ROLE OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES ON CUSTOMER BEHAVIOUR: EVIDENCE FROM CONSUMER GOODS COMPANIES IN SUB-SAHARAN AFRICA

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Abstract

Advances in technology and the potential for artificial intelligence (AI) in customer behaviour are on the rise, and the possibilities are limitless. The tracking of customer behaviour has become increasingly complex due to the evolving marketing environment. This study emphasises the significance of artificial intelligence in enhancing customer behaviour and investigates the impact of artificial intelligence on consumer behaviour within selected consumer goods firms listed in Nigeria, the most populous nation and one of the largest economies in Africa. The study employed a cross-sectional survey methodology, identifying and assessing 20 consumer product firms based on capitalization criteria and consistent dividend disbursements. Seven companies were selected from this group for additional examination. The sample size of 378 was established with the Research Advisor Table, with a confidence level of 95% and a margin of error of 5%. To mitigate the problem of non-response, suitable actions were implemented, resulting in the incorporation of an extra 113 respondents, constituting 30% of the initial sample. The modification yielded a final sample size of 491. A total of 480 copies of the questionnaire were filled and returned for analysis, with a response rate of 97.76%. The idea was evaluated by regression analysis. This chapter indicates that artificial intelligence (AI) functions as both a technological resource and a strategic asset for understanding customer behaviour ($\beta = 0.503$, $t = 10.251$, $p < 0.05$). This indicates that artificial intelligence is a crucial determinant of consumer behaviour. The research indicates that organisations ought to utilise artificial intelligence (AI) solutions and technologies to enhance operational efficiency. By implementing AI, firms can optimise processes, save costs, and improve their adaptability to market volatility and customer demands.

Keywords: *Business intelligence, Business performance, Consumer goods, Customer retention, Nigeria*

Introduction

The consumer market is experiencing significant growth, resulting in a substantial increase in data from various sources. Consequently, there is a growing demand for

analytics tools that are easy to use. Hence, the necessity for business intelligence systems emerges to facilitate the comprehension of the corporate data (Olubiyi, 2024b; Ibrahim, & Handayani, 2022). The convergence of a dynamic multinational business landscape with ground breaking technical progress necessitates firms to enhance their capacity for innovation and adaptability in order to effectively recognize and address the ever-evolving demands and wishes of their customers. In the current business landscape, there is a consistent need for high-quality products and services from consumers (Sinha, & Sathiya Narayanan, 2024). This has led to an increase in the number of global company competitors that are striving to meet these client needs and desires. The success or survival of these firms depends on their capacity to effectively and efficiently respond to the complex dynamics of the global market using business intelligence. In order to gain a deeper comprehension and direct business attention towards the current customers, it is necessary for businesses to ascertain pertinent details such as their past purchases and corresponding timeframes. Which product categories are they currently not purchasing? At what point did they decrease the quantities or cease their purchases? Number of customers at the end of a time period including billing information, customer transactions, website hits, and so on. Artificial Intelligence (AI) systems are capable of providing answers to such inquiries. Artificial intelligence (AI) refers to the utilization of computing technologies, such as applications and software, to gather business data from various sources (Alwaely, *et al*. 2024). This data is then analyzed and converted into valuable insights, which assist managers and owners in making informed decisions to enhance business performance and achieve the necessary goals for business success. The demand for artificial Intelligence (AI) arose throughout the later years of the 20th century, and it has since become a crucial component of decision-making procedures (Olubiyi, 2024a; Triono, & Jaya, 2021). Organizations are increasingly adopting Artificial Intelligence (AI) to attract consumers and achieve a competitive advantage but less is seen in Africa particularly in Nigeria the largest consumer country on the continent. It becomes even more important for consumer goods companies which are continually faced with immense pressure to retain existing customers and attract more customers for survival. Artificial Intelligence can enhance the company's comprehension of its customers, leading to improved customer relationships. This includes expediting the conversion of potential clients into actual clients, decreasing customer attrition, and increasing sales to existing customers. Consequently, these efforts will boost sales and revenue for the company (Habul & Pilav-Velic, 2010). This paper will explore the methodologies employed by artificial Intelligence (AI) in enhancing customer behaviour. However, before delving into these strategies, it will provide an explanation of the AI system idea and the specific functions of each component.

