



INFLUENCE OF ARTIFICIAL INTELLIGENCE ON CUSTOMER RELATIONSHIP MANAGEMENT (CRM) IN DIGITAL MARKETING IN BENUE STATE, NIGERIA

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ABSTRACT

This study investigated Influence of Artificial Intelligence (AI) on Customer Relationship Management (CRM) in digital marketing in Benue State. 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 800 (eight hundred) registered small and medium enterprises (SMEs) from Benue State. A sample of 400 (four hundred) SMEs Owners and managers was used for the study. A 10-item structured questionnaire constructed by the researcher tilted. "Influence of Artificial Intelligence and Customer Relationship Management in Digital Marketing Questionnaire (IAICRMDMQ)" was used for data collection. A reliability estimate of 0.85 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) influence customer relationship management (CRM) in digital marketing through customer engagement and retention in digital marketing in Benue State. Based on the findings of the study, it was recommended amongst others that digital marketers and SMEs operators should prioritize adopting artificial intelligence (AI) tools like Chatbots and predictive analytics to enhance customer engagement and retention. SMEs owners and Managers should also leverage AI-driven data analytics to gain insights into customer behaviour, preferences, and needs. Conclusion were made and implication of the findings drawn.

Keywords: Influence, Artificial Intelligence (AI), Customer Relationship Management (CRM), Digital Marketing, Customer Engagement and Retention

1.0

INTRODUCTION

In recent years, Artificial Intelligence (AI) has significantly transformed the way businesses interact with customers, particularly through improvements in Customer Relationship Management (CRM) systems. AI-driven technologies have introduced innovative approaches



that enhance customer engagement, personalization, and overall customer experience. According to Elujekwute, Aja, Danburam and Umar (2024), the integration of AI into CRM systems enables businesses to better understand customer needs, preferences, and behaviours, thereby improving the quality of interactions and relationships with customers. Similarly, Mohanapriya and Reshma (2025) explain that AI-powered CRM systems allow organizations to automate routine tasks, analyze large volumes of customer data, and deliver personalized services. This integration not only improves operational efficiency but also strengthens customer loyalty and retention.

Traditionally, CRM systems relied heavily on manual data analysis and broad demographic segmentation to understand customer behaviour. However, the emergence of AI technologies such as machine learning and natural language processing has enabled businesses to process and analyze vast amounts of customer data more accurately and efficiently. As noted by Mark (2024), these technologies allow firms to provide highly customized experiences to customers, which ultimately enhances satisfaction and long-term loyalty (Assaad, Sanayei & Shafiee, 2024).

Artificial Intelligence refers to the simulation of human intelligence in machines designed to learn, reason, and perform tasks that typically require human cognition. Perifanis and Kitsios (2023) define AI as computer-based systems capable of gathering and processing data to perform intelligent tasks that maximize success in decision-making and operations. When integrated into CRM systems, AI enables businesses to automate processes, analyze customer data more deeply, and deliver highly personalized customer experiences. Digital platforms such as Facebook, Instagram, and YouTube utilize AI algorithms to analyze user data and provide targeted advertising and product recommendations. AI-driven analytics also provide deeper insights into customer behaviours and preferences, allowing organizations to anticipate customer needs and respond proactively (Mohammed & Musa, 2025).

Customer Relationship Management (CRM) itself refers to the strategies, technologies, and processes used by organizations to develop, maintain and strengthen relationships with customers. The primary objective of CRM is to enhance customer satisfaction and loyalty while increasing revenue and long-term customer value. CRM systems assist organizations in automating sales processes, managing customer interactions, and improving customer service delivery (Cristina, Anna & Andrea, 2022).



At the same time, the rise of digital marketing has further accelerated the adoption of AI in business operations. Digital marketing involves the promotion of products, services, or brands through digital channels such as websites, social media platforms, search engines, and email. Adnansah, Sihite and Salm (2022) observe that digital marketing has rapidly evolved into a major discipline in modern marketing, with many organizations increasingly relying on AI technologies to gain competitive advantage in the digital marketplace.

The adoption of AI tools by digital marketers in Benue State represents an important development in Nigeria's expanding digital economy. The extent of AI adoption refers to the degree to which digital marketing professionals integrate AI technologies into their marketing practices. According to Akinbami and Johnson (2022), digital marketers use AI tools to analyze large datasets, gain insights into consumer behaviour, and design targeted marketing campaigns. Okon, Ukpong, and Idong (2024) further explain that these technologies enable marketers to create more effective strategies that enhance customer engagement and business growth.

AI-based data analytics plays a crucial role in improving customer engagement and retention in digital marketing. Through advanced machine learning algorithms and statistical models, businesses can analyze customer interactions, preferences, and behaviours to obtain valuable insights. Konstantino, Dimitrios, and Aikateini (2021) note that these insights enable organizations to develop targeted marketing strategies and personalized communications that resonate with customers. By understanding customer needs more accurately, businesses can build stronger relationships and foster long-term customer loyalty (Qaium, Arif, Maliha & Sharif, 2024).

Despite the numerous benefits associated with AI-driven CRM systems, businesses in Benue State face several challenges in adopting these technologies. Although digital marketing is becoming increasingly important, many organizations still struggle to effectively manage customer relationships due to limited technological adoption, inadequate expertise, and insufficient awareness of AI capabilities. As a result, businesses often experience reduced customer engagement, satisfaction, and loyalty (Ledro, Nosella, Vinch, Dalla & Souverain, 2025).

Furthermore, there is limited empirical research examining the specific influence of artificial intelligence on customer relationship management within Benue State. This lack of research makes it difficult for businesses to make informed decisions regarding the adoption of AI-



driven CRM systems. Consequently, many organizations are unable to fully leverage AI technologies to enhance customer engagement, personalization, and operational efficiency. The inability to effectively utilize AI tools ultimately affects their competitiveness in the digital marketplace.

Therefore, based on these challenges and research gaps, this study seeks to investigate the Influence of Artificial Intelligence on Customer Relationship Management in Digital Marketing within Benue State, Nigeria, with the aim of providing insights that can help businesses improve customer engagement, satisfaction, and long-term retention through AI-driven marketing strategies.

Despite the growing global adoption of Artificial Intelligence technologies in digital marketing and customer relationship management, many businesses in developing regions such as Benue State, Nigeria, appear to be slow in embracing these technological innovations. In practice, many digital marketing firms and entrepreneurs in the state still rely heavily on traditional or semi-automated CRM practices. Such practices include manual customer data management, generalized email marketing campaigns, and non-personalized customer communication strategies. These traditional approaches often limit the ability of businesses to effectively analyze customer data, respond promptly to customer needs, and deliver personalized marketing experiences. According to Azage and Ikpeazu (2024), these limitations have contributed to low operational efficiency, reduced customer retention, and weak responsiveness to customer preferences and feedback among many businesses in the region. Although Artificial Intelligence technologies have the potential to automate marketing processes, provide deeper insights into customer behaviour, and enhance customer-centric decision-making, their level of utilization among digital marketers in Benue State remains uncertain and relatively low.

Additionally, several factors such as lack of technical expertise, high implementation costs, inadequate digital infrastructure, and limited awareness of AI applications may hinder the integration of AI technologies into marketing operations in the state. As a result, many organizations may be missing valuable opportunities to enhance customer engagement, improve customer experiences, strengthen customer relationships, and achieve sustainable competitive advantage in the digital marketplace. It is against this background that the present study seeks to examine the influence of Artificial Intelligence on Customer Relationship Management in Digital Marketing in Benue State, Nigeria, with the aim of providing empirical



insights that could guide businesses in leveraging AI technologies to improve customer engagement and retention.

The purpose of this study is to investigate the Influence of Artificial Intelligence (AI) on Customer Relationship Management (CRM) in Digital Marketing in of Benue State, Nigeria. Specifically, the study sought to examine the extent to which artificial intelligence (AI) tools are adopted by digital marketers in Benue State and equally evaluate the influence of AI- based data analytics on customer engagement and retention in the digital marketing within Benue State.

2.0 REVIEW OF RELATED LITERATURE

2.1 Concept Review

2.1.1 Artificial Intelligence (AI)

Artificial Intelligence (AI) has emerged as one of the most transformative technological innovations of the 21st century, influencing various sectors including business, education, healthcare, and marketing. Artificial Intelligence refers to the development of computer systems that are capable of performing tasks that normally require human intelligence such as learning, reasoning, problem-solving, perception, and decision-making. AI systems operate by utilizing complex algorithms and large datasets to simulate human cognitive processes and improve performance through technologies such as machine learning, deep learning, and natural language processing (Igomu, Kwaghbo, Nayla & Elujekwute, 2024).

