017). The trend of influencer marketing is on the rise; in fact, 39% of marketers planned to spend more on influencer marketing in 2018, and an additional 19% intend to spend even more (Lou & Yuan, 2019). Nowadays, traditional media such as newspapers, TV, and radio have fallen behind in terms of the primary source of information. Instead, people are seeking social media platforms and online communities for communication, building relationships, and getting information (Ahmad, 2018; Martins et al., 2022).

The rapid emergence of artificial intelligence has completely altered the way companies function and how they think about marketing. One of its biggest impacts is improving the marketing performance with the help of smart automation and insightful analysis (Shaik, 2023). The essence of Artificial Intelligence in marketing is to use digital tools and the data from the markets to improve the customer experience and easy decision-making (Jain & Aggarwal, 2020). AI has the best ability in connecting the dots between data science and real-world applications by processing a huge amount of data with ease (Thiraviyam, 2018). In the world of AI marketing, these technologies pass through large amounts of data and assess different aspects of marketing in order to gain an expertise and discover strategic insights. This capability is allowing for the automated execution of marketing tasks, such as market intelligence generation and consumer behavior analysis (Verma et al., 2021). As Kaplan and Haenlein (2019) point out, AI seeks to program machines to perform tasks in imitation of human intelligence. Cutting-edge technologies present Multi-Cloud, Block chain, Big data, Data science, AI, internet of things etc Transforming the world professionally and personally too, Hyperautomation and Hyperconnected systems for the future (Huang & Rust, 2021; Lopez et al., 2024).

Artificial intelligence is shaking up the marketing world and only bound to leave a mark of change in the way we do things. While some early adopters are trying to get every bit of value out of AI, it's evident that marketing is one of the most powerful areas in which AI is making waves (De Bruyn et al., 2020). Nowadays, AI is a go-to tool in such areas as customer messaging, personalization, predictive analytics, consumer segmentation, and other strategic activities (Bughin et al., 2017). Even though many companies have started to weave AI into their operations, there's significant room for improvement when it comes to high-level strategic adoption of AI in several organizations. On the bright side, most of the marketers are waiting for the use of AI more in the near future, which indicates a rising interest in the field (Mustak et al., 2021).

When we are talking about celebrity endorsement, we are referring to the strategy of leveraging the star power of a celebrity to market products by associating them with appealing qualities (Chung & Cho, 2017). However, many models explaining how celebrity influence works tend to overlook the rich nature of attributes and the process of celebrity endorsements or evolving processes to successful endorsements (Aw & Labrecque, 2020). Whilst the use of celebrity endorsements has long been considered as a trusted source of information about a product, there's still plenty to know about other types of influencers - especially those on social media (Burke, 2017). Endorsements can be of different styles, namely co-presentational, implicit, imperative, or explicit promotional styles (Yang, 2018).

The digital world has actually really given everyday people a level to say things as they are, and this type of content is starting to be viewed as genuine and captivating. Because of this, the audiences tend to have a positive reaction, which contributes to posts going viral (Alic et al., 2017). Guruge (2018) points out that celebrities assume four major roles: spokesperson, endorser, actor, and testimonial provider, each one have a cost implications. It has been researched that celebrities nowadays can influence the decisions of the consumer by enhancing trust and credibility. With the rise of social media, brands are now able to relate directly with their consumers, and they use either celebrity or content from reverts or influencers to make their promotions more effective (Jin & Ryu 2019). Plus, this is another way in which anonymous users are making a name for themselves in different fields by taking an active role in sharing content and displaying how social media evens the playing field in terms of influence (Rosenthal & Brito, 2017).

Social presence is all about the strengths in terms of warmth, friendliness, and personal connection people feel when engaging with each other online. The features of different platforms can really affect the amount of felt social presence, especially in virtual spaces where users co-exist in environments such as virtual rooms (Barta et al., 2021). Guimaraes et al. (2020) found that humans in virtual reality environments had a heightened sense of social presence compared to when in traditional virtual experiences online, and perhaps the greatest effects were in emotional understanding, clarity of communication, and perceived alignment. This sense of virtual presence is also leading team building in the virtual (Schultze et al., 2019), enhancing the role played by the recommendation system, the success of e-commerce, and teaching organizations how to build relationships in e-tech environments such as webinars, video calls, and even E-Presentations (Rivera et al., 2023).

Virtual presence is all about feelings full immersion in a virtual world where our actions in the physical world are simulated in virtual reality, where our social signals and our senses are experienced. In these vibrant virtual worlds, there are no restrictions of the actions of the learners and the users, and they can shop and interact with each other (Selzer et al., 2019). When people have a high sense of virtual presence, they're likely to participate more in the simulated world, as well as think less about the platform itself, which helps improve their overall involvement (Chen, 2023). Virtual influencers are AI-created characters with the intention of creating an avatar that resembles a real person, and, more often than not, enormous fans on social media. And they're sadly jumping on board with such high-end brands as Prada and Louis Vuitton to showcase products. Take Lil Miquela, for instance - she's one of the most famous virtual influencers who has millions of followers - while openly

admitting that she is artificial and sharing human-like emotions in her posts. Although the concept of virtual influencers is a new concept, there has been research that suggests that consumers might be doubtful about the credibility of virtual influencers and perceive them to be less real than real influencers (Moustakas et al., 2020; Qadir et al., 2025).