Considering the use of artificial intelligence (AI) as a research context, several researchers (Alwaely *et al.* 2024, Chen, & Prentice, 2024; Yang, 2023; Chen, Esperança, & Wang, 2022; Olubiyi, 2022; Chen, & Lin, 2021; Yiu, Yeung, & Cheng, 2021; Bach, Jaklič, & Vugec, 2018). Adejoh & Hadiza, 2015; Nebo, Nwankwo, & Okonkwo, 2015; Wallace & Deborah, 2016; Ghasemaghaei, & Calic, 2020; Hadhoud, & Salameh, 2020; Leonis & Hartini, 2017; Olubiyi, 2022) have investigated the impact of technology on performance have concluded that it enhances customer behaviour in organizations.

However, these studies were undertaken in industries other than the consumer goods industry in developing economies. Therefore, the researcher is compelled to take a fresh look at the issues in the context of emerging economies, specifically Nigeria. As a result, the goal of this paper is to fill the gap in Nigeria the most populous and the largest economy in Africa.

The aim of this research is to compile data from current studies in artificial intelligence pertaining to customer behaviour and to elucidate the impact of diverse AI technologies and methodologies on customer interactions. The objective is to address a deficiency in research that will benefit the business sector and assist organisations in recognising technological improvements as possibilities to enhance the customer experience within the intricate omni-channel landscape. This study aims to analyze the function of Artificial Intelligence (AI) in customer behaviour and emphasize the need of utilizing intelligent technologies in the rapidly expanding era of data. Therefore, the objective of this study is to identify the impact of artificial intelligence on customer behaviour of selected listed consumer goods companies in Nigeria.

Literature Review

Artificial Intelligence

Innovative technologies possess the capacity to transform enterprises and the sectors in which they operate. One such technology is artificial intelligence. According to Crittenden, Biel, and Lovely (2019), artificial intelligence (AI) is characterised as "the concept of machines capable of performing tasks in a manner deemed intelligent; offering valuable, automated solutions to problems." They also assert that AI is associated with various other technological advancements, such as robotics and machine learning. Machine learning encompasses the autonomous learning capabilities of machines with minimal programming, whereas robots are capable of executing jobs often handled by people (Ukhalkar, Phursule, Gadekar, & Sable, 2020). Artificial Intelligence (AI) can enhance business comprehension of its customers, leading to improved customer relationships (Williady, & Ban, 2023). This includes accelerating the conversion of potential clients into actual customers, reducing customer attrition, and increasing sales to existing customers. Ultimately, these efforts will result in increased sales and revenue for the company (Habul & Pilav-Velic, 2010).

The objective is to facilitate the process of making improved decisions by enhancing both their ease and speed (Triono, & Jaya, 2021). The volume of business data is growing at an exponential rate. In the era of intense information competition, it is imperative for individuals to possess the ability to make more efficient and effective decisions. Artificial intelligence (AI) involves acquiring accurate and relevant data, harnessing its potential, and effectively communicating its worth (Hadhoud, & Salameh, 2020). Artificial Intelligence (AI) refers to the process of acquiring accurate information and providing it to the appropriate user in a timely manner, in order to enhance the decision-making process (Ibrahim, & Handayani, 2022). Artificial Intelligence (AI) encompasses the various processes, operations, strategies, technologies, and tools required to transform data into information, information into knowledge, and knowledge into plans that facilitate productive business actions (Sinha, & Sathiya Narayanan, 2024). The AI

umbrella encompasses data warehousing, business analytics, and knowledge management (Triono, & Jaya, 2021).