In contemporary business environments, AI has become an important tool for improving operational efficiency, enhancing decision-making processes, and delivering innovative customer solutions. Organizations increasingly rely on AI technologies to automate routine processes, analyze large volumes of data, predict market trends, and optimize strategic decisions. The growing integration of AI into business operations has significantly transformed the way organizations interact with customers and manage relationships.

In the context of digital marketing and customer relationship management (CRM), AI plays a critical role in analyzing customer data, identifying behavioural patterns, and generating actionable insights that guide marketing strategies. AI technologies enable businesses to process large volumes of customer data from various digital platforms such as websites, social media channels, and mobile applications. These insights help organizations better understand



customer preferences, purchasing patterns, and expectations, thereby enabling them to deliver more personalized and effective marketing communications.

Furthermore, AI technologies enable organizations to automate several marketing and customer service activities. For instance, AI-powered chatbots, recommendation systems, and virtual assistants are increasingly used to manage customer inquiries, provide product recommendations, and enhance the overall customer experience. As noted by Elujekwute, Umar, Aja, and Danburam (2024), AI-driven systems support organizations in automating data analysis, customer segmentation, and marketing campaign management, allowing marketers to focus on more strategic and creative activities. The relevance of AI in modern marketing practices therefore lies in its ability to transform raw data into valuable knowledge that organizations can use to strengthen customer relationships and improve marketing performance.

2..1.2 Adoption of Artificial Intelligence Tools by Digital Marketers

The effectiveness of Artificial Intelligence in digital marketing largely depends on the extent to which marketers adopt and integrate AI-powered tools into their marketing practices. AI tools adoption refers to the degree to which digital marketers utilize AI-driven technologies such as machine learning algorithms, chatbots, predictive analytics systems, and automated marketing platforms in executing marketing activities.

In recent years, digital marketers have increasingly adopted AI technologies in order to remain competitive in the evolving digital marketplace. The adoption of AI tools enables marketers to automate repetitive tasks, process large datasets, and obtain valuable insights that support data-driven marketing strategies. According to Elujekwute, Umar, Aja, and Danburam (2024), the integration of AI technologies into digital marketing practices allows marketers to improve operational efficiency, enhance customer targeting, and optimize marketing performance.

One major advantage of AI tools adoption in digital marketing is the ability to automate routine marketing tasks. Activities such as customer segmentation, email marketing, content scheduling, and campaign monitoring can be efficiently managed through AI-driven platforms. This automation reduces human effort and enables marketers to allocate more time to strategic planning and creative marketing initiatives.

In addition, AI tools provide marketers with deeper insights into customer behaviour and preferences. Through advanced data processing capabilities, AI technologies analyze consumer interactions across multiple digital platforms and generate meaningful patterns that guide



marketing decisions. As a result, digital marketers can design more targeted marketing campaigns that effectively meet the needs and expectations of their audiences.

Another important benefit of AI adoption is improved customer interaction through intelligent communication systems such as chatbots and virtual assistants. These tools provide instant responses to customer inquiries, offer product recommendations, and ensure continuous engagement between businesses and customers. By improving response time and communication efficiency, AI tools contribute significantly to enhanced customer satisfaction. Therefore, the adoption of AI tools represents an important step in the digital transformation of marketing activities, enabling businesses to deliver more efficient, personalized, and data-driven marketing strategies.

2.1.3 Artificial Intelligence-Based Data Analytics in Digital Marketing

A key component of AI adoption in digital marketing is the use of AI-based data analytics to generate insights from large and complex datasets. AI-based data analytics refers to the application of artificial intelligence technologies, machine learning algorithms, and statistical models to analyze vast amounts of customer data in order to identify patterns, trends, and predictive insights.

In the digital marketing environment, organizations generate large volumes of customer data from multiple digital channels including social media platforms, online transactions, website visits, and customer feedback systems. Analyzing such large datasets using traditional analytical techniques can be challenging and inefficient. However, AI-based data analytics enables businesses to process and interpret these datasets more accurately and efficiently.

