

APPLICATION OF ARTIFICIAL INTELLIGENCE ADVERTISING AND ITS INFLUENCE ON SALES OF BUSINESS ORGANISATIONS IN AYINGBA TOWN, NIGERIA

Tonga, A. Ahmed, Adulugba Maria, Usman Solomon Ojonugwa & Joy Tonga

Department of Mass Communication,
Prince Abubakar Audu University Anyigb, Kogi State.
tonga.aa@ksu.edu.ng

Department of Business Administration, Prince Abubakar Audu University, Anyigba, Kogi state.

Abstract

Artificial Intelligence (AI) has gradually emerged as a disruptive influence in the advertising sector, reshaping conventional marketing paradigms and allowing firms to implement more accurate, data-driven tactics. The use of Artificial Intelligence (AI) in Nigeria's advertising industry has drastically altered operational methodologies, especially in media procurement, copywriting, market analysis, and content development. This study looks at how application of artificial intelligence advertising and its influence on sales of business organisations in Anyigba town, Nigeria. Using quantitative method via survey design, a total of 60 business professionals, 20 marketing specialists, and 30 consumer respondents were chosen using purposive sampling method to guarantee representation across different sector. Questionnaires was self-administered and data obtained were analysed via descriptive statistics. The results indicate that AI-driven advertising markedly enhances targeting precision, customer insights, and campaign efficacy, providing strategic benefits for companies. This research enhances the commerce literature by connecting technical innovation with customer offering valuable insights for both scholars and practitioners. This study concludes that artificial intelligence is transforming advertising through improved personalization, optimized media expenditures, and real-time consumer engagement. The implication is that there is need for investment in infrastructures and data security, algorithmic transparency, and ethical responsibility must be addressed for sustainable integration, efficiency effectiveness and higher productivity.

Keywords: Artificial intelligence (AI), Advertising sector, Customised advertising, Consumer confidence, Brand fidelity, Advertising efficacy

Introduction

At the time of creation, (God) believed it prudent to imbue humans with intelligence, thereby granting them the ability to make decisions between good and evil. Throughout history, humanity has made significant strides in technology, leveraging the knowledge bestowed upon them by God. It is now imperative for retail activities to adopt a technology-orientated approach to remain viable. Artificial intelligence emerged as a result of the constant adaptation to the emergence of these technologies. AI marketing is expanding at a rapid pace, and it

is currently being extensively adopted and becoming increasingly sophisticated in the field of marketing. The concept has been present, and extensive AI research can be traced back to the 1950s, when Alan Turing developed the renowned Turing Test, proposing that machines would be able to think (Turing, 2004). In 1955, John McCarthy coined the term "artificial intelligence" when he organised the 1956 Dartmouth Summer Machines research project on artificial intelligence. According to their argument, an AI concern is "that of causing a machine to behave in a manner that

would be considered intelligent if a human were to do so" (McCarthy et al., 1955:1). According to the Oxford Dictionary, natural or human intellect is the capacity to acquire and apply knowledge and skills. This definition is set in the context of human behaviour. Implementing this intelligence without the presence of blood and cells transforms it into artificial intelligence. Consequently, artificial intelligence (AI) is the term used to describe the process of transferring human intelligence to machines. Artificial intelligence (AI) refers to machines or systems designed to enhance human intelligence and carry out their predetermined objectives. In general, it examines data and seeks patterns to make predictions and decisions without human intervention. Artificial Intelligence (AI) is a computer-assisted analytical course that strives to create automated systems that meet the definition of intelligence. The automated system inputs data to perform tasks typically carried out by intelligent beings, thereby enhancing the success rate.

Advertising is not an exception to the global transformation of various sectors by Artificial Intelligence (AI). In Nigeria, AI is being more widely integrated into advertising practices, utilising data-driven insights, automation, and machine learning to enhance campaign efficiency, consumer engagement, and ad targeting, (Techeconomy.ng. (2025). This change is influencing the future of advertising by providing businesses with greater precision in their audience targeting and improving their overall marketing strategies. Artificial Intelligence (AI) is a significant disruptor in the advertising industry, which has experienced accelerated evolution as a result of the emergence of digital technologies. From real-time customer interactions to automated content generation, AI is revolutionising the way brands communicate with consumers. Traditional advertising was heavily

dependent on demographic assumptions and intuition; however, AI introduces a layer of intelligent automation and precision that enables more personalised, timely, and relevant marketing. The design and execution of marketing campaigns are influenced by the introduction of tools such as chatbots, programmatic ad purchasing, recommendation systems, and sentiment analysis, which have been introduced as a result of the convergence of AI with advertising. Sophisticated AI algorithms are already being implemented by global corporations, such as Google, Amazon, and Facebook, to optimise their advertising revenue. Meanwhile, smaller organisations are swiftly adopting these tools to stay competitive.

The scenario of marketing has been altered as a result of the incremental transformation of the face of digital marketing in Nigeria today under the influence of artificial intelligence. This is because one of the most significant changes in Nigeria's digital marketing landscape is the increased use of AI for analysing and segmenting consumer data. Nigerian companies, especially in e-commerce and fintech sectors, have implemented AI to enhance understanding of consumer behaviour, improve audience segmentation, and provide targeted advertising. Platforms such as Konga have utilised AI algorithms to categorise customers according to their purchasing behaviour, thereby enhancing conversion rates and facilitating more tailored marketing initiatives (Techeconomy.ng, 2025). The automation of marketing campaigns via AI has become prevalent in Nigeria. AI technologies facilitate the development of dynamic advertisements customised for particular demographics, thereby improving consumer engagement. Nigerian fintech companies, such as Flutterwave, are employing AI to automate customer interactions, including the provision of