Customer behaviour

Customer behaviour is considered a crucial factor in Customer retention, loyalty, and positive word-of-mouth (Oliver, 1980; Al-Balushi *et al.,* 2020). In the consumer goods industry, customers who are very satisfied with the retail products and services are likely to remain with the consumer goods companies, recommend it to others, or make future purchases (Al-Rousan & Al-Shishani, 2021; Al-Mawali *et al.,* 2019). Implementing artificial intelligence (AI) tools, data analysis and reporting, business process integration, and continuous improvement and innovation are crucial for achieving long-term business success and also prevent environmental issues in the consumer goods industry. These factors serve as catalysts that can propel the organization towards its desired position (Al-Rousan & Al-Shishani, 2021). By utilizing these business intelligence skills, firms may obtain significant insights into consumer preferences, habits, and changing demands. This information can lead to opportunities such as personalized product offerings, improved operational efficiency, and, most importantly, enhanced customer behaviour. Developing a highly effective artificial intelligence (AI) implementation can enhance customer behaviour by enabling retailers to consistently deliver superior services and surpass customer expectations through personalized service offerings, prompt issue resolution, and effective collaboration among various departments (Al-Balushi et al., 2020; Al-Mawali et al., 2019). Conversely, customers who are extremely satisfied will dedicate more time to a company, enhance their loyalty, and generate new customers through repeat purchases. As a result, they will endorse the start-up's products and services through positive word-of-mouth, ultimately leading to improved marketing effectiveness, customer acquisition, and retention.

Theoretical Review

The Resource Based View (RBV)

The Resource Based View (RBV) theory, which was formulated in the strategic management literature, posits that a firm's unique combination of internal resources, including its advantages, is the main determinant of the firm's profitability and competitive advantage. In addition to the Resource-Based View (RBV), physical assets encompass other resources, including technology, infrastructure, intangible assets such as brand recognition and intellectual property, and organizational capabilities consisting of knowledge and skills (Asiaei *et al.,* 2021). Based on the resource-based concept, this hypothesis suggests that companies with VRIN resources (valuable, rare, inimitable, and non-substitutable) are more likely to outperform their competitors (Bhandari, *et al.,* 2020). Considering the field of study, the application of artificial intelligence may be seen as a tool for enterprises to effectively utilize their internal resources. Marketers can use this tool to enhance their marketing efficiency (Yiu, *et al.,* 2020). Without utilizing tools and processes to enhance customer data and track market trends and consumer behavior, enterprises will experience the negative impact of inefficient marketing, resulting in enhanced marketing effectiveness. Adopting artificial intelligence (AI) also enhances organizational competencies such as experience in data analysis and agility in decision-making. It enables the company to promptly respond to external situations and

intensify competition with other entities (Medeiros & Maçada, 2022). RBV Theory asserts that a firm's sustained competitive advantage should be based on its possession and effective exploitation of resources that are highly valued, rare, difficult to imitate, and not easily replaceable (Gupta *et al.*, 2020). Upon closer examination of the consumer goods industry, it becomes evident that artificial intelligence (AI) has emerged as the primary factor that sets organizations apart. By utilizing state-of-the-art analytical tools, businesses are able to make astute marketing decisions, hence enhancing their ability to compete with their competitors (Rasheed, & Rashid, 2023; Al-Rousan & Al-Shishani, 2021). Within the Nigerian consumer goods industry, the use of Artificial intelligence (AI) applications can significantly enhance marketing effectiveness. Companies can leverage these applications to gain a deeper understanding of their customer base, identify emerging trends, and tailor their offerings and marketing campaigns accordingly to meet customer requirements (Bharadiya, 2023).

