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Persuasive power of artificial intelligence-generated ads: exploring online behaviour among Gen Z internet users in Nigeria

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Abstract

Advertisements created by artificial intelligence (AI) models are becoming increasingly common in digital marketing, prompting inquiries about their impact on consumer behavior. This research analyzes the effectiveness of AI-created advertisements among Generation Z (Gen Z) Nigerian online users, a group recognized for its significant online activity and distinctive behaviour patterns. The study examines key elements such as personalization, emotional attraction, platform-specific differences, and trust to analyze how these advertisements affect user behavior. Using persuasive technology and a mixed-method strategy, the study integrated an extensive examination of 25 pertinent studies obtained from Google Scholar, IEEE Xplore, and SpringerLink databases with a survey of 205 Gen Z participants carried out over six months (July–December 2024). Data were examined to identify trends in user feedback across various platforms, emotional resonance, and demographic traits. The outcome of the research indicated that personalization and emotional resonance greatly improve the effectiveness of AI-generated advertisements, with humour and relatability having especially strong effects. Instagram and TikTok became the leading platforms, with gender disparities showing a bit more engagement from male users. Even with a fair amount of trust in these advertisements, doubt continues to be a significant obstacle to wider acceptance. The research uncovered that AI-created ads have a moderate impact on the online behaviour of Gen Z Nigerians, indicating significant room for enhancement. This study adds to the expanding understanding of artificial intelligence's influence in contemporary marketing and its effects on society.

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1. Introduction

The increasing use of AI in digital marketing has changed how advertisements are created, targeted, and delivered. AI-generated ads utilize data-driven insights to create personalized and contextually relevant content designed to influence consumer behaviour [1]. These advancements are particularly important in today's rapidly changing digital landscape, where online platforms play a major role in consumer interactions. As businesses seek to effectively reach their audiences, the significance of artificial intelligence

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in crafting persuasive advertisements has become a key element of marketing strategies. This shift highlights the need to examine how these technologies affect various demographic groups, especially digital natives like Gen Z.

Gen Z, often referred to as "digital natives," is a unique demographic that has grown up in an era dominated by the internet, social media, and mobile technology. As the first generation is consistently exposed to the digital world, their behaviours, preferences, and interactions are significantly influenced by online environments [2]. In Nigeria, Gen Z represents a substantial portion of internet users, showing high levels of engagement on social media platforms like Instagram, TikTok, and Twitter [3, 4]. This group's reliance on online platforms for communication, entertainment, and commerce makes them a crucial audience for digital marketing efforts. Understanding how they interact with AI-generated advertisements is essential for businesses looking to optimize their strategies in the Nigerian market.

Despite the growing use of AI in advertising, there have been limited studies on the effectiveness of AI-generated ads, specifically for Gen Z users in Nigeria. Most of the existing studies focus on AI's role in advertising within Western contexts, leaving a significant gap in our understanding of its impact in developing regions like Nigeria [5]. Furthermore, little is known about how AI-driven personalization, emotional appeals, and other persuasive elements resonate with Nigerian Gen Z users. This absence of localized research presents challenges for businesses looking to target this audience. Addressing this gap is essential, considering the cultural, social, and economic factors that influence online behaviours in Nigeria. This study aims to evaluate the effectiveness of AI-generated advertisements in influencing the online behaviours of Nigerian Gen Z internet users. By examining factors such as click-through rates, engagement levels, and emotional responses, this research seeks to provide insights into the mechanisms that drive the persuasiveness of AI-generated ads. Additionally, the study will explore demographic and contextual factors that may enhance or hinder the effectiveness of these advertisements. The findings could help businesses and marketers tailor their strategies to better resonate with Gen Z audiences in Nigeria. The contributions of this study to the current body of knowledge are:

- Systematic review of the impact of artificial intelligence-generated ads on Gen Z consumer behaviour;
- Develop a mixed data collection protocol to collect a large amount of quantitative data to analyze the influence of online behaviours of Nigerian Gen Z internet users;
- Deployed the use of persuasive technology methods to examine how factors such as engagement levels, click-through rates, and emotional responses influence digital product consumption by Gen Z;
- Evaluate if there are significant gender differences in response to artificial intelligence-generated advertisements.

The remainder of the paper is organized as follows. Section 2 discusses recent theoretical background and literature on artificial intelligence, persuasive technology, Gen Z online behaviours, and research gaps. Section 3 explains the methodology used in this paper. Section 4 presents the results obtained and discusses the implications of these results. Finally, Section 5 concludes the paper and outlines future research directions.

2. Literature review

This section outlines recent studies related to the impacts of AI on advertising, persuasive technologies and theories, and the behaviour of Gen Z in an online environment. The section succinctly discusses the literature gaps that form the foundations of the current study.

2.1. Artificial intelligence in advertising

The advertising industry has undergone a significant transformation with the integration of AI, which enables advertisers to reach consumers more effectively and efficiently [6]. AI technologies such as machine learning, natural language processing (NLP), and computer vision are being utilized to create highly personalized and contextually relevant advertisements [1]. These technologies allow advertisers to analyze consumer data, including browsing patterns, social media activities, and purchasing habits, to tailor content that aligns with individual preferences [7]. For example, AI algorithms can predict consumer behaviour by identifying patterns in historical data, allowing for the delivery of advertisements that are not only relevant but also timely [8].

AI-driven advertising is transforming creativity in ad design. Generative AI tools, such as OpenAI's GPT models and image-generation algorithms like DALL-E, are now being utilized to produce engaging ad copy and visuals on a large scale [9]. These tools enhance the ability to test multiple ad variations in real-time, allowing for the optimization of campaigns to achieve better performance [10]. However, much of the research on AI in advertising has predominantly focused on developed markets, creating gaps in our understanding of its effectiveness in emerging markets like Nigeria.

Table 1. Summary of key theories and models reviewed.

Author(s)	Year	Finding	Shortfall
Fogg [14]	2009	Developed the FBM, emphasizing motivation, ability, and triggers in behaviour change	Does not fully address the ethical implications of AI-generated ads or algorithmic biases.
Oinas-Kukkonen & Harjumaa [15]	2018	Proposed the PSD Model, highlighting the importance of personalization and credibility in persuasion	Limited emphasis on the challenges posed by privacy concerns and skepticism towards AI-driven systems.
Petty & Cacioppo [16]	1986	Introduced the ELM, explaining central and peripheral routes of persuasion	Reliance on the peripheral route in AI advertisements lacks the depth necessary for achieving long-term behaviour change among audiences like Gen Z.
Lang [17]	2006	Emphasized the importance of emotional appeals in persuasive communication, focusing on building affective connections	Limited exploration of how emotional appeals interact with personalized content generated by AI.

This table offers a concise summary of the main contributions and limitations of the key theories and models outlined in the review.

2.2. *Persuasive technology*

Persuasion is as old as the creation of the Universe and provides a framework for understanding how communication and technological systems shape attitudes, beliefs, and behaviours [11, 12]. These theories are essential for analyzing the impact of AI-generated advertisements on Gen Z internet users in Nigeria, as they explain how persuasive mechanisms function in different contexts. Persuasion often leads to performing their required duties when they are properly motivated, hence the need to understand what triggers them into action [13]. Persuasive technology is a technology that deploys the use of persuasive strategies to influence human behavior using computer technology. The term is derived from interdisciplinary fields encompassing psychology, game theory, and human-computer interaction [12] implemented to change user behaviour for social change.

One of the most comprehensive models in the field of persuasive technology is Fogg's Behaviour Model (FBM) [14]. The FBM suggests that behaviour results from three essential elements: motivation, ability, and triggers. For a persuasive message to be effective, users must be motivated, capable of performing the desired behaviour, and presented with an appropriate trigger at the right time. In AI-generated advertisements, these components are evident in personalized recommendations that align with user preferences, clear call-to-action buttons, and emotionally engaging content that inspires action. Fogg also emphasizes the ethical aspect of persuasive design, highlighting the responsibility of designers to apply these principles for positive user outcomes instead of manipulation or deception. Another significant contribution to this field came from Oinas-Kukkonen and Harjumaa's Persuasive Systems Design (PSD) Model, introduced in 2009. This model classifies features of persuasive systems into four categories: primary task support, dialogue support, system credibility support, and social support [15]. AI-generated advertisements often incorporate dialogue support elements, such as pop-ups and conversational tones, as well as system credibility features, like endorsements and certifications, to build user trust. Furthermore, the PSD model highlights the importance of tailoring and personalization.

Fogg's and Oinas-Kukkonen's models complement traditional theories such as the Elaboration Likelihood Model (ELM) by Petty and Cacioppo [16]. The Elaboration Likelihood Model (ELM) explains how persuasive messages are processed through two main routes: the central route, which involves deep and logical engagement, and the peripheral route, which focuses on emotional or superficial engagement. AI-generated advertisements often utilize the peripheral route by incorporating visually appealing designs and emotionally resonant messages. This approach is especially effective in capturing the attention of Gen Z.

Furthermore, the Emotional Appeals Theory [17] complements these models by highlighting the importance of emotions in forming a strong connection between the message and the audience. Tactics such as humour, relatability, and nostalgia are often used in AI-generated advertisements, catering to the emotional preferences of Gen Z users. Finally, while these theories collectively offer strong frameworks for understanding the effectiveness of AI-generated advertisements, they also reveal certain gaps. For instance, although Fogg and Oinas-Kukkonen emphasized personalization and ethical design, they do not adequately address the challenges related to algorithmic bias and data privacy issues that are increasingly important in the era of AI-driven advertising. Furthermore, the unique characteristics of Gen Z, such as their preference for authenticity and scepticism toward overly polished content, indicate a need to adapt these models for relevance in today's digital landscape, as shown in Table 1.

2.3. *Gen Z and online behaviours*

Gen Z, individuals born approximately between 1995 and 2010, are digital natives who have grown up with ubiquitous access to the internet, mobile technology, and social media [18]. Their online behaviours are shaped by their familiarity with digital platforms,

Table 2. Summary of authors and their contributions to persuasive advertising.

Author(s)	Year	Major Findings	Shortfalls
Taufique *et al*. [1]	2023	AI technologies enable hyper-personalized advertisements.	Limited focus on emerging markets like Nigeria and specific demographics.
Petty & Cacioppo [16]	2012	Developed the ELM of persuasion.	Does not address AI-driven advertising contexts or cultural dimensions.
Fogg [14]	2009	Behaviour change occurs when motivation, ability, and a trigger converge.	The framework is not directly tested in AI-based advertising scenarios.
Bhalla *et al*. [2]	2021	Gen Z prefers authenticity and interactive, visually appealing content.	Limited focus on Nigerian cultural and social nuances in advertising.
Adebayo *et al*. [24]	2024	Personalized ads improve click-through rates and engagement among Nigerian youth.	Did not distinguish between AI-generated and traditional ads.
Nabilla [25]	2019	Emotional appeals in ads drive purchase intentions.	Overlooked cultural preferences of Nigerian Gen Z audiences.
Okonkwo *et al*. [26]	2023	Nigerian Gen Z users value authenticity and localized content in ads.	Did not explore the role of AI in creating such personalized content.

their preference for visual and interactive content, and their demand for personalized and authentic online experiences. According to Vogels *et al*. [19], 95% of Gen Z individuals in the United States own a smartphone, with platforms like Instagram, TikTok, Facebook, and Snapchat dominating their online activities. Similarly, Nigerian Gen Z internet users exhibit comparable patterns, showing a strong preference for mobile-friendly and visually appealing content [20]. They are accustomed to instant access to information and tend to favour platforms that provide interactive and dynamic content.

Gen Z is very active in online communities, using various platforms to express their identities, connect with others, and discover new products or services. A study by Duffett [21] highlights that interactivity and social proof are crucial factors influencing Gen Z's engagement with online content. Social proof, which includes user reviews and influencer endorsements, significantly impacts their decision-making processes. Additionally, Bassiouni and Hackley [22] emphasize that Gen Z's consumption behaviour is deeply rooted in digital consumer culture, making them more responsive to targeted marketing efforts.

AI-generated ads can personalize content, which aligns closely with Gen Z's expectations. Gurău [23] observed that personalized ads can significantly influence consumer behaviour when they are relevant and non-intrusive. However, if targeting is excessive or the ads are irrelevant, it can result in ad fatigue or resistance, thus leading to blockage. This is especially true for Gen Z, who prioritize authenticity and transparency in online interactions. They are more likely to engage with brands that demonstrate ethical behaviour and share their values [19]. Gen Z is open to digital engagement, but they are also increasingly concerned about privacy and data security issues. Vogels *et al*. [19] discovered that 60% of Gen Z worry about the potential misuse of their personal information online. This concern also applies to AI-generated advertisements, which use the personal data of individuals for ad personalization. This often gives room for skepticism. Therefore, building trust is essential for marketers who want to connect with this demographic.

Finally, research on digital advertising has consistently highlighted its potential to influence consumer behaviour. For example, Adebayo *et al*. [24] found that personalized advertisements significantly enhance click-through rates and engagement among Nigerian youth. Their study demonstrated that personalization increases the relevance of ads, making them more likely to capture attention and drive action. Similarly, Nabilla [25] explored the role of emotional appeals in digital advertising, uncovering that ads that evoke positive emotions, such as happiness or nostalgia, are more likely to influence purchase intentions.

2.4. Literature gap

While global research on AI-driven advertising has expanded significantly, there is a notable scarcity of studies examining its impact on Gen Z users in Nigeria. This demographic's unique online behaviours, coupled with their cultural preferences, present opportunities for localized research that can inform both academic and industry practices, which is depicted in Table 2. Furthermore, the intersection of AI, persuasion theories, and Nigerian socio-cultural dynamics remains largely unexplored. This study seeks to address these gaps by evaluating how AI-generated advertisements influence the online behaviours of Nigerian Gen Z users, with a focus on identifying the factors that enhance or hinder their persuasiveness.

3. Research methodology

This research adopted a mixed-methods approach, combining qualitative and quantitative techniques to comprehensively assess the persuasiveness of AI-generated advertisements in influencing the online behaviours of Gen Z Nigerian internet users. The study was carried out in two phases: a systematic literature review and survey-based data collection methods were used. The methodology was carefully designed to align with the study objectives and ensure robust findings.

Table 3. The demographics characterization of participants.

Demographic Factor	Category	Number of Participants	Percentage (%)
Gender	Male	98	47.8
	Female	107	52.2
Age Range (Years)	18–20	42	20.5
	21–23	85	41.5
	24–26	78	38.0
Primary Internet Platform	Instagram	64	31.2
	TikTok	55	26.8
	WhatsApp	43	21.0
	Facebook	25	12.2
	YouTube	18	8.8
Internet Usage (Daily)	Less than 3 hours	46	22.4
	3–5 hours	83	40.5
	More than 5 hours	76	37.1
Educational Level	Undergraduate	152	74.1
	Graduate	53	25.9

The first phase involved a systematic review of relevant literature to provide a theoretical and empirical foundation for the study. Articles were retrieved from reputable databases, including Google Scholar, IEEE Xplore, and SpringerLink. Search terms such as "AI-generated ads," "persuasive communication theories," "Gen Z online behaviour," and "digital advertising in Nigeria" were used to identify relevant studies. A total of 50 articles were initially retrieved, but after screening for inclusion criteria, 25 articles were selected for the final review. These criteria included publications focused on AI-generated advertisements relevant to Gen Z or the Nigerian context. Articles were excluded if they focused solely on regions outside Africa, did not analyze AI-driven advertising or persuasive strategies, or lacked empirical data or theoretical depth.

3.1. Data collection and analysis

This study was conducted in Nigeria, focusing on Gen Z internet users aged 18 to 26, a demographic renowned for their high level of online engagement. Participants were drawn from major urban centres such as Lagos, Abuja, Nasarawa, and Ebonyi to ensure a diverse representation of socioeconomic and cultural backgrounds. This demographic was targeted because of their active use of social media platforms like Facebook, X, Instagram, TikTok, and WhatsApp, which frequently feature AI-generated advertisements. Recruitment was conducted through social media platforms and online communities, using purposive sampling to identify individuals who met the criteria. Participants provided informed consent via an online form detailing the study objectives, data confidentiality measures, and their rights as participants.

The study was conducted over six months, from July to December 2024. The first two months were dedicated to the systematic literature review and survey development. Data collection occurred from September to October, with a total of 205 participants completing the survey. Data analysis and interpretation were carried out in November and December. This rigorous methodology provided a comprehensive understanding of how AI-generated advertisements influence the online behaviours of Nigerian Gen Z users, addressing key gaps in the existing literature and offering valuable insights for both academic and industry stakeholders.

4. Results and discussion

This study aimed to assess the effectiveness of AI-generated advertisements in shaping the online behaviours of Gen Z Nigerian internet users and to identify factors that enhance or hinder their persuasiveness. Based on the survey responses of 205 participants and the thematic analysis of open-ended responses, the findings revealed key insights into how this demographic interacts with and responds to AI-generated advertisements. Table 3 provides a detailed breakdown of the demographic characteristics of the 205 Gen Z Nigerian internet users who participated in the study. It includes information on gender, age range, primary internet platforms, daily internet usage, and educational level, offering valuable insights into the participant group. In terms of gender, 52.2% of the participants were female, while 47.8% were male. This near-equal gender distribution ensures a balanced representation of perspectives in the study. The age range of participants was divided into three categories: 18–20 years (20.5%), 21–23 years (41.5%), and 24–26 years (38.0%). The majority of respondents were between 21–23 years of age, highlighting the active participation of individuals in the mid-range of Gen Z. The participants' primary internet platforms reflect their preferred online environments. Instagram was the most popular platform, used by 31.2% of respondents, followed by TikTok (26.8%) and WhatsApp (21.0%). Facebook and YouTube were less popular among the demographic, with usage reported at 12.2% and 8.8%, respectively. These findings align with the known preferences of Gen Z users, who tend to favour visually engaging and interactive platforms.

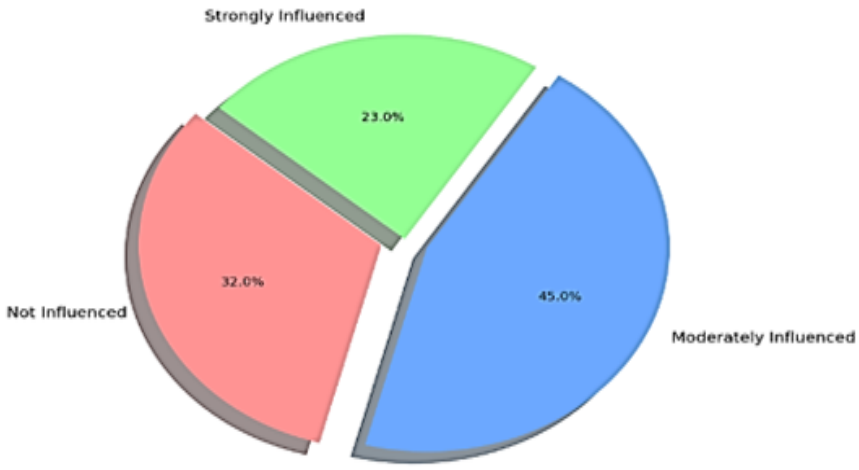

Figure 1. Effectiveness of AI-generated advertisements.

Regarding daily internet usage, 22.4% of participants reported spending less than three hours online each day, while 40.5% spent three to five hours daily. A significant portion, 37.1%, reported using the internet for more than five hours daily. This high level of internet engagement underscores the importance of understanding how AI-generated advertisements influence their behaviours. In terms of educational level, the majority of participants (74.1%) were undergraduates, while 25.9% were graduates. This distribution reflects the focus on younger Gen Z individuals who are typically enrolled in tertiary institutions, further emphasizing their active engagement with digital platforms. These insights are critical in contextualizing the findings and understanding how various demographic factors may influence participants' interactions with AI-generated advertisements. 23% of the participants were strongly influenced, while 45% were moderately influenced by these ads. Only 32% were not influenced, as depicted in Figure 1. However, only 68% indicated that these ads had a direct impact on their purchasing decisions or engagement with advertised content. This suggests that while these ads capture attention, their ability to drive specific behavioural outcomes is limited, requiring further optimization to achieve desired results. This finding aligns with prior research by Taufique *et al.* [1], who noted that AI-driven marketing strategies often face challenges in converting engagement into action.

4.1. Personalization is a critical factor in the persuasiveness of AI-generated ads

The study also uncovered that personalization is a critical factor in the persuasiveness of AI-generated ads. A substantial 70% of the participants found highly personalized ads engaging, emphasizing the critical role of tailoring content to user preferences and interests rather than engaging in a one-size-fits-all content [13]. Meanwhile, 20% reported being moderately influenced by personalized ads, and only 10% indicated that personalized ads had no impact on their behaviour, as shown in Figure 2.

However, this 10% are particularly concerned about their privacy and the intrusive nature of overly personalized ads, echoing findings from Kietzmann *et al.* [8], who identified data privacy concerns as a potential barrier to consumer trust in AI-driven marketing. This result, therefore, underscores the importance of personalization in driving user engagement and increasing the effectiveness of AI-generated advertisements. Ads that resonate with the audience by reflecting their preferences are far more likely to capture attention and elicit positive responses. Conversely, generic or non-personalized ads fail to establish relevance, reducing their persuasive power. These findings highlight the need for advertisers to leverage AI capabilities in creating customized ad experiences that align specifically with the needs and behaviours of their target audience.

4.2. Emotional appeal

In terms of emotional appeal, the study revealed that ads incorporating humour, relatability, or aspirational themes resonated most with participants. This demographic preferred ads that reflected their values, interests, and social identities. The findings show that 50% of participants found ads employing humour and relatability to be the most engaging, as shown in Figure 3. Ads with aspirational themes influenced 30% of participants, while 20% reported being indifferent to ads lacking emotional appeal.

Emotional appeal not only enhanced engagement but also increased brand recall and positive attitudes toward advertised products. This finding aligns with studies [6, 27], which highlighted the role of emotional triggers in enhancing the effectiveness of digital advertising. This result highlights that emotional content, especially humour and relatability, plays a significant role in capturing the attention of Gen Z users and fostering engagement. Ads that reflect the values, interests, and social identities of the audience create a stronger connection, making them more memorable and effective. Conversely, ads without emotional triggers are less impactful,

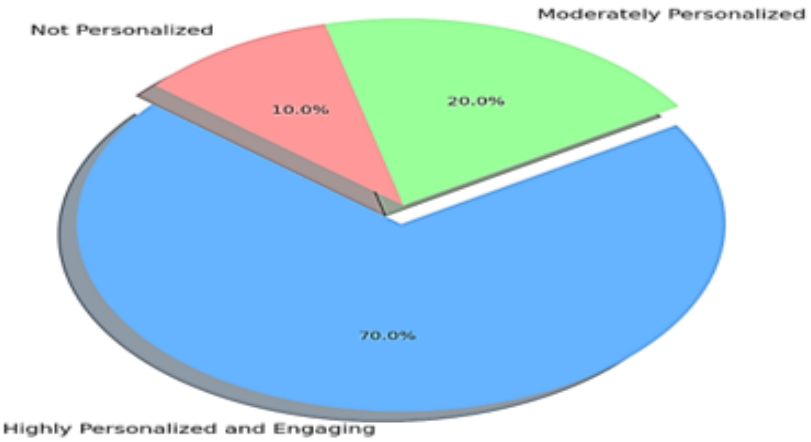

Figure 2. The impact of personalization in AI-generated ads.

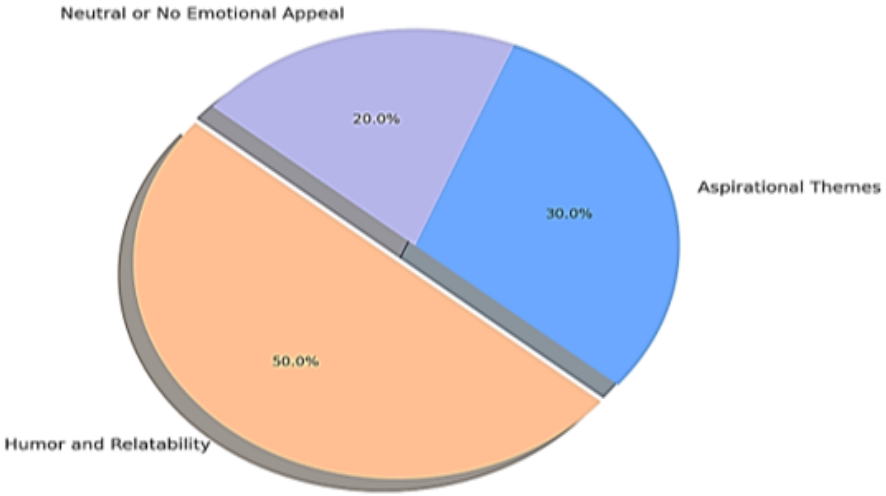

Figure 3. The role of emotional appeal.

suggesting that advertisers should prioritize emotional resonance to enhance the persuasiveness of their campaigns. These insights emphasize the value of crafting emotionally appealing content to drive meaningful interactions with AI-generated ads.

4.3. Trust and credibility associated with AI-generated ads

Interestingly, the study uncovered a notable gap in trust and credibility associated with AI-generated ads. According to the findings, 40% of participants considered these ads highly trustworthy and credible, while 35% viewed them as moderately trustworthy. However, 25% of respondents reported that they did not find AI-generated ads trustworthy at all, and the results are shown in Figure 4. This lack of trust hindered the ads' ability to fully persuade the audience and drive behaviour change. This finding is consistent with Huang and Rust's [10] observation that consumer trust is a critical determinant of the effectiveness of AI-driven marketing strategies.

4.4. Varying impact of AI-generated ads across different platforms

Another important finding was the varying impact of AI-generated ads across different platforms. Instagram emerged as the most influential platform, accounting for 35% of the reported impact, followed closely by TikTok at 30%. WhatsApp had a moderate influence at 20%, while Facebook (10%) and YouTube (5%), as depicted in Figure 5. This aligns with Okonkwo *et al.* [26], who emphasized the need for platform-specific strategies to effectively engage Gen Z users. The findings highlight that visually

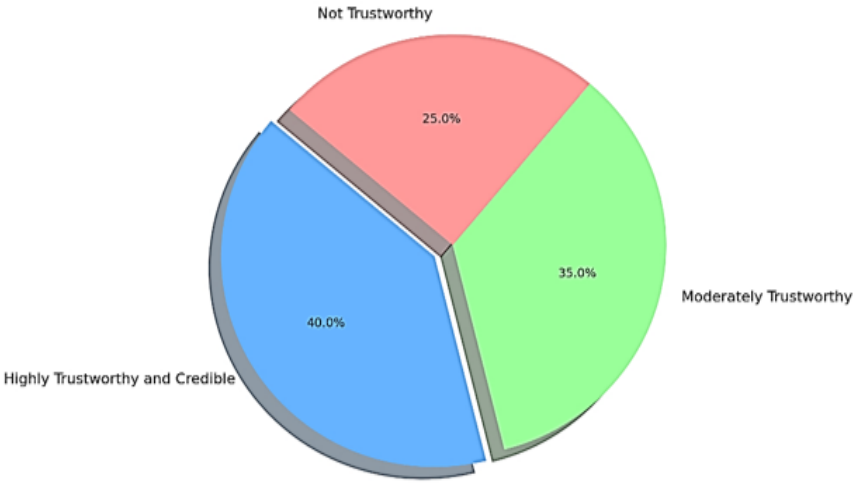

Figure 4. The role of trust and credibility in motivating users

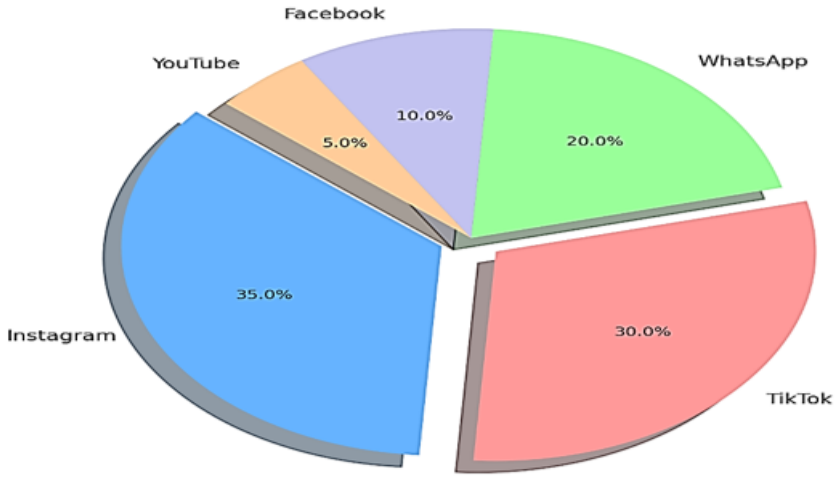

Figure 5. Impact of AI-generated ads across different platforms.

engaging and interactive platforms like Instagram and TikTok are the most effective in amplifying the reach and influence of AI-generated advertisements among Gen Z users. These platforms' features, such as personalized content feeds, short-form videos, and creative tools, align well with the preferences of this demographic, enhancing ad engagement. In contrast, platforms like Facebook and YouTube, which typically cater to broader audiences or longer content formats, exert less influence on Gen Z users in this context. These insights suggest that advertisers should prioritize investment in Instagram and TikTok when targeting this demographic, leveraging platform-specific features to maximize ad impact.

4.5. Significant gender differences in responses to AI-generated advertisements

Lastly, the study identified a significant gender difference in responses to AI-generated advertisements. According to the findings illustrated in Figure 6, 55% of males found the ads engaging and persuasive, compared to 45% of females.

This result suggests that male respondents are slightly more responsive to AI-generated advertisements than their female counterparts. The difference could be attributed to variations in preferences, content alignment, or the types of products and messages emphasized in the ads. The findings indicate that while AI-generated ads resonate with both genders, advertisers might need to adopt gender-sensitive strategies to optimize engagement, ensuring that ads are equally compelling for both male and female audiences. In summary, the findings indicate that while AI-generated advertisements hold significant potential for influencing the online behaviours of Gen Z Nigerian internet users, their effectiveness is moderated by factors such as personalization, emotional appeal, trust, and platform-specific engagement. To enhance the persuasiveness of these ads, advertisers should focus on creating content that is not only relevant and emotionally resonant but also trustworthy and tailored to the preferences of their target audience.

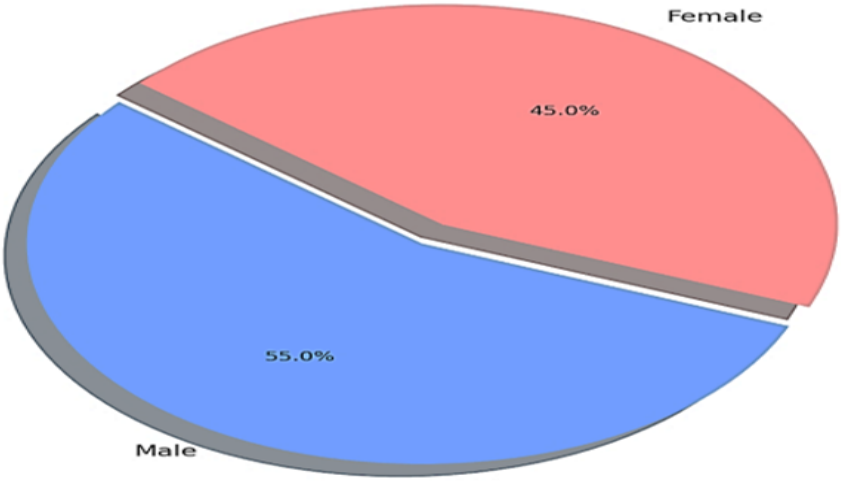

Figure 6. Gender difference in responses to AI-generated advertisements.

5. Conclusion

This study has provided valuable insights into the persuasiveness of AI-generated advertisements, particularly in influencing the online behaviours of Gen Z Nigerian internet users. Key findings revealed that personalization and emotional appeal are critical factors that enhance the effectiveness of these advertisements. Additionally, platform-specific variations and gender differences in responses underscore the importance of contextual and demographic considerations in ad design. The study also highlighted trust and credibility associated with AI-generated advertisements, suggesting room for improvement in addressing user skepticism. Generally, the research affirms that AI-generated ads are moderately effective, with significant potential for refinement.

This study has practical implications across multiple domains. In marketing, businesses can leverage insights into personalization and emotional resonance to design campaigns that better engage Gen Z users. For policymakers, understanding how AI-generated advertisements influence user behaviour can guide the formulation of regulations that ensure ethical and responsible advertising practices. Furthermore, for AI developers, the results underscore the importance of building algorithms that prioritize transparency, inclusivity, and adaptability to user needs. Future research should aim to address the limitations and expand the scope of this study. Longitudinal studies that track changes in user responses over time could provide a more comprehensive understanding of the evolving dynamics of AI-generated advertisements. The inclusion of other demographics, such as Millennials or older generations, would offer comparative insights and highlight generational differences in ad engagement. Similarly, exploring ethical concerns in AI advertising, such as data privacy, algorithmic bias, and the potential for manipulation, could inform guidelines for responsible AI use in marketing.

By pursuing these directions, future studies can build on the foundation laid by this research, contributing to the development of more effective, ethical, and user-centred AI-generated advertisements. Ultimately, this will not only benefit marketers and developers but also empower users to make informed decisions in the increasingly AI-driven digital landscape.

Data availability

The data supporting this study are available from the corresponding author upon reasonable request and subject to specific terms and conditions.

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