personalised promotions and offers derived from transaction data. This has significantly enhanced the effectiveness of digital campaigns through improved personalisation and increased customer engagement (Brandcom.ng, 2025). Additionally, AI is utilised not only for customer engagement but also for content generation, thereby ensuring that advertisements and marketing materials maintain cultural relevance. In Nigeria, brands such as Guinness and Coca-Cola have utilised AI to create campaigns that align with local cultural norms and values. Guinness Nigeria employed AI to tailor their marketing content to resonate with Nigerian cultural symbols, thereby enhancing brand recall and engagement. Additionally, programmatic advertising, which utilises AI to automate ad buying and placement based on consumer behaviour, is revolutionising Nigeria's digital marketing landscape. Nigerian advertisers utilise machine learning algorithms to optimise ad placements in real time, enhancing targeting and campaign effectiveness. The transition to AI-driven programmatic advertising enhances the efficiency and effectiveness of campaigns. (Medium.com, 2025).

The problem area is not affected by the emotional decision-making syndrome manifested in technology devices or processes; rather, decisions are made solely on the basis of factsheet and statistics analysis. (Kask, 2014). The purpose of utilising artificial intelligence (AI) in advertising is to continuously monitor and anticipate the subsequent purchasing decisions of the target audience, thereby enhancing their consumer experience. Artificial intelligence has significantly transformed marketing, and we anticipate a complete transformation in the near future. Artificial intelligence is a sophisticated technology that produces a self-learning algorithm. The machine receives a vast quantity of training data, encompassing both

input and output. The machines independently develop the algorithm, analysing the pattern. In this context, the paper aims to examine the application of artificial intelligence advertising and its influence on sales of business organisations in Anyingba town, Nigeria

Statement of the Problem

It is becoming increasingly concerning how AI is influencing, transforming, and revolutionising enterprises and the digital economy today. Because AI is developing daily and can make swift decisions based on data and accurately complete tasks, businesses are seeing an increase in their client base. A quick glance at modern digital marketing reveals that Artificial Intelligence (AI) is permeating the field while businesses and marketing are continuously adjusting to the technological advancement of AI without fully comprehending how consumers have experienced it and how they view AI innovation as a part of their learning process. A thorough understanding of the needs and preferences of consumers is essential for modern marketing, as is the ability to respond quickly and efficiently to that understanding. Most companies that have not incorporated AI into their marketing cannot make data-driven, real-time decisions (Camilleri, 2017).

Businesses may better understand customer behaviour and interests across many platforms and touchpoints by using the vast amount of data that is gathered during the customisation process. Sales will consequently rise as a result of better matching customer interests with relevant content, particularly when customers are involved at every stage of the e-commerce process from awareness, research, and evaluation to purchase, review, and consumption (Kutton, 2018). Though new research by Gartner (2024) indicates that AI could be a disruptive factor in the business,

especially given how consumers are embracing technology, digital marketers are still looking for a definitive response. The potential for revolutionary change and innovation is evident, even though many digital marketing professionals are still dubious about the potential of AI and machine learning in their field. However, digital marketing has only made limited use of these tools thus far. Digital marketing and Artificial Intelligence (AI) are predicted to grow by 12% over the coming years, according to Thilagavathy and Kumar (2021).

Thus, the purpose of this article is to determine how artificial intelligence might improve advertising in Nigeria, with an emphasis on providing answers to the following research questions:

- i. How has AI been integrated into advertising practices in Anyigba?
- ii. What influence has AI had on advertising effectiveness, in the study area?
- iii. What impact does AI have on business study area?
- iv. What are the key challenges Nigerian businesses face in implementing AI in advertising?

Literature Review

The Concept of Artificial Intelligence

The notion of artificial intelligence has inspired science fiction since approximately 1920, when Czech author Karel Čapek released "RUR," a play depicting a rebellion orchestrated by several robots, (Čapek, 1920). Speculation regarding the behaviour of sentient devices has stimulated imaginative thought ever since. Currently, artificial intelligence is a reality, and its potential ramifications are extensive. Artificial intelligence is ubiquitous, integrated into personal assistants that

facilitate our routines and respond to our enquiries. It facilitates the code that converts social media posts into natural languages, enabling universal comprehension and sharing, irrespective of language preference. The advancement of technology and the potential of AI in digital marketing are increasing, presenting endless possibilities. Artificial Intelligence is increasingly utilised in operational markets for risk identification, consumer research, and the coordination of corporate processes with target customers. Businesses are devising innovative strategies to maintain continuous sales operations. Monitoring the client journey has been increasingly difficult due to the evolving marketing landscape. The market is expanding and improving, with digital platforms providing consumers several new buying alternatives. Customers express their desires, attitudes, and opinions through many channels and mediums, while the demand for outstanding customer experience escalates across all digital platforms. Artificial intelligence (AI) enhances the digital experience by providing customised content. This seemingly inexhaustible reservoir of customer-curated data is expanding constantly (Rust, 2020).

The Utilisation of Artificial Intelligence (AI) in Advertising

An expanding corpus of literature has examined the function of AI in global advertising. Chen et al. (2020) assert that AI facilitates advertisers in refining targeting accuracy, resulting in elevated conversion rates and enhanced ROI. Kapoor and Sharma (2021) asserted that AI-driven personalised advertising has significantly enhanced client happiness and engagement. In Nigeria, the application of AI in advertising remains in its early phases. Ojo and Akinmolayan (2019) indicated that despite significant interest in AI technology, Nigerian enterprises encounter obstacles due to inadequate

technological infrastructure and skill deficiencies. Nonetheless, the advantages offered by AI, including enhanced advertising expenditure efficiency and superior customer targeting, are substantial.