Empirical Review

Relationship between Artificial intelligence and Customer behaviour

Research in the realm of artificial intelligence and its effects on business (especially customer behaviour) is rather limited. Researchers in the scientific field have explored various topics related to artificial intelligence (AI) (Alwaely *et al.* 2024, Chen, & Prentice, 2024; Yang, 2023; Chen, Esperança, & Wang, 2022; Olubiyi, 2022; Chen, & Lin, 2021; Yiu, Yeung, & Cheng, 2021; Bach, Jaklič, & Vugec, 2018). Adejoh & Hadiza, 2015; Nebo, Nwankwo, & Okonkwo, 2015). Some of these include the critical success factors for implementing AI, the impact of AI on decision-making processes, the role of AI in enhancing organizational agility and competitiveness, and the challenges associated with implementing AI (Paradza & Daramola, 2021). The study conducted by Al-Rousan, and Al-Shishani, (2021) provides a comprehensive insight into the historical progression of artificial intelligence (AI) and its extensive effects on enterprises. In contrast, other studies (Kumar, Choudhary *et al.,* 2023) provide insights into the key aspects that lead to the success of artificial intelligence (AI) program. Tseng, *et al.*, (2020) provide a comprehensive and specialized resource on Artificial intelligence (AI) that is specifically designed for both academics and professionals Bharadiya, (2023) argued that it is crucial to build complete models for artificial intelligence (AI) and analytics. These models should encompass the link between the aforementioned activities and the overall objectives of the company. These studies together contribute to the exploration of how artificial intelligence (AI) is utilized to enhance decision-making and customer behaviour through data analysis, to improve organizational performance, and provide a competitive advantage. The research on consumer satisfaction has been a subject of study in academia and industry for many years. Scientists have mostly concentrated on identifying the immediate factors and results of consumer satisfaction (Massaro, Secinaro, 2021). Also, researchers have examined artificial intelligence (AI) and customer behaviour from various perspectives, including the evaluation and categorization of metrics (Pandey, Nayal *et al.,* 2020), the influence of artificial intelligence (AI) on customer behaviour and company performance, but not on consumer goods industry in developing economies (Tarsakoo& Charoensukmongkol, 2020). Consequently, this study sought to bridge the gap and hypothesized thus:

H_{o1}: There is no significant effect of artificial intelligence on customer behaviour of selected listed consumer goods companies in Nigeria.

Conceptual Model

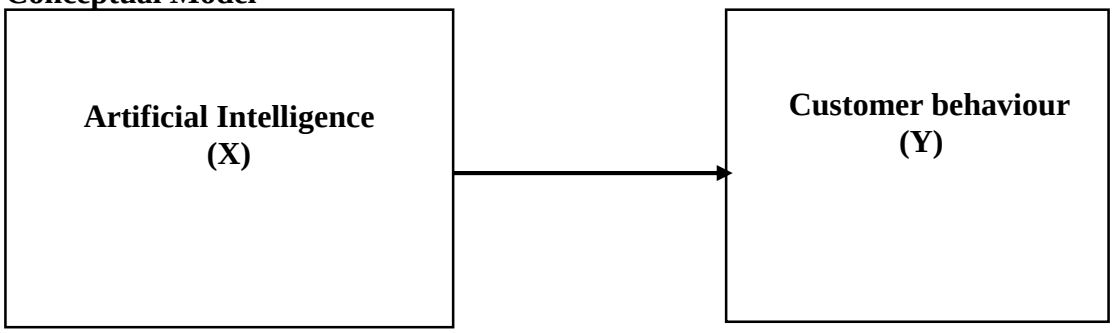


Figure 1: Author's Conceptual Model (2025)

The model sheds light on artificial intelligence on customer behaviour which is the research framework. The independent and dependent variables for this research are artificial intelligence(X) on customer behaviour (Y) respectively.

Model Specification

The model sheds light on the effect of artificial intelligence on customer behaviour which is the research framework. Given, the mathematical derivative function which gives the value of the slope at any value(x-------x_n) since intuition explains that as $\Delta x \rightarrow 0$, then $\Delta y \rightarrow 0$. This can be deduced mathematically since a firm's customer behaviour is a function of artificial intelligence

$y=f(x_1\text{----------}x_n)$.

