

## **INFLUENCE OF ARTIFICIAL INTELLIGENCE (AI) ON SOCIAL MEDIA MARKETING OF SMALL AND MEDIUM ENTERPRISES (SMEs) IN JALINGO METROPOLIS, TARABA STATE**

**<sup>1</sup>ELUJEKWUTE, EDWIN CHUKWUAGUZIE, PhD, <sup>2</sup>ZAKU, CHRISTIE SALAMI, PhD, <sup>3</sup>PENDA, MAUREEN MRUMUN (JP), & <sup>4</sup>JOSEPH CHIBUZO INMPEY, PhD**

<sup>1</sup>Department of Business Technology and Entrepreneurship Education, Faculty of Technology and Industrial Studies, Rev. Fr. Moses Orshio Adasu University, Makurdi, Benue State, Nigeria. Email: [elujekwuteeddy@gmail.com](mailto:elujekwuteeddy@gmail.com) Tel: +2348037530328.

<sup>2</sup>Department of Educational Foundations, Faculty of Education, Taraba State University, Jalingo, Taraba State.

<sup>3</sup>Department of Mass Communication, Federal Polytechnic, Wannune, Benue State, Nigeria.

<sup>4</sup>Enugu State University of Science and Technology, General Studies Division, Enugu, Enugu State

### **Abstract**

This study investigated the influence of artificial intelligence on social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis of Taraba State. Specifically, the study examined the influence of artificial intelligence (AI) on strategy development for social media marketing, and brand voice and consistency in social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis. Two (2) research questions and two (2) research hypotheses respectively guided the study. The descriptive survey design was adopted for the study. The population of the study comprised 350 (three hundred fifty) registered small and medium enterprises (SMEs) from Jalingo Metropolis, Taraba State. A sample of 160 (one hundred and sixty) SMEs owners/managers from Jalingo Metropolis were used for the study. A multistage sampling technique involving purposive and simple random sampling methods was employed in selecting the respondents. A 10-item structured questionnaire constructed by the researchers titled “Influence of Artificial Intelligence on Social Media Marketing of Small and Medium Enterprises Questionnaire (IAISMMSMEQ)” was used for data collection. A reliability estimate of 0.86 was established for the instruments. Descriptive statistics of Mean and Standard Deviation were used to answer the research questions while the Chi-Square ( $X^2$ ) statistical tool was used to test the hypotheses at 0.05 level of significance. The findings revealed that artificial intelligence (AI) has significant influence on strategy development for social media marketing and brand voice and consistency in social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis. Conclusion were made and implication of the findings drawn. Based on the findings of the study, it was recommended amongst that small and medium enterprises (SMEs) owners and managers should invest in training and capacity building on the application of artificial intelligence in social media marketing strategy development.

**Keywords:** Artificial Intelligence (AI), Social Media Marketing, Small and Medium Enterprises (SMEs).

### **Introduction**

The business environment across the world has undergone significant transformation due to rapid advancements in information and communication technologies (ICTs). One of the most remarkable technological innovations of the twenty-first century is artificial intelligence (AI),

which has revolutionized the way individuals, organizations, and businesses operate (Abrokwal-Larbi & Awuka-Larbi, 2023). Artificial intelligence refers to the ability of computer systems and machines to perform tasks that normally require human intelligence, such as learning, reasoning, problem-solving, decision-making, language understanding, and pattern recognition. The increasing adoption of artificial intelligence (AI) technologies has created new opportunities for businesses to improve operational efficiency, customer engagement, marketing effectiveness, and overall competitiveness ((Elujekwute, Umar, Aja & Danburam, 2024). In recent years, social media has emerged as one of the most powerful marketing tools for businesses worldwide. Social media platforms such as Facebook, Instagram, WhatsApp, TikTok, and X have transformed traditional marketing practices by enabling businesses to interact directly with customers, promote products and services, build brand awareness, and expand their market reach at relatively low costs. Mohammed, Robert, Soekmawati and Al-Mulai (2024) disclose that unlike conventional advertising methods, social media marketing provides businesses with real-time communication channels that facilitate customer engagement, feedback collection, and relationship management. One of the major contributions of artificial intelligence (AI) to modern marketing are its ability to support the development of effective social media marketing strategies.