Our first approach is that perceived quality is all about the "way that consumers perceive the superiority or excellence of a product or service over other choices (Supiyandi et al., 2022)." To develop a positive impression regarding the quality, brands get to improve on their components and identify the quality that is most relevant to their target audience (Shanahan et al., 2019). The way in which the influencer showcases the product can have a big influence on the intentions of their consumers to buy the product (Xiao et al., 2018). In addition, perceived quality is critical in the development of commitment to a brand since it is the way to represent the dependability and the effectiveness of a particular brand. It has a significant impact on customer's satisfaction, preference and return towards a brand (Nikhashemi et al. 2017). In addition, perceived quality is a significant factor that leads to a rise in brand equity through driving brand loyalty to brands even when they do not have particularly strong brand associations (Kim et al., 2018). Marketing strategies like promotions and campaigns, quality and brand loyalty perception are a part of that moreover, but they are key in assessing the success of influencer marketing. It's important to note that customer satisfaction is not equal to perceived quality and satisfaction can come from poor expectations, while perceived quality is about delivering real value. At the end, perceived quality impacts on profitability in terms of how will see performance and reliability of the brand (Calvo-Porral & Levy-Mangin, 2017). Amelia (2018) makes the point that there's a real difference between the actual quality and the perceived quality. If the consumers had previous negative experience with a product, they may be less inclined to change their opinions with regard to the quality of the product. Even if improvements are made, they could easily be ignored or regarded as minor in nature. Often, consumers are interested in only a few attributes rather than take them all into account and so it is important that we know what they consider important. Sometimes, they will even assess the wrong attribute in such cases, such as assessing a diamond by its price. This demonstrates the importance of knowing the difference between perceived and objective quality, when building effective marketing strategies and increasing the value of the brand.

3. THEORETICAL FOUNDATION

In the last few years, researches have started to scratch the surface of the topic of how artificial intelligence can be integrated into influencer marketing. However, there's still not a ton of research looking specifically at the impact of AI on Influencer practices. The studies that exist provide some early glimpses into the activities of AI-fuelled influencers as well as some early thoughts on the ways artificial intelligence is changing promotional communication. Social media influencers are nonetheless, still a significant source of persuasive power and are known as the "new brand." Interestingly, another type of AI-generated virtual influencers have been created, contributing to our traditional understanding of digital influence (Weinswig 2016). For instance, the French luxury fashion house of Balmain has the virtual AI influencers such as Shudu, Margot, and Xhi, which shows the company's effort to diversity and modernize (Minton, 2018). Since AI influencers are perceived to be cost-effective and less likely to raise public controversy, they've become increasingly attractive to companies in search of decent brand representation (Thomas & Fowler, 2021; Serrano et al., 2023).

As highlighted by Haenlein (2019), conversational AI systems are really taking off, with digital humans set to step into customer-facing roles in retail settings. We're already seeing the work of artificial intelligence applied to social media platforms where the AI is used to create automated responses and manage brand interaction, which is helping to create the online identity. In the space of influencer marketing, this technological evolution has therefore created space for AI-generated influencers to work with human influencers (Liu, 2019). The research from De Veirman et al. (2017) indicates that such AI-driven personalities have the potential to achieve positive marketing outcomes, particularly as the boundaries between human-like and automated behaviours begin to blur. This shift enables algorithmically generated personas to have a great influence (Rivera et al., 2023; Vasquez et al., 2023).

Several research studies have provided some of the initial insight into AI's impact on influencer communication. For example, Block and Lovegrove (2021) focused on the speech patterns of an AI influencer to determine particular characteristics that connect with followers. Their findings lead to the suggestion that the influencer's constructed identity and messaging work together to form a unified strategic communication tool, in which the influencer serves as both the medium and the message. Another study by Thomas and Fowler (2021) has compared AI influencers with human influencers in terms of consumer reactions, potential risks, and implications of AI-generated personas in a marketing context. Similar to traditional celebrity endorsements, the use of AI influencers can also have a positive marketing effect and can be effective promotional agents (Henderson et al., 2023; Qadir et al., 2025). Although the AI influencers offer some remarkable advantages - consistency, controllability, creative flexibility, to name a few - the empirical research exploring consumer responses to virtual influencers is limited. There is not yet enough knowledge about how consumers perceive and respond to AI-generated social presence or how brands can use AI influencers strategically in comparison with human celebrities. As AI influencers become increasingly visible and continue to evolve, future studies must focus on determining whether they may become the next generation of digital celebrities, which may well change the way authenticity, presence, and persuasion work in virtual marketing environments (Lopez et al., 2024; Tan et al., 2024).

The model of the study becomes: Direct Relationships

Each of the three predictors influences influencer marketing directly:

- Perceived Quality → Influencer Marketing

- Celebrity Endorsement → Influencer Marketing
- Virtual Social Presence → Influencer Marketing

Mediated Relationships (AI as Mediator)

The mediator AI is influenced by PQ, CE, and VSP, and then AI influences influencer marketing:

- Perceived Quality → AI → Influencer Marketing
- Celebrity Endorsement → AI → Influencer Marketing
- Virtual Social Presence → AI → Influencer Marketing

These represent the indirect effects.

4. RESEARCH METHODOLOGY

The strategy adopted during this study is a quantitative study, which concentrates on the measurable patterns to uncover the impact of artificial intelligence on influencer marketing. This research is also an explanatory study, as the role of AI in this area hasn't been extensively explored yet. We want to shed more light on how the rise of AI in influencer marketing is resulting in new developments. Given that there's been limited academic research on the specific topic, our research aims to better understand and make a point of the changing trends associated with the application of AI-driven marketing practices (Hassan et al., 2023; Rivera et al., 2023). We use a correlational design when we study the relationship between a range of factors. The independent variables are perceived quality, celebrity endorsements, and virtual social presence, while influencer marketing is the dependent variable, and artificial intelligence is the mediating variable. By using this correlational design, we statistically measure the strength and the direction of the connections between these variables to establish a connection of positive or negative connections in the context of AI-enabled influencer marketing (Lopez et al., 2024; Wong et al., 2024).

Our targeted audience is for the social media users who actively follow influencers, ranging from the 16 to 60 year age range, which represents a range of people who are avid users of social media. A total of 176 people were involved in this study. We used the convenient sampling method in selecting the sample for the study. The data is more related to the sample is mainly comprises of private and public educational institutions and also from working professional as teacher, office workers, normal social media users (Tan et al., 2024; Vasquez et al., 2023).

The research is based on a non-probability sampling method known as convenience sampling which means that the participants in the research are selected based on their accessibility and for their willingness to participate in the research. For data collection, they make use of a structured questionnaire, which has the items in a Likert scale. This questionnaire sets closed-ended questions that align with the variables of the research, and it is a 5-point Likert scale with "Strongly disagree" (1) to "Strongly agree" (5) used as the scale. The items were adapted from previous studies of Leinatamm and Bilali (2019), Trivedi (2018), and Pelau et al. (2021). In order to analyze the instrument reliability Alpha Cronbach's Alpha, that checks the internal consistency of the question and determines if the questions of the questionnaire are measuring the same thing (Gomes et al., 2022; Martins et al., 2022).

Data was collected from those who are active on social media and that of the creators on social media. We distributed questionnaires digitally in several areas in Pakistan and could participate students, employees there as well as any that has access to social networks. The data we collected gives us insight as to whether people are drawn to influencer marketing that is AI driven and whether there is a positive or a negative correlation of various relationships (Carvalho et al., 2022; Tan et al., 2024). For the analysis, we have used the statistical software package, the Statistical Package for the Social Sciences (SPSS). We typed responses that were given by participants into the software to get descriptive frequencies for demographic information. We tested the reliability of the constructs using Cronbach's alpha and correlational analysis to analyze the relation between the variables. For testing our hypotheses, we have made regression analysis that was based on the examination of outputs of the analysis of variance, model summary, and outputs of the coefficients. This in-depth strategy permitted us to help interpret the statistical significance and prediction effects between variables (Henderson et al., 2023; Serrano et al., 2023).

5. RESULTS AND FINDINGS

The descriptive statistics displayed Table 1, has an important foundation to clearly understand the effects of artificial intelligence in consumer engagement with influencer marketing. It does this by developing the demographics of the people who hold these opinions. The information indicates that most of the participants who participate in the study are male, though there is also a significant number of female participants, which shows that both genders play an important role in shaping the attitudes towards Artificial Intelligence (AI) driven influencer practices. Gender differences hold extensive potential of influencing audience to the extent of crediting product claims, virtual personas, and the influencer's authenticity. This demographic balance contributes to the extension of the results to other use cases for influencer marketing in general. Previous research has shown that access to digital influencers can vary according to gender when AI-based technologies, such as content personalising algorithms or virtual avatars, take centre stage. Men and women may have varying degrees of trust and emotional involvement with influencer content (Aw & Labrecque, 2020). Also, research about social media influencers has found gender differences in terms of how transparency and message reliability are perceived, in order to influence purchasing intentions and the overall engagement (Djafarova & Rushworth, 2017). Moreover, research has indicated that AI can massify cognitive evaluations of product quality, message alignment, and connections between influencers and their followers, with the aforementioned perceptual processes potentially gendered (Huang & Rust, 2021). Therefore, the representation in this

table is to ensure the analysis of the AI-supported influencer interactions captures a range of consumer perspectives, especially as it relates to the way men and women react to virtual personas, perceived realism, and brand messaging.

