



Received: 15-03-2022

Accepted: 25-04-2022

## International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

### Digital Transformation and Customers Satisfaction in the Banking Sector in Bayelsa State

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#### Abstract

The study looked at digital transformation and consumer satisfaction in the banking sector in Bayelsa State. Three research questions and one hypothesis directed the study. The researchers adopted a descriptive survey design. According to the 2006 census, the study's population was 1,704,515 people in Bayelsa State. An online questionnaire was used to collect data, and the number of persons who responded by filling out the questionnaire formed the sample of the study. Five hundred fifty-eight persons who filled the online questionnaire formed the study's sample size. Taro Yamane justified this, who recommended 400 samples from a population of 2,000,0000. The study's data was evaluated to determine the internal consistency of reliability, yielding Cronbach alpha values of 0.89 for Digital Transformation and 0.92 for Customer Satisfaction.

The questionnaire was deemed credible based on the coefficient obtained. The mean and standard deviation were calculated using Statistical Product and Service Solutions (SPSS) version 23, and Pearson's product-moment correlation coefficient was used to evaluate the hypothesis at 0.05 significant levels. The data found that ATMs were the most often utilized banking e-channels, and those bank clients were delighted with their use of these channels. According to the study, customers had good opinions of the impact of digital transformation on the banking business. There is a significant association between digital transformation and customer satisfaction in Bayelsa State, Nigeria's banking sector. The researchers concluded that banks should continue to provide e-banking services and improve their services to customers.

**Keywords:** Digital Transformation, Customers Satisfaction, Banking Sector, Bayelsa State

#### 1. Introduction

Every area of our lives, including banking, has been revolutionized by digital technologies. Internet technologies have unlocked new possibilities and more efficient electronic delivery channels to overcome the old banking system's time and location constraints. By permitting digital transactions and providing a platform for clients to access a much more excellent choice of monetary services, the Internet has brought banking to everyone's doorstep (Cagri, 2013) <sup>[8]</sup>. Banking operations have shifted away from "across the counter" transactions and toward transactions at the customers' fingertips as a result of the financial industry's global embrace of latest tech. This has allowed them to develop better, faster, and less expensive services, making them an increasingly critical element of institutions' and individuals' daily lives (Accenture, 2015) <sup>[3]</sup>.

The digital transformation employs technology and growth to effect gradual shift in core operations, operating models, and capabilities in order to provide customers with intelligent and engaging value (Boulmakoul & Khanboubi, 2019) <sup>[7]</sup>. Digitalization in the financial industry refers to the incorporation of digital technology into all aspects of banking in order to increase customer satisfaction (Efere, 2020) <sup>[10]</sup>. For banks to prosper and remain competitive in the digital era, digitalization has become a necessity. Internet banking transformation includes paper digitalization, cryptography for payments, e-learning, videoconferencing, online trading platforms, digital stores, e-statements, and contactless banking (Yip & Bocken, 2018) <sup>[23]</sup>. This integration substantially affects how financial institutions function and provide value to their clients. Digitalization serves multiple functions: it enables banks to offer innovative service lines through modern technological interfaces (e-banking, telebanking) and locations (e-branch shops, POS), while also cutting operating costs by decrease the quantity of retail locations and people they employ (Deng, Huang, Cheng, 2019, Shin & Choi, 2019) <sup>[9, 20]</sup>. To improve customer experience, the financial sector commits thrice more revenue in IT than any other sector (PRESSE BOX, 2020) <sup>[17]</sup>.

The Central Bank of Nigeria (CBN) established the electronic banking (e-banking) system and cashless policy in 2012 to keep

in touch with the worldwide trend and reform banking institutions in Nigeria in line with Vision 2020. Many banks in Nigeria adopted various types of electronic channels during this time, which serve as a faster means of transacting without clients having to go to the banks. The Automated Teller Machines (ATMs), Point of Sale (POS) terminals, Internet Banking, and Mobile Banking were the most regularly used e-channels (CBN, 2012). So, the Nigerian banking sector underwent significant changes as it transitioned from traditional banking to an e-banking service delivery system. By enabling novel financial services and products and making existing financial services available in alternative packages, e-banking has expanded the spectrum of services supplied by banks (Agbala, 2008).

The conversion of traditional banking to a digital environment is simply one part of digital revolution. It marks a fundamental change in the way financial institutions collect data, interact with, and service their customers. The term "customer satisfaction" is frequently used in marketing. It measures how successfully a firm's products or services surpass customers' requirements. (Ozuru, Choba, & Igwe, 2016) <sup>[16]</sup>. Client satisfaction may increase a company's client base, encourage the usage of a much more unpredictable customer mix, and raise the image of the business (Alabar, 2012) <sup>[6]</sup>. The impact of digital transformation in banking has occasioned the creation of digital banking channels that improve consumer access, make more services available, promote customer loyalty, and bring in new customers. Despite the advantages of e-banking, some users nevertheless face difficulties when using the service. Thus, only a few studies have looked into digital transformation and consumer fulfilment in Nigeria's banking sector. This study fills that need by experimentally assessing the influence of digital transformation on customer satisfaction in Bayelsa, Nigeria. Therefore, on this note, this study explored digital transformation and customer satisfaction in the banking sector in Bayelsa State, Nigeria.

### 1.2 Statement of the problem

The banking industry is implementing digital technology in response to market shifts and client demands. Its use has aided in the transformation of banking services, reducing costs, and the streamlining of operations. According to Worku, Tilahun, & Tafa (2016) <sup>[22]</sup>, digital technology in the banking sector is motivated by client pleasure. Despite the advantages of e-banking, some users nevertheless face difficulties when using the service. These include, among other things, incorrect account debiting, network outages, machine breakdowns, security issues, PIN problems, privacy issues, and numerous occurrences of account hacking.

Considering changing consumer preferences as well as the usage of technology in the delivery of financial services, it is critical to boost clients' trust in utilising digital services, lest their trust be eroded. Despite the numerous challenges, it is essential to determine whether clients are satisfied with Internet technology in the banking industry in Nigeria. This study looked at digital transformation and customer gratification in the banking industry in Bayelsa State, Nigeