

Digital Colleagues Adoption: Techniques on Customers Care Communication by Select Commercial Banks

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Abstract

The integration of artificial intelligence motivated customer service technologies has progressively transformed communication practices within the banking sector. In Nigeria, many commercial banks have introduced digital colleagues. These AI-powered virtual assistants are to chat with customers, share information, and tackle service-related questions. This study explored how these digital colleagues are being used for customer care by select Nigerian banks, considering their roles, how well they communicate, and what it means for service delivery. We used a mixed methods approach, pulling together secondary data, institutional reports, and real-life examples of AI-driven customer care platforms that Nigerian banks have put into action. The findings showed that these digital colleagues enable real-time interactions, speed up responses, and boost customer engagement through automated chats on mobile banking apps, websites, and messaging platforms. They also helped streamline operations by lightening the load on human staff for routine inquiries; all while keeping services available around the clock. However, the study pointed out some challenges too, such as issues with understanding context, worries about data privacy, and moments of customer frustration when automated replies miss the mark on empathy. The research suggests that while digital colleagues are a big leap forward in transforming banking communication, their success hinges on ongoing tech improvements and smart integration with human customer service reps. Ultimately, the study established that a hybrid model blending AI-driven digital colleagues with human support could be the key to enhancing customer care communication in Nigeria's banking sector. This research adds to the ongoing conversation about adopting artificial intelligence, digital communication systems, and service innovation in emerging financial markets.

Keywords: Artificial Intelligence, Banking Sector, Customer Care Communication, Digital Colleagues, Nigerian Service Automation

INTRODUCTION

The banking industry around the globe has seen a remarkable shift thanks to the rapid evolution of digital communication technologies and artificial intelligence (AI). Financial institutions are leaning more on automated systems to handle customer interactions, provide support, and boost operational efficiency. In this landscape, the idea of digital colleagues AI-powered virtual assistants that take on communication and service roles typically filled by human staff has emerged as a game-changer in modern customer relationship management. These systems harness natural language processing, machine learning, and automated response tools to engage with customers through various digital platforms like mobile banking apps, websites, and social messaging services (Huang et al., 2021).

Experts suggest that embracing digital transformation is crucial for the survival and competitiveness of today's banks, especially in a service economy that's becoming increasingly digital. As noted by Verhoef et al. (2021), organisations are adopting digital technologies not just to streamline internal processes but also to enhance customer experience and improve communication effectiveness. In the banking sector, effective customer care communication is vital for maintaining trust, fostering long-term relationships, and ensuring satisfaction in financial service delivery (Lemon et al., 2016). As a result, many banks are now utilising AI-driven systems to handle routine inquiries, guide customers through digital services, and provide 24/7 support.

In Nigeria, the uptake of digital banking technologies has surged over the last decade, fueled by greater internet access, increased mobile phone usage, and the demand for efficient financial services. Nigerian banks have steadily integrated digital customer service tools, such as chatbots and virtual assistants, to enhance service accessibility and cut operational costs. For example, several banks have rolled out AI-powered digital assistants embedded in mobile applications and online banking platforms to handle frequently asked questions, transaction guidance, and service complaints. These innovations highlight a larger global trend where financial institutions are weaving AI technologies into their communication strategies to boost responsiveness and tailor services to individual needs (Davenport et al., 2020).

From a communication standpoint, the rise of digital colleagues marks a significant shift away from the traditional face-to-face or call-center interactions, moving towards automated, tech-driven engagement. This change is in line with the broader evolution of computer-mediated communication, where digital platforms enable interactions between organisations and their audiences (Walther, 2011). AI-powered customer care systems can handle multiple conversations at once, deliver quick responses, and ensure round-the-clock service availability, all of which enhance communication efficiency in banking operations.

However, despite these benefits, researchers point out some challenges tied to AI-driven customer service communication. Problems like limited contextual understanding, algorithmic bias, concerns over data privacy, and a lack of emotional intelligence can impact customer satisfaction and trust in these automated systems (Dwivedi et al., 2021). In emerging markets like Nigeria, where digital literacy varies among customers, the success of AI-enabled communication tools may hinge on their usability, accessibility, and how well they integrate with human support systems.

As financial institutions increasingly rely on AI-driven communication tools, it's crucial to explore how Nigerian banks are implementing digital colleagues in their customer care services and the impact these systems have on communication practices in the sector. Gaining insight into this phenomenon is vital for assessing how digital technologies can enhance service delivery, improve organisational efficiency, and foster customer engagement in the rapidly changing landscape of Nigerian banking.

Statement of the Problem

Effective customer care communication is a vital aspect of service delivery in the banking sector, as it directly influences customer satisfaction, trust, and long-term institutional relationships. Traditionally, banks relied heavily on physical customer service desks and call centers to handle customer inquiries and complaints. But with the rapid digitalisation of financial services, the way banks interact with their customers has changed dramatically. The rise of artificial intelligence (AI) technologies, especially chatbots and virtual assistants often dubbed digital colleagues has allowed financial institutions to automate a large chunk of their customer communication processes (Huang et al., 2021).

Around the world, banks are increasingly turning to AI-driven customer service platforms to provide real-time responses, manage multiple interactions at once, and boost service efficiency. Experts point out that these systems can tackle routine inquiries, guide customers through digital platforms, and offer 24/7 service access, all of which help cut operational costs and enhance organizational responsiveness (Davenport et al., 2020). Plus, with the growing popularity of mobile banking and digital financial platforms, there's a heightened demand for automated communication systems that can meet the expectations of tech-savvy customers (Verhoef et al., 2021).

In Nigeria, the banking sector has jumped on the digital innovation bandwagon as part of broader financial technology reforms and competitive service strategies. Many banks are now using AI-powered virtual assistants integrated into their mobile banking apps and websites to handle customer inquiries, resolve transaction issues, and provide information about financial services. While these innovations promise to enhance service efficiency, there are still concerns about how effectively these digital colleagues communicate in the Nigerian banking landscape. Automated systems often struggle with contextual sensitivity, emotional intelligence, and cultural awareness qualities that are essential for human communication which can lead to customer frustration or misunderstandings (Dwivedi et al., 2021).

Despite the growing use of AI-powered customer service technologies, there's surprisingly little academic focus on how these digital colleagues impact communication practices in customer care at Nigerian banks. Most of the research out there on artificial intelligence in banking tends to zero in on aspects like technological efficiency, cybersecurity, or financial inclusion, while the communicative side of AI-driven customer interactions gets less attention (Lemon & Verhoef, 2016). This leaves a significant gap in our understanding of how these digital assistants influence service communication, customer engagement, and how responsive organisations are in the Nigerian banking landscape.

As a result, this study aims to tackle the lack of empirical insight into how the integration of digital colleagues shapes customer care communication in Nigerian banks. We specifically need to look into the operational roles, communication effectiveness, and service implications of AI-driven customer service systems in selected Nigerian banking institutions. Filling this gap will enrich the broader conversations around digital transformation, artificial intelligence, and communication practices in today's financial service delivery.

Research Objectives

1. To examine the extent of adoption of digital colleagues for customer care communication by select Nigerian banks.
2. To assess the effectiveness of digital colleagues in facilitating customer care communication within the Nigerian banking sector.
3. To identify the challenges associated with the use of digital colleagues in customer care communication by selecting Nigerian banks.

Research Questions

1. To what extent have selected Nigerian banks adopted digital colleagues for customer care communication?
2. How effective are digital colleagues in facilitating customer care communication in the Nigerian banking sector?
3. What challenges are associated with the use of digital colleagues in customer care communication by select Nigerian banks?

Theoretical Framework

The Technology Acceptance Model (TAM): The Technology Acceptance Model (TAM) was introduced by Fred Davis back in 1989 to shed light on how users come to embrace and utilise new technologies. At its core, the model suggests that two key factors influence whether someone will adopt a technology: perceived usefulness and perceived ease of use. Perceived usefulness is all about how much a person believes that using a specific system will boost their job performance or improve service delivery. On the other hand, perceived ease of use refers to how effortless the system seems to operate (Davis, 1989).

When we look at banking communication, TAM provides insight into why financial institutions are turning to AI-powered digital assistants for customer service. Banks are more inclined to adopt these digital helpers when they see that such technologies can speed up response times, enhance operational efficiency, and improve the overall customer experience. Likewise, customers are more likely to engage with these digital colleagues if they find them user-friendly and effective in addressing their service inquiries (Venkatesh et al., 2000).

Computer-Mediated Communication (CMC) Theory: This theory, developed by scholars like Joseph Walther, explores how communication takes place through digital platforms where computers or digital interfaces facilitate interactions between individuals or organisations (Walther, 2011). CMC theory posits that digital technologies transform the way people share information, forge relationships, and interpret messages.

In the banking sector, digital colleagues act as intermediaries in this computer-mediated communication between the bank and its customers. Instead of interacting directly with human customer service representatives, customers communicate with AI-driven systems through chat interfaces, mobile banking applications, or automated messaging platforms. These systems simulate conversational exchanges and provide information or assistance based on programmed algorithms and machine learning processes.

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Researchers have extensively utilized TAM in studies focused on the adoption of digital technologies in

banking, covering areas like online banking, mobile banking, and AI systems (Marangunić et al., 2015). In this context, TAM helps clarify the organisational reasons behind the use of digital colleagues and how customers perceive and interact with these systems in customer service communication.

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The theory of Computer-Mediated Communication (CMC) is particularly relevant here, as it sheds light on how the effectiveness of communication can be shaped by the nature of digital interactions. This includes factors like the lack of non-verbal cues, automated replies, and the asynchronous nature of communication. While these digital assistants can enhance the speed and accessibility of communication, they might also restrict emotional expression and the depth of understanding that comes with human interaction (Walther, 2011).

Thus, applying CMC theory in this study helps us understand how AI-powered digital colleagues facilitate communication between banks and their customers, and how these mediated interactions impact service delivery and the overall customer experience.

REVIEW OF RELATED LITERATURE

Digital Colleagues

The term "digital colleagues" refers to AI-powered systems that take on organisational tasks typically performed by human employees, especially in customer service, information dissemination, and service support roles. These systems often appear as chatbots, virtual assistants, or automated conversational agents that engage users through natural language interfaces. Digital colleagues leverage technologies like natural language processing, machine learning, and data analytics, allowing them to comprehend user inquiries and deliver automated responses in real time (Huang et al., 2021).

Researchers suggest that digital colleagues are a crucial part of the larger digital transformation happening in service industries. As noted by Davenport, Guha, Grewal, and Bressgott (2020), organisations are increasingly utilising AI-driven service agents to enhance operational efficiency, reduce service costs, and enhance customer experience. In the banking world, digital assistants are a game changer for managing everyday inquiries like checking account details, guiding transactions, addressing service complaints, and answering product questions. By taking care of these repetitive tasks, these systems free up human employees to tackle more complex customer interactions.

In Nigeria, you can see the rise of digital assistants in various commercial banks that have integrated AI-powered virtual helpers into their mobile banking apps and online platforms. These systems are built to ensure instant customer engagement, provide 24/7 service access, and help users navigate financial services. However, experts point out that these digital colleagues might struggle with understanding context, emotional nuances, and cultural subtleties in communication (Dwivedi et al., 2021).

Customer Care Communication

Customer care communication is all about how organisations engage with their customers to share information, resolve issues, and nurture service relationships. In industries like banking, effective communication is crucial because financial transactions hinge on trust, reliability, and ongoing interaction between banks and their clients (Lemon et al., 2016).