The utilisation of Artificial Intelligence (AI) in advertising and marketing has become a central theme in commerce and technology research. Kumar et al. (2020) assert that algorithms may currently customise content for individuals based on their browser behaviour, previous purchases, and psychographic segmentation. This specificity in targeting promotes marketing efficacy and elevates customer happiness. McKinsey and Company (2021) posit that AI-driven personalisation can yield five to eight times the return on marketing expenditures and increase sales by 10% or more. Goldfarb and Tucker (2019) provide an in-depth analysis of programmatic advertising, which utilises artificial intelligence to automate the procurement and disposition of digital advertising space. They contend that programmed systems improve efficiency and scalability while reducing waste by focusing exclusively on pertinent users. The authors above indicate numerous advantages, including operational efficiency and enhanced consumer knowledge, alongside persistent issues related to ethics, transparency, and reliance on technology. Artificial intelligence has transformed personalised advertising.

The Efficacy of Real-time Bidding and the Predictive Powers of AI

Das and Ghose (2022) assert that AI systems employing NLP may produce advertising text, email subject lines, and social media postings that replicate human tone and meaning. Companies are currently testing GPT-based systems for copywriting, despite ongoing worries regarding originality and authenticity. The capability of AI to conduct

sentiment analysis on user-generated content is crucial in contemporary advertising. Zhang et al. (2021) demonstrate that marketers can assess consumer sentiment in real time through the analysis of reviews, tweets, and forum postings. These data enable brands to swiftly adjust their messaging and prevent any public relations problems.

Recent literature, like the work of Chauhan and Pandey (2023), emphasises the amalgamation of AI with immersive technologies such as AR and VR. These tools are progressively utilised in interactive commercials and virtual product trials, especially in retail and real estate, establishing experiential marketing touchpoints. Conversational AI is crucial to consumer acquisition and retention. Jain and Verma (2020) contend that chatbots can diminish operating expenses by as much as 30% while enhancing customer experience via immediate and tailored conversation. Nissenbaum (2021) examines the ethical dilemmas of AI in advertising, criticising the lack of transparency in algorithmic decision-making and the risk of prejudice. There is increasing apprehension about data privacy, particularly with GDPR, as organisations must manage compliance while ensuring successful targeting.

Kotler et al. (2021) propose that marketing is transitioning from intuition-driven to intelligence-driven. Strategic decisions are now informed by real-time consumer data, resulting in more agile and evidence-driven marketing. Tucker (2014) emphasises the significance of behavioural targeting via AI algorithms, indicating that advertisers may micro-segment audiences instantaneously. AI's predictive analytics provide a sophisticated comprehension of consumer purchase behaviour that previous methods could not achieve. Gupta and Dubey (2021) examine client retention with AI-driven loyalty programs. Through the analysis of

historical purchasing behaviour, AI may automate rewards and incentives, facilitating prompt engagement and minimising customer attrition. Bhattacharya and Sina (2022) discusses visual recognition technologies that enable marketers to assess user engagement with content via eye-tracking and facial expression analysis, transforming the notion of A/B testing.

According to Adobe, (2022) poll conducted, more than 60% of marketers assert that AI enhances their comprehension of customer preferences, whereas 45% claim it has augmented their creative productivity by automating repetitive design activities. Jain and Sharma (2020) provide a case study on artificial intelligence-driven recommendation systems in e-commerce. These engines account for up to 35% of total income for platforms such as Amazon and Netflix, illustrating AI's efficacy in shaping purchasing decisions. Chen et al. (2020) investigate real-time sentiment analysis employing machine learning algorithms on social media platforms. These insights inform advertising modifications and crisis management in fluctuating marketplaces.

Rao (2021) identifies that voice search optimisation, driven by AI, is a burgeoning trend in mobile advertising. As smart speakers and digital assistants gain ubiquity, information must be optimised for voice search to maintain relevance. The convergence of artificial intelligence and ethics is an additional area of scholarly investigation. Pasquale (2015) and Mittelstadt et al. (2016) caution that algorithmic prejudice and data misappropriation may lead to discriminatory actions and erode brand confidence if not adequately regulated.

Theoretical Framework

Technological Determinism Theory

Thorstein Veblen coined the term "technological determinism" in 1962, contending that technology determines the character of a society. The trajectory of history is determined by technology, which is considered the driving force of culture in a society. Technological determinism is a reductionist thesis that asserts that the internal logic of efficiency influences the development of social structures and cultural values by regulating the evolution of a society's technology. It asserts that the evolution of media technology affects the way we think, feel, and act as individuals, as well as the functioning of society, as we progress from one technological era to the next. McLuhan's (1964) theory posits that the messages we receive through technology have an influence on our thoughts, emotions, and behaviours. The thesis essentially elucidates the significant developments in communication technology that have a profound influence on the structure of our society. Communication is regarded as having the capacity to alter sensory capabilities, which in turn affects the manner in which we conduct our lives. Karl Marx, a German philosopher and economist, provided the initial significant development of a technological determinism perspective on socioeconomic development. Marx (1867) contended that technological advancements, particularly those that were productive, had the most significant influence on human social relationships and organisational structures.

Methodology

This study employs a quantitative research design, utilising survey to gather data from marketing professionals, business owners, engaged in advertising activities within the Anyigba council ward of Dekina Local Government Areas in Kogi State, Nigeria.

This study's population includes businesses in Anyigba, marketing professionals, and consumers involved with digital advertising that were purposively selected because as of now, there is no publicly available data specifying the exact number of registered businesses in Anyigba, Kogi State. A total of 60 business professionals, 20 marketing specialists, and 30 consumer respondents were chosen using purposive sampling method across different sectors such as education and academic services, wholesale and retail, hospitality and food services, transportation and logistics, agriculture and agro-business, and health and pharmaceutical services. Data collection was conducted

through the use of structured questionnaire. We organised the survey into three distinct sections. Demographics: We gathered information about the respondents' backgrounds. Exploring the Role of AI in Advertising: Enquiries regarding the implementation of AI technologies in advertising, including automated ad placement, tailored content, and data analysis. Exploring the Influence of AI on Advertising Effectiveness: enquires about assessing advertising effectiveness, customer engagement, and brand loyalty through Likert scale responses. Data obtained were analysed descriptively using SPSS version 24

Results and Discussion of Findings

A total of one hundred and ten (100) questionnaires were administered across the six sectors, but 100 was valid and used for analysis.

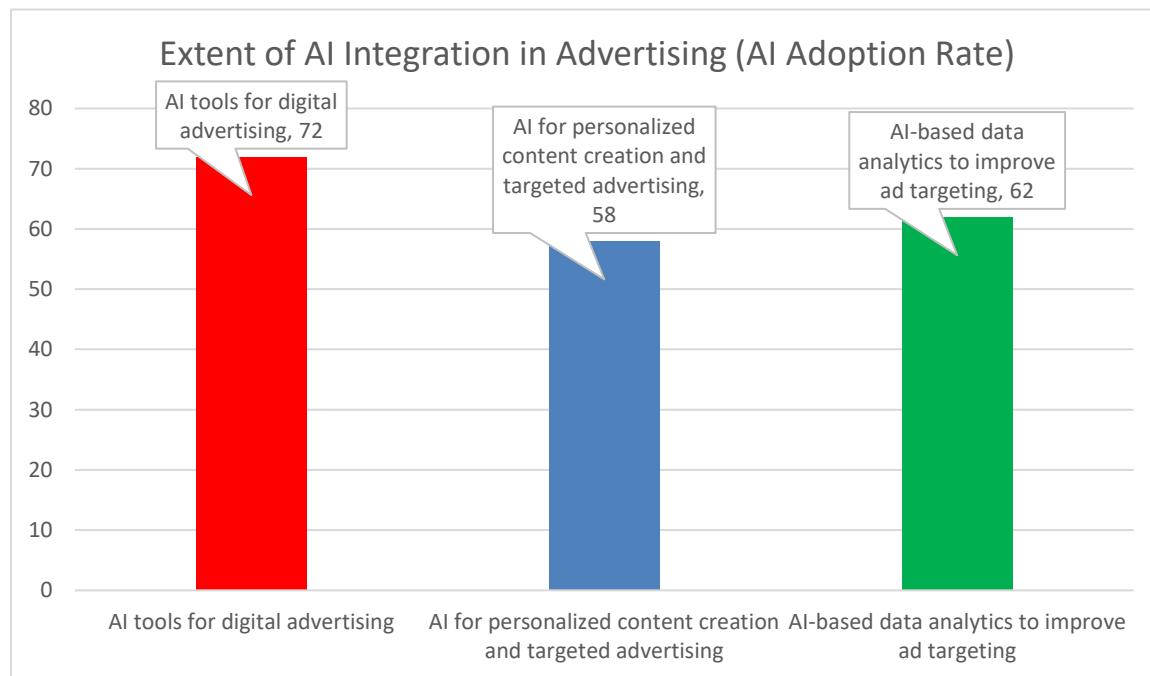


Figure 1: AI Integration in Advertising (AI Adoption Rate)

Source: Field survey, 2025

The data presented in the chart indicates that 72% of businesses use AI tools for digital advertising. This data suggests a significant enthusiasm for the integration of AI in Nigeria's advertising sector. The figure indicates an increasing acknowledgement of AI's potential to optimise and improve marketing strategies. Even though many businesses are using AI, the fact that 28% are not suggests there may be challenges or hesitations about fully using AI, possibly due to a lack of knowledge or resources. A notable 58% of businesses use AI for personalised content creation and targeted advertising.