Gbadeyan and Boachie-Mensah (2018) explain that strategy development involves the process of planning, designing, implementing, and evaluating marketing activities aimed at achieving organizational goals. Traditionally, many small and medium enterprises (SMEs) relied on intuition, experience, and manual analysis when developing marketing strategies. However, the emergence of artificial intelligence (AI) has transformed this process by providing businesses with data-driven insights into consumer behavior, market trends, customer preferences, and competitor activities. Gbadeyan and Boachie-Mensah further maintain that through machine learning algorithms, predictive analytics, and big data analysis, artificial intelligence (AI) enables small and medium enterprises (SMEs) to identify target audiences, determine the most effective content types, select appropriate posting schedules, and optimize advertising campaigns. In Jalingo Metropolis, where small and medium enterprises (SMEs) increasingly depend on social media platforms for business promotion, AI-powered tools can assist business owners in making informed strategic decisions that enhance customer engagement and marketing performance. By automating market analysis and providing real-time recommendations, artificial intelligence (AI) contributes significantly to the development of more effective and competitive social media marketing strategies among small and medium enterprises (Igomu, Kwaghbo, Nayla & Elujekwute, 2024).

Brand voice refers to the unique personality, tone, style, and manner through which a business communicates with its audience, while brand consistency involves maintaining uniform messages, values, and visual identity across all communication channels (Gekombe, Tumsifu & Jani, 2019). In today's competitive digital environment, maintaining a strong and consistent brand presence on social media is essential for building customer trust, loyalty, and recognition. Akhuetic and Uzoho (2025) postulate that artificial intelligence has emerged as a valuable tool for helping small and medium enterprises (SMEs) achieve brand voice and consistency in their marketing communications. Akhuetic and Uzoho further maintain that AI-powered content creation tools, automated posting systems, and language-processing technologies enable businesses to generate content that aligns with established brand guidelines and communication objectives. These technologies help ensure that marketing messages remain consistent across different social media platforms, thereby strengthening brand identity and improving customer

perception. For small and medium enterprises (SMEs) in Jalingo Metropolis, artificial intelligence (AI) can support the creation of engaging and uniform content, monitor customer interactions, analyze audience responses, and maintain a consistent communication style.

According to Barakat and Dalzier (2024) the adoption of artificial intelligence (AI) technologies can enhance brand visibility, credibility, and customer relationships, thereby improving the effectiveness of social media marketing efforts among small and medium enterprises (SMEs) in the metropolis. The growing popularity of social media has particularly benefited small and medium enterprises (SMEs), which often operate with limited financial and human resources. Barakat and Dalzier further affirm that small and medium enterprises (SMEs) play a vital role in economic development by contributing to employment generation, poverty reduction, innovation, income creation, and industrial growth. In Nigeria, small and medium enterprises (SMEs) constitute a significant proportion of business establishments and are recognized as key drivers of economic development. However, many small and medium enterprises (SMEs) face challenges such as limited access to capital, inadequate managerial expertise, intense market competition, and difficulties in reaching potential customers. Consequently, social media marketing has become an attractive option for small and medium enterprises (SMEs) due to its affordability, accessibility, and effectiveness in connecting businesses with target audiences (Ihemebiri, Ukwandu, Ofusori & Olebara, 2023).

The integration of artificial intelligence (AI) into social media marketing has further transformed how businesses engage with customers and manage marketing activities. Jaokar, Jacobs, Moore and Ahvenainen (2023) explain that AI-powered tools enable businesses to analyze customer behavior, automate content creation, personalize marketing messages, predict consumer preferences, manage customer relationships, and optimize advertising campaigns. Through technologies such as machine learning, natural language processing, predictive analytics, recommendation systems, and chatbots, artificial intelligence (AI) helps businesses deliver more relevant and personalized experiences to customers. Mamodu (2020) states that these capabilities have significantly improved the effectiveness of social media marketing strategies and enhanced customer satisfaction.

Mamodu (2020) further maintains that AI-powered chatbots and virtual assistants have become increasingly common in social media marketing and these technologies allow businesses to provide instant responses to customer inquiries, handle complaints, offer product recommendations, and maintain customer engagement around the clock. Similarly, AI-driven analytics tools enable businesses to monitor customer interactions, evaluate marketing performance, identify emerging trends, and make data-driven decisions. As a result, businesses can improve marketing efficiency, increase customer retention, and maximize returns on marketing investments. Mohammed, Robert, Soekmawati and Al-Mulai (2024) observe that globally, large corporations have been at the forefront of adopting artificial intelligence (AI) technologies for marketing purposes. Oyekan (2022) discloses that the growing availability of affordable AI-powered marketing tools has also enabled small and medium enterprises (SMEs) to leverage these technologies to enhance business performance. Artificial intelligence (AI) applications such as automated social media scheduling, targeted advertising, content optimization, audience segmentation, and sentiment analysis have become increasingly accessible to small businesses. These innovations provide small and medium enterprises (SMEs) with opportunities to compete more effectively in digital markets and improve their visibility among consumers (Syaifullah, Syaifudin, Sukendar & Junaedi, 2021).