According to Akinbami and Johnson (2022), AI-based data analytics allows organizations to analyze various forms of customer information such as purchasing behaviour, browsing patterns, demographic characteristics, and online interactions. By analyzing these data points, businesses gain deeper insights into customer needs and preferences, which can be used to improve marketing strategies and customer engagement.

One of the most important functions of AI-based data analytics is predictive analytics. Predictive analytics involves the use of historical data and machine learning algorithms to forecast future customer behaviours and market trends. Through predictive modelling, businesses can anticipate customer needs, identify potential buying opportunities, and design marketing strategies that align with future consumer expectations (Elujekwute, Umar, Aja & Danburam, 2024).



Furthermore, AI-driven analytics helps organizations evaluate the effectiveness of their marketing campaigns. By analyzing customer responses and engagement levels, marketers can determine which marketing strategies produce the best results and make necessary adjustments to improve performance. This data-driven approach enables organizations to optimize their marketing investments and achieve higher returns on investment. Therefore, AI-based data analytics serves as a critical bridge between AI tools adoption and effective customer relationship management, as it provides the insights necessary for understanding and responding to customer needs.

2.1.4 Customer Relationship Management (CRM) in Digital Marketing

Customer Relationship Management (CRM) refers to the strategies, technologies, and processes that organizations use to manage interactions with current and potential customers. The primary objective of CRM is to build and maintain long-term relationships with customers by improving customer satisfaction, loyalty, and overall customer experience.

With the advancement of digital technologies, CRM systems have evolved from simple customer databases into sophisticated platforms that integrate AI-powered tools and data analytics capabilities. AI-driven CRM systems enable businesses to manage customer interactions more efficiently, personalize communication, and provide better customer support. The integration of AI into CRM systems allows organizations to collect, store, and analyze customer data from various digital touchpoints. These insights enable businesses to understand customer expectations and design marketing strategies that align with customer needs. Mohammed and Musa (2025) explain that AI-powered CRM systems can analyze customer interactions and provide recommendations that help businesses improve service delivery and customer satisfaction. Additionally, AI-driven CRM platforms automate several customer service activities such as responding to inquiries, tracking customer complaints, and managing customer feedback. These automated systems ensure timely responses and improve service efficiency. As a result, businesses are able to maintain stronger and more meaningful relationships with their customers. Thus, AI-powered CRM systems act as an important mechanism through which insights derived from AI-based data analytics are translated into practical marketing and customer management strategies.

2.1.5 Customer Engagement and Retention in Digital Marketing

Customer engagement and retention represent key outcomes of effective customer relationship management in digital marketing. Customer engagement refers to the level of interaction,



participation, and emotional connection that customers have with a brand across various digital platforms. Customer retention, on the other hand, refers to the ability of an organization to maintain long-term relationships with customers and encourage repeat patronage.

AI technologies play a significant role in improving both customer engagement and retention by enabling businesses to deliver personalized and meaningful customer experiences. Through AI-powered analytics and CRM systems, businesses can understand customer preferences more accurately and develop marketing messages that resonate with their audiences.

According to Azage and Ikpeazu (2024), personalized marketing strategies significantly improve customer satisfaction and loyalty because customers feel valued and understood by the brand. AI technologies also support real-time engagement through automated communication systems, recommendation engines, and targeted advertising.

Moreover, AI-driven insights enable businesses to anticipate customer needs and respond proactively, thereby preventing customer dissatisfaction and reducing customer churn. When customers receive timely support, relevant product recommendations, and personalized communication, they are more likely to maintain long-term relationships with the brand.

Ledro, Nosella, Vineli, Dalla and Souverain (2025) further emphasize that AI-driven marketing systems enable organizations to continuously monitor customer interactions and adjust their marketing strategies in response to changing customer expectations. This adaptability enhances customer satisfaction and strengthens customer loyalty over time.

Therefore, effective integration of Artificial Intelligence, AI tools adoption, AI-based data analytics, and AI-powered CRM systems ultimately leads to improved customer engagement and retention in digital marketing.