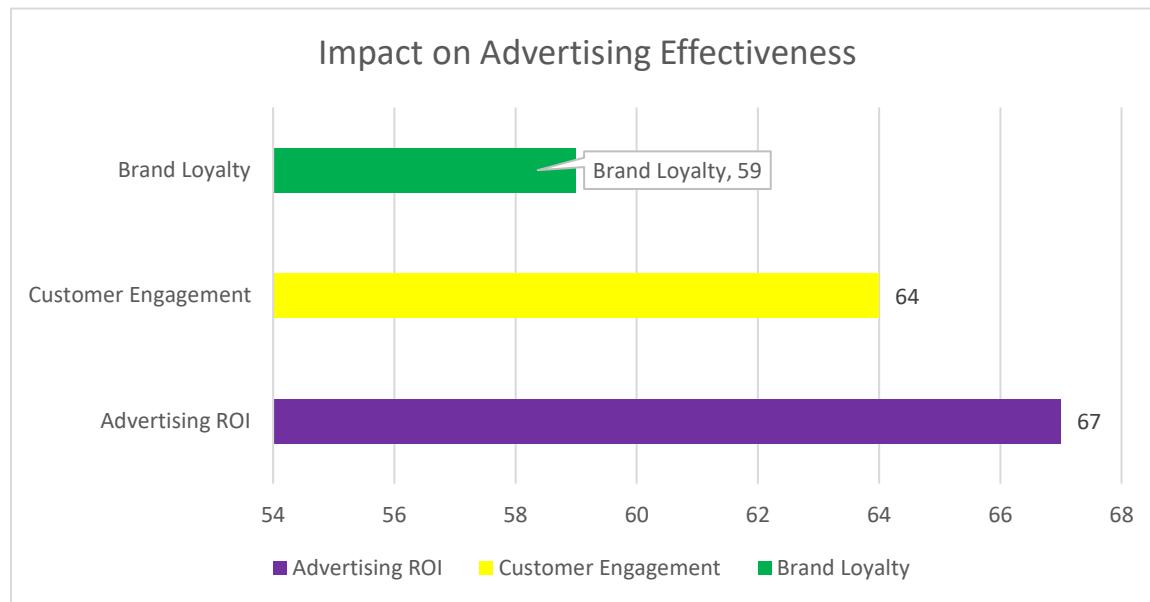


Figure 2: Influence on Advertising Effectiveness

Source: Field survey, 2025

The data presented in figure 2 indicate that 67% of businesses have observed an enhancement in their Return on Investment (ROI) following the incorporation of AI into their advertising strategies, particularly in terms of customer engagement: A notable 64% of participants observed that AI-driven personalised advertisements resulted in increased customer engagement, as individuals demonstrated a greater propensity to interact with content customised to their preferences. Brand Loyalty: A significant 59% of consumers expressed a heightened sense of connection with brands that employed artificial intelligence for personalised advertising, resulting in enhanced brand loyalty. This implies that a significant proportion of enterprises experiencing an enhanced return on investment indicates that artificial intelligence is facilitating the optimisation of advertising expenditures and enabling the targeting of more lucrative consumer demographics.

Table 1: impact of AI has on business study area

Question	Responses	Percentage
1. Are you aware of AI technologies in business?	Yes: 72, No: 28	Yes: 72%, No: 28%
2. Has your business adopted AI tools or solutions?	Yes: 40, No: 60	Yes: 40%, No: 60%
3. What AI technologies are being used?	Chatbots: 20, Marketing: 18, Inventory: 12, Financial: 6, None: 44	Chatbots: 20%, Marketing: 18%, Inventory: 12%, Financial: 6%, None: 44%
4. What benefits has AI brought to your business?	Efficiency: 25, Customer service: 18, Decision-making: 15, Cost reduction: 8, Marketing: 10, No benefits: 24	Efficiency: 25%, Customer service: 18%, Decision-making: 15%, Cost reduction: 8%, Marketing: 10%, No benefits: 24%
5. What challenges have you faced with AI adoption?	Cost: 30, Lack of skills: 18, Limited understanding: 12, Infrastructure: 8, No challenges: 32	Cost: 30%, Lack of skills: 18%, Limited understanding: 12%, Infrastructure: 8%, No challenges: 32%
6. What sector is your business in?	Retail: 40, Agriculture: 25, Education: 15, Healthcare: 10, Manufacturing: 5, Hospitality: 5	Retail: 40%, Agriculture: 25%, Education: 15%, Healthcare: 10%, Manufacturing: 5%, Hospitality: 5%

Source: Field survey, 2025

Findings shows that AI awareness: 72% of respondents are aware of AI in business, whereas 28% are not. AI Adoption: Only 40% of organisations use AI tools, indicating slower adoption. Chatbots and marketing tools are the most popular AI technologies, used by 20% and 18%, respectively. AI solutions are not used by 44%. Most AI users report enhanced operational efficiency (25%) and customer service (18%). However, 24% reported no advantages. AI adoption challenges: High implementation costs (30%) and a lack of experienced workers (18%) are the main issues, with 32% of organisations having none. Retail dominates (40%), followed by agriculture (25%), which could benefit from AI in inventory and supply chain management. AI awareness is strong (72%), while AI tool use is low (40%). The pros are operational efficiency and client service, while the cons are cost and a lack of competent workers. AI is being explored mainly in retail and agriculture, expected to boost customer engagement and operational efficiency.