Despite these developments, the level of artificial intelligence (AI) adoption among small and medium enterprises (SMEs) varies considerably due to factors such as technological infrastructure, awareness, digital skills, financial constraints, and access to technological resources. Within Jalingo Metropolis, the capital city of Taraba State, small and medium enterprises (SMEs) constitute an important segment of the local economy. They engage in diverse sectors including retail trade, fashion, hospitality, agriculture, transportation, education, and professional services. Many of these enterprises increasingly rely on social media platforms to market their products and services, attract customers, and remain competitive in an evolving business environment.

However, there is limited understanding of the extent to which artificial intelligence influences social media marketing activities among small and medium enterprises (SMEs) operating within the Metropolis. The effectiveness of AI-driven marketing strategies may vary depending on factors such as business size, technological readiness, managerial competence, and local market conditions. Understanding how artificial intelligence (AI) influences social media marketing practices among small and medium enterprises (SMEs) in Jalingo Metropolis is therefore essential for promoting digital innovation, improving business performance, and enhancing the competitiveness of local enterprises. It is against this background that this study intends to investigate the influence of artificial intelligence (AI) on social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis of Taraba State.

### **Statement of the Problem**

The rapid advancement of artificial intelligence (AI) has transformed the way businesses conduct marketing activities, particularly through social media platforms. AI technologies such as machine learning, predictive analytics, chatbots, content-generation tools, and automated marketing systems have enabled organizations to improve customer engagement, personalize marketing messages, and optimize marketing strategies. While large organizations have increasingly adopted these technologies to enhance their competitiveness, many small and medium enterprises (SMEs) are still struggling to effectively integrate artificial intelligence (AI) into their social media marketing activities. In Jalingo Metropolis, Taraba State, small and medium enterprises (SMEs) play a significant role in employment generation, income creation, and economic development among others.

Kainat and Patrizze (2020) report that despite the widespread use of social media platforms such as Facebook, Instagram, WhatsApp, and X (formerly Twitter) for business promotion, many small and medium enterprises (SMEs) continue to experience challenges in developing effective marketing strategies, reaching target audiences, maintaining consistent brand communication, and achieving desired marketing outcomes. These challenges may be attributed to inadequate knowledge of artificial intelligence (AI) technologies, limited financial resources, poor technological infrastructure, and low levels of digital literacy among business owners. Furthermore, the increasing competition within the digital marketplace requires small and medium enterprises (SMEs) to adopt innovative approaches that can improve strategic decision-making and strengthen brand identity.

Artificial intelligence (AI) has the potential to assist small and medium enterprises (SMEs) in developing data-driven social media marketing strategies and maintaining a consistent brand

voice across multiple social media platforms. However, the extent to which artificial intelligence (AI) influences strategy development and brand voice consistency among small and medium enterprises (SMEs) in Jalingo Metropolis remains unclear. Although several studies have examined the application of artificial intelligence (AI) in marketing and business operations, most of these studies have focused on large corporations and developed economies. Few empirical studies have specifically investigated the influence of artificial intelligence (AI) on social media marketing among small and medium enterprises (SMEs) in developing regions such as Jalingo Metropolis, Taraba State. This creates a knowledge gap regarding how artificial intelligence (AI) contributes to strategic marketing development and brand consistency within small and medium enterprises (SMEs) operating in the local business environment. To fill the existing gap in knowledge and provide empirical evidence that can guide small and medium enterprises (SMEs) owners, and marketers in leveraging artificial intelligence (AI) technologies for improved marketing performance and business growth. Based on these observations, this study intends to examine the influence of artificial intelligence on social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis, Taraba State, with particular emphasis on its influence on strategy development and brand voice and consistency.

### **Purpose of the Study**

The purpose of this study is to investigate the influence of artificial intelligence on social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis, Taraba State. Specifically, the study sought to:

1. Examine the influence of artificial intelligence on strategy development for social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis, Taraba State.
2. Determine the influence of artificial intelligence on brand voice and consistency in social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis, Taraba State.

### **Research Questions**

The following research questions guided the study.

1. What is the influence of artificial intelligence (AI) on strategy development for social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis?
2. What is the influence of artificial intelligence (AI) on brand voice and consistency in social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis?

### **Hypotheses**

The following research hypotheses were formulated and tested at 0.05 level of significance.

1. Artificial intelligence (AI) has no significant influence on strategy development for social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis.
2. Artificial intelligence (AI) has no significant influence on brand voice and consistency in social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis.

## **Review of Related Literature**

This section reviewed the literature which is pertinent and relevant to the study.