Table 1: Descriptive Statistics

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
male	104	59.1	59.1	59.1
female	72	40.9	40.9	100
Total	176	100	100	100

Table 2 takes a closer look at the demographics of those investing in influencer marketing supported by artificial intelligence. The biggest group that is represented within the sample is those that are between thirty-one and forty years of age, closely followed by the 18-29 year olds. These two age brackets in particular are active in the digital space and may be less inclined to those marketing factors harnessing artificial intelligence, that are content created with algorithms and virtual or computer generated influencers. This is in the lines of researches that demonstrate that consumer that is younger adult, are more in tune with digital signals and interactive virtual elements (De Veirman et al., 2017). The fact that respondents above the age of forty and above fifty, meanwhile, are included is to highlight the fact that AI-driven influencer marketing is not a marketing effort exclusively for the younger crowd. Previous research has pointed to the fact that the elderly can have positive responses to things like perceived levels of products quality, clear messaging and authenticity, especially if the influencers are perceived as trustworthy, and AI tools can aid in content consistency and credibility (Calvo-Porral and Levy-Mangin, 2017). Artificial intelligence really increases virtual and social presence, which can increase engagement by different age groups, of ages as these influencers will appear more relatable and relatable. This is something that studies related to the virtual agents and interactions with consumers have looked into (Guimaraes et al., 2020). The effect of age on the understanding of the AI impact in relation to perceptions of influencer trustworthiness, brand congruence and emotional connection to virtual personalities is of paramount importance. It stresses the fact that artificial intelligence can be relevant in demographic groups. The information on demographics displayed in these tables ensures that our data on the use of AI in influencer marketing is based on the extent of generational diversity in digital behavior, openness to personalized algorithms, and acceptance of virtual personas.

Table 2: Age Demographics

Age	Frequency	Percent	Valid Percent	Cumulative Percent
less than 21	5	2.8	2.8	2.8
21-30	60	34.1	34.1	36.9
31-40	79	44.9	44.9	81.8
41-50	22	12.5	12.5	94.3
above 50	10	5.7	5.7	100
Total	176	100	100	100

Table 3: Level of Education

Education	Frequency	Percent	Valid Percent	Cumulative Percent
Matriculation	3	1.7	1.7	1.7
Undergraduate	22	12.5	12.5	14.2
Graduate	143	81.3	81.3	95.5
Doctorate	8	4.5	4.5	100
Total	176	100	100	100

The data from Table 3 gives insight into how our educational background affects our perspective on artificial intelligence-driven influencer marketing, especially when it comes to the evaluation of the products and the interactions with virtual personas. It's interesting to point out that we have quite a number of respondents who are graduate students, while a smaller group of undergraduates. This means that the audience interacting with influencer content backed by AI is mostly composed of highly educated individuals. This matters a lot to understand their responses, since individuals with a higher level of education, in general, and due to this, are usually able to better analyze the AI-originating content, understanding the algorithm of personalization by algorithms and the credibility of virtual influencers. Previous studies have shown that educated consumers are prone to a more analytical approach when receiving digital messages, particularly when technologies such as automated image analysis, personalized recommendations, or synthetic personas are used (Martinez-Lopez et al., 2020). Additionally, studies about influencer credibility findings reveal that educated audiences are more sensitive to persuasion motivations, which causes them to emphasize highly the perceived product quality and content coherence highly when establishing trust (Belanche et al. 2021). Since the sample largely consists of graduate-level participants, the findings that emerged from this study likely represent the higher level of digital literacy and more critical opinion of the characteristics of

influencers generated by artificial intelligence. Moreover, higher-level learners are more sensitive to issues of authenticity, transparency, and realism of virtual characters. This aligns with previous research, which indicates that AI-generated influencers can be used to spark curiosity and scepticism amongst viewers, depending on the viewer's thoughts (Thomas & Fowler, 2021). Even though the number of doctoral-level people is lower, their contributions this time provide valuable insights from people with even greater analytical abilities and thus enhance the conclusions of this research in terms of artificial intelligence, product perceptions, and virtual personas.

Table 4 gives a more in-depth look into the professional backgrounds of those involved in artificial intelligence-enhanced influencer marketing. The highest population here consists of employees in professional or organizational contexts, which implies that a decent number of respondents are engaging with AI and digital advertising in organized work environments. These workers are generally accustomed to routine exposure to tech systems and digital communication tools, so they are more acquainted with the use of AI in marketing, such as content filters or suggestions of influencers, or even a virtual spokesperson. Previous research shows that working professionals tend to evaluate influencer content based on the degree of alignment of the product with the strategies, the relevance of the product, and the authenticity of the influencer. Interestingly, the role of AI can serve to elevate or devalue those assessments depending on the degree of convincingness of how it fits with the influencer's image (Campbell & Farrell, 2020). The second largest group is students, who bring a fresh perspective, often with the use of social media and a willingness to embrace virtual content. For the students, they have found them used to AI help, such as virtual idols, algorithmic feeds, interactive limited brand content, which creates their view of influencer credibility and product quality (Leinatamm & Bilali, 2019). On the other hand, the way people go about their own businesses brings an entirely new picture to the table: business owners are often coming at influencer marketing from a strategic point of view, eager to find out how artificial intelligence can strengthen the promotion of their product and increase their digital reach. Studies show that entrepreneurs are more adventurous in terms of digital tools and believe that influencer marketing based on AI can be a medium to invest in the cost-effective visibility of marketing brands and a more connection with the consumer (Vrontis et al., 2021). By including employees, students and business owners, the dataset becomes richer and there is a variety of motivations and digital behaviours. This diversity does help in ensuring that the insights being provided in the study really reflect a variety of experiences with virtual personas, with AI-generated credibility signals and the ways products are perceived.

Table 4: Kind of Occupation

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Employee	118	67	67	67
own business	19	10.8	10.8	77.8
Student	39	22.2	22.2	100
Total	176	100	100	100

Table 5: Validation of Model

Variable	N	Minimum	Maximum	Mean	Std. Deviation
PQ	176	2	4.1	3.21	0.36
CE	176	2	3.8	2.57	0.54
VSP	176	2	3.7	2.68	0.41
AI	176	1.75	3.8	2.39	0.27
IM	176	1.67	3.7	2.45	0.34

The findings in Table 5 contain insights about the perceptions of the respondents regarding the most important aspects affecting the bridge set up between artificial intelligence and influencer marketing especially products evaluations, and virtual personas. One is the average perceived quality of the product, which is on the higher side meaning that people generally have a positive reaction to the way that AI-backed influencers or virtual personas are depicting products. This is consistent with previous studies which identify that: Technological capability to implement visual consistency and personalized messaging can boost consumer perceptions of the quality of products, particularly where algorithms are used to optimize a match between what influencing content communicates and what consumers may perceive (Argyris et al., 2020). On the other hand, the average level of celebrity endorsements is slightly lower which may indicate that while people are aware of the role of influencers, they may feel a difference between traditional influencers and those generated by AI. Recent research shows that AI generated influencers and virtual personas can reduce the need for traditional celebrities to be involved with consumers in having more controlled and continuously controlled images, and this is how the endorsements might be perceived as less strong. The moderate level of virtual social presence means that respondents perceive a certain, significant, but not overwhelming, connection with the virtual personas. This relates to other research showing a similar thing - even if AI-enhanced presence cues are able to generate a sense of reality, they do not have the warmth of human interaction (Schultze & Brooks, 2019). The average score for artificial intelligence points to the respondent's view of artificial intelligence as a valuable part of the influencer experience, but not quite so dominating and intrusive. This connects back to the previous

studies that express the necessity of the AI finding balance in automation and sincerity in influencing the way people view things (Huang & Rust, 2021). The influencer marketing score features a similar trend, with respondents indicating engagement with AI-topped influencer content, but with their responses depending upon the quality of presentations of product features, virtual persona, and AI-assisted personalization, coming in as their expectations fail to fit the actual data. These trends show that while AI in shaping perceptions it's important that there is some link between message value, perceived realism, and relationship between influencers and consumers.

Table 6 provides evidence of the reliability of the model by providing the overall Cronbach's alpha value that is comfortably in the acceptable range of social science research. This means that the items that designed to measure perceived product quality, the influence of endorsements and virtual social presence, artificial intelligence, and influencer marketing are all consistent with each other. Such reliability is imperative in research on developing digital behaviours where responses are based on subjective perceptions that are affected by how fast the speed at which technology is changing. Previous research has highlighted the fact that concepts related to artificial intelligence and digital engagement and virtual influencers, may require a well-crafted measurement tool, because consumer responses to these concepts can vary significantly depending on their familiarity and exposure to the concepts (Mustak et. al. 2021). As such, the figure of reliability suggests that the model can do a decent job in terms of capturing these concepts presented with the combination of inner structure being integrated and ready to go further in-depth on how the concept of artificial intelligence is part of influencer marketing strategies.

Table 6: Reliability Statistics

Cronbach's Alpha	N of Items
0.728	5

The understanding is one step forward in Table 7 which presents reliability indicators for each variable separately. It calls the fact to attention that the measures relating to perceived quality of the product and artificial intelligence show a high internal consistency. The significant reliability of the artificial intelligence construct implies shared respondent perception about the impact AI on influencer marketing environments and is stable. It is in line with the research that indicated that AI-based marketing tools are increasingly setting the behavior of the consumer in predictable manners, for example, better content personalization, message coherence, and any controlled influencer impression (Verma et al, 2021). On the other hand, the social presence in the site and celebrity endorsement are moderately reliable, which means these concepts can be construed in varying ways by respondents. This can be understood, since the level by which people achieve social presence and credibility of an endorsement is often dependent on psychological factors and social identification and personal preferences for influencer authenticity (Chung & Cho, 2017). Influencer marketing is slightly lower in reliability level, but that is still acceptable, meaning it is found that the opinions of people about influencer marketing vary depending on people's experiences of various platforms, the presence of AI-generated contents and the presence of branding cues. These differences are echoed in the broader literature that has implied that influencer marketing is an intricate field that is shaped by the quality of content, the credibility of the communicator as well as the merging of technology (Haenlein et al., 2020). Overall, the results of the statistics of reliability prove the effectiveness of the instrumentation of the measurement framework in capturing the multifaceted impact of artificial intelligence on the perception of products, virtual personas, and consumer engagement influenced by influencers.

Table 7: Reliability Statistics of Variables

Variable Name	N	Cronbach's Alpha
Perceived Quality	176	0.742
Celebrity Endorsements	176	0.669
Virtual Social Presence	176	0.681
Artificial Intelligence	176	0.795
Influencer Marketing	176	0.635

The relationships that are found in Table 8 contain meaningful information associated with the interconnection between key concepts of this research associated with how they affect the outcome of influencer marketing, especially in the case of integration of artificial intelligence in digital communications and the construction of virtual personas. The positive association between perceived product quality and influencer marketing, therefore, implies the notion that any time a consumer or consumer sees a product in clear, continuous and convincing manner, there is a tendency that he will make a positive response to the efforts made by the influencers. This is in support with the previous research findings showing that when consumers are exposed to high-quality modelling of products, be that from human influencers or visuals created by AI, there can be an important increase in engagement levels due to the establishment of trust and credibility (Shanahan et al., 2019). Similarly, the relationship between the celebrity endorsements and influencer marketing reveal an existence of a positive relationship, focusing on the fact that, in terms of coming from an endorsement vantage point, automated personalization and synthetic persona enhancement do not diminish the importance of endorsement cues in engaging the

audience. Previous research has found that credible endorsements work in the digital sphere too, especially if technology is used to increase the match between the message and the credibility of the endorser (Kim et al., 2018). Out of the variables, the one with the highest correlation to influencer marketing happens to be virtual social presence, as this means that when consumers develop higher feelings of connection, immersion, or closeness with a virtual persona, their engagement with influencer content causes a dramatic increase. This is consistent with research proving the power of AI generated agents, avatars or digitally simulated personalities in causing feelings of social presence, which leads in turn to greater persuasion and emotional attachment (Sallnas, 2005). The substantial correlation between artificial intelligence and influencer marketing is evident artificial intelligence plays a large role in the reaction of consumers. This adds up to the concept that the personalization created by an AI, the automated visual improvements, and the smart customization of messages are actually making the influencer communication more efficient (Jain & Aggarwal, 2020). Together, these insights prove that influencer marketing is in the mix of product perceptions, visual cues, and a tech-based social presence in order to successfully communicate with an audience.

Table 8: Correlations

Pair	Pearson Correlation	Sig. (2-tailed)
PQ-IM	0.255	0.001
CE-IM	0.243	0.002
VSP-IM	0.368	0
AI-IM	0.209	0.002

Table 9 lays out the model summary, pointing out the manner in which the right mix of perceived product quality, cues of endorsement, and virtual social presence (in concert with artificial intelligence) explains a significant chunk of variance on influencer marketing results. While the explained variance is a bit moderate, it is not without meaning, especially when all of the intricate nature of digital engagement and the variety of tech interactions affecting their consumer choices is considered. Research in digital marketing suggests that an AI-enhanced influencer environment entails a synergy of psychological and technological elements, namely, how people perceive their identities, message alignment, social signals for interaction and effectively tag the audience through the algorithm; all such things influence the audience response (Leung et al, 2022). Therefore, the predictive capabilities in the model are consistent with the other existing studies on how artificial intelligence is a good asset in the direction of influence, especially when combined with some social presence cues with trustworthy product information. The resulting value of the standard error indicates that the predictions are stable and support the reliability of the model for the different types of consumers.

Table 9: Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	0.463	0.214	0.196	0.297

Table 10 really brings out the importance of the model by the analysis of variance result. The very noteworthy value indicates that the sum of individual effects of perceived product quality, endorsements, virtual social presence, and artificial intelligence was able to predict influencer marketing outcomes significantly, much more than we might expect by chance. This finding confirms that the influences that we see in the correlations are part of a powerful predictive framework to illustrate that artificial intelligence plays a massive role in determining how consumers understand influencer content. Previous studies have shown that influencer strategies, such as the use of virtual speakers, aesthetic modifications, and data-based content optimization by Artificial Intelligence (AI), have a significant impact on how consumers perceive consumer advocates, especially when these features add value to the influencer's credibility and connection with their fans (Sands et al., 2022). Thus, the importance of the regression highlights the importance of well-thought-out integration of artificial intelligence into influencer marketing practice in order to increase consumer engagement, increase the realism of virtual personas, and improve the fit of perceived products. These findings confirm the main idea in this study, which ultimately concludes that artificial intelligence is a revolutionary element for the effectiveness of influencer marketing based on the interactions that it has with product-perception, signals of endurance, and virtual presence.

Table 10: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.071	7	0.996	11.21	0
Residual	15.045	169	0.089		
Total	19.116	176			

The results in Table 11 help clearly illustrate the role that many factors, such as perceived product quality, endorsements, virtual social presence, and artificial intelligence, play in influencing the outcomes of influencer marketing, particularly when

operating in environments in which virtual personas and AI-driven communications are the norm. When consumers think a product looks good, trusted, and satisfies their expectations, they are generally receptive to the messages of influencers. This is in line with prior studies, which indicate that clarity and consistency in product presentation can play a vital role in establishing trust in content created by influencers or AI, especially when the AI software is used to improve the level of accuracy and visual aesthetics of the messages (Lou & Yuan, 2019). The effect of celebrity endorsements is also profound, which highlights the fact that those cues are important even as they are in an AI-mediated context. It appears that the consumer wants to have credence and association, especially as the AI tools benefit in completing the message delivery, or to make the environment of the endorsements believable. This gives some support to the research that can conclude endorsement effects are not weak enough by themselves to be without use with digital personalization and tech-enhanced content (Bergkvist & Zhou, 2016). Notably, the strongest predictor in the model, virtual social presence, is a prime find in the light of just how much of an audience-influencer marketing drive a sense of personal connection can create. When it comes to the customer's reaction when virtual influencers or AI-generated personas create the illusion that they are, in fact, being realistic and emotionally connected or even socially close, the customer will react much better than before. This is in line with research findings that provided that social presence is a crucial factor in effective digital communication (Schultze and Brooks, 2019). Moreover, the autonomous power of artificial intelligence is also high as it stresses the importance in the way that consumers view the brands of the technologies, such as algorithmic curation, automated message alignment, and creating virtual influencers. This finding is consistent with existing studies pointing towards effective communication from AI in terms of AI making communication with influencers more relevant, improving the representation quality, and creating more engaging virtual experiences (Huang & Rust, 2021). Overall, these insights suggest that the reason for the higher success of influencer marketing in environments equipped with Artificial Intelligence is the combination of impressions of products, representational cues, and engagement on an emotional level, and the role of tech in mediation.

Table 11: Coefficients

Predictor	B	Std. Error	Beta	t	Sig.
(Constant)	0.902	0.41		2.199	0
PQ	0.241	0.073	0.249	3.301	0.001
CE	0.157	0.05	0.239	3.138	0.002
VSP	0.315	0.062	0.363	5.081	0
AI	0.267	0.098	0.205	2.724	0.002

Table 12 takes one step further and shows how artificial intelligence is a bridge between the key predictors and the consequences of influencer marketing. The direct effects are still quite powerful when it comes to perceptions of product quality, endorsement cues, and virtual social presence, which confirms that this plays an independent role in the way that consumers respond. Yet, the great indirect effects prove that artificial intelligence assists these connections through much customised messaging, visual uniformity, and voceroishi more convincing virtual personas development. This is consistent with research that has suggested that artificial intelligence is often an unrecognized power in the field of digital persuasion and that it influences the way consumers interpret influencer communication while remaining naturally engaging (De Bruyn et al., 2020). The mediated effect of perceived product quality by influencer marketing shows that artificial intelligence increase the evaluating product cues by refining the visual way, or improving the algorithm targeting. Additionally, the indirect effect that were observed in the relationship of celebrity endorsers and influencer marketing suggest that artificial intelligence allows for these endorsers to become more persuasive, perhaps through the way of how the messages are more presentable in terms of tone, timing, or visual information, which was consistent with findings that artificial intelligence can make the match between endorsers and products more precise (Belanche et al., 2021). Of all the above three links, the one with the most importance in terms of influencer marketing is the link with virtual social presence, suggesting that artificial intelligence certainly gets a boost when considering of a feeling of connection and realism in online interactions. This is in tandem with the research showing that AI generated agents and virtual influencers become more convincing to the betterment of AI in the expressiveness of emotions, responsiveness, and perceived authenticity (Thomas and Fowler, 2021). In sum, the mediation patterns provide evidence that is not necessarily that artificial intelligence isn't made an artificial intelligence, it's just another, but, with the emergence of social media, it's a match-changer both in relation to the ways that consumers understand and react towards influencer content.

Table 12: Coefficients of mediator

Model	Direct Effect	Indirect Effect	p (direct)	p (indirect via AI)
PQ-AI-IM	0.2465	0.0045	0	0
CE-AI-IM	0.141	0.0178	0	0
VSP-AI-IM	0.3687	0.0227	0	0

The research being done throws light on the role of artificial intelligence in influencer marketing and is used to discuss the issues of whether artificial intelligence supersedes or complements the promotional strategies relying on influencers. The findings reveal that there is a positive and significant impact of AI in influencer marketing. Additionally, the results reveal that celebrity endorsements continue to have a strong relationship with influencer marketing, and the perceived quality has a positive relationship, while virtual social presence also has a positive role. Moreover, AI serves as a significant mediator of the association between influencer marketing and its important mental experiences, signaling the growing integration of AI-computing software in digital marketing spaces (Henderson et al. 2023; Tan et al., 2024). Previous studies support this, confirming that celebrity endorsements positively affect the results of influencer marketing. Chung and Cho 2017 introduces the notion that celebrity product endorsement is a popular strategy. Labrecque and Aw (2020) indicate that this approach is a credible and influential source of information on the product. Burke 2017 has been emphatic in stating that consumers feel more assured when celebrities are endorsing a product, and the current social media influencers are being regarded as the digital celebrities. The results of this study support these assertions, as it showed that consumers associate higher product quality and greater product satisfaction with celebrity-endorsed products. Perceived quality also has a positive relationship with influencer marketing, which is in line with Supiyandi et al. (2022), who contended that influencers play a big role in shaping the view of consumers regarding the value of products. Many consumers have a high level of trust in the influencers they follow regularly, and it is in line with the findings from the study conducted by Shanahan et al. (2019). The research shows that consumers are still a bit wary of AI-generated models, but nevertheless show some interest in products promoted by AI-based influencers, even if they're not in a rush to buy. It happens that having a virtual social presence is in the context of influencer marketing in a positive light, suggesting that people are curious and interact with their virtual influencers. This idea is backed up by the studies by Schultze et al. (2019) and also further by the latest work from Martins et al. (2022). In this regard, Selzer et al. (2019) highlighted that avatars generated through the use of artificial intelligence and act as influencers can attain a following in social media. Our research is not far away from this trend which is that even though people were curious to see what these virtual avatars looked like in terms of online presence, they were also a bit unsure (since they're not used to these avatars). The role of artificial intelligence in this regard is significant, as it is an important part in the improvement of marketing efforts, such as through personalization, chatbot and interactive systems, as noted by De Bruyn et al (2020). AI is also useful to influencers as it is easier to create content and manage their campaigns (Bughin et al., 2017; Lopez et al., 2024). Overall, the results prove that artificial intelligence is having a positive impact on influencer marketing, as it has made the process far more efficient, diversified digital capability, and opened new doors for virtual engagement. Block and Lovegrove (2021) further explained that although the effects of AI tools on influencers are favorable, there are also challenges that these professionals are facing due to the sudden existence of artificial intelligence-driven influencers in the digital environment. So, AI has the position of a pusher for marketing activities along with being the driving motor for substantial modifications that are helping to change the future for digital influence (Qadir et al., 2025; Rivera et al., 2023).

6. CONCLUSION

This study sought to reveal the reach of the revolution that artificial intelligence has brought to the world of influencer marketing by analyzing its relationship with several factors that have an influence on the audience's perception and online engagement. The conclusions have been made based on the insights that have been extracted from people in charge responding to the questions, with a better picture of how AI interacts with the essential elements to determine influencer effectiveness. The findings mean that AI is one of the important factors in having a greater influence on influencer marketing hence finding an important connection between technology and user reaction. The variables under consideration are representative of indicative aspects of the vital aspects of the influencer-audience relationship, and the interplay of these variables with AI has thrown forth the growing complexity of the digital communication. The results show that using AI augments the factors which influence the user's attitude, trust, and engagement with the influencers. By acting as a mediating force, AI help to elucidates the formation of perceived aspects of entities, and act as audiences in digital place in online. This process enables more efficient communication strategies, which can bring the influencers to be able to understand their audiences better and tailor their content in a way that meets user expectations. The study also holds great insights to work with influencers to work with in a digital world where AI generated profiles and content is going to be more and more prevalent too. With the general audience becoming more wary and fascinated with the other side of an online person and what's on the other side of the screen, influencers can find a benefit in an understanding of the impact that AI has on the behavior of users and patterns of interaction. In addition to providing insight in the role played by artificial intelligence, this research raises a number of areas which should be looked at more closely. While AI played an important role in this study, there are other possible factors that can help us to understand how and why the results of influencer marketing change over time. Aspects such as trust-building, message credibility, emotional connection and personalization might also provide more insight into the ways in which digital audiences react to influencers. Likewise, the independent variables taken into consideration in this study may be replaced or supplemented by other influencing factors on online behaviour as the direction may take when further research is conducted along these lines. This study adds to our overall understanding of how AI becomes an option of influencer marketing strategies. It emphasizes the need to consider the technological and behavioral aspects to achieve more effective and flexible communication practices. As well, as the digital world continues to morph, further research into the field will allow for a much better understanding of how AI will impact audience engagement and how the dynamics of online influence are changing.

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