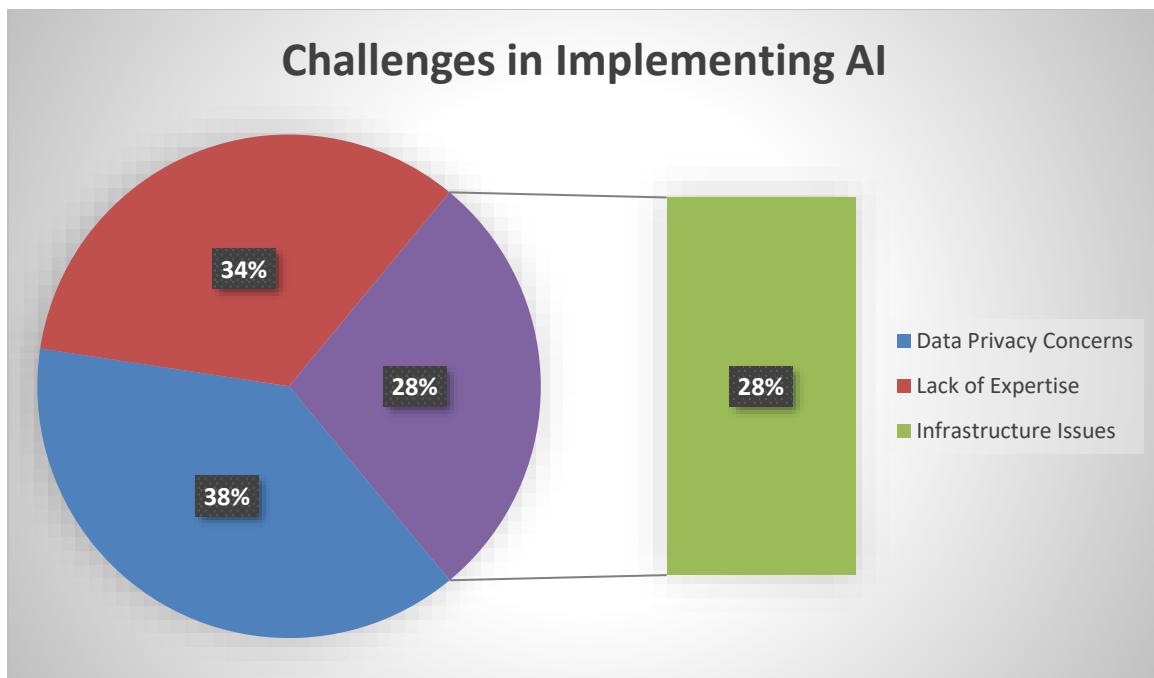


Figure 3: Challenges in Implementing AI

Source: Field survey, 2025

Figure three illustrates the challenges related to AI integration. Forty-eight percent of respondents identified data privacy concerns and the potential misuse of consumer data as significant challenges to adopting AI. Additionally, 42% of businesses noted a shortage of skilled personnel for implementing AI in advertising, while 35% pointed to infrastructure limitations, especially in rural areas, as barriers to AI integration. Data privacy represents a significant concern for businesses implementing AI in Nigeria. Consumers are expressing growing concerns regarding the utilisation of their personal data, potentially resulting in diminished trust in brands that implement AI technologies.

Discussion of Findings

This study's findings offer significant insights into the incorporation of Artificial Intelligence (AI) within advertising practices in Nigeria. The analysed data highlights the positive effects of AI on advertising effectiveness on business as well as the challenges that impede its wider adoption.

Degree of AI Integration in Advertising

The observation that majority of Nigerian businesses utilise AI tools for digital advertising aligns with global trends,

indicating a swift rise in AI adoption within marketing (Chen et al., 2020). The significant adoption rate indicates that Nigerian businesses are eager to utilise AI technologies for the optimisation of their advertising strategies, particularly in digital channels. Kapoor and Sharma (2021) assert that AI tools, including automated ad placements and predictive analytics, enable businesses to target more relevant consumer segments with customised messages, thereby enhancing engagement and return on investment (ROI). The observation that 28% of businesses are not employing AI suggests that the adoption of AI in Nigeria remains in

its nascent phase. Ojo and Akinmolayan (2019) noted that businesses in Nigeria encounter various obstacles, such as inadequate technological infrastructure and insufficient awareness or understanding of AI's potential. The disparity in AI adoption signifies a potential for future expansion, particularly as AI tools increasingly become more cost-effective and accessible.

Influence on Advertising Efficiency

This study reveals that businesses have reported an improvement in Return on Investment (ROI) following the integration of AI into their advertising practices. This finding corresponds with the research conducted by Chen et al. (2020), which indicates that AI-driven strategies optimise advertising expenditure by focussing on high-potential consumers, resulting in improved conversion rates. Artificial intelligence facilitates the real-time optimisation of advertising campaigns, enhancing cost-efficiency, a critical factor in Nigeria due to frequently constrained marketing budgets. AI enables businesses to adapt their strategies in real-time, leading to increased engagement and improved financial results. The 64% of respondents indicating increased customer engagement from personalised ads corroborates the findings of Kapoor & Sharma (2021), which assert that AI-driven personalised advertising significantly influences customer satisfaction and engagement. Personalisation enables businesses to provide content that aligns with individual consumer needs, resulting in more significant interactions with the brand. The increased engagement rate indicates a rising consumer demand for pertinent, targeted content. The 36% of respondents who did not experience increased engagement may be due to inadequate data management or inaccuracies in targeting. It is essential for businesses to guarantee that the data utilised in AI algorithms is both accurate and current,

as inaccuracies may lead to the presentation of irrelevant content to consumers.

Application of AI in Various Sectors

The results indicate the sectors with the highest levels of AI adoption. The sectors most likely to benefit from AI technologies are those that generate substantial data, as they have the potential to enhance customer engagement, optimise inventory management, and improve supply chain operations. Artificial intelligence in retail enhances personalised shopping experiences, improves inventory forecasting, and streamlines logistics. AI tools in agriculture can enhance crop production, oversee supply chains, and refine resource management. The elevated adoption rates in these sectors indicate that businesses in retail and agriculture are more receptive to exploring and implementing AI tools that directly influence customer engagement and operational efficiency. This indicates that these sectors are likely to gain advantages from AI in the near future, as the technology becomes increasingly accessible and cost-effective. The primary benefits of AI adoption include increased operational efficiency and improved customer service, whereas the challenges encompass elevated costs and a shortage of skilled personnel. The retail and agriculture sectors are at the forefront of AI adoption, indicating that these industries are likely to derive significant advantages from AI technologies.

Obstacles in the Implementation of Artificial Intelligence

The research indicated that majority of participants identified data privacy concerns as a significant obstacle to the adoption of AI technologies. This corresponds with global trends identified by Kapoor and Sharma (2021), who emphasised that data privacy constitutes a significant barrier to the

extensive adoption of AI in marketing. The growing utilisation of personal data for targeted advertising has heightened consumer awareness regarding privacy rights, resulting in mistrust when brands misuse such data. This matter holds significant relevance in Nigeria, where data protection legislation remains in a state of development. Businesses must prioritise transparent data practices and adhere to regulations such as the Nigerian Data Protection Regulation (NDPR) to address this issue. Additionally, businesses identified a shortage of skilled personnel as a major obstacle to the implementation of AI. This observation is supported by Ojo and Akinmolayan (2019), who noted a deficiency of AI expertise in Nigeria. Nigerian businesses should invest in training and development to equip their workforce with the skills required for the effective implementation of AI strategies. Collaborating with educational institutions or external experts may effectively address this skill gap. This study identified infrastructure issues as a challenge for businesses. This finding aligns with the assertion by Ojo and Akinmolayan (2019) that Nigeria's technological infrastructure, especially in rural regions, is underdeveloped. In the absence of dependable internet connectivity and sophisticated digital infrastructure, organizations will face challenges with the effective implementation of AI technologies. Investments in infrastructure and collaboration with telecom providers may enhance access to AI tools.