### **Concept of Artificial Intelligence (AI)**

Artificial intelligence (AI) refers to the development of computer systems that can perform tasks typically requiring human intelligence, such as learning, problem-solving, decision-making, perception, and understanding language (Ekwugha & Udensi, 2023). Artificial intelligence (AI) technologies include machine learning, natural language processing, computer vision, and robotics. These technologies enable systems to analyze data, recognize patterns, and make predictions or decisions with minimal human intervention. Mamodu (2020) explains that artificial intelligence (AI) can process vast amounts of data quickly and accurately, providing insights that would be difficult or impossible for humans to obtain manually. For instance, artificial intelligence (AI) can analyze user behavior on social media platforms, identify trends, and predict future behaviors, enabling businesses to make informed decisions. In the realm of social media marketing, artificial intelligence (AI) can be a game-changer for small and medium enterprises (SMEs). Asemah and Edegoh (2023) report that artificial intelligence (AI) can automate routine tasks like scheduling posts, responding to common customer queries, and monitoring engagement metrics, freeing up time for small and medium enterprises (SMEs) owners/managers to focus on strategy and creativity.

This automation can lead to increased efficiency and productivity, allowing small and medium enterprises (SMEs) to allocate resources more effectively. Asemah and Edegoh further affirm that AI-driven analytics can provide valuable insights on audience behavior, content performance, and market trends, enabling small and medium enterprises (SMEs) to make data-driven decisions and optimize their social media strategies. For example, artificial intelligence (AI) can help small and medium enterprises (SMEs) understand which types of content resonate with their audience, what time of day to post for maximum engagement, and which social media platforms to prioritize. These insights can help small and medium enterprises (SMEs) create more effective social media campaigns, leading to improved engagement and conversion rates (Isiaka, Adeosun & Okewale, 2022).

Moreover, artificial intelligence (AI) can personalize content and interactions for better engagement, helping small and medium enterprises (SMEs) tailor their messaging to resonate with their target audience. This can lead to increased followers, improved customer loyalty, and better conversion rates. AI-powered tools like Chatbots can enhance customer service by providing instant responses to queries, improving customer satisfaction. According to Nwosu and Tofamel (2023), chatbots can handle a wide range of customer inquiries, from product information to order tracking, freeing up human customer support agents to focus on more complex issues. Nwosu and Tofamel further explain that artificial intelligence (AI) can also optimize social media ads for improved reach and conversions, ensuring small and medium enterprises (SMEs) get the best return on their marketing investment. Artificial intelligence (AI) can analyze ad performance, identify areas for improvement, and adjust targeting and bidding strategies accordingly. This can lead to more effective use of marketing budgets and improved overall ROI.

Furthermore, artificial intelligence (AI) can help small and medium enterprises (SMEs) stay competitive in the digital landscape. By leveraging artificial intelligence (AI), small and medium enterprises (SMEs) can gain a better understanding of their audience, create more impactful content, and achieve their marketing goals more effectively. Artificial intelligence (AI) can also enable small and medium enterprises (SMEs) to respond quickly to changes in the market, staying ahead of competitors and adapting to shifting consumer behaviors. Okorinama (2022) states that artificial intelligence (AI) can facilitate content creation and, helping SMEs generate engaging content that resonates with their audience. AI-powered tools can analyze trending topics, identify relevant hash tags, and even generate content ideas, making it easier for small and medium enterprises (SMEs) to maintain an active social media presence. Okorinama further maintains that AI's capabilities can help small and medium enterprises (SMEs) improve social media marketing efficiency, effectiveness, and competitiveness in a digital landscape. By leveraging artificial intelligence (AI), small and medium enterprises (SMEs) can unlock new opportunities, drive growth, and achieve their business goals.

### **Small and Medium Enterprises (SMEs)**

Small and medium enterprises (SMEs) refer to businesses that operate on a relatively small scale compared to large corporations. The definition of small and medium enterprises (SMEs) can vary by country or region, but it typically includes businesses with a certain number of employees, annual turnover, or assets below a specified threshold. In Nigeria, small and medium enterprises (SMEs) are often defined based on the number of employees and annual turnover, as outlined by the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN). According to SMEDAN (2022), small and medium enterprises (SMEs) are businesses with micro enterprises having 1-10 employees and annual turnover of less than ₦5 million, small enterprises having 11-50 employees and annual turnover of ₦5 million to ₦50 million, and medium enterprises having 51-200 employees and annual turnover of ₦50 million to ₦500 million. Small and medium enterprises (SMEs) are typically privately owned businesses that are often managed by their owners or a small group of people. They play a significant role in the economy of Nigeria, including in Jalingo Metropolis, contributing to employment generation, innovation, and economic growth (Gbandi & Osifo, 2019). Small and medium enterprises (SMEs) operate in various sectors like agriculture, trade, services, manufacturing, and more, serving local and sometimes broader markets. They often cater to specific local needs, provide personalized services, and contribute to the diversity of the local economy.

