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## **Artificial Intelligence Chabots Utilisation and Customer Patronage of Selected Banks in Akwa Ibom State, Nigeria**

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### **Abstract**

*This study employed the survey research technique and the questionnaire as an instrument in gathering primary data from customers of Zenith, UBA, and Stanbic IBTC banks in Akwa Ibom State, to ascertain whether any significant relationship existed between their utilisation of the banks' AI chatbots for self-service banking transactions and patronage of the banks. The population of this study comprised a cumulative population of 643,487 customers of the select banks, while data aimed at achieving the research objectives were collected from a sample of 400 customers of the select banks as determined using the Taro Yamane formula. To reach the respondents with the research instrument, the researcher adopted the Probability Proportionate to Size (P.P.S.) and availability sampling*



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*procedures. The primary data gathered were analysed using simple percentages and presented in frequency tables. The major findings of the study revealed that customers of the select banks patronised the banks as a result of the banks' AI chatbots (248 [62%]). Among other relevant recommendations, the branch managers, corporate communications/public relations, and technical/ICT units of the select banks should mitigate the risk perception of AI chatbots among some sections of their clientele to ensure wider acceptance, adoption, and patronage of the self-service innovations.*

**Keywords:** artificial intelligence, chatbots, patronage, banks, self-service, innovations.

### **Introduction**

As of 2026, there are almost no aspects of human endeavour not influenced in some way by the ubiquity of artificial intelligence (AI). Aside from deep emotional care therapy and high-stakes ethical judgement, AI has had tremendous influence in the day-to-day activities of humans, from education to medicine, agriculture, aviation, maritime, meteorology, commerce, and banking. Artificial intelligence as an expert system is a smart and intelligent machine with memories programmed with relevant humanistic knowledge in such a way that it can offer intelligent advice, explanations, suggestions, and justifications of its programmatic decisions as human beings would (Singh, Misha & Sagar, 2013). AI is adopted to enhance and improve organisations' service delivery, especially in areas, environments, or contexts not suitable or conducive for humans. It is in this instance that AI is considered to serve better functions with consistency, precision, and fewer mistakes as well as improving organisations' productivity compared to humans (Singh *et al.*, 2013).

The application and integration of the affordances of AI to bank operations, practices, and processes come with less financial cost compared to the cost of having to pay human experts. AI, as applied to banking services by most Nigerian retail banks, performs or completes banking tasks that would otherwise require human intelligence and expertise (Mohammed, 2019). Hence, AI programmed for customer care or customer relationship management performs services that are characteristic of human customer care agents or human relations experts. In view of the foregoing, Oyeleye and Ademosu (2021) submit



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that AI has altered and disrupted the landscape of how humans interact with their surroundings and communicate with others.

In the aspect of enhancing banks' corporate communication, customer relationship management, and seamless self-service interface, AI has been integrated to perform functions that were once the exclusive preserve of human customer care agents. Because of the conversational and interactive prowess of AI innovations in serving specialised functions in the banking industry, they have earned the name 'chatbots'. Artificial intelligence chatbots are smart and intelligent conversational machines programmed with natural language processing and deep learning abilities. They are adopted by banks to assist customers in a self-service approach in getting specialised tasks done.

The adoption and utilisation of AI-powered chatbots by banks in Nigeria are done with a view to integrating the innovations to advance the self-service approach to procuring banking services. AI chatbots, as self-service technological innovations, are technological interfaces that enable bank customers to produce a service independent of direct service involvement of bank staff (Ezechirinum *et al.*, 2020). Valtolina and Neri (2021) believe that it is through the pre-programmed dialogue interfaces of AI chatbots that bank customers are able to navigate and communicate with banks in an automated yet highly individualised manner. This is an idea Kaczorowska-Spychalska (2019) refers to as the dehumanisation of what is human and the humanisation of technology in bank service delivery.

As self-service innovations, AI chatbots engage banks' customers in a virtual conversation in view of solving problems and offering services, which range from giving customers insight into the banks' products and services. They offer guided assistance to customers on how to open an account or block an account in the eventuality of imminent fraud; check an account balance; fund a transfer; pay bills or tariffs; retrieve an account number; and serve other personalised functions upon request. In short, they are innovations that enable customers to deliver services themselves through the use of smart and intelligent technology (Meuter, Ostrom, Roundtree & Bitner, 2000) without having to pay a physical visit to their designated banks. The implication of this self-service innovative scenario is that AI-powered chatbots have become an extension of the banks' customer relationship management, troubleshooting desks, resolution platforms, and corporate services and functions.



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By advancing banks' service delivery, the customer-AI-chatbot solution-based interface enhances banks' corporate reputation among stakeholders, publics, and customers. Though driven by AI computing technology, the interactive interface of chatbots is problem-solving and result-orientated in purpose. Such an interactive interface serves both ends: the customers and the mainstream banks. The customers do not need to be physically present in the banking halls to get the required services but can do so in the comfort of their private, personal, or official spaces with the assistance of AI-powered chatbots. The banks' personnel, on the other hand, are relieved from undue pressures that come with addressing customers' complaints. As a large chunk of their works are automated, they can have rest from fatigue and stress of having to attend to long queues on bank premises. Again, automation of banks' customer service delivery helps to decongest banking premises as the bulk of customers' issues are annexed to AI-powered chatbots.