Seventy percent of consumers favoring personalized advertisements indicates a growing receptiveness among Nigerians to AI-driven, tailored advertising. This finding is consistent with the research conducted by Chen et al. (2020), which indicates that consumers are more inclined to interact with brands that provide content relevant to their preferences. The transition to personalisation

stems from AI's capacity to analyse extensive consumer data, enabling businesses to anticipate and fulfil individual requirements. The finding that 50% of consumers are more inclined to purchase when advertisements are personalized is a significant insight for businesses. Kapoor and Sharma (2021) noted that personalized advertising enhances customer engagement and improves conversion rates, as consumers are more inclined to respond to content that matches their interests. This study highlights the significance of AI in influencing purchasing decisions within the Nigerian market. The 55% of consumers who trust brands utilising AI for product recommendations illustrate the importance of AI in fostering trust and credibility among consumers. Accurate recommendations provided by AI facilitate the development of positive relationships between brands and their audiences, which is crucial for long-term customer retention.

Conclusive Remarks

This study's findings indicate that the incorporation of AI in advertising practices in Nigeria has resulted in notable enhancements in ad effectiveness, customer engagement, and brand loyalty. The findings align with global research, including studies by Kapoor and Sharma (2021) and Chen et al. (2020), which emphasise the extensive advantages of AI in optimising personalised advertising and enhancing marketing results. Nonetheless, various challenges persist, especially regarding data privacy concerns, insufficient expertise, and infrastructure deficiencies. Effective and ethical implementation of AI in Nigeria's advertising industry necessitates collaboration among businesses, regulatory bodies, and educational institutions to address these challenges. Nigerian businesses that invest in overcoming barriers to AI adoption will be better positioned to leverage its benefits, thereby enhancing their competitive advantage in the digital

marketplace. This study concludes that artificial intelligence is transforming advertising through improved personalization, optimised media expenditures, and real-time consumer engagement. Empirical evidence from secondary sources indicates that AI enhances marketing efficiency and transforms strategic decision-making in advertising. To fully leverage the potential of AI and maintain competitiveness in a digital marketplace,

businesses must address barriers to adoption, including cost and workforce training. Challenges including algorithmic transparency, data security, and ethical responsibility must be addressed for sustainable integration. Future research should prioritise longitudinal studies and primary data to conduct a more in-depth analysis of consumer responses to AI-led campaigns.

References

Agarwal, P. & Chauhan, S., (2020). Role of Artificial Intelligence in changing marketing trends. *Journal of Scientific and Engineering Research*. 11, (2) 7-15.

Ahmed, K. (2015, September 16). Google's Demis Hassabis – misuse of artificial intelligence 'could do harm'. <http://www.bbc.com/news/business-34266425> Accessed: 16 December, 2022

Alkhayyat. A & Muhammud. A (2022) The impact of Artificial Intelligence in digital Marketing. *School of Business, Society & Engineering*. 5, (8) 1-25

Bhattacharya, C., & Sinha, M. (2022) The role of artificial intelligence in banking for leveraging customer experience. *Australasian Accounting Business and Finance Journal*, 16(5), 89-105

Brandcom.ng. (2025). *The New Marketing DNA: How Nigerian Marketing Pros Can Reinvent Their Roles in the AI Age*. Retrieved from Brandcom

Bucklin, R., Lattin J, Ansari, A, Gupta, S, Bell, D, Coupey, E, Little, J, Mela, C, Montgomery, A, Steckel, J. (2002). Choice and the internet: From clickstream to research stream. *Matt let* 13 (3): 245-258.

Camilleri, M. (2017). Understanding Customer Needs and Wants. *Journal of Business Research* 10 (2) 223-243

Čapek, K. (1920). *R.U.R. (Rossum's Universal Robots)*. New York: Brentano's

Chauhan, A., & Pandey, S. (2023). AI in immersive marketing: The role of AR and VR. *Journal of Digital Commerce*, 12(1), 22-37

Chen, Y., Zhang, X., & Li, T. (2020). The role of AI in digital advertising: A global perspective. *International Journal of Digital Marketing*, 14(3)

Das, A., & Ghose, M. (2022). The impact of NLP in AI-based marketing. *International Review of AI Studies*, 15(3), 105–120

Flagella, D. (2016) Machine Learning Marketing. Expert Consensus of 51 Executives and Startups. <https://emerj.com/ai-market-research/machine-learning-marketing>.

Gartner. (2024). *Predicts 2024: How AI Will Reshape Marketing*. Gartner, Inc. Retrieved from <https://www.gartner.com/en>

Goldfarb, A., & Tucker, C. (2019). Digital economics. *Journal of Economic Literature*, 57(1), 3–43.

Gupta, A., & Dubey, S. (2021). The role of artificial intelligence in business transformation. *Journal of Business Research*, 67(3), 123–135.

Heimbach, I. Kostyra, Daniel, S. Hinz, O. (2015). Marketing Automation. *Business and Information systems Engineering*. 57 (2). 102-110.

Hinz, O. Hann, I. & Spann, M. (2011). Price Discrimination in e-commerce? An examination of dynamic pricing in Name your-own price markets. *Mis Q* 35 (10) 81-98.

Holmi, J. (2021). Artificial Intelligence in digital Marketing: Now and in the Future. *Journal of Internal Business* 9, (5) 40-52

Huang, M. & Rust, T., (2021). A Strategic Framework for Artificial Intelligence in marketing. *Journal of the Academy of Marketing Science*, 49 (1), 30-50.

Jain, R., & Verma, S. (2020). Role of chatbots in enhancing customer service. *Journal of Marketing Automation*, 6(2), 45–58.

Kaplan, .. & Haenlein, M. (2010). Users of the world, Unite. *The Challenges and Opportunities of social Media Business Horizons*, 53,(1), 59-68.

Kapoor, S., & Sharma, R. (2021). Personalized advertising in the AI era: Implications for customer engagement. *Journal of Marketing Research*, 58(4), 789–805

Kaput, M. (2016, November 1). The Marketer's Guide to Artificial Intelligence Terminology. https://www.marketingaiinstitute.com/blog/themarketers_guide-to-artificial-intelligence-terminology Accessed: 18 December, 2022

Kask, K. (2014). semanticscholar. Retrieved from [www.semanticscholar.org/presentation/a873/8ca243dc433eeea8850843d67f27d92081b1.p df](https://www.semanticscholar.org/presentation/a873/8ca243dc433eeea8850843d67f27d92081b1.pdf)

Kask, K. (2024). *The future of AI in global markets: Challenges and opportunities*. Publisher.

Kolbjornsrud, V., Amico, R. & Thomas, J., (2016). The Promise of Artificial Intelligence - Redefining Management in the workforce of the future.

Kotler, P., Kartajaya, H., & Setiawan, I. (2021). *Marketing 5.0: Technology for humanity*. Wiley.

Kumar, V., Sharma, A., & Soni, D. (2020). Personalization and performance in AI advertising. *Journal of Interactive Marketing*, 48, 25–38

Kutton, M. (2018). inside big data. Retrieved from [www.insidebigdata.com: https://www.insidebigdata.com/2023/03/01/data-linguistics-deeplearning-digital-age/](https://www.insidebigdata.com/2023/03/01/data-linguistics-deeplearning-digital-age/)

Kutton, R. (2018). Artificial intelligence and its impact on business operations. *International Journal of Artificial Intelligence*, 12(2), 98–105.

Mari, A. (2019). The Rise of Machine Learning in Marketing Goal, Process, and Benefit of Artificial Intelligence-Driven Marketing.

Marx, K. (1867). *Das Kapital: Kritik der politischen Ökonomie* (Capital: Critique of Political Economy). Verlag von Otto Meissner

Marx, K., & Engels, F. (1846). *The German Ideology*. (M. D. Y. & C. E. Ed., Eds.)

McCarthy, J., Minsky, M., Rochester, N., & Shannon, C. (1955). A proposal for the Dartmouth Summer Research Project on Artificial Intelligence. *AI Magazine*, 4(4), 1–10.

McKinsey & Company. (2021). *The impact of AI on marketing: A transformation in customer engagement*. McKinsey & Company. Retrieved from <https://www.mckinsey.com> on 17/6/2025

McLuhan, M. (1964). *Understanding Media: The Extensions of Man*. MIT Press.

Medium.com. (2025). *The Role of AI and Machine Learning in Shaping Programmatic Advertising in Africa*. Retrieved from Medium

Mittelstadt, B., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). The ethics of algorithms: Mapping the debate. *Big Data & Society*, 3(2), 1–21. <https://doi.org/10.1177/2053951716679679>

Najafabadi, M. M., Villanustre, F., Khoshgoftaar, T. M., Seliya, N., Wald, R., & Muharemagic, E. (2015). Deep learning applications and challenges in big data analytics. *Journal of Big Data*, 2, (12) 1-21.

Nissenbaum, H. (2021). *Privacy in context: Technology, policy, and the integrity of social life*. Stanford University Press.

Ojo, O., & Akinmolayan, O. (2019). The integration of AI in Nigerian advertising practices: Challenges and prospects. *African Journal of Business and Management*, 10(2), 45–60.

Oxford Dictionaries. (2019). Artificial intelligence Definition of artificial intelligence https://en.oxforddictionaries.com/definition/artificial_intelligence.

Pasquale, F. (2015). *The Black Box Society: The Secret Algorithms That Control Money and Information*. Harvard University Press.

Pradeep, A, Appel, A, & Sthanunathan, S (2018) Artificial Intelligence for Marketing and Product Innovation: Powerful New Tools for Predicting Trends and Closing Sales. ProQuest ebook central.

Rao, A. (2021). AI and the future of business. *Journal of Technology Management*, 35(1), 88–102.

Roski , J. Bo-Linn, W. & Andrews, T. (2014). Creating Value in Health Care Through Big Data: Opportunities and Policy Implications. *Health Affairs*, vol. 6, (12) 1115-1122.

Rouse, M. (2018, May). Search Enterprise AI. Retrieved from *International Journal of Scientific & Engineering Research* Volume 11, (7), 77-83.

Rust, R. T. (2020). AI and consumer behavior: Implications for marketing. *Journal of Consumer Research*, 47(4), 699–715.

Rust, R., (2020). The future of Marketing. *International Journal of research in Marketing*. 37(1), 15–26

Statista. (2023). Global AI in marketing market size 2021–2028. *Statista*. Retrieved from <https://www.statista.com> on 17/6/2025

Techconomy.ng. (2025). *Leveraging AI to Optimize Digital Marketing Strategies: Insights for Nigerian Digital Marketers*. Retrieved from Techconomy

Thilagavathy, S., & Kumar, S. (2021). Artificial intelligence and its role in business development. *International Journal of Business and Technology*, 10(2), 55–67.

Tucker, C. E. (2014). The economics of artificial intelligence: Implications for business strategy. *Business Economics Review*, 45(3), 133–145.

Turing, A. M. (2004). Computing machinery and intelligence. *Mind*, 59(236), 433–460.

World Economic Forum. (2022). *Future of jobs report 2022*. World Economic Forum. Retrieved from <https://www.weforum.org> on 17/6/2025

Zhang, Y., Li, X., & Wang, P. (2021). Sentiment analysis and consumer feedback. *Journal of AI Research*, 34, 121–136.