In Jalingo Metropolis, small and medium enterprises (SMEs) face various challenges like limited access to finance, infrastructure constraints, and competition from larger businesses. At the same time, they have opportunities to innovate, serve niche markets, and leverage digital tools like social media and artificial intelligence to enhance their operations and marketing efforts. Small and medium enterprises (SMEs) are crucial for local economic development as they create jobs, provide income opportunities, and contribute to the overall economic resilience of the community (Oyedele, Oworu, & Adbulganiya, 2020). The characteristics of small and medium enterprises (SMEs), such as flexibility, adaptability, and closeness to customers, enable them to respond quickly to local market changes and customer needs. In the context of social media marketing, small and medium enterprises (SMEs) can leverage platforms like Facebook, Instagram, and Twitter to reach local audiences, engage with

customers, promote products or services, and build brand awareness. According to Mohammed, Robert, Soekmawati and Al-Mulai (2024), the emergence of artificial intelligence in social media marketing could further enhance small and medium enterprises (SMEs) capabilities in targeting audiences, personalizing content, and optimizing marketing campaigns. In the context of this study, small and medium enterprises (SMEs) are businesses that fit within the defined criteria and are involved in social media marketing, potentially leveraging tools like artificial intelligence to enhance their marketing efforts.

### **Influence of Artificial Intelligence (AI) on Brand Voice and Consistency in Social Media Marketing of Small and Medium Enterprises (SMEs) in Jalingo Metropolis, Taraba State**

The influence of artificial intelligence (AI) on brand voice and consistency in social media marketing of small and medium enterprises (SMEs) refers to the extent to which AI technologies assist businesses in maintaining a unique communication style, uniform messaging, and consistent brand identity across various social media platforms (Elujekwute, Umar, Aja & Danburam, 2024). It involves the use of AI-powered tools to create, manage, monitor, and optimize content in ways that ensure that a business communicates with its audience using the same tone, language, values, and personality regardless of the platform or communication channel. Muhammadu (2018) postulates that through these capabilities, artificial intelligence helps SMEs strengthen their brand image, improve customer trust, and enhance customer engagement in the digital marketplace. Brand voice is an important aspect of social media marketing because it represents the personality and character of a business as expressed through its communications. According to Morah and Omojola (2018), it reflects how a business speaks to its customers, the tone it adopts, the language it uses, and the emotions it conveys in its messages. Brand consistency, on the other hand, refers to the ability of a business to maintain uniform messages, visual identity, values, and communication standards across all social media platforms. Together, brand voice and consistency contribute significantly to customer perception, brand recognition, and long-term business success (Macharia & Namusonge, 2021).

In the contemporary business environment, social media platforms have become major channels through which small and medium enterprises (SMEs) communicate with customers and promote their products and services. However, maintaining a consistent brand voice across multiple social media platforms can be challenging, particularly for SMEs that often operate with limited marketing personnel, inadequate technical expertise, and restricted financial resources. As a result, businesses may experience inconsistencies in their communication styles, messaging approaches, and customer interactions (Isiaka, Adeosun & Okewale, 2022). Artificial intelligence has emerged as an effective solution to these challenges by providing tools that support content creation, communication management, and brand monitoring. Elujekwute (2019) explains that one of the major ways artificial intelligence influences brand voice and consistency is through automated content creation. AI-powered content generation tools can assist small and medium enterprises (SMEs) in producing captions, promotional messages, advertisements, blog posts, and customer responses that align with predetermined brand guidelines.

Elujekwute further maintains that these systems can be trained to reflect a specific communication style, tone, and vocabulary associated with a business. Consequently, every piece of content generated by AI remains consistent with the organization's established brand identity, thereby reducing the likelihood of conflicting messages. Artificial intelligence also

enables businesses to maintain consistency in communication across different social media platforms. Abrokwal-Larbi and Awuka-Larbi (2023) disclose that small and medium enterprises (SMEs) often use multiple platforms such as Facebook, Instagram, WhatsApp, TikTok, X (Twitter), LinkedIn, and YouTube to reach diverse customer groups. Managing communications across these platforms manually may result in inconsistencies in tone, style, and message delivery. AI systems help businesses standardize their communications by ensuring that all content aligns with the organization's branding objectives. This promotes a unified brand image that customers can easily recognize and trust. Charitha, Rajkishore and Long (2022) suggest that another significant influence of artificial intelligence is its ability to analyze previous communications and identify patterns that define a business's brand voice. Through machine learning and natural language processing technologies, AI can examine historical content and determine the language, tone, expressions, and messaging approaches commonly used by the organization. Based on this analysis, AI tools can provide recommendations for future content creation that aligns with the established brand voice. This helps businesses maintain continuity in their communications and strengthen their brand identity.