3.0 METHODOLOGY

The design adopted for the study was a descriptive survey research design. This design was considered appropriate because it allows the researcher to gather, analyze, and interpret data from a specific population to determine influence of artificial intelligence (AI) on customer relationship management (CRM) in digital marketing in Benue State. The population of the study comprised 800 (eight hundred) registered small and medium enterprises (SMEs) from Benue State. A sample of 400 (four hundred) SMEs Owners and managers was used for the study, using convenience sampling technique. The items were measured on a four-point Likert scale ranging from: Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD).



To ensure the face validity of the instrument, the questionnaire was vetted by three experts: two in Business Education and one in Computer Science from the Faculty of technology and Industrial study and faculty of science, Rev. Fr Moses Orshio Adasu University, Makurdi. Their suggestions and corrections such as; change the response option of cluster two to strongly agree, Agree, Disagree and Strongly Disagree from Very High Extent, High Extent, Low Extent and Very Low Extent, among others were incorporated before finalizing the instrument. The instrument was trial tested on 20 (10 SMEs Owners and 10 managers) SMEs Owners and managers in Taraba State, which is outside the study area. The reliability of the instrument was established using the Cronbach Alpha reliability method and its yielded 0.85, indicating a high level of internal consistency and reliability of the questionnaire.

The researcher, with the help of trained research assistants, personally administered the questionnaires to the respondents. This method helped ensure high return rates and allowed clarification of items where needed. All distributed questionnaires were retrieved within two weeks.

The data collected were analyzed using both descriptive and inferential statistics:

Descriptive statistics such as mean and standard deviation were used to answer the research questions. Inferential statistics using the Chi-square (χ^2) test were employed to test the two null hypotheses at 0.05 level of significance. The decision rule for the research questions was based on a benchmark of 2.50: any item with a mean score of 2.50 or above was considered "Agreed," while items below 2.50 were interpreted as "Disagreed."

4.0 RESULTS AND FINDINGS

4.1 Results

Research Question One:

How does artificial intelligence (AI) tools adopted by digital marketers in Benue state?



Table 1:
Mean Ratings and Standard Deviation of Respondents on Influence of Artificial Intelligence (AI) tools adopted by Digital Marketers in Benue state.

Item No.	Item Description	SA	A	D	SD	$\bar{X}$	STD	Decision
1	AI-based tools have improved the efficiency and effectiveness of our digital marketing efforts, enabling us to personalize customer experiences and improve conversion rates.	111	148	34	18	3.17	0.78	Agreed
2	AI-based tools enhance customer relationship management (CRM) in digital marketing, resulting in improved customer engagement and retention.	165	94	31	22	3.33	0.88	Agreed
3	AI-powered Chatbots to interact with customers, provide support, and resolve queries in a timely and efficient manner	121	158	18	15	3.27	0.72	Agreed
4	AI-driven insights have helped me create more personalized and targeted marketing campaigns, resulting in improved customer engagement and conversion rates	116	164	20	12	3.27	0.69	Agreed
5	I am familiar with artificial intelligence (AI) tools and their applications in digital marketing, such as Chatbots, predictive analytics, and content optimization.	138	119	34	21	3.24	0.86	Agreed
Cluster Mean/Standard Deviation						3.26	0.79	Agreed

Source: Field Work, 2026

Table 1 showed that the mean ratings for items 1-5 were 3.17, 3.33, 3.27, 3.27 and 3.24 respectively with the corresponding standard deviation of 0.78, 0.88, 0.72, 0.69 and 0.86 respectively. All the mean ratings are above the cut-off point of 2.50. This means that the



respondents had agreed that AI tools have improved the efficiency and effectiveness of their digital marketing efforts, enabling them to personalize customer experiences and improve conversion rates and their organization has adopted AI tools to enhance customer relationship management (CRM) in digital marketing, resulting in improved customer engagement and retention. More so, they use AI-powered Chatbots to interact with customers, provide support, and resolve queries in a timely and efficient manner. They also agree that the AI-driven insights have helped them create more personalized and targeted marketing campaigns, resulting in improved customer engagement and conversion rates. More so, they are familiar with artificial intelligence (AI) tools and their applications in digital marketing, such as Chatbots, predictive analytics, and content optimization. The cluster mean of 3.26 with the standard deviation of 0.79 was also found to be above the cut-off point of 2.50. This implies that artificial intelligence (AI) tools adoption has influence on digital marketers in Benue State.

Research Question Two:

How does AI-based data analytics influence customer engagement and retention in digital marketing in Benue State?

Table 2:
Mean Ratings and Standard Deviation of Respondents on Influence of AI-based Data Analytics on Customer Engagement and Retention in Digital Marketing in Benue State

Item No.	Item Description	SA	A	D	SD	$\bar{X}$	STD	Decision
6	AI-based data analytics has enabled me to gain deeper insights into customer behaviour and preferences, allowing me to create more effective customer engagement strategies.	162	154	60	24	3.14	0.86	Agreed



7	AI-driven insights have helped me identify opportunities to up sell and cross-sell, resulting in increased revenue and customer satisfaction	160	134	66	40	3.07	0.94	Agreed
8	AI-powered predictive analytics has improved customer retention rates in our organization, enabling us to proactively address customer concerns and improve overall customer experience.	182	142	40	36	2.99	1.05	Agreed
9	AI-driven data analytics enhance personalize customer experiences, improve satisfaction, and increase loyalty.	156	196	30	18	3.23	0.77	Agreed
10	AI-based data analytics enhance effectiveness of digital marketing campaigns, resulting in improved ROI and customer engagement.	136	130	74	60	2.32	1.05	Disagreed
Cluster Mean/Standard Deviation						2.95	0.93	Agreed

Source: Field Work, 2026

Table 2, indicated that the mean ratings for items 6-10 were 3.63, 3.56, 3.28, 3.24 and 3.32, with their corresponding standard deviations of 0.86, 0.90, 0.72, 0.80 and 0.82 respectively. All the mean ratings are above the cut-off point of 2.50. This means that the respondents had agreed that AI-based data analytics has enabled them to gain deeper insights into customer behaviour and preferences, allowing them to create more effective customer engagement strategies and AI-driven insights have helped them identify opportunities to up sell and cross-sell, resulting in increased revenue and customer satisfaction. They also agreed that AI-powered predictive analytics has improved customer retention rates in their organization;



enabling them to proactively address customer concerns and improve overall customer experience. More so that they use AI-driven data analytics to personalize customer experiences, improve satisfaction, and increase loyalty. They also agreed that AI-based data analytics has enabled them to measure and optimize the effectiveness of their digital marketing campaigns, resulting in improved ROI and customer engagement. The cluster mean of 2.95 with the standard deviations of 0.93 were also found to be above the cut-off point of 2.50. This implies AI-based data analytics influence customer engagement and retention in digital marketing in Benue State.

4.2 Testing Research Hypotheses

In testing the four hypotheses of this study, the Chi-Square (χ^2) statistical tool was used to test the hypotheses at 0.05 level of significance and the results are presented on tables 4 to 6.

Hypothesis One:

There is no significant level of adoption of artificial intelligence (AI) tools among digital marketers in Benue State.

Table 3:
Chi-square (χ^2) Analysis of Respondents on the Significant Influence of level of Adoption of Artificial Intelligence (AI) Tools among Digital Marketers in Benue State

Responses	Observed N	Expected N	Residual	Df	Level of Sign	Chi- Square	Asymp. Sig	Decision
Strongly Disagree	36	100.0	-64.0	3	0.05	63.88	0.0000	Rejected
Disagree	54	100.0	-46.0					
Agree	150	100.0	50.0					
Strongly Agree	160	100.0	60.0					

Table 3, Chi square analysis shows a significant influence of the level of adoption of artificial intelligence tools among digital marketers in Benue State. With a Chi square value of 63.88 at



3 degrees of freedom and a significance level of 0.05, the p value of 0.000 indicates that the result is statistically significant. Based on this outcome, the null hypothesis was rejected. This implies that the level of adoption of AI tools significantly influences digital marketing practices among digital marketers in Benue State.

Hypothesis Two:

There is no significant of AI-based data analytics influence on customer engagement and retention in digital marketing in Benue State.

Table 4:
Chi-square (χ^2) Analysis of Respondents on the significant influence of AI-based Data Analytics on Customer Engagement and Retention in Digital Marketing in Benue State.

Responses	Observed N	Expected N	Residual	Df	Level of Sig	Chi- Squa	Asymp. Sig	Decision
Strongly Disagree	48	100.0	52	3	0.05	43.32	0.0000	Rejected
Disagree	60	100.0	40					
Agree	138	100.0	38					
Strongly Agree	154	100.0	53					

Table 4 presents, Chi square analysis shows a significant influence of AI based data analytics on customer engagement and retention in digital marketing within Benue State. With a Chi square value of 43.32 at 3 degrees of freedom and a significance level of 0.05, the p value of 0.000 indicates that the result is statistically significant. Consequently, the null hypothesis was rejected. This implies that the use of AI based data analytics significantly influences customer engagement and retention among digital marketers in Benue State.

4.3 Discussion of Findings

The first finding of this study revealed that there is significant influence of adoption of artificial intelligence tools among digital marketers in Benue State. This finding is in line with views of



Adebayo (2023), whose study revealed that the integration of artificial intelligence (AI) tools in digital marketing enhances customer engagement, personalization, and overall customer experience. The adoption of artificial intelligence (AI) tools like Chatbots, predictive analytics, and machine learning algorithms enables digital marketers to analyze customer data, predict behaviour, and deliver targeted marketing campaigns, leading to improved customer relationships. This finding corroborate with the opinions of Mark (2024) who revealed that that digital marketers in Benue State are leveraging AI tools to stay competitive in the digital landscape, by adopting AI tools, marketers can automate routine tasks, gain insights into customer preferences, and create personalized experiences that foster strong customer relationships. Mark further maintained that AI-powered Chatbots can provide customer support, responding to queries and resolving issues promptly, while predictive analytics can help marketers anticipate customer needs and offer tailored solutions. This finding corroborates with the opinions of Okon, Ukpong and Idong (2024) who affirmed that the use of AI tools can help digital marketers in Benue State to overcome challenges such as limited resources, lack of data-driven insights, and intense competition. By harnessing the power of AI, marketers can optimize their marketing strategies, improve customer satisfaction, and ultimately drive business growth. Okon, Ukpong and Idong maintained that the use of AI tools can help digital marketers to overcome challenges such as limited resources, lack of data-driven insights, and intense competition. By harnessing the power of AI, marketers can optimize their marketing strategies, improve customer satisfaction, and ultimately drive business growth.

The second finding of this study revealed that there is significant influence of AI-based data analytics on customer engagement and retention in digital marketing in Benue State. This finding is in line with views of Azage and Ikpeazu (2024) study who found out that AI-driven data analytics enables businesses to gain deeper insights into customer behaviour, preferences,



and needs, allowing for more effective engagement and retention strategies. Azage and Ikpeazu further revealed that AI-based data analytics helps digital marketers to analyze large datasets, identify patterns, and predict customer behaviour, enabling them to create targeted and personalized marketing campaigns. This leads to increased customer engagement, loyalty, and retention and for instance, AI-powered analytics can help marketers identify early warning signs of customer churn, allowing them to intervene with proactive retention strategies. This finding corroborates with the opinions of Cristina, Anna and Andrea (2022) who affirmed that digital marketers can leverage AI-based data analytics to optimize their customer engagement and retention efforts, driving long-term relationships and business growth. By harnessing the power of AI-driven insights, marketers can move beyond traditional marketing approaches and deliver more effective, customer-centric strategies.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Based on the findings of this study, it was concluded that artificial intelligence (AI) tools adoption by digital marketers, and AI- based data analytics has significant influence on customer relationship management (CRM) in digital marketing in Benue State.

5.2 Recommendations

1. Marketing teams must integrate advanced AI conversational chatbots across the primary digital channels favored by local consumers, particularly WhatsApp Business, Facebook Messenger, and local websites. Automating immediate query resolution and basic customer support bridges communication gaps and drives customer satisfaction even outside official business hours.
2. Business organizations in Benue State should fully integrate AI-driven recommendation engines into their digital sales loops. Firms must leverage this by automating real-time



product bundles (e.g., suggesting storage or haulage services alongside agro-commodity sales) to maximize immediate transaction values.

5.3 Implications of the study

1. Based on the statistical findings presented, it implies that Marketers in Benue State can no longer rely purely on intuition or generalized demographic strategies. The strong agreement highlights that transitioning to algorithmic, data-backed insights yields higher customer engagement and strategic precision.
2. Marketers in Benue State must abandon generic "one-size-fits-all" advertising campaigns. The data implies that using analytical tools to segment customers based on localized behavioral data yields significantly higher engagement.

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