Considering the perceived ways in which AI chatbots are institutionalising bank customers' self-service approach to accessing selected bank services in Akwa Ibom State and interfacing with customer relationships, it has become imperative to interrogate whether such a technological trend exerts any sort of influence on the patronage of the banks. In addition, if yes, what is the extent of satisfaction? By problematising these issues, this paper hopes to bring empirical evidence to either refuted or validated opinions on the subject matter.

### **Statement of the Problem**

Artificial intelligence chatbots have become a permanent feature, with many organisations, including banks, adopting them to streamline operations, enhance self-service delivery, and improve customer relations. It is worth considering the extent to which customers of these banks have adapted to using AI chatbots and how this influences their decision to patronise these services. As customers' knowledge of the availability of the AI-powered, chatbots in the select banks and their level of patronage of the self-service innovations are uncertain, this study seeks to interrogate the assumption that a nexus exists between the deployment of AI chatbots and the patronage of selected banks in Akwa Ibom State. This study, therefore, focuses on the gaps in evidence, population, gratifications, and practical knowledge between utilisation of AI chatbots by selected banks in Akwa Ibom State and customers' patronage of the banks. The empirical quest to bridge these research gaps prompts the researchers to ask; to what extent does



the utilisation of AI chatbots by selected banks in Akwa Ibom State influence customer patronage of the banks? What is their level of satisfaction?

### **Objectives of the Study**

The objectives of this study are to:

- i. ascertain the extent to which customers of select banks in Akwa Ibom State patronise selected banks as a result of the banks' utilisation of AI chatbots as interactive communication tools for self-service banking transactions.
- ii. determine the level of satisfaction that customers of selected banks in Akwa Ibom State have derived from their utilisation of AI chatbots in their self-service transactions with the banks.

### **Conceptual Review**

#### **Artificial Intelligence Chatbots**

Etymologically, what later became 'chatbot' was initially called 'ChatterBot'. The term was coined by Michael Mauldin, who is credited with having created the first-ever conversational programmes in 1994 called 'Verbot'. Originally, a chatbot is an automated software application designed to mimic human conversation through text or voice interactions, typically conducted online (Caldarini, Jaf & McGarry, 2022; Techtarget.com, 2023). Chatbots are artificial intelligence (AI) systems that offer a conversational experience with a user in natural language and simulate or mimic the way a human would behave as a conversational partner in a real communication context (Mauldin, 1994; Deloitte Digital, 2018).

'Chatbots' simply means 'chatting robots' (Tascini, 2019). They have also been referred to as 'smart bots', 'interactive agents', 'digital assistants', 'intelligent agents', 'artificial conversation entities', 'virtual assistants' or 'virtual agents' (Gomathy, Narayana, Krishna, & Geetha, 2022; IBM, 2023). When the term 'AI (Artificial Intelligence)' is added to 'chatbot', it implies that the chatbot possesses human-like intelligence, enabling it to maintain interactions and conversations aimed at solving specific problems or completing tasks in real time.



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Hence, artificial intelligence chatbots are those chat-engaging innovations that are powered by the affordances of artificial intelligence to engage human agents in a problem-solving interaction and conversation. AI-enabled chatbots utilise AI-enabled expert systems and natural language processors which comprise content extraction, classification, machine translation, question answering, text generation, text-to-speech and speech-to-text in order to be able to deliver specific results pertaining to the enquiries and queries posed by human agents. They are conversational tools, resources, or innovations that engage human agents in a communication encounter in view of solving problems that have to do with the extraction of need-driven information in a specific context of demand. Their conversational abilities are a typical example of man-machine or machine-man collaboration and dialogue in solving specific problems or undertaking specific tasks. They are computerised and programmatic innovations that enable human-like interaction delivered through a channel that is easily scalable (Deloitte Digital, 2018).

Tascini (2019) sees artificial intelligence chatbots as being capable of creating conversation not just between human agents but also between virtual agents. Chatbots enabled by the affordances of artificial intelligence, which often operate in the form of chats, are automated systems that are specifically programmed to respond to specific inputs in view of meeting specific demands and addressing specific issues with the potential of generating user feedback. They are programmatic software that are programmed with codes and protocols to mimic and simulate the human intelligence in smart conversation with the users (Tascini, 2019). The conversation simulated by AI-enabled chatbots is done using textual or audio data input-output techniques. Natural language processing enables chatbots to converse with composite agents in the most natural manner possible (Gomathy *et al.*, 2022).

As smart and intelligent conversation agents, AI-enabled chatbots can perform a variety of specialised tasks, especially when those tasks have to do with responding to queries, in which they act as smart entities when conversed with through text or voice, as they can understand one or more human languages by Natural Language Processing (NLP). It is within such context that chatbots have been touted and presumed to be more effective than human beings in reaching out to a big audience via messaging applications and platforms (Gomathy *et al.*, 2022).