Daramola and Bello (2023) affirm that customer engagement is another area where artificial intelligence significantly influences brand voice and consistency. Modern consumers expect businesses to provide prompt and professional responses to inquiries, comments, and complaints on social media platforms. AI-powered chatbots and virtual assistants enable small and medium enterprises (SMEs) to deliver immediate responses while maintaining a consistent communication style. According to Igomu, Kwaghbo, Nayla and Elujekwute (2024), these automated systems can be programmed to reflect the brand personality of the business, ensuring that customer interactions remain aligned with organizational values and communication objectives. Igomu, Kwaghbo, Nayla and Elujekwute further maintain that artificial intelligence contributes to personalized communication without compromising brand consistency. Artificial intelligence (AI) technologies can analyze customer preferences, behaviors, and interactions to create tailored messages that address individual customer needs. Despite the personalized nature of such communications, artificial intelligence ensures that the messages remain consistent with the overall brand voice. This balance between personalization and consistency helps businesses strengthen customer relationships while preserving their brand identity.

## **Methodology**

This study adopted a descriptive survey research design to examine the influence of artificial intelligence (AI) on social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis, Taraba State, Nigeria. The design was considered appropriate because it enabled the researchers to obtain information from SME owners and managers regarding their experiences and perceptions of the use of artificial intelligence (AI) in social media marketing without manipulating the variables under study. The population of the study comprised 350 registered small and medium enterprises operating in Jalingo Metropolis, Taraba State. A sample of 160 respondents was selected from the population. A multistage sampling technique involving purposive and simple random sampling methods was employed in selecting the respondents. A structured questionnaire was used as the instrument for data collection. The questionnaire was developed in line with the purpose of the study and focused on two major dimensions: the influence of artificial intelligence on strategy development for social media

marketing and the influence of artificial intelligence on brand voice and consistency in social media marketing. The questionnaire was subjected to face and content validation by experts in relevant fields to ensure the clarity, appropriateness, and adequacy of the items. The instrument was also pilot-tested among respondents with characteristics similar to those of the study population to establish its reliability before the final administration. The questionnaires were administered to the selected respondents, and the completed copies were collected, organized, and analyzed. Data collected were analyzed using descriptive statistics, particularly mean and standard deviation, to provide answers to the research questions. Chi-square statistics were employed to test the hypotheses formulated for the study at the 0.05 level of significance. Statistical analyses were carried out using the Statistical Package for Social Sciences (SPSS).

## Results and Findings

### Research Question 1:

What is the influence of artificial intelligence (AI) on strategy development for social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis?

**Table 1:** Mean Ratings and Standard Deviation of Respondents on the Influence of Artificial Intelligence (AI) on Strategy Development for Social Media Marketing of Small and Medium Enterprises (SMEs) in Jalingo Metropolis

| S/N                                    | Item Description                                                                                                               | SA | A  | D  | SD | $\bar{X}$   | STD         | Decision      |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|-------------|-------------|---------------|
| 1                                      | Artificial intelligence helps SMEs develop effective social media marketing strategies.                                        | 72 | 55 | 20 | 13 | 3.16        | 0.93        | Agreed        |
| 2                                      | Artificial intelligence enables SMEs to identify the preferences and needs of their target audience on social media platforms. | 68 | 58 | 21 | 13 | 3.13        | 0.93        | Agreed        |
| 3                                      | Artificial intelligence assists SMEs in selecting appropriate social media content for marketing purposes.                     | 75 | 50 | 22 | 13 | 3.17        | 0.95        | Agreed        |
| 4                                      | Artificial intelligence improves decision-making in planning social media marketing campaigns.                                 | 70 | 56 | 19 | 15 | 3.13        | 0.96        | Agreed        |
| 5                                      | Artificial intelligence helps SMEs monitor and adjust their social media marketing strategies based on market trends.          | 74 | 52 | 20 | 14 | 3.16        | 0.95        | Agreed        |
| <b>Cluster Mean/Standard Deviation</b> |                                                                                                                                |    |    |    |    | <b>3.15</b> | <b>0.94</b> | <b>Agreed</b> |

*Source: Field Survey, 2026*

Table 1 showed that the mean ratings for items 1-5 were 3.16, 3.13, 3.17, 3.13 and 3.16 respectively with the corresponding standard deviation of 0.93, 0.93, 0.95, 0.96 and 0.95 respectively. All the mean ratings are above the cut-off point of 2.50. This means that the respondents agreed that artificial intelligence helps small and medium enterprises (SMEs) develop effective social media marketing strategies and artificial intelligence enables small and

medium enterprises (SMEs) to identify the preferences and needs of their target audience on social media platforms. More so, that artificial intelligence assists small and medium enterprises (SMEs) in selecting appropriate social media content for marketing purposes and also, artificial intelligence improves decision-making in planning social media marketing campaigns. They also agree that artificial intelligence helps small and medium enterprises (SMEs) monitor and adjust their social media marketing strategies based on market trends. The cluster mean of 3.15 with the standard deviation of 0.94 was also found to be above the cut-off point of 2.50. This implies that artificial intelligence (AI) significantly influences strategy development for social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis.