Hypothesis:

$Y= P_0+P_1x_1+P_2x_2+P_3x_3+ P_4x_4$ ……Regression equation (1)

Methodology

The research context of this study is the consumer goods sector and the present investigation is limited to companies listed on the Nigerian Exchange Group. For this quantitative study, a cross-sectional survey research design was adopted and the justification for adopting the survey is due to its usefulness in assessing the thoughts, opinions, and feelings of different groups of individuals and allowing them to give more valid and honest feedback on the area of study. This paper relied on the prior study methodology of Arokodare, and Olubiyi, (2023); Makinde, Olubiyi, and Ogundipe, (2023);Olowoporoku, and Olubiyi,(2023);Olubiyi (2023a); Adeoye,et al.,(2023); Olubiyi (2023b);Olubiyi, Adeoye, Jubril, Adeyemi, and Eyanuku, (2023); Olubiyi and Akpa, (2023); Adeyemi, and Olubiyi (2024); Olubiyi (2019); Olubiyi, Lawal, and Adeoye, (2022); Olubiyi, (2022a); Olubiyi, (2022b); and Omoyele, *et al.* (2023) with cross-sectional have adopted this method in their respective studies and found it useful. The study population consisted of regular employees, as well as top and middle-level managers, employed in consumer goods companies registered on the Nigerian Stock Exchange, currently known as Nigeria Exchange Group (NGX). The study focused on consumer goods companies in Nigeria, mostly because to the intense competition within

the country, the presence of global operations, the huge population, and the availability of data. Nigeria is the largest economy in the continent and its population represents twenty percent of the total population of Sub-Saharan Africa. For this study, a sample of seven (7) consumer products businesses was chosen from the total population of twenty (20) companies registered on the Nigerian Stock Exchange, presently known as Nigeria Exchange Group. This is determined by multiplying the closing share price on July 31, 2024 by the total number of shares and considering the trend of dividend payments. BUA Foods Plc., Nestle Nigeria Plc, Nigerian Breweries, Dangote Sugar, Guinness Nig. Plc., Flourmills Nig. Plc, International Breweries, and Unilever Nig. Plc are the top seven consumer goods companies listed on the Exchange, with the highest market capitalization. These companies have a track record of consistently paying dividends to their shareholders. The rationale for the decision was based on the fact that the seven companies collectively account for 93.08% of the sector's total market value, which amounts to N4.69 trillion. Additionally, each of these companies has a capitalization exceeding N100 million as of the cutoff date of July 31, 2024. The sampling units consist of regular employees as well as top and middle-level managers from the consumer goods companies that have been selected from the Nigerian Stock Exchange. The population consisted of 22,466 employees from the top consumer goods companies in the industry. The sample size of 491 respondents was determined using the Research Advisors Table, and the number of respondents per company was determined using proportionate sampling. The information is presented in Table 1 and Table 2 below:

Data Analysis

From the 491 copies of the questionnaire distributed by the researcher and trained research assistants, a total of 480 copies of the questionnaire were filled and returned for analysis representing a response rate of ninety-eight percent (98%). Response rate is the percentage of people who responded and administered copies of the questionnaire in the survey The rest were either unreturned or had missing responses, however, the total number of questionnaires received was sufficient to represent the population, and they were analyzed. The detail of the responses is shown in Table 3

Table 3. Response Rate

	Frequency	**Percentage %**
Completed usable copies of the questionnaire	480	98
Unreturned/Incomplete copies of the questionnaire	11	2
Total received	**491**	**100**

Source: Researcher's computation (2025)

Restatement of Research Objective and Research Question

Objective: Find out the effect of artificial intelligence on customer behaviour of selected listed consumer goods companies in Nigeria.

Research Question: What is the effect of artificial intelligence on customer behaviour of selected listed consumer goods companies in Nigeria?

Hypothesis: Artificial intelligence has no significant effect on customer behaviour of selected listed consumer goods companies in Nigeria?

The objective was to find out the effect of artificial intelligence on customer behaviour of selected listed consumer goods companies in Nigeria. On a six-point Likert Scale, the respondents were requested to rate their perception of various items about artificial intelligence and service quality of selected listed consumer goods companies in Nigeria. The findings were presented and followed with an analysis and interpretation. To test the hypothesis one, simple linear regression analysis was used with customer behaviour as the dependent variable and artificial intelligence as the independent variable. The data for artificial intelligence was generated by adding all scores of all items for artificial intelligence, while that of customer behaviour was generated by adding scores for all the items for the variable. Data from a total of four hundred and eighty respondents were analyzed. The summary of the results of the simple linear regression analysis is presented in Table 3.1.

Table 3.1: Summary of simple linear regression analysis for effect of artificial intelligence on customer behaviour of selected listed consumer goods companies in Nigeria

Model	***Variables***	***B***	***Sig***	***t***	***R***	***R^2***
1	(Constant)	9.397	0.000	10.152	0.543[a]	0.295
	Artificial intelligence	0.503	0.000	10.251		
a. Dependent Variable: Customer behaviour						

Decision rule: Reject H_0 if $\beta i = 0$
Source: Field Survey, 2025

Table 3.1 provides details of regression analysis results for the effect of artificial intelligence on customer behaviour of selected listed consumer goods companies in Nigeria. The results reveal that Artificial intelligence has a positive and significant effect on customer behaviour of selected listed consumer goods companies in Nigeria (B = 0.503, t = 10.251, $p < 0.05$). The t-test associated with B-value was significant and Artificial intelligence as the predictor was making a significant contribution to the model. The R value of 0.395 supports this result and it indicates that there is a weak positive relationship between Artificial intelligence and customer behaviour of selected listed consumer goods companies in Nigeria. Coefficient of determination (R^2) explains the extent to which changes in the dependent variable can be explained by the change in the independent variable or the proportion of variation in the dependent variable (customer behaviour) that is explained by the independent variable (Artificial intelligence). From the findings in the Table 3.1 the value of R^2 = 0.295 indicates that about 29.5% variation that occurs in the customer behaviour of selected listed consumer goods companies in Nigeria can be accounted for by the level of artificial intelligence the companies implemented while the remaining 70.5% changes that occur can be accounted for by other variables not captured in the model. From the data in Table 3.1, the established regression equation is:

$Y = a_0 + \beta_4 x_4 + + e_i$ ---------- regression model 1

$CB = 9.397 + 0.503AI + e_i$----------Eqn i

Where:

CB = Customer behaviour

AI= Artificial intelligence

The above regression equation reveals that, holding artificial intelligence to a constant, the level of customer behaviour of selected listed consumer goods companies in Nigeria would be 9.397 implying that without artificial intelligence, customer behaviour of selected listed consumer goods companies in Nigeria will be 9.397 which is positive. The results of the simple regression analysis indicate that when artificial intelligence is improved by one unit, customer behaviour would increase by a coefficient of 0.503 and it was significant at ($p<0.05$). This implied that for every improvement in artificial intelligence, there will be a subsequent increase in customer behaviour of selected listed consumer goods companies in Nigeria. The result suggests that artificial intelligence is an important predictor of customer behaviour of selected listed consumer goods companies in Nigeria. Based on these results, the null hypothesis (H_{01}) which states that artificial intelligence has no significant effect on customer behaviour of selected listed consumer goods companies in Nigeria was rejected.

Discussion

The hypothesis set out to evaluate the effect of artificial intelligence on customer behaviour of selected listed consumer goods companies in Nigeria. The finding of the simple linear regression analysis revealed that artificial intelligence has a positive and significant effect on customer behaviour of selected listed consumer goods companies in Nigeria ($B = 0.503$, $t = 10.251$, $p < 0.05$). This implies that artificial intelligence is a significant predictor of customer behaviour of selected listed consumer goods companies in Nigeria. In agreement with the finding of this study, the study of Kazmi, Alghazo, and Latif (2017) analyzed in detail the artificial intelligence of internet banking in emerging countries and found that artificial intelligence has a significant effect on customer behaviour. Similarly, a study by Saeed (2023) found that the lack of transparency in digital banking is a major factor in the loss of trust in the banking sector which leads to dissatisfaction of customers. Also, Arinze-Emefo and Ibrahim (2023) reported that artificial intelligence influences customer behaviour especially in the banking sector. They suggest that regulatory agencies should encourage banks to invest in Artificial intelligence measures and provide customers with clear and concise information about their online transactions. This study corroborates the findings of Lucchese et al. (2020) who revealed that Artificial intelligence has a significant effect on customer behaviour. Zakaria's (2023) research on the correlation between the rise in cybercrime and the financial inclusion of FinTech companies highlights a growing concern in the financial sector. With the rise of FinTech companies, there has been an increase in the number of people who are using digital financial services, making them a prime target for cybercriminals (Zakaria, 2023).