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According to Gupta *et al.* (2020), artificial intelligence chatbots are computerised programmes that act or behave like interlocutors between the human and the bots and are virtual assistants that have become exceptionally popular in recent years mainly due to tremendous improvements in artificial intelligence, machine learning and other underlying technologies such as neural networks and natural language processing. These chatbots effectively communicate with any human being using interactive queries (Gupta *et al.*, 2020). They use natural language understanding (NLU) to contextually discern the user's need, and then they use advanced AI tools to determine what the user is trying to accomplish (IBM, 2023).

The characteristics of artificial intelligence chatbots, according to Deloitte Digital (2018, p. 18), include the following: intent recognition, dialogue management, humanisation, interaction channels, task automation capability, reporting and monitoring, ease of implementation, security and compliance.

### **Customer Patronage**

The concept of *patronage* refers to the extent to which products or goods manufactured, as well as services rendered or offered, are purchased, subscribed to, or consumed by both potential and existing customers as a result of marketing efforts. It is a widely recognised term that is synonymous with concepts such as 'purchase', 'subscription', 'buying', 'consumption', and 'exchange transaction', among others. In this context, patronage represents the desired outcome that manufacturers and service-orientated organisations seek after engaging in any form of marketing activity. Therefore, when a potential or existing customer purchases or subscribes to a particular product or service, he or she is said to be patronising that product or service.

Customer patronage can be likened to the material, tangible, or manifest encouragement that a customer (whether potential or current) gives to a business-orientated organisation in a transactional exchange of value for money (Ezechirinum, Igwe, and Anucha, 2020). It is an action stage in a marketing process or encounter that suggests or shows indication that potential consumers of a given product or service have complied with the goals, desires, and expectations of an organisation's marketing efforts and intentions. Ozioma and Marcus (2020) posit that as the action component of customer attitudes in a given marketing process or encounter, customer patronage indicates the eventual actual purchase of a company's goods or services by the actual consumer.



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Customer patronage, whether of products or services, is vital to the success of business-orientated organisations. This is as a result of the fact that customer patronage represents the support and encouragement a business-orientated organisation enjoys from its current or potential customers. Buttressing this viewpoint, Uvais and Sulaiman (2017) are of the opinion that for a successful business operation, all service-ended organisations, particularly financial institutions, rely heavily on their customers and their collaboration.

Customer patronage is often triggered by certain psychological factors, of which behavioural intention is key. This is the sole justification for why patronage is an intention-driven process. Thus, patronage intention describes the likelihood and unlikelihood that a given consumer will be willing or unwilling to buy a particular product or subscribe to a given service at a predetermined period of time (Ezechirinum *et al.*, 2020; Ozioma and Marcus, 2020). Nwulu and Asiegbu (2015) assert that customer patronage could be assessed through two major routes: patronage intention or repeat purchase.

Adebisi and Akinruwa (2019) offer a varying view of the concept 'customer patronage' in light of brands' market penetration and competition. Hence, customer patronage, whether of products or services, is considered a deeply held commitment to repurchase an organisation's products or services at the expense of a competitor offering (Adebisi and Akinruwa, 2019). Adiele *et al.* (2015) believe that customer patronage can serve as a yardstick for evaluating or assessing an organisation's performance index. This is in consideration of who considers customer patronage as an intentional act or gesture of a customer's rating for his or her organisation's sales volume, profit margin, and customer retention level (Adiele *et al.*, 2015).

Customer patronage can as well take an emotional turn when customers patronise an organisation based on their emotional responses to what is offered. Given the diverse emotional appeals deployed in marketing products and services, potential and current customers are often triggered to take action through the affective route rather than the logical or rational route. Hence, patronising an organisation may outrightly depend on where the emotional appeal hits the customers' affective domain. At this instance, patronage may be to satisfy emotional needs rather than rational ones.



## **AI Chatbots: Customer Self-Service Innovations and Patronage of Banks' Services/Products**

The adoption of artificial intelligence chatbots in the banking sector has revolutionised how banking operations are organised. This is in consideration of their faster speed, insight-driven mechanisms, and personalised support (Binder, Pellegrini, Pellegrini, & Gujral, 2017; Lou, Gang, Gang, & Tse, 2021). The affordances of AI chatbots have significantly impacted how banks relate to their customers in terms of service delivery and product offering. The human roles and expertise in these processes have been surrogated, supplanted, superimposed or annexed to AI chatbots. AI chatbots.

Currently, within the banking sector, artificial intelligence chatbots have heralded automated processes and trends in the way banking operations are carried out. Especially those banking operations that relate to customer relationships. They have orchestrated a phenomenon Kaczorowska-Spychalska (2019) refers to as the dehumanisation of what is human and the humanisation of technology in bank service delivery.

However, the term 'automation in customer relationship management' refers to the replacement of human tasks and skills by smart technologies like AI chatbots, leading to customers using technology to serve themselves. Self-service technological innovations are technological interfaces that enable bank customers to produce a service independent of direct service involvement of bank staff (Ezechirinum *et al.*, 2020).

Technological innovations that are touted to aid customers in a self-serving experience are likely to have a technological interface where users can be guided or assisted in generating programmed services without direct involvement from the service company employee (Meuter *et al.*, 2000). According to the authors, self-service innovations are where consumers deliver services themselves through the use of technology. By leveraging self-service technological innovations, bank customers engage in a sort of joint venture in the banking process and system in which bank customers increasingly assume the role of co-producer in service delivery.

Self-service AI chatbots provide unique and relative advantages to bank customers (Li & Zhang, 2023) as well as disadvantages when engaged and used. The advantages are that they are fast, prompt, and speedy in generating results; accurate, precise, and reliable;



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simultaneous; regulated emotions; multi-contextual; multi-tasking; and user-friendly. - friendly.

Some of the noticeable factors influencing customer patronage of banks' products or services in the wake of self-service innovations include customers' satisfaction, quality service delivery or product offering, needs and motives, self-concept, past experience, current experience, current psychological state, beliefs, and expectations.

### **Theoretical Framework**

This study is grounded in the Unified Theory of Acceptance and Use of Technology (UTAUT), a well-established theoretical framework that explains users' perceptions, intentions, and behaviours regarding the adoption of technologies and innovations in social, cultural, and organisational contexts. The theory was developed by Viswanath Venkatesh, Michael Morris, Gordon Davis, and Fred Davis in 2003.

To explain the processes underlying technology acceptance, the theorists identified four key constructs: performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC). In the context of this study, these constructs suggest that before bank customers adopt AI-enabled chatbots for handling specialised issues with their banks, the chatbots must meet certain expectations:

**Performance Expectancy (PE):** This refers to customers' belief that AI-enabled chatbots can effectively address their specific needs, concerns, or issues with their banks. When chatbots consistently perform as expected, customers are more likely to adopt and continue using them. In essence, users expect the chatbots to efficiently manage customer service, customer relations, and corporate communication challenges encountered during their interactions with the bank.

**Effort Expectancy (EE):** Beyond functionality, the chatbot must be easy to use. This implies that the user interface should be simple, intuitive, and user-friendly rather than overly technical or complex. The design should enable even non-expert users to navigate and utilise the system with minimal effort.

**Social influence (SI):** Before an AI-enabled chatbot is accepted, it must have social relevance and applicability. It should have a reputation for resolving financial issues of



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real people in the society. It is on the strength of this that its perception of efficacy and efficiency is based.

**Facilitating conditions (FC):** This implies an AI-enabled chatbot being an extension of human functions in the dimensions of customer care, customer relations and corporate communication. It should be able to facilitate communication with the customers in view of solving their specific needs, which could be solved by a human expert.

All the constructs discussed above are processes that affect the perception of banks' customers toward the acceptance of using technological innovation such as AI-enabled chatbots in solving their financial issues in place of human bankers or banks' human customer care personnel. When the perception of each of the processes is positive, adoption and acceptance of the technology and innovation among the customers become an easy task.

In the theory, effort expectancy (EE) can be considered as perceived ease of use (PEOU) of the Technological Acceptance Model (TAM), as both focus on the ease-of-use aspect (Joshi, 2021). Similarly, performance expectancy (PE) is similar to perceived usefulness (PU), as both focus on improving business performance.

In explicating a whole lot of processes taken into consideration before banks' customers can adopt, accept or utilise banking technologies or innovations such as AI-enabled chatbots, the setting of this theory as a theoretical framework for this study is relevant. The UTAUT provides explications on why the select banks' customers in Nigeria who engage AI-enabled Chatbots accepted and used the technology or innovation in their banking efforts with profound exposition on their perceptions and behavioural intentions.

### **Research Methodology**

This study adopted the survey research method, with the structured 5-scale Likert (comprising Strongly Agree (SA), Agree (A), Undecided (U), Strong Disagree (SD), and Disagree (D)) questionnaire as the data-gathering instrument. The population of this study comprised all the customers of the Uyo branches of Zenith Bank (Oron Road Branch), United Bank for Africa (Banking Layout Branch) and Stanbic IBTC Bank (Nwaniba Road Branch) in Akwa Ibom State. According to the data obtained from the manager, human relations/public relations departments of the Uyo branches of the select



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banks, the customer base of the banks was provided as follows: Zenith Bank (292,349), United Bank for Africa (152,937) and Stanbic IBTC Bank (198,201). Therefore, the cumulative/total population of the study is 643,487 customers of the select banks as at June 2023.

A representative sample of 400 bank customers in Akwa Ibom State was selected using Taro Yamene’s statistical formula. Of the 400 copies of the questionnaire administered to the respondents, 399 copies were retrieved and found fit for the analysis of data for this study, using simple percentage calculation and frequency tables. The Likert scales were presented to find the weighted mean for decision-making in Akwa Ibom State. According to the data obtained from the human relations/public relations departments of the Uyo branches of the select banks, the customer base of the banks was provided as follows; Zenith Bank (292,349) United Bank for Africa (152,937) and Stanbic IBTC Bank (198,201). Therefore, the cumulative/total population of the study is 643,487 customers of the select banks as at June 2023.