### Research Question 2:

What is the influence of artificial intelligence (AI) on brand voice and consistency in social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis?

**Table 2:** Mean Ratings and Standard Deviation of Respondents on the Influence of Artificial Intelligence (AI) on Brand Voice and Consistency in Social Media Marketing of Small and Medium Enterprises (SMEs)

| Item No.                               | Item Description                                                                                                 | SA | A  | D  | SD | $\bar{X}$   | STD         | Decision      |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------|----|----|----|----|-------------|-------------|---------------|
| 6                                      | Artificial intelligence helps SMEs maintain a consistent brand voice across social media platforms.              | 71 | 54 | 21 | 14 | 3.14        | 0.95        | Agreed        |
| 7                                      | Artificial intelligence improves the quality and uniformity of messages shared on social media.                  | 69 | 57 | 20 | 14 | 3.13        | 0.94        | Agreed        |
| 8                                      | Artificial intelligence assists SMEs in creating content that reflects their brand identity.                     | 73 | 53 | 19 | 15 | 3.15        | 0.96        | Agreed        |
| 9                                      | Artificial intelligence helps SMEs maintain regular and consistent communication with customers on social media. | 76 | 50 | 21 | 13 | 3.18        | 0.95        | Agreed        |
| 10                                     | Artificial intelligence enhances customer recognition of SME brands through consistent social media messaging.   | 72 | 55 | 18 | 15 | 3.15        | 0.96        | Agreed        |
| <b>Cluster Mean/Standard Deviation</b> |                                                                                                                  |    |    |    |    | <b>3.15</b> | <b>0.95</b> | <b>Agreed</b> |

*Source: Field Survey, 2026*

Table 2, showed that the mean ratings for item 11-15 were 3.14, 3.13, 3.15, 3.18, and 3.15 with the corresponding standard deviations of 0.95, 0.94, 0.96, 0.90 and 0.95 respectively. All the mean ratings are above the cut-off point of 2.50. This means that the respondents agreed that artificial intelligence helps small and medium enterprises (SMEs) maintain a consistent brand voice across social media platforms and artificial intelligence improves the quality and

uniformity of messages shared on social media. They also agreed that artificial intelligence assists small and medium enterprises (SMEs) in creating content that reflects their brand identity and artificial intelligence helps small and medium enterprises (SMEs) maintain regular and consistent communication with customers on social media. More so that artificial intelligence enhances customer recognition of small and medium enterprises (SMEs) brands through consistent social media messaging. The cluster mean of 3.15 with the standard deviation of 0.95 also found to be above the cut of point of 2.50. This implies that artificial intelligence (AI) has a significant influence on brand voice and consistency in the social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis.

## Testing Hypotheses

### Hypothesis One:

Artificial intelligence (AI) has no significant influence on strategy development for social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis.

**Table 3:** Chi-Square Analysis of the Influence of Artificial Intelligence (AI) on Strategy Development for Social Media Marketing of Small and Medium Enterprises (SMEs) in Jalingo Metropolis

| Opinion      | Observed Frequency | Expected Frequency | df | Level of sig | $\chi^2$ | $\chi^2$ -cal | Decision     |
|--------------|--------------------|--------------------|----|--------------|----------|---------------|--------------|
| No Influence | 40 (25%)           | 80 (50%)           | 1  | 0.05         | 40.00    | 3.84          | Ho           |
| Influence    | 120(75%)           | 80 (50%)           |    |              |          |               | Not Accepted |

Values in parentheses are percentage ( $\chi^2=40.00$ ,  $df=1$ ,  $p=0.05>0.00$ )

The result in Table 3 indicates that out of the 160 respondents, 120 (75%) agreed that artificial intelligence influences strategy development for social media marketing of small and medium enterprises (SMEs), while 40 (25%) respondents believed that it has no influence. The calculated Chi-square value of 40.00 is greater than the critical value of 3.84 at 1 degree of freedom and 0.05 level of significance. Since the calculated value exceeds the critical value, the null hypothesis was rejected. This implies that artificial intelligence has a significant influence on strategy development for social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis, Taraba State. The finding suggests that artificial intelligence (AI) assists small and medium enterprises (SMEs) in making strategic marketing decisions, understanding customer behavior, and improving social media marketing effectiveness.