Further, Siddique and Rehman (2017) demonstrated that artificial intelligence has a significant effect on customer behaviour. In the study conducted by van Der Wiele (2016), it was found that Artificial intelligence has a significant effect on customer behaviour. Likewise, Zimmerman and Renaud (2019) investigated the continuing incidences of attacks used by cybercriminals and theorized that a well-intentioned individual is as essential to cybersecurity as other defense mechanisms, such as firewalls, antivirus software, or analytics. The study found that Artificial intelligence was a great protection for customer data which prevented them from cyber-attacks and increased their satisfaction. Liu et al. (2020) also explained that centralized management leads to a better cybersecurity posture in an organization which contributed to increased customer behaviour. In the same vein, Benz and Chaterjee (2020) reported that Artificial intelligence has a positive and significant effect on customer behaviour. Additionally, Simola (2019) explained that further investment in cybersecurity technologies is required to mitigate the ever-growing cyber risks for SMEs due to growing cybercrime.

Conclusion and Recommendation

The major findings of the study showed that artificial intelligence had a significant positive effect on customer behaviour of selected listed consumer goods companies in Nigeria ($\beta = 0.417$, $t = 8.608$, $p < 0.05$). The testing hypotheses showed that artificial intelligence has a statistically significant influence on customer behaviour. This investigation not only emphasizes the dominant academic narratives but also reveals the hidden trends that could indicate future paths in artificial intelligence research and application. Based on the findings of this study, it can be inferred that Artificial intelligence (AI) serves as both a technology tool and a strategic asset for firms. More so Artificial intelligence (AI), and customer behaviour can be seen as crucial organizational resources for consumer goods companies. This AI give comprehensive data that allows companies to do thorough analysis, evaluate performance, and ultimately enhance the effectiveness of their customer behaviour operations. The result of this study corroborated the findings of past research about the substantial impacts of Artificial intelligence on customer behaviour (Chen, & Prentice, 2024; Yang, 2023; Williady, & Ban, 2023; Chen, Esperança, & Wang, 2022; Chen, & Lin, 2021; Yiu, Yeung, & Cheng, 2021; Hadhoud, & Salameh, 2020; Bach, Jaklič, & Vugec, 2018). This study demonstrates that artificial intelligence (AI) plays a crucial role in enhancing both operational and customer behaviour. However, the full benefits of AI can only be achieved if consumer goods companies successfully address the problems associated with its implementation, such as the requirement for qualified individuals, skill sets and the ability to adapt to rapid technological advancements. An important practical consequence is the incorporation of artificial intelligence technologies into strategic decision-making processes of consumer goods companies in Nigeria. These organizations should utilize these technologies to evaluate large datasets for informed decision making, allowing for more accurate strategy development and implementation for customer behaviour. It is recommended that companies should employ artificial intelligence (AI) solutions to improve operational efficiency. Through the implementation of Artificial intelligence (AI), companies can optimize their operations, decrease expenses, and enhance their ability to adapt to market fluctuations and client needs. Furthermore, the findings emphasize the necessity of ongoing skill enhancement

and training in artificial intelligence (AI) tools. With the continuous advancement of AI technology, it is imperative for businesses to allocate resources towards educating their workers in order to stay updated with the latest tools and analytical methodologies.

Limitations and Future Study Direction

Despite the satisfactory results in relation to the hypothesis, the research acknowledged several limitations and also experienced significant limitations, some of these are considered to be useful precursors for future study. Primarily, the data was gathered from a limited sample within the listed consumer goods sector. The focus of the study on only consumer goods businesses in Nigeria, restricts the applicability of its results. The findings and implications of this article are specific to Nigeria and focused mostly on consumer goods sector, which might restrict the generalizability of the results. Although limited, the findings of the current study should inspire scholars to do more comprehensive research on artificial intelligence and customer behaviour. The paper's cross-sectional design limits the author's ability to assert causation.

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