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### **Data Presentation, Analysis and Discussion of Findings**

**Table 1: Respondents’ patronage of the select banks because of their perception of the banks’ reputation in utilising AI chatbots to facilitate customer relationship management via self-service innovations**

Item	Nature of Responses							WM S	Decision
	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total (15)			
The perception I have of my bank’s reputation in customer relationship management with regard to her utilisation of AI-chatbots in facilitating self-service banking transaction(s) influenced my patronage of the bank.	177	199	14	6	3	399	4.35	Accept	
	885	796	42	12	3	1,738			



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**Source: Field data (2024)**

Since the computed value (4.35) of the weighted mean score is greater than the mean of the aggregate weighting (3.0), it is inferred that customers' patronage of the select banks in Akwa Ibom State was a result of their perception of the banks' reputation in utilising AI chatbots to facilitate customer relationship management via self-service innovations.

**Table 2: Analysis of responses on whether respondents' patronage of the select banks in Akwa Ibom State is duly dependent on the banks' utilisation of the self-service innovations of AI chatbots for customer relationship management**

Item	Nature of Responses							
	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total (15)	W MS	Decisio n
My patronage of my bank is duly dependent on the bank's utilisation of the self-service innovations of AI-chatbots in customer relationship management.	110	224	28	34	3	399	4.01	Accept
	550	896	84	68	3	1,601		

**Source: Field data (2024)**

Since the computed value (4.01) of the weighted mean score is greater than the mean of the aggregate weighting (3.0), it is inferred that customers' patronage of the select banks in Akwa Ibom State was duly dependent on the banks' utilisation of the self-service innovations of AI chatbots for customer relationship management.

**Table 3: Respondents' satisfaction with their utilisation of AI chatbots of select banks in Akwa Ibom State for specialised self-service banking transaction(s)**

Item	Nature of Responses							
	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total (15)	WMS	Decisio n
I am satisfied with my utilisation of my bank's AI-	207	186	3	0	3	399	4.49	Acc ept

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chatbots for specialised self- 1,03 744 9 2 3 1,793  
 service banking 5  
 transaction(s).

**Source: Field data (2024)**

Since the computed value (4.49) of the weighted mean score is greater than the mean of the aggregate weighting (3.0), it therefore implies that customers of select banks in Akwa Ibom State were satisfied with their utilisation of the banks’ AI-chatbots for specialised self-service banking transaction(s).

**Table 4: The extent to which respondents are satisfied with their utilisation of AI-chatbots for self-service banking transaction(s) with the select banks in Akwa Ibom State**

Extent of Satisfaction	Frequency	Percentage
Completely satisfied	241	60
Very satisfied	117	29
Moderately satisfied	3	1
Slightly satisfied	11	3
Not at all satisfied	27	7
Total	399	100

**Source: Field data (2024)**

The presentation and analysis of data in Table 4 show that the majority of the customers (241 [60%]) of the select banks in Akwa Ibom State were completely satisfied with their utilisation of AI chatbots for self-service banking transaction(s) with the banks.

**Research Question One**

To what extent do customers of select banks in Akwa Ibom State patronise the banks as a result of the banks’ utilisation of AI chatbots as interactive communication tools for self-service banking transactions?

The answers to the research question One can be deduced from data-related insights presented in Table 1, concerned with whether customers’ patronage of the select banks was a result of their perception of the banks’ reputations in utilising AI chatbots to facilitate customer relationship management via self-service innovations. The analysis of



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data in the table yielded a weighted mean score (WMS) of 4.35, which was found to be greater than the mean of the aggregate weighting (3.0). Therefore, it was concluded that customers' patronage of the selected banks in Akwa Ibom State was influenced by their perception of the banks' reputation for using AI chatbots to enhance customer relationship management through self-service innovations. Table 2 was concerned with the analysis of responses on whether customers' patronage of the select banks in Akwa Ibom State is duly dependent on the banks' utilisation of the self-service innovations of AI chatbots for customer relationship management. The analysis of data in the table yielded a weighted mean score (WMS) of 4.01, which was found to be greater than the mean of the aggregate weighting (3.0). This implies that customers' patronage of the select banks in Akwa Ibom State was duly dependent on the banks' utilisation of AI chatbots for self-service banking transactions.

### **Research Question Two**

What is the level of satisfaction that customers of select banks in Akwa Ibom State have derived from their utilisation of AI chatbots in their self-service transactions with the banks?

Table 3 focused on customers' satisfaction with their use of AI chatbots by selected banks in Akwa Ibom State for specialised self-service banking transactions. The data analysis yielded a weighted mean score (WMS) of 4.49, exceeding the aggregate mean of 3.0. This indicates that customers of the selected banks in Akwa Ibom State were satisfied with their experience using the banks' AI chatbots for specialised self-service transactions. Table 4 bordered on the extent to which customers were satisfied with their utilisation of AI chatbots for self-service banking transactions with the select banks in Akwa Ibom State. The presentation and analysis of data in the table show that the majority of the customers (241 [60%]) of the select banks in Akwa Ibom State were completely satisfied with their utilisation of AI chatbots for self-service banking transactions with the banks.

In summation of the data-related insights in the tables above, the inferences that could be drawn are that customers of the select banks in Akwa Ibom State utilised the banks' AI chatbots for self-service banking transactions to a very large extent. The experiences that came with the extent to which they utilised AI chatbots for specialised banking transactions left them completely satisfied with the banks' self-service innovations.