### Hypothesis Two:

Artificial intelligence (AI) has no significant influence on brand voice and consistency in social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis.

**Table 4:** Chi-Square Analysis of the Influence of Artificial Intelligence (AI) on Brand Voice and Consistency in Social Media Marketing of Small and Medium Enterprises (SMEs) in Jalingo Metropolis

| Opinion | Observed Frequency | Expected Frequency | df | Level of sig | $\chi^2$ | $\chi^2$ -cal | Decision |
|---------|--------------------|--------------------|----|--------------|----------|---------------|----------|
|---------|--------------------|--------------------|----|--------------|----------|---------------|----------|

|                     |              |          |   |      |       |       |              |
|---------------------|--------------|----------|---|------|-------|-------|--------------|
| <b>No Influence</b> | 35 (22%)     | 80 (50%) | 1 | 0.05 | 50.62 | 3.841 | Ho           |
| <b>Influence</b>    | 125<br>(78%) | 80(50%)  |   |      |       |       | Not accepted |

Values in parentheses are percentage ( $\chi^2=50.62$ , df =1, p=0.05>0.00)

Table 4 shows that 125 (78%) respondents agreed that artificial intelligence influences brand voice and consistency in social media marketing, whereas 35 (22%) respondents indicated that it has no influence. The calculated Chi-square value of 50.62 is higher than the critical value of 3.84 at 1 degree of freedom and 0.05 significance level. Therefore, the null hypothesis was rejected. This result indicates that artificial intelligence significantly influences brand voice and consistency among small and medium enterprises (SMEs) in Jalingo Metropolis, Taraba State. The finding demonstrates that artificial intelligence (AI) enables small and medium enterprises (SMEs) to maintain a consistent communication style, develop uniform marketing messages, and strengthen brand identity across social media platforms, thereby enhancing customer trust and brand recognition.

### Discussion of Findings

The first finding of this study revealed that artificial intelligence (AI) has significant influence on strategy development for social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis. This finding is in line with views of Igomu, Kwaghbo, Nayla and Elujekwute (2024) whose study revealed that artificial intelligence enhances strategic decision-making in social media marketing through customer data analysis, market trend monitoring, audience segmentation, and predictive analytics. Igomu, Kwaghbo, Nayla and Elujekwute further maintain that artificial intelligence (AI) enables businesses to collect, process, and interpret large volumes of customer and market data within a short period, thereby assisting marketers in making informed strategic decisions. This finding corroborates with the opinions of Gbadeyan and Boachie-Mensah (2018) who maintained that artificial intelligence provides small and medium enterprises (SMEs) with the ability to identify consumer needs, preferences, and online behavioral patterns, which are essential for developing effective social media marketing strategies. Through AI-powered tools, businesses can determine the most suitable content to post, the best time to engage customers, and the appropriate platforms to reach their target audience.

The second finding of this study revealed that artificial intelligence (AI) has significant influence on brand voice and consistency in social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis. This finding is line with the views of Muraina and Ammar (2025) whose study revealed that artificial intelligence contributes significantly to maintaining a consistent brand voice and message across different social media platforms. Muraina and Ammar further affirmed that AI-powered tools enable businesses to create and distribute content that aligns with their brand values, communication style, and organizational objectives, thereby ensuring uniformity in customer interactions. This finding corroborates with the opinions of Nwosu and Tofamel (2023) who maintained that artificial intelligence helps small and medium enterprises (SMEs) maintained consistency in their social media communications by automating content creation, scheduling posts, and monitoring audience engagement. Through these capabilities, artificial intelligence (AI) ensures that marketing messages remain coherent and reflect the personality and identity of the brand regardless of the platform being used. Consistency in brand communication is important because it strengthens brand recognition and helps customers easily identify and relate with the organization.

## Conclusion

Based on the findings of this study, it was concluded that artificial intelligence (AI) on strategy development and brand voice and consistency in social media marketing has significant influence on social media marketing of small and medium enterprises (SMEs) in Jalingo Metropolis, Taraba State.

## Recommendations

Based on the findings of the study, the following recommendations were made:

1. Small and medium enterprises (SMEs) owners and managers should invest in training and capacity building on the application of artificial intelligence in social media marketing strategy development. Such training will equip them with the necessary knowledge and skills required to effectively utilize AI-powered tools for strategic planning and marketing decision-making.
2. Small and medium enterprises (SMEs) operators and managers should integrate artificial intelligence technologies into their content creation and social media management processes to maintain brand voice and consistency. This will ensure that marketing messages remain uniform across different social media platforms and accurately reflect the organization's values and brand identity.

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