

The Impact of AI-Driven Digital Transformation on Customer Experience in FUGAZ Banks in Nigeria

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ABSTRACT

Artificial intelligence (AI) has become central to the digital transformation strategies of Nigeria's five most systemically significant deposit money banks: First Bank, United Bank for Africa, GTBank, Access Bank, and Zenith Bank, collectively known as FUGAZ. These institutions have invested substantially in AI-driven technologies including chatbots, predictive analytics, fraud detection systems, and automated customer service platforms, with the stated ambition of improving customer experience and service delivery. Yet the relationship between these investments and their actual customer experience outcomes remains poorly understood and, in the existing literature, insufficiently examined. Operational metrics: transaction speeds, fraud detection rates, system uptime; have been measured with some rigour, but whether AI-driven transformation has made banking genuinely better for Nigerian customers, in the full sense of that phrase, has not.

This study argues that AI-driven digital transformation in Nigerian banking has delivered efficiency without consistently delivering empathy. The efficiency gains are real: AI has made routine banking transactions faster, more available, and more personalised for a significant portion of FUGAZ customers. But efficiency is not the whole of customer experience. When customers encounter banking services at their most consequential moments: a frozen account, a disputed transaction, a declined loan application, what they require is not speed but responsiveness; not automation but human judgment and felt fairness. These are precisely the dimensions of customer experience that current AI systems are least equipped to provide, and their systematic absence from AI-driven service design represents the central failure of FUGAZ banks' transformation programs as evaluated from a customer experience perspective.

This research employs a qualitative secondary research methodology, structured as an embedded multiple case study of FUGAZ banks. Drawing on fifty peer-reviewed academic publications and credible institutional reports sourced from Emerald Insight, ScienceDirect, ResearchGate, and Taylor & Francis Online, a structured PRISMA-informed literature selection process was followed. The resulting evidence was examined using thematic and comparative analysis. The study is guided theoretically by the Technology Acceptance Model (TAM): extended to incorporate infrastructure reliability, institutional trust, and digital competency as mediating factors specific to the Nigerian context, Service-Dominant Logic (SDL), and a project management benefits realisation perspective. Together, these frameworks provide a more complete analytical lens than any single model could, capturing technology adoption behaviour, value co-creation dynamics, and the gap between project delivery and actual customer benefit.

The findings reveal that AI-driven transformation has improved customer experience conditionally rather than universally. For urban, digitally literate customers engaging with routine transactions, measurable improvements in speed, availability, and personalisation are documented. For customers in rural areas, those with lower digital literacy, and all customers navigating emotionally weighted or complex interactions, the evidence is far less positive and in some cases points toward active deterioration in service quality since AI displaced human interaction. Infrastructure constraints, digital literacy gaps, institutional trust deficits, and weak AI governance frameworks are identified as the primary conditions that determine whether AI investment translates into genuine customer value. Across all five FUGAZ institutions, a systematic gap is observed between what AI systems have

delivered technically and what customers have experienced in practice: a benefits realisation failure that cannot be resolved through further technical investment alone.

This research work concludes that FUGAZ banks must move beyond an efficiency-centred conception of AI's value to their customers. Sustainable improvement in customer experience through AI requires hybrid service models that preserve human interaction pathways for complex and emotionally weighted situations; targeted investment in customer digital literacy as a precondition for AI value delivery; transparent AI governance frameworks that address the accountability and redress gaps currently undermining institutional trust; and infrastructure-sensitive design that ensures AI services function reliably across Nigeria's diverse socioeconomic geography. From a project management perspective, AI initiatives in Nigerian banking should be evaluated not on deployment metrics but on whether their intended customer experience benefits are being realized and for whom.