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Hence, it can be submitted that customers of the select banks in Akwa Ibom State were completely satisfied with their utilisation of AI chatbots for self-service banking transactions with the banks. This finding is corroborated by the findings in Joshi's (2021) study, where it was found that trust and facilitating conditions of AI chatbots impacted Indian bank customers' satisfaction significantly. With respect to the adoption of AI chatbots in banking transactions among bank customers in India, facilitating conditions, satisfaction and behavioural intention were found to have a positive but insignificant impact.

The finding that customers of selected banks in Akwa Ibom State are satisfied with their use of AI chatbots for self-service banking transactions lends support to the central claims of the Uses and Gratifications theory. It reinforces the view that media users are neither passive nor inert; rather, they are active, goal-orientated individuals who consciously choose how to engage with technological innovations based on the gratifications they expect to obtain (Obong & Targema, 2023; Akpabio, Obong & Christian, 2023).

Furthermore, the results of this study illustrate how bank customers actively engage with AI chatbots and derive satisfaction from these interactions, thereby expanding the explanatory scope of the theory from individual (micro) to broader (macro) contexts (Baran & Davis, 2010; Idiong, Obong & Samuel, 2023; Targema, Obong & Akpan, 2023).

Consequently, customer satisfaction is the largest competitive advantage for banks (Rakshith and Vinay, 2021). As Ikpefan, Olaolu, Omarkhanlen, Osuma, & Evbuomwan. (2018) note, satisfaction of customers is what guarantees continuous patronage of the deposit money banks' offerings. According to Ganguli and Roy (2011), there is substantial empirical evidence on the correlation between bank customers' utilisation of self-service technologies and customer satisfaction. Hence, the utilisation of self-service technological innovations, such as AI chatbots, is one of the banks' creative and deliberate strategies to retain and satisfy customers and to create a competitive advantage among competing brands (Ezechirinum et al., 2020). This makes it the fundamental goal of virtual customer relationship management via self-service innovations to create greater customer loyalty, sales, and satisfaction and to provide a rich source of customer



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knowledge that can be used to gain a deeper understanding of customers in order to facilitate the provision of fully personalised service (Viljoen *et al.*, 2005).

Conscientiously, scholars maintain that customers' patronage of banks depends on factors such as location, assortment, fast checkout, personnel friendliness and courtesy, congenial shop atmosphere, service quality and price/cost variables as well as technology in use (Olise, Okoli, Ekeke, 2015; Okeke and Okoye, 2021). These factors are critical determinants of customer patronage and are arguably significant influences on customers' decisions to patronise banks' products or services (Olise *et al.*, 2015; Ozioma and Marcus, 2020). Customer patronage hinges on these factors, with customer satisfaction being a prime motivation for patronage. In order to sustain patronage of the customers in a highly competitive banking system, customer satisfaction can be primarily prioritised by banks using self-service technological innovations (Kivela *et al.*, 2011; Sulek and Hensley, 2014). Rahman, AbdelFattah & Mohamad (2014) support this position by observing a direct positive relationship between customer satisfaction and their repurchase intention – a necessary prerequisite for product and service patronage.

However, when a customer is satisfied with innovation-driven services offered by banks through technological intervention, such as the AI chatbots in the course of attempting to solve a particular problem or meet specific needs, they are likely to continue to patronise the banks. But if reverse is the case, patronage will likely decline or stop entirely. In this regard, Rizan *et al.* (2014) posit that customer satisfaction entirely hinges on how the customer rates the quality of innovation-driven services provided by service-orientated organisations in tandem with the customer's expectation. If the quality of services banks' technological innovations offer matches or meets the customer's expectations, the customer is said to be satisfied (Renner and Ezekiel-Hart, 2022). Daisy (2014) is in agreement with this position by buttressing that a customer can only be satisfied if the service rendered by a company matches his or her expectations and dissatisfied if the services offered fall short of his or her expectations. Perhaps when a customer is satisfied with the use of banks' technological innovations in meeting specific service needs, there is likely to be continuity in patronage. As Ting (2004) submits, the more satisfied customers are with innovation-driven service, the greater their patronage.



## **Conclusion and Recommendations**

From the foregoing, this paper has established that bank customers in Akwa Ibom State patronised the banks as a result of the banks' utilisation of AI chatbots as interactive communication tools for self-service banking transactions to a large extent. The finding that customers of selected banks in Akwa Ibom State are satisfied with their use of AI chatbots for self-service banking transactions lends support to the central claims of the Uses and Gratifications theory. It reinforces the view that media users are neither passive nor inert; rather, they are active, goal-orientated individuals who consciously choose how to engage with technological innovations based on the gratifications they expect to obtain (Obong & Targema, 2023; Akpabio, Obong & Christian, 2023).

Furthermore, the results of this study demonstrate how bank customers actively utilise AI chatbots and derive satisfaction from such interactions, thereby extending the explanatory power of the theory from individual (micro) to broader (macro) contexts (Baran & Davis, 2010; Idiong, Obong & Samuel, 2023; Targema, Obong & Akpan, 2023). It is therefore commonsensical and in the best interest of banks to maintain the winning formula as it offers them an edge in the competition.

On the strength of the findings, the study recommends that Nigerian banks which are yet to tap fully into the affordances of AI chatbots in self-service banking should take advantage of the possibilities it offers and the fact that continued patronage in the future would be defined by technology, innovation, and ease of operations. Technological integration of AI chatbots' self-service interfaces will continue to gain traction and will be critical to customer patronage of banks.

## **References**

- Agbo, B., & Ugwu, B. (2015). *Introduction to research methods*.
- Akpabio, J., Obong, U. A., & Christian, I. (2023). Audience listenership preference of private radio stations in Akwa Ibom State, Nigeria. *Sapientia: Journal of Philosophy, 19*, 108–122.



---

*Manasseh Joseph Umoette, PhD; Abasifreke Idiong, PhD; Peter Esuh (Professor)*

---

- Baran, S., & Davis, D. K. (2010). *Mass communication theory: Foundations, ferment, and future* (6th ed.).
- Binder, R., Pellegrini, P., & Gujral, G. (2017). *Intelligence-powered human services*. Accenture. [https://www.accenture.com/\\_acnmedia/pdf-66/accenture-ai-in-social-services-pov-final.pdf](https://www.accenture.com/_acnmedia/pdf-66/accenture-ai-in-social-services-pov-final.pdf)
- Caldarini, G., Jaf, S., & McGarry, K. (2022). A literature survey of recent advances in chatbots. *Information*, 13(1), 41. <https://doi.org/10.3390/info13010041>
- Christoforou, P. S., & Ashforth, B. E. (2015). Revisiting the debate on the relationship between display rules and performance: Considering the explicitness of display rules. *Journal of Applied Psychology*, 100(1), 249–261.
- Daisy, D. (2014). *The effect of service innovation on customer satisfaction* [Master's thesis, National Cheng Kung University].
- Deloitte Digital. (2018, March). *Chatbot point of view: Deloitte artificial intelligence*.
- Ezechirinum, A., Igwe, S. R., & Anucha, V. C. (2020). Customer self-service technology and customer patronage of deposit money banks in Rivers State. *British Journal of Marketing Studies*, 8(2), 1–25.
- Ganguli, S., & Roy, S. K. (2011). Generic technology-based service quality dimensions in banking: Impact on customer satisfaction and loyalty. *International Journal of Bank Marketing*, 29(2), 168–189.
- Gomathy, C. K., Narayana, R. V., Krishna, T. V., & Geetha, V. (2022). Artificial intelligence chatbot using python. *Journal of Engineering, Computing and Architecture*, 12(3), 251–259.
- Gupta, A., Hathwar, D., & Vijayakumar, A. (2020). Introduction to AI chatbots. *International Journal of Engineering Research and Technology*, 9(7), 255–258.
- Idiong, A., Obong, U. A., & Effiong, G. S. (2023). Uses and gratifications of the internet and search engines for academic purposes among Heritage Polytechnic students.



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---

*International Journal of Contemporary Issues and Trends in Research, 1(1), 78–96.*

- Ikpefan, O. I., Olaolu, R., Omankhanlen, E. A., Osuma, G. O., & Evbuomwan, G. (2018). Impact of marketing of deposit money bank services on customers' patronage and loyalty: Empirical study of five deposit money banks in Nigeria. *Journal of Applied Economic Sciences, 8(62)*, 2446–2458.
- Joshi, H. (2021). Perception and adoption of customer service chatbots among millennials: An empirical validation in the Indian context. In *Proceedings of the 17th International Conference on Web Information Systems and Technologies* (pp. 197–208).
- Kaczorowska-Spychalska, D. (2019). How chatbots influence marketing. *Management, 23(1)*, 251–270.
- Khechine, H., Lakhal, S., & Ndjambou, P. (2016). A meta-analysis of the UTAUT model: Eleven years later. *Canadian Journal of Administrative Sciences, 33(2)*, 138–152. <https://doi.org/10.1002/cjas.1381>
- Kivela, J., Inbakaran, R., & Reece, J. (2011). Consumer research in the restaurant environment, Part 1: A conceptual model of dining satisfaction and return patronage. *International Journal of Contemporary Hospitality Management, 11(5)*, 205–222.
- Leung, C. H., & Yan Chan, W. T. (2020). Retail chatbots: The challenges and opportunities of conversational commerce. *Journal of Digital Social Media Market, 8(1)*, 68–84.
- Li, C., & Zhang, J. (2023). Chatbots or me? Consumers' switching between human agents and conversational agents. *Journal of Retailing and Consumer Services, 72*, 103264. <https://doi.org/10.1016/j.jretconser.2023.103264>
- Lou, C., Kang, H., & Tse, C. H. (2021). Bots vs. humans: How schema congruity, contingency-based interactivity, and sympathy influence consumer perceptions



---

*Manasseh Joseph Umoette, PhD; Abasifreke Idiong, PhD; Peter Esuh (Professor)*

---

and patronage intentions. *International Journal of Advertising*.  
<https://doi.org/10.1080/02650487.2021.1951510>

Mauldin, M. (1994). ChatterBots, TinyMuds, and the Turing Test: Entering the Loebner Prize Competition. In *Proceedings of the Eleventh National Conference on Artificial Intelligence*. <http://www.aaai.org/Library/AAAI/1994/aaai94-003.php>

Meuter, M. L., Ostrom, A. L., Roundtree, R. I., & Bitner, M. J. (2000). Self-service technologies: Understanding customer satisfaction with technology-based service encounters. *Journal of Marketing*, 64(3), 50–64.  
<https://doi.org/10.1509/jmkg.64.3.50.18024>

Mohammed, Z. (2019). *Artificial intelligence: Definition, ethics and standards*. In *Electronics and communication: Law, standard and practice* (pp. 1–4).

Nguyen, T. H., Waizenegger, L., & Techatassanasoontorn, A. A. (2021). Don't neglect the user! Identifying types of human-chatbot interactions and their associated characteristics. *Information Systems Frontiers*. <https://doi.org/10.1007/s10796-021-10212-x>

Nwulu, C. S., & Asiegbu, I. F. (2015). Advancement inclination behaviors and university academic staff patronage of deposit money banks in Port Harcourt. *International Journal of Research in Business Studies and Management*, 2(6), 94–104.

Okeke, L. N., & Okoye, N. J. (2021). Service quality and customer patronage: A study of selected commercial banks users in Anambra State. *International Journal of Trend in Scientific Research and Development*, 5(5), 1281–1289.

Olise, M., Okoli, M. I., & Ekeke, J. N. (2015). Factors influencing customers' patronage of fast food restaurants: A study of selected customers of fast food in Anambra State, Nigeria. *International Journal of Economics, Commerce and Management*, 3(11), 686–701.

Oyeleye, S., & Ademosu, I. (2021). Communication made easy? Patterns of AI voice-activated virtual assistants usage on mobile devices among young people. In A.



---

*Manasseh Joseph Umoette, PhD; Abasifreke Idiong, PhD; Peter Esuh (Professor)*

---

Fayoyin & I. Ademosu (Eds.), *Knowledge societies: Artificial intelligence and the media* (pp. not stated). UNESCO.

Ozioma, N. D., & Marcus, A. O. (2020). Marketing public relations and consumer patronage of bank products in Anambra State, Nigeria. *British Journal of Management and Marketing Studies*, 3(1), 1–19.

Rahman, M. S., AbdelFattah, F. A., & Mohamad, O. B. (2014). Service quality and customers' patronage decision of healthcare insurance products: In-depth interview approach. *International Journal of Academic Research in Business and Social Sciences*, 4(7), 526–544.

Rakshith, & Vinay, P. K. (2021). Applications of artificial intelligence in banking sector for boost customer satisfaction. *Multidisciplinary Subjects for Research*, 2, 42–46.

Renner, B. A., & Ezekiel-Hart, J. C. (2022). Service quality delivery and customer patronage of deposit money banks in Port Harcourt, Rivers State. *British Journal of Management and Marketing Studies*, 5(2), 97–108.

Rizan, M., Warokka, A., & Listyawati, D. (2014). Relationship marketing and customer loyalty: Do customer satisfaction and customer trust really serve as intervening variables? *Journal of Marketing Research and Case Studies*, 24(4), 237–248.

Singh, G., Misha, A., & Sagar, G. (2013). An overview of artificial intelligence. *SBIT Journal of Science and Technology*, 2(1), 1–4.

Sulek, J. M., & Hensely, R. L. (2014). The relative importance of food, atmosphere and fairness of wait. *Cornell Hotel and Restaurant Administration Quarterly*, 45(3), 235–247.

Tacini, G. (2019). *Chatbot: A key for understanding AI revolution*. <https://openreview.net/pdf?id=SJx2QphQcE>

Targema, T. S., Obong, U. A., & Akpan, E. B. (2023). Perspective on reception and sense-making theories in the digital age. In E. S. Asemah, D. O. Ekhareafu, & T.



---

*Manasseh Joseph Umoette, PhD; Abasifreke Idiong, PhD; Peter Esuh (Professor)*

---

Santas (Eds.), *Insights to behavioural change communication* (pp. 245–256).  
Franklead Printing Company.

Techtarget.com. (2023). *What is a chatbot?*  
[http://searchdomino.techtargget.com/sDefinition/0,,sid4\\_gc935566,00.html](http://searchdomino.techtargget.com/sDefinition/0,,sid4_gc935566,00.html)

Thornhill, J. (2020). How AI is getting an emotionally intelligent reboot. *Financial Times*. <https://www.ft.com/content/4874f30b-076f-490d-9a4d-04f560347a0d>

Uvais, M., & Sulaiman, E. (2017). Influence of service quality on customer patronage intention in commercial banks: An empirical evidence. *IOSR Journal of Business and Management*, 19(6), 62–66.

Valtolina, S., & Neri, L. (2021). Visual design of dialogue flows for conversational interfaces. *Behaviour and Information Technology*, 40(10), 1008–1023.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.

Viljoen, M., Bennett, J. A., Berndt, A. D., & van Zyl, C. R. (2005). The use of technology in customer relationship management (CRM). *Acta Commercii*, 106-116.