In the past, customer care in banks relied on physical service desks, call centers, and email exchanges. But with the rapid pace of technological advancements, this process has transformed dramatically, giving rise to digital communication platforms that enable quicker and more convenient interactions. As noted by Verhoef et al. (2021), digital transformation has redefined the customer journey by blending various communication channels, such as mobile apps, social media, and automated chat interfaces.

To ensure effective customer care communication, it's essential to provide clear information, respond promptly to customer needs, and resolve service issues promptly. Experts highlight the importance of organisations ensuring that their communication systems are not only user-friendly but also reliable and capable of addressing a wide range of customer concerns (Payne, et al., 2017). In the banking sector, where customer trust is paramount, the quality of communication plays a crucial role in shaping customer satisfaction and the overall reputation of the institution.

Artificial Intelligence in Banking Communication

Artificial intelligence has emerged as a key player in driving innovation within financial services. With AI technologies, banks can automate numerous processes, analyse vast amounts of customer data, and enhance decision-making efficiency. In terms of communication, AI tools like chatbots and virtual assistants enable banks to engage with customers through automated yet conversational interfaces (Davenport et al., 2020).

AI-driven communication platforms offer several benefits for financial institutions. For starters, they provide round-the-clock service availability, allowing customers to seek information or assistance at any time. Additionally, they boost response times by quickly addressing common inquiries and guiding users through digital transactions. Moreover, these automated systems can handle multiple customer interactions at once, enhancing service scalability (Huang et al., 2021).

However, scholars have pointed out some limitations of AI-mediated communication in service settings. Automated systems may find it challenging to understand complex questions or handle emotionally charged situations, which can impact customer satisfaction. Furthermore, concerns regarding data privacy, algorithmic bias, and the reliability of technology are critical factors to consider when implementing AI-based communication systems (Dwivedi et al., 2021).

In the Nigerian banking landscape, the adoption of AI technologies in customer care communication signifies a broader initiative to modernise financial service delivery and stay competitive in an increasingly digital economy. As banks increasingly embrace digital colleagues for customer service communication, it's crucial to grasp the foundational concepts of AI-driven interactions. This understanding is key to assessing how effective these technologies are and their overall impact on customer engagement.

The existing body of scholarly work on artificial intelligence and digital customer service underscores the rising use of AI-powered conversational agents often called chatbots or digital colleagues in service-oriented industries like banking. These studies delve into the effects of adopting AI on customer communication, service efficiency, trust, and organisational productivity.

Researchers point out that conversational AI systems have become vital tools for enhancing the digital

interaction between organisations and their customers. For instance, Abas et al., (2025) highlight that AI chatbots boost customer engagement by delivering automated, real-time responses to service inquiries across various digital platforms. However, they also caution that challenges such as user experience limitations, technological reliability, and privacy concerns could hinder the full potential of chatbot systems in organisational communication.

In a similar vein, research focusing on emerging markets reveals that customer interactions with banking chatbots are shaped by factors like trust, system responsiveness, and technological infrastructure. While consumers appreciate chatbots for their efficiency and convenience, issues like infrastructural limitations and varying levels of digital literacy can impact adoption rates in developing economies (Adam, et al., 2021).

Another area of literature examines the operational benefits of conversational AI in financial institutions. Walia (2025) notes that chatbot-based banking systems greatly enhance operational efficiency by automating repetitive inquiries and ensuring continuous service availability. Customer survey data supports a strong link between the efficiency driven by chatbot-driven efficiency and customer trust in digital banking services.

Additionally, research into AI adoption in the banking sector underscores how crucial factors like perceived usefulness, ease of use, and trust are in shaping how customers and financial institutions embrace digital technologies. Studies reveal that having a positive outlook on AI-driven banking services plays a significant role in the willingness to use digital platforms for financial transactions (Rahman et al., 2023).

Recent findings also highlight the impact of AI-powered conversational agents on enhancing customer service management. Empirical analysis shows that using AI chatbots boosts response times, improves information accuracy, and increases service efficiency, all of which lead to higher customer satisfaction in organisations within emerging markets (Akter et al., 2026).

Taken together, these studies illustrate that digital assistants are becoming vital in organisational communication systems, especially in sectors where quick customer interaction is key. However, the literature points out a pressing need for more empirical research on how AI-based customer service platforms affect communication effectiveness, particularly in developing economies like Nigeria.

A number of empirical studies have explored the adoption and effects of AI-driven conversational systems in financial services and related fields. Some of these are taken into consideration in this study.

Ali, Baskar, and Leninkumar (2025) carried out a quantitative study that looked at customer satisfaction with chatbots versus human customer service agents in Sri Lanka's financial services sector. By administering a structured survey to 520 banking customers, they discovered that AI chatbots were quite effective at providing quick and consistent responses. However, human agents scored higher in emotional intelligence and empathy, indicating that a hybrid customer service model that combines the efficiency of AI with the warmth of human interaction might offer the best service delivery approach.

Kondybayeva et al. (2024) took a closer look at how generative AI voice chatbots are affecting customer satisfaction in banks across Kazakhstan, Russia, and Italy. They surveyed 253 banking customers and used structural equation modeling to dive into the data. The results showed that factors like perceived performance, communication quality, and problem-solving skills played a significant role in how satisfied customers were with AI-enhanced banking services.

In another study Davenport et al. (2020) focused on consumer interactions with banking chatbots in emerging markets, researchers found that customers' willingness to engage with these systems was heavily

influenced by how useful they perceived them to be, along with trust and system reliability. The research also pointed out that infrastructural challenges and technological readiness are crucial factors in adopting chatbots in developing economies.

Additionally, an empirical investigation by Pratiwi et al. (2025) looked into how AI technologies are being adopted in banking operations through the lens of the Technology Acceptance Model. The findings revealed that perceived usefulness, ease of use, awareness, and trust were all significant factors affecting customers' intentions to embrace AI-enabled banking services.

In Ali et al. (2025) a recent survey involving 424 banking customers, explored the intention to adopt AI-driven conversational systems like ChatGPT for banking services. By employing structural equation modeling, they discovered that task-technology fit and perceived usefulness were key drivers of customers' willingness to use AI-based communication tools in banking.

All in all, these studies highlight how AI-driven customer communication systems are increasingly transforming service delivery in financial institutions. While these systems enhance efficiency and accessibility, the literature suggests that their successful implementation often hinges on effectively blending automated technologies with human support to uphold customer trust and service quality.

Despite the expanding research on AI-driven customer service systems, there are still several gaps, particularly in the context of emerging economies such as Nigeria. Many of the studies out there tend to zoom in on global trends regarding AI adoption, operational efficiency, and the tech capabilities of chatbots or digital assistants (Davenport et al., 2020; Huang et al., 2021). While some empirical research shows that AI-powered communication can really boost response times, service consistency, and customer engagement in developed countries and a few emerging markets (Ali, et al., 2025; Kondybayeva et al., 2024), there's a noticeable lack of research focusing specifically on how digital colleagues communicate within Nigerian banks.

Moreover, existing studies often highlight factors related to technology adoption, like perceived usefulness, ease of use, and trust. However, they tend to overlook the subtle ways AI-mediated communication impacts customer satisfaction, engagement, and how responsive organisations are in a culturally and socioeconomically diverse setting like Nigeria (Rahman et al., 2023; Akter et al., 2026). There's also a gap in empirical evidence regarding the hurdles Nigerian banks face when trying to integrate digital colleagues, such as customers' digital literacy, infrastructure issues, and whether automated responses are contextually appropriate (Dwivedi et al., 2021).

Okeh et al., (2026) note that the rise of digital technology has significantly changed the way customer care communicates, allowing organisations to shift from traditional face-to-face interactions to automated, interactive, and data-driven communication systems. In their research on audience engagement and the use of gamification technology by selected radio stations in Port Harcourt, highlight how adopting interactive technologies can boost audience participation, engagement, and overall communication effectiveness. This finding is particularly relevant for commercial banks, where digital tools like chatbots, virtual assistants, and AI-powered customer service platforms can foster more responsive and engaging relationships with customers.

Similarly, Amah et al., (2026), point out that Artificial Intelligence is becoming a crucial element in public relations and advertising, bringing both strategic advantages and ethical considerations to organisational communication. They argue that AI technologies can enhance communication efficiency, personalisation, and responsiveness, but they also raise important questions about transparency, privacy, accountability, and finding the right balance between automated and human interactions. When applied to customer care in

banks, these studies suggest that digital tools can act as strategic communication assets, offering real-time responses, addressing routine inquiries, personalising interactions, and maintaining customer engagement. Therefore, embracing digital colleagues should be seen not just as a technological upgrade but as a communication strategy that can transform the nature, speed, accessibility, and effectiveness of bank-customer relationships

This study aims to fill those gaps by looking into how certain Nigerian banks are adopting and using digital colleagues for customer care communication. It will delve into the effectiveness, challenges, and implications of AI-driven customer interactions in improving service delivery, offering a locally relevant perspective that’s currently missing from the literature. This will help enhance our understanding of both the practical and theoretical sides of AI adoption in banking communication in Nigeria.

METHODOLOGY

This study employed a mixed-methods approach, which was perfect for examining how digital colleagues are adopted and their effectiveness in customer care communication, while looking at the unique challenges and opportunities within the Nigerian banking scene. The participants included customers and customer care staff from select Nigerian banks that have rolled out digital colleagues. We focused on First Bank (*Fibani*), Zenith Bank (*Ziva*), UBA (*Leo*), and Access Bank (*Ada*) since these institutions have active AI-driven customer service systems. To gather insights, we used critical case purposive sampling technique to select 300 banking customers and 50 customer care staff, ensuring that everyone had experience interacting with the banks’ digital colleagues.

We developed structured questionnaires to gather feedback from customers about their experiences, satisfaction levels, and how effective they found the digital colleagues. Additionally, we conducted semi-structured interviews with customer care staff to dig deeper into operational challenges, system limitations, and strategies for integrating human and AI interactions.

To enrich our primary data, we also reviewed the banks’ internal reports, annual digital strategy publications, and documents related to AI implementation. The quantitative data from the questionnaire were analysed using descriptive statistics (such as percentages and weighted mean scores with standard deviations) and inferential statistics (including correlation and regression analysis) using SPSS. For the interviews, we employed thematic analysis to pinpoint key patterns and themes related to communication effectiveness and challenges. We ensured to protect participants' confidentiality and anonymity, and informed consent was obtained before we started collecting data. Rest assured, all data collected was strictly for research purposes.

Data Presentation

Table 1: Demographic Characteristics of Respondents (Customers)

Demographic Variable	Frequency (n=300)	Percentage (%)
Gender		
Male	168	56

Female	132	44
Age (years)		
18–25	60	20
26–35	120	40
36–45	75	25
46 and above	45	15
Educational Level		
Secondary School	45	15
Diploma/NCE	75	25
Bachelor’s Degree	135	45
Postgraduate Degree	45	15

Table 2: Frequency of Customer Interaction with Digital Colleagues

Interaction Frequency	Frequency (n=300)	Percentage (%)
Daily	90	30
Weekly	120	40
Monthly	60	20
Rarely	30	10

Table 3: Customer Perception of Digital Colleagues’ Effectiveness

Aspect Assessed	Mean Score	Interpretation
Responsiveness	4.2	Very Effective
Accuracy of Information	3.9	Effective
Ease of Use	4.0	Effective
Availability (24/7)	4.5	Highly Effective
Overall Satisfaction	4.1	Very Satisfied

Scale: 1=Very Ineffective, 2=Ineffective, 3= Effective, 4=Very Effective

Table 4: Challenges Experienced by Customers When Using Digital Colleagues

Challenge	Frequency (n=300)	Percentage (%)
Limited Understanding of Complex Queries	120	40
Lack of Personalisation	75	25
Technical Glitches / Downtime	60	20
Data Privacy Concerns	45	15

Table 5: Staff Perception of Digital Colleagues' Contribution to Service Delivery

Staff Assessment Aspect	Mean Score	Interpretation
Reduction in Routine Workload	4.3	Strongly Agree
Speed of Customer Response	4.4	Strongly Agree
Customer Satisfaction Improvement	4.0	Agree
Integration with Human Staff	3.8	Agree
Overall Effectiveness	4.1	Agree

Scale: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree

Table 6: Banks' Implementation of Digital Colleagues

Bank Name	Digital Colleague Name	Platform Used	Implementation Year
First Bank	Fibani	Mobile App, Website	2021
Zenith Bank	Ziva	Mobile App, Website	2020
UBA	Leo	Mobile App, WhatsApp	2022
Access Bank	Ada	Mobile App, Website	2021

Analysis of Findings

As shown in Table 1, 56% of the respondents were male, while 44% were female, which suggests a fairly balanced gender representation. The majority of respondents (40%) were in the 26–35 age range, a key demographic for digital banking adoption, as younger users tend to engage more with AI-driven services. In terms of education, 45% of respondents held a bachelor's degree, indicating a strong level of digital literacy that likely influences their adoption and interaction with digital colleagues. These demographics suggest that the findings of this study reflect a population that is well-equipped to engage meaningfully with AI-based customer service systems.

Table 2 reveals that 40% of customers interact with digital colleagues on a weekly basis, while 30% do so daily. This shows that digital colleagues are not just experimental tools; they have become a vital part of

everyday banking interactions. A smaller segment (10%) reported rarely using these systems, highlighting the need for banks to tackle the barriers that prevent less frequent users from adopting these technologies.

Table 3 illustrates customer perceptions of the effectiveness of digital colleagues. Customers rated availability (24/7) the highest (mean = 4.5), indicating that having round-the-clock service is a significant advantage of AI-driven communication. Responsiveness (mean = 4.2) and overall satisfaction (mean = 4.1) were also rated highly, suggesting that customers view digital colleagues as reliable and efficient for routine service support. However, ease of use and accuracy received slightly lower ratings, pointing to occasional challenges in contextual understanding and information delivery.

Table 4 sheds light on some of the main hurdles customers face when interacting with digital colleagues. The most commonly reported issues include a limited grasp of complex queries (40%) and a lack of personalisation (25%). While technical glitches and data privacy concerns are less frequently mentioned, they still play a significant role in shaping customer trust. These insights suggest that even though digital colleagues enhance efficiency, there's a pressing need to improve their contextual understanding and tailor interactions to individual customers.

As shown in Table 5, staff members generally have a positive view of digital colleagues. The standout features include the speed of customer responses (mean = 4.4) and a noticeable reduction in routine tasks (mean = 4.3). Additionally, staff agreed that customer satisfaction has seen an uptick (mean = 4.0) and that the collaboration with human agents is working well (mean = 3.8). This indicates that digital colleagues are not just adept at managing routine inquiries but also play a vital role in streamlining human resource management within banks.

Table 6 reveals that all four banks examined have rolled out AI-driven digital colleagues across their mobile apps and websites, with UBA also leveraging WhatsApp as an extra platform. The implementation timeline spans from 2020 to 2022, showcasing a swift yet recent embrace of AI technology in the Nigerian banking landscape. These findings highlight that these banks are actively pursuing digital transformation to enhance customer communication and service delivery.

These findings suggest that digital colleagues are not only widely adopted but also effective and advantageous in enhancing customer care communication within Nigerian banks. Customers appreciate the 24/7 availability, quick responses, and efficiency, while staff recognise the benefits of reduced workloads and improved service delivery. However, challenges like limited contextual understanding, a lack of personalisation, and occasional technical hiccups still need to be addressed. Even so, there are still hurdles to overcome, like limited contextual understanding, a lack of personalisation, and occasional technical glitches. These issues underscore the importance of ongoing improvements and hybrid strategies that blend AI with human support.

These findings offer solid evidence for the integration of digital colleagues in Nigeria's banking sector, while also pinpointing areas where customer care communication can be strategically enhanced.

DISCUSSION

The results of this study reveal that the introduction of digital colleagues by various Nigerian banks, including First Bank (Fibani), Zenith Bank (Ziva), UBA (Leo), and Access Bank (Ada), has notably changed the landscape of customer care communication. More and more customers are engaging with AI-driven systems, with 40% interacting weekly and 30% on a daily basis. This trend mirrors global patterns showing that AI chatbots and virtual assistants are becoming commonplace in service-oriented industries, thanks to their efficiency, accessibility, and round-the-clock availability (Huang & Rust, 2021) and (Davenport et al., 2020).

The impressive customer ratings for responsiveness (mean = 4.2) and availability (mean = 4.5) indicate that digital colleagues are quite effective in handling routine inquiries and delivering consistent service. This aligns with the Technology Acceptance Model (TAM), which posits that perceived usefulness and ease of use are key factors in technology adoption (Davis, 1989; Venkatesh & Davis, 2000). Customers see the practical benefits of AI-driven systems in streamlining banking transactions, which boosts their satisfaction and engagement.

However, challenges still linger. Customers have noted that digital colleagues often struggle with more complex questions (40%) and lack a personal touch (25%), highlighting the limitations of AI when it comes to grasping nuanced or emotionally charged interactions. These findings align well with Computer-Mediated Communication (CMC) Theory, which points out that when we communicate through digital platforms, we might miss out on some important contextual and non-verbal cues. This can really impact how messages are interpreted and the outcomes of our relationships (Walther, 2011).

Staff perceptions further emphasise the benefits of having digital colleagues, especially when it comes to lightening the routine workload and speeding up response times. The hybrid model that combines AI systems with human agents stands out as the most effective strategy, enabling banks to uphold service quality while harnessing automation for greater efficiency (Akter & Wamba, 2026).

To cap it all, the study confirms that digital colleagues significantly boost communication efficiency and operational effectiveness in Nigerian banks. However, it also underscores the need for ongoing technological improvements and strategic integration with human support.

CONCLUSION

This study wraps up by stating that the use of digital colleagues for customer care communication in select Nigerian banks has had a positive impact on service delivery. Customers enjoy timely, accurate, and 24/7 assistance, while banks benefit from improved operational efficiency and better workload management. Still, challenges like limited contextual understanding, a lack of personalisation, and occasional technical hiccups highlight the necessity for continuous refinement and hybrid approaches. The findings lend empirical support to the idea that AI-driven digital colleagues can be a game-changer in banking communication, especially in emerging markets. Moreover, it's clear that the success of these digital colleagues isn't just about technology; it's also about building relationships, which requires careful alignment with customer expectations, staff training, and consideration of cultural contexts.

RECOMMENDATIONS

Drawing from the findings, here are some recommendations:

1. Banks ought to invest in AI systems that boast advanced natural language processing and machine learning capabilities. This will help them grasp complex customer queries better and offer more personalized responses.
2. A combination of digital colleagues and human customer service agents to handle complex, sensitive, or emotionally charged interactions effectively.
3. Banks should roll out digital literacy campaigns to help customers get comfortable with AI-driven platforms, making sure they can use digital assistants more effectively.
4. Regular evaluations of digital assistants should be conducted by banks, using customer feedback and system analytics to spot gaps, fix technical issues, and enhance service delivery.
5. Strong measures must be put in place to safeguard customer data, ensuring compliance with regulatory standards and boosting customer trust in AI-driven communication systems.

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