Keywords: Artificial intelligence; digital transformation; customer experience; Nigerian banking; FUGAZ banks; Technology Acceptance Model; benefits realization

INTRODUCTION

The rapid adoption of artificial intelligence (AI) has significantly altered how organizations manage operations, engage clients, and deliver services across sectors globally. In banking, AI is deployed principally through machine learning, predictive analytics, chatbots, and intelligent automation (Kaplan and Haenlein, 2019; Verhoef et al., 2021), as part of a broader digital transformation intended to maximise value generation, improve operating efficiency, and enhance customer engagement (Vial, 2019). Customer experience (CX) is increasingly positioned as a fundamental competitive edge in this transformation (Pousttchi and Dehnert, 2018), yet CX extends well beyond transactional effectiveness: it encompasses the cognitive, emotional, and relational reactions customers develop through service encounters, shaped by trust, dependability, usability, and responsiveness (Shehadeh, 2025; Jonnalagadda, 2023).

Nigeria's five largest deposit money banks, known collectively as FUGAZ (First Bank, United Bank for Africa, Guaranty Trust Bank, Access Bank, and Zenith Bank), hold approximately 60% of national banking sector assets and service over 40 million customers through more than 3,000 branches and multiple digital channels (CBN, 2023). Each has invested substantially in AI-driven infrastructure, including GTBank's Habari chatbot, Access Bank's Tamada assistant, UBA's LEO virtual assistant, Zenith Bank's ZIVA platform, and First Bank's AI-driven account monitoring (Aliyu and Iheonkhian, 2025; Odufisan et al., 2025; Okeke, 2025). The scale of this transformation is considerable: the Nigeria Inter-Bank Settlement System processed close to 11 billion electronic transactions in 2024, up from five billion in 2022, with transaction value reaching a record N1.07 quadrillion (CBN, 2025; NIBSS, 2025).

Despite this investment, the relationship between AI implementation and customer experience outcomes remains contradictory and under-examined. AI-driven platforms promise efficiency and personalization, yet customers continue to encounter algorithm errors, inadequate chatbot dialogues, and unresolved disputes (Okeke, 2025; Mohammed and Okechukwu, 2025). More fundamentally, the literature has not adequately investigated what happens to customer experience at the emotional level when human interaction is progressively replaced by automation, nor has it examined the meaningful institutional variation between individual FUGAZ banks (Oyetunji, 2024; Isaac and Jimoh, 2025).

This study aims to investigate how AI-driven digital transformation affects customer experience in FUGAZ banks. The specific objectives are to: (1) identify and analyze the AI-driven digital transformation initiatives FUGAZ banks have implemented; (2) assess how these initiatives influence customer experience and satisfaction; (3) explore the challenges and opportunities linked with using AI to improve customer experience; and (4) propose evidence-based recommendations for responsible, inclusive, and sustainable AI adoption in Nigerian banking. The study contributes a contextually extended Technology Acceptance Model incorporating infrastructure reliability, institutional trust, and digital competency, and reframes AI-driven transformation as a customer experience and value co-creation challenge rather than a purely technological one.

LITERATURE REVIEW

2.1 AI and Digital Transformation in Nigerian Banking

AI refers to the capacity of computational systems to perform tasks ordinarily requiring human cognition: reasoning, learning, pattern recognition, and decision-making (Russell and Norvig, 2021). Much of what FUGAZ banks market as AI-driven transformation is, more precisely, sophisticated automation with selective adaptive elements (Kaplan and Haenlein, 2019), a distinction that the Nigerian banking literature often obscures (Okeke, 2025; Oyetunji, 2024). Digital transformation is distinct from digitization: it involves simultaneous change in technology, business models, organizational culture, and customer engagement, not merely the conversion of analogue processes to digital formats (Vial, 2019; Verhoef et al., 2021). Oyetunji (2024) and Eyo-Udo et al. (2025) document a persistent gap between the ambition of FUGAZ banks' digital strategies and the infrastructural and organizational constraints that limit execution, producing what Nwaobi (2024) terms 'surface-level digitization masquerading as structural transformation.'

2.2 Customer Experience: Why Efficiency Is Not Enough

Efficiency metrics, transaction speed, availability, error rates, speak only to the cognitive dimension of customer experience. The emotional and relational dimensions, which research consistently identifies as primary drivers of long-term loyalty, are far less amenable to automation (Shehadeh, 2025). Nashikha, Huda and Fitroh (2025) demonstrate that responsiveness and perceived empathy remain powerful drivers of customer loyalty even in highly automated environments, a finding corroborated in the Nigerian context by Mohammed and Okechukwu (2025), whose regression analysis found AI chatbot deployment explained 49.6% of variance in staff-perceived customer satisfaction ($R^2 = 0.496$), while AI-driven analytics explained 52.4% of variance in service response times. Because this evidence was gathered from bank employees rather than customers, it establishes that AI is changing service delivery without confirming how customers feel about it emotionally.

This gap is corroborated by the 2025 KPMG West Africa Banking Industry Customer Experience Survey, which sampled 24,432 Nigerian retail banking customers and found that Resolution, the proactive handling of customer problems, has remained the industry's weakest experience pillar for five consecutive years, even as Integrity (trust, consistency, transparency) ranked highest in customer priority (KPMG, 2025). The same survey found only 33% of customers feel very secure about their digital transactions, and 53% do not fully trust their bank's digital platforms, despite 92% of Nigerians reporting regular personal use of AI and 79% expressing willingness to trust it (KPMG, 2025). This indicates that the deficit is not customer reluctance toward AI as such, but AI's failure at the moments of highest emotional weight.

2.3 Theoretical Framework

This study is guided by three complementary frameworks. The Technology Acceptance Model (TAM) holds that adoption intention is governed by perceived usefulness and perceived ease of use (Davis, 1989). Abdulsalam and Tajudeen (2024) show that in emerging-economy banking, three contextual factors systematically mediate these constructs: infrastructure reliability (mediating usefulness), institutional trust (a precondition for adoption independent of usability), and digital competency (mediating ease of use). This study therefore adopts a contextually extended TAM incorporating these three mediators.

Service-Dominant Logic (SDL) reframes value as co-created through interaction between provider and customer rather than embedded in a product and delivered to it (Vargo and Lusch, 2016). Applied to FUGAZ banks, SDL suggests that digital exclusion is not merely a social equity concern but a service quality failure: customers who cannot engage with AI-driven platforms cannot participate in value co-creation and therefore cannot realize the benefits those platforms are designed to provide.

The benefits realization perspective, drawn from project management scholarship, holds that a project's success should be judged by whether it generates intended benefits for its intended beneficiaries, not merely whether it was delivered on time and within budget (Bradley, 2010). Applied here, deploying a chatbot is not a success

unless customers experience meaningfully better service as a result, a discipline this study argues FUGAZ banks have not consistently applied.

METHODOLOGY

This study adopts a qualitative research design structured as an embedded multiple case study of FUGAZ banks, drawing on secondary data. The case study approach suits research seeking to understand a contemporary phenomenon within its real-world context where the boundaries between phenomenon and context are not sharply distinct (Yin, 2018); AI-driven transformation in Nigerian banking cannot be understood apart from the country's infrastructure, regulatory environment, and banking culture. Secondary data was used because a substantial and growing body of recent empirical literature already exists, and primary data collection was not feasible within the project's constraints. The research is positioned within an interpretivist tradition, appropriate given the study's central argument that context, rather than measurement alone, determines how the same AI system generates different customer experiences depending on who uses it (Saunders, Lewis and Thornhill, 2019).

Literature selection followed a PRISMA-informed process. Database searches of Emerald Insight, ScienceDirect, ResearchGate, and Taylor & Francis Online identified 120 records; title and abstract screening against inclusion criteria (publication 2018–2025, peer-reviewed or credible institutional authorship, direct relevance to AI, digital transformation, customer experience, or banking in Nigeria or comparable developing economies) retained 80 records; full-text assessment against Critical Appraisal Skills Program (CASP, 2018) criteria excluded a further 20, leaving 50 studies for thematic analysis, with Nigerian-authored studies prioritized where quality was comparable.

Data analysis followed Braun and Clarke's (2006) six-phase thematic analysis framework. Initial codes captured patterns relating to AI applications, customer experience outcomes by segment, barriers to adoption, trust and transparency, digital exclusion, the emotional dimension of service quality, governance gaps, and project management success factors; these were grouped into four thematic clusters aligned with the study's research objectives. Where studies produced contradictory findings, these contradictions were retained and examined rather than resolved, reflecting the genuinely uneven reality the literature describes. Validity rests on triangulation across independent sources, explicit source-quality criteria, and grounding in the study's theoretical frameworks.

FINDINGS

4.1 AI Initiatives Across FUGAZ Banks

AI investment is documented across all five FUGAZ institutions, but with significant variation in strategic focus and integration depth. GTBank's Habari platform and Access Bank's Tamada assistant represent the most comprehensively evaluated, customer-facing deployments, embedding AI within broader digital ecosystems rather than as standalone chatbots (Okeke, 2025; Aliyu and Iheonkhian, 2025). Awosusi (2025) attributes Access Bank's positive financial performance not to technology alone but to accompanying investments in staff capability and change management. UBA's LEO chatbot spans WhatsApp, Facebook Messenger, and mobile banking, reflecting a large, geographically dispersed customer base, though high usage volumes do not necessarily reflect high satisfaction (Nwaobi, 2024). Zenith Bank's retail automation and First Bank's AI-driven account monitoring represent narrower, more operationally oriented strategies with less direct customer experience impact (Odufisan et al., 2025). Isaac and Jimoh (2025) find that the depth of AI integration correlates with the breadth of institutions' commercial and customer experience outcomes, undermining literature that treats FUGAZ as a homogeneous group.

4.2 Conditional Impact on Customer Experience

For urban customers with high digital literacy and reliable connectivity, the evidence of improvement is genuine: reduced transaction processing times, improved fraud detection, and stronger perceived personalization are

documented (Okeke, 2025; Alaba, Ahmed and Farida, 2025; Aliyu and Iheonkhian, 2025). However, satisfaction with chatbot interactions drops sharply for complex queries (Okeke, 2025), and Mohammed and Okechukwu (2025) document specific cases of AI-driven service failure in emotionally weighted interactions, including automated fraud alerts that incorrectly blocked legitimate transactions during personal emergencies, with no accessible human escalation path. The KPMG (2025) survey corroborates this at scale: Resolution has remained the weakest customer experience pillar for five consecutive years, even as mobile banking weekly usage rose from 58% in 2024 to 69% in 2025.

For customers in rural areas or with lower digital literacy, the picture is considerably more problematic. Ekwe (2025) documents significant urban-rural disparities driven by network reliability, device availability, and digital competency, while Eyo-Udo et al. (2025) note that AI-driven services dependent on continuous connectivity are less reliable, and therefore less satisfying, than the human-staffed services they have partially replaced. Dewi and Vidyasari (2025) show that trust and perceived security moderate the relationship between digital service quality and satisfaction independently of objective service quality, meaning distrust of an institution can produce dissatisfaction even where AI performance is technically sound.

4.3 Challenges: Infrastructure, Literacy, Trust, and Governance

Five categories of challenge emerge from the reviewed literature. Infrastructure constraints, unreliable electricity, variable network coverage, and unequal device access, are the most consistently documented (Eyo-Udo et al., 2025; Oyetunji, 2024). Digital literacy gaps are analytically distinct from infrastructure and would persist even if infrastructure were equalized (Ekwe, 2025; Odufuwa et al., 2024). Trust deficits stem substantially from governance weakness: Alakitan and Makinde (2025) and Amaechi (2025) argue that Nigeria's AI governance framework lags significantly behind the pace of deployment, providing insufficient basis for the transparency and accountability that build customer trust. The erosion of human interaction is a fourth challenge that efficiency-focused analyses tend to underweight; Muhaizam and Sarah (2025) show the human touch is a measurable driver of trust and satisfaction, not a sentimental preference. Governance gaps constitute the fifth and most structurally significant issue, leaving customers harmed by automated decisions with limited recourse (Ozor, Nwobodo and Onwualu, 2025).

4.4 Contextual Factors Specific to Nigeria

Nigeria's geographical and socioeconomic diversity means 'the Nigerian customer' is not a meaningful single unit of analysis: the experience of an urban Lagos customer with fibre broadband differs structurally from that of a rural customer navigating USSD menus on a basic handset (Odufuwa et al., 2024). Nigeria's banking culture also places significant value on personal relationships and face-to-face interaction; Okeke (2025) documents that many customers experience branch visits and relationships with named account officers as intrinsically valuable, not merely as fallbacks. Regulatory underdevelopment and macroeconomic volatility add further pressure, disrupting the long-term planning horizons that effective AI strategy requires (Nguemo and Ekokotu, 2025).

DISCUSSION

The central finding of this study is that AI-driven digital transformation in Nigerian banking has delivered efficiency improvements that do not consistently translate into the customer experience improvements that build loyalty and trust. This is not a technological limitation likely to be resolved by the next product cycle; it reflects a structural feature of what banking means to people at the moments that matter most. From a Service-Dominant Logic perspective, this is coherent: value is co-created through interaction (Vargo and Lusch, 2016), and when AI replaces human interaction in ways that eliminate emotional responsiveness, it diminishes the quality of value co-creation rather than substituting one mode of value delivery for another.

Interpreted through the contextually extended TAM, the Nigerian evidence shows that infrastructure reliability, institutional trust, and digital competency mediate adoption and satisfaction in ways the original model does not capture. This has practical implications: banks relying on standard TAM to predict AI adoption in Nigeria will systematically overestimate uptake and underestimate the enabling conditions required for positive experience outcomes. Digital exclusion, in this light, is not merely an equity concern but a structural service failure with

direct commercial consequences, since customers who cannot engage with AI-driven platforms cannot participate in the value co-creation those platforms are designed to enable.

The evidence supports hybrid service models over full automation. Muhaizam and Sarah (2025) show that models combining AI for routine transactions with preserved, accessible human support for complex interactions produce better outcomes than fully automated alternatives, a finding Okeke (2025) corroborates and Kaondera, Chikazhe and Munyimi (2023) confirm in the comparable context of Zimbabwean commercial banks. The KPMG (2025) survey reaches an equivalent conclusion from 24,432 customer responses, noting that the institutions that will succeed are those applying AI judiciously alongside human judgement. This convergence between independent academic and large-scale practitioner evidence strengthens confidence that hybrid models are commercially, not merely academically, warranted.

CONCLUSION AND RECOMMENDATIONS

AI adoption across FUGAZ banks is real but uneven, and its impact on customer experience is conditional rather than universal: genuine for urban, digitally literate customers engaging in routine transactions, and considerably weaker, or actively negative, for customers in rural areas, those with lower digital literacy, and all customers in emotionally weighted interactions. Infrastructure, institutional trust, digital literacy, and governance quality, rather than AI capability itself, are the determinants of whether investment translates into genuine customer value, and a systematic benefits realization gap persists between what FUGAZ banks' AI systems have delivered technically and what customers have experienced in practice.

Five recommendations follow from this evidence. First, FUGAZ banks should implement hybrid service delivery with explicit, actively promoted human escalation pathways for interactions that are complex or emotionally weighted, with AI interfaces designed to recognize escalation triggers such as repeated loops or unresolved queries. Second, customer digital literacy investment should be treated as a precondition for AI investment rather than a downstream social responsibility initiative, through layered education programs differentiated by channel and literacy level. Third, banks should publish AI transparency reports and establish algorithmic redress mechanisms ahead of regulatory requirement, addressing the explicability gap identified by Floridi and Cows (2021). Fourth, AI solutions should be designed for Nigeria's infrastructure reality, including offline-capable options and robust USSD-based fallbacks. Fifth, FUGAZ banks should establish customer experience benefits realization frameworks that evaluate AI investment on outcome metrics across the full range of customer segments and interaction types, not on deployment metrics alone.

This study's conclusions rest on secondary evidence and are accordingly bounded: the lived, moment-to-moment texture of customer experience is not fully captured by published literature, and publication bias may underrepresent unsuccessful AI deployments. Future research should prioritize direct customer voice through interviews or longitudinal survey instruments, particularly among underserved segments, and comparative studies across African banking systems would help distinguish findings specific to Nigeria from those with broader regional applicability. The argument advanced here is not against AI in banking, but for using it more honestly: investing in the human and governance infrastructure that surrounds it, and measuring its success by whether the customers it was intended to serve are genuinely better off, not merely by whether it was deployed.

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