

Digital Transformation and Customer Satisfaction in the Nigeria Banking Industry: An empirical study of Guaranty Trust Bank's mobile banking users.

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Abstract

This research examined the impact of digital transformation on customer satisfaction in Nigeria's retail banking sector: A study of Guaranty Trust Bank's mobile banking. Thus, grounded in the technology acceptance model, the study adopted a descriptive cross-sectional research design with data gathered from GT Bank customers' in Yaba local development area in Lagos. The population for this study was made up of 1,808,986 research participants; however, the study sampled 450. Data collected were analyzed using descriptive and inferential (regression) statistic with the aid of the Statistical Package for Social Sciences (SPSS version 27.0). Finding of the study established that digital transformation significantly enhances the satisfaction level of the customers towards GT Bank's mobile banking. Overall results showed that perceived service quality, convenience, and customer trust collectively enhanced customer satisfaction, highlighting the importance of continuous improvements in service quality, convenience, and trust in driving positive customer experiences with mobile banking. It was recommended that GT Bank should improve ease of use by simplifying the user interface, strengthen security measures to protect user data, increase responsiveness to user inquiries and issues, improve convenience by speeding up transaction processing times and ultimately target younger customers as 63.4% of the respondents were between age 18 – 25.

Keywords: Convenience, customer satisfaction, customer trust, digital transformation, perceived service quality.

1. Introduction

There has been a global shift in the use and acceptance of technological innovations and digital technologies in the past decade with much of this digital transformation happening after the COVID-19 pandemic. Digital transformation, which involves the adoption of digital technologies in every area of a business, has led to a radical change in the service delivery of businesses and transformed how businesses operate. As businesses look to have a competitive edge over their rivals, they have had to be proactive in the delivery of services that perfectly capture the needs of consumers and in their reaction to changes in the external environment, thereby enabling them improve services and enjoy first-mover benefits (Matarazzo et al., 2021; Ho and Hsu, 2022).

Most organizations, including those in the banking industry, have undertaken several initiatives to exploit the benefits that can be derived from digital technologies such as Internet of Things (IoT), artificial intelligence (AI), the internet, and social media platforms such as Instagram, LinkedIn, X, and Whatsapp (Miguel, De-Pablos-Heredero, Montes, & Garcia, 2022). Samuel-Ogbu, (2022) captured this technological shift in his work, pointing out that the use of automated teller machines (ATM) increased from 375.5 million to 968.4 million while the number of those who use mobile banking jumped from roughly 2.3 million to 449.7 million from 2012 to 2020. This shift in the banking sector is the reason why emphasis must be laid on the effects of these digital initiatives on customer satisfaction.

Customer satisfaction (how a customer feels about a product or service after consuming it) is one of the key strategic goals that every organization must pay attention to if it wants to achieve more competitive advantage. Given the level of technological innovations adopted by banks in the last few years, it becomes important to measure the effectiveness of these innovations on customer satisfaction so as to tailor future digital innovations towards the satisfaction of specific customer needs and to improve upon current digital technologies that are not giving customers the required level of satisfaction (Solomon, 1996, as cited in Zouari & Abdelhedi, 2021). If organizations do not understand the effect of digital transformation initiatives on customer satisfaction, it may lead to the wastage of resources which could have been channeled towards other means.

Many scholars have studied the impact of digital technologies such as e-banking on customer satisfaction. Almansour and Elkrghli (2023) explored factors influencing customers satisfaction with e-banking services and the correlation between the adoption of e-banking and customers' satisfaction with financial services in Libyan banks. Gazi et al. (2021) studied the determinants of customer satisfaction in the banking sector of Bangladesh and analyzed how the dimensions of quality service such as tangibility, reliability, responsiveness, and empathy impacted customer satisfaction. Ugwuanyi, Uduji, and Oraedu (2021) examined customer experience with self-service technologies and its impact on customer satisfaction in the banking sector with evidence from Nigeria. They used perceived usefulness, perceived ease of use, and cognitive experience as customer experience dimensions.

However, it appears adequate attention has not been given to specific organizations in the Nigerian banking sector. On this background, this study aims to fill this gap by using variables such as convenience, perceived service quality, and customer trust to measure the impact of digital

transformation (GT Bank's mobile banking platform) on customer satisfaction in GT Bank, Nigeria.

2. Empirical and Theoretical Review

In the past two decades, businesses have taken advantage of the development of digital technologies to gain more competitive edge and a larger market share. Firms in the banking sector, including GT Bank, have also evolved. Joining the trend of digital transformation, they have been able to position themselves, adapt, and respond to rapid technological advancement with the adoption of online banking, mobile banking, point of sale (POS) services, and the use of automated teller machines (ATMs) (Hadjielias et al., 2021). Hence, many studies have investigated different digital transformation dimensions and their impacts on customer satisfaction.

Among these studies is Miguel, De-Pablos-Heredero, Montes, and Garcia (2022). They investigated the impact of dynamic capabilities on customer satisfaction, using digital transformation in the automobile sector. Utilizing a random sampling technique and applying a two-staged structural equation model, 42 questionnaires on 127 surveyed industries were collected from 2019 to 2020. The findings showed that a positive correlation existed between dynamic capabilities and customer satisfaction. Likewise, Almansour and Elkrghli (2023), in their study analyzed the factors influencing customer satisfaction with e-banking services in Libyan banks. A quantitative research approach with descriptive research design was utilized. Data collection was done using 215 online questionnaires distributed among e-banking users. The study found that perceived ease of use, perceived usefulness, customer attitude, and perceived credibility have a significant positive influence on customers' satisfaction with e-banking services.

In the same vein, Gazi et al. (2021) studied the determinants of customer satisfaction in the banking sector of Bangladesh. Using a pre-structured questionnaire, data was collected from 382 respondents, who were customers of 32 selected commercial banks in Bangladesh. Data analysis was done using descriptive statistical tools and OLS regression model. The study's result showed that quality of service was significantly influential on customer satisfaction. Ugwuanyi, Uduji, and Oraedu (2021) examined the impact of self-service technologies performance on customers' satisfaction in the Nigerian banking sector. 260 questionnaires were used for data collection with a purposive approach used for its distribution. Data analysis was carried out through a two-stage Partial Least Square Structural Equation Modelling (PLS-SEM) procedure and finetuned using the SmartPLS 2.0 software. The results depicted that perceived usefulness and perceived ease of use of banks' self-service technologies are strong indicators of customers' cognitive experience, thereby influencing customers' satisfaction.

Ho and Hsu (2022) studied customer experiences from using the mobile apps of convenience stores in Taiwan. Qualitative analysis and text analysis, using co-occurrence network and frequency analysis, were utilized to analyze data collected from 40,521 online reviews of two leading Taiwan convenience stores. Results from the study showed that the quality attributes of software programs are the most influential on customers' satisfaction with convenience stores' app. It also showed that other key factors that impact customer satisfaction are service and information quality. Based on the inconsistency in previous findings, this study examined the effect of digital transformation

(perceived service quality, convenience, and customer trust) on customer satisfaction while leveraging on technology acceptance model.

Technology acceptance model (TAM) is a theoretical framework used to describe how organizations, individuals, and customers adopt new technological innovations (Emma, 2025). It explains the level of acceptance of novel technologies using two important factors, namely, perceived ease of use and perceived usefulness (Emma, 2025). TAM offers insight to the attitude of technology users towards acceptance and use of a particular technological innovation. According to Kurniawan, Maulan, and Zusrony (2021), TAM has five dimensions, namely, attitude towards using, behavioural intention to use, perceived usefulness, actual system use, and perceived ease of use. Perceived usefulness refers to individuals' belief that the usage of specific technology would improve satisfaction while Perceived ease of use explains how easy or effortless it is for users to navigate new technology (Tian, Chan, Suki, and Kasim, 2023).

Relating this to the subject matter of this research work, TAM helps to explain how easy it is for customers of GT Bank to navigate the bank's mobile application when using it for activities such as buying airtime and making payments. The model also explains how the use of the GT Bank mobile app can enhance banking activities and help them accomplish their financial goals.

3. Materials and methods

Grounded in positivity philosophy, this study adopted descriptive cross-sectional survey method to gather data from customers of Guaranty Trust bank, Lagos State, Nigeria. The study sampled four hundred and fifty (450) customers selected from an estimated total population of 1,808,986 customers of Guaranty Trust bank (GTCO's annual report and NBS, 2023). In view of this, responses on the impact of digital transformation on customer satisfaction in the Nigerian retail banking sector were gauge with the aid of 5-point Likert scale structured questionnaire. The instrument demonstrated reliability with Cronbach alpha values ranging from 0.79 to 0.86 for elements of convenience of mobile banking, perceived service quality, customer trust and customer satisfaction.

4. Results

Four hundred and fifty (450) questionnaires were distributed to GT Bank customers in the Yaba Local Government area of Lagos State, Nigeria. Four hundred and twenty (420) were returned, representing a response rate of 93.3 percent. After scrutiny, three hundred and ninety-nine (399), representing 88.7 percent of the total questionnaires distributed, were found fit and valid for use in this research.

4.1. Socio-demographic profile of the respondents

Table 1: Demographic Characteristics

Category	Description	Frequency (N)	Percentage (%)
Age	18-25	253	63.4%
	26-35	70	17.5%
	36-45	42	10%
	46-55	24	6%
	56 and above	10	2.5%
	Total	399	100%
Gender	Male	158	39.6%
	Female	241	60.4%
	Total	399	100%
Occupation	Student	215	53.9%
	Employed	93	23.3%
	Self-Employed	61	15.3%
	Unemployed	20	5%
	Retired	10	2.5%
	Total	399	100%
Mobile Banking Channel used	ATM	195	48.9%
	Mobile Banking App	331	83%
	USSD	149	37.3%
	Internet Banking	95	23.8%
Frequency of using GTBank's Mobile Banking Platform	Daily	176	44.1%
	Weekly	128	32.1%
	Monthly	22	5.5%
	Rarely	73	18.3%
	Total	399	100%
Most frequent GT Bank feature used	Fund Transfer	327	82%
	Bill payment	123	30.8%
	Airtime Recharge	198	49.6%
	Account Balance Inquiry	118	29.6%
	None	3	0.8%
	Remita and Utility	2	0.5%

Source: Field Survey, 2024

Table 1 presents the demographic data of respondents in this study. First, the age distribution reveals that 63.4% of the respondents fall within the '18-25' year range. The '26-35' year age group represents 17.5%, while older age groups such as 36-45 (10.5%), 46-55 (6%), and 56 and above (2.5%) have a smaller representation. This suggests that younger generations dominate mobile banking usage, while older customers may face challenges such as digital literacy or trust issues that reduce their engagement with digital platforms.

The gender distribution shows that females (60.4%) are more likely to use GT Bank's mobile banking services compared to males (39.6%). This could indicate that women find greater value in the flexibility and convenience of mobile banking, potentially due to their need for efficient time management or other social factors. Understanding this gender-based preference can help the bank tailor its digital services to meet the needs of its female customers.

In terms of occupation, a large proportion of the respondents are students (53.9%), which correlates with the younger age demographic. This finding suggests that students, who may have fewer face-to-face banking needs, rely heavily on mobile banking for their financial transactions. Additionally, employed individuals (23.3%) and self-employed individuals (15.3%) represent important segments of the user base. These groups may require more advanced features related to business or salary-related transactions, and understanding their needs can help GT Bank optimize its digital services for professional users.

The data on mobile banking channels shows that the Mobile Banking App (83%) is the most popular method, indicating a strong preference for app-based services over other options. ATM usage (48.9%) and USSD (Unstructured Supplementary Service Data) (37.3%) are still significant, demonstrating that traditional digital channels remain relevant for certain customers. However, the lower usage of Internet Banking (23.8%) suggests that customers prefer the convenience of mobile apps over web-based platforms, likely due to the increased accessibility and better user experience on mobile devices.

The frequency of using GT Bank's mobile banking platform also sheds light on customer behaviour. Almost half of the respondents use the platform daily (44.1%), indicating high engagement and reliance on the service for routine banking tasks. Another 32.1% use it weekly, showing regular but less frequent interaction. The smaller percentages for monthly (5.5%) and rarely (18.3%) indicate that a minority of users may be less reliant on mobile banking, possibly due to fewer banking needs or a preference for in-person services.

Finally, the most frequent activities performed on the mobile banking platform include fund transfers (82%), which is the dominant use case. Other popular features include airtime recharge (49.6%) and bill payments (30.8%), reflecting the utility of the platform for everyday financial transactions. Account balance inquiries (29.6%) are also common but less frequent as users primarily engage with the platform for action-oriented tasks rather than simply monitoring their accounts.

4.2. Test of Hypothesis

The following are the research hypotheses for the study:

Hypothesis One

H₀: Perceived service quality of GT Bank's mobile banking platform does not significantly influence customer satisfaction.

The regression analysis for Hypothesis One (see Table 2) shows a moderate positive relationship between perceived service quality and customer satisfaction with GT Bank's mobile banking. The R-value of 0.458 and R² of 0.210 indicate that perceived service quality accounts for 21% of the variation in customer satisfaction. ANOVA results ($F = 105.410$, $p < 0.05$) confirm the model's

significance. The unstandardized coefficient ($B = 0.341$) suggests that a unit increase in service quality leads to a 0.341-unit increase in satisfaction. The Beta value of 0.458 and a significant t-value (10.267, $p = 0.000$) confirm the statistical significance of the relationship.

Table 2: Regression Analysis for Hypothesis One

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458 ^a	.210	.208	.54999
a. Predictors: (Constant), Perceived Service Quality				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.885	1	31.885	105.410	.000 ^b
	Residual	120.088	397	.302		
	Total	151.973	398			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), Perceived Service Quality						

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	.906	.077		.000
	Perceived Service Quality	.341	.033	.458	.000
a. Dependent Variable: Customer Satisfaction					

Hypothesis Two

H_0 : The convenience offered by GT Bank's mobile banking platform does not significantly impact customer satisfaction.

The regression analysis for Hypothesis Two in Table 3 revealed a strong positive relationship between convenience and customer satisfaction with GT Bank's mobile banking. The R-value of 0.592 and R^2 of 0.351 indicate that convenience explains 35.1% of the variation in customer satisfaction. The ANOVA results ($F = 214.420$, $p < 0.05$) confirm the model's significance. The coefficient analysis shows that a one-unit increase in convenience leads to a 0.518-unit increase in satisfaction, with a Beta of 0.592 and a significant t-value of 14.643 ($p = 0.000$). Thus, convenience significantly influences customer satisfaction.

Table 3: Regression Analysis for Hypothesis Two

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.592 ^a	.351	.349	.49856
a. Predictors: (Constant), Convenience				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.296	1	53.296	214.420	.000 ^b
	Residual	98.677	397	.249		
	Total	151.973	398			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), Convenience						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.655	.072		9.110	.000
	Convenience	.518	.035	.592	14.643	.000
a. Dependent Variable: Customer Satisfaction						

Hypothesis Three

H₀: Customer trust in GT Bank's mobile banking platform does not significantly affect their satisfaction levels.

The regression analysis for Hypothesis Three in Table 4 revealed a strong positive relationship between customer trust and satisfaction with GT Bank's mobile banking platform. An R-value of 0.622 and R² of 0.386 indicate that trust accounts for 38.6% of the variation in customer satisfaction. The ANOVA results (F = 250.008, p < 0.05) confirm the model's statistical significance. The unstandardized coefficient (B = 0.521) shows that a one-unit increase in trust leads to a 0.521-unit increase in satisfaction. The Beta value of 0.622 and a significant t-value (15.812, p = 0.000) highlight trust as a key driver of customer satisfaction.

Table 4: Regression Analysis for Hypothesis Three

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622 ^a	.386	.385	.48465
a. Predictors: (Constant), Customer Trust				

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	58.723	1	58.723	250.008	.000 ^b
	Residual	93.250	397	.235		
	Total	151.973	398			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), Customer Trust						

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.629	.069		9.180	.000
	Customer Trust	.521	.033	.622	15.812	.000
a. Dependent Variable: Customer Satisfaction						

6. Discussions and recommendations

The results of the analysis reflect that GT Bank's mobile banking application is the commonly used digital banking technology. This can be majorly related to its accessibility due to digitization, and this could be related to convenience as measured in the study. From the analysis, it is evident that perceived service quality determines the satisfaction levels of customers who use the mobile banking platform of GT Bank. This outcome agrees with a study by Adegioriola, Jimoh, and Oladele (2021) that established that service quality positively affects the satisfaction of customers.

The facility of mobile banking by GT Bank was also found in this study to have a significant effect on customer satisfaction. This is in line with the study of Adeniran and Ibieta (2018) which found that perceived convenience was a critical factor influencing satisfaction. The findings of the study also resonate with Premalatha and Sundaram (2013) that modern banking tend to motivate and satisfy customers due to the quick response as provided by digital technology. The strong R-squared value and significant coefficients in the analysis reinforce this connection and validate the conclusions drawn. Customer trust was another crucial factor investigated in this study, with results showing a significant positive effect on customer satisfaction.

In addition, the findings also align with that of Sisay (2021) which clearly demonstrated that there is a direct relationship between customer experience and trust. The results, which demonstrate a robust correlation between customer trust and satisfaction, confirm their assertion that trust plays a significant role in customer perceptions and satisfaction levels. Furthermore, the findings indicate that digital transformation has a noticeable and favourable effect on customer satisfaction. Based on the findings, the study recommends that GT Bank should improve ease of use by simplifying the user interface, conducting periodic usability tests, and thinking about more user-

friendly personalized features. Moreover, the firm should institute stronger security measures, invest in newer technologies, and educate customers on how to navigate the cyber world safely, helping to build confidence and reduce risks from digital transactions. Furthermore, the firm is encouraged to have open channels for customer service at all hours, conduct training of personnel who will man these services, and provide self-service options showing efficiency in attending to customer queries and gaining their trust. Finally, younger customers should be targeted when deploying new banking technologies, as the younger generation adopt technologies faster compared to the older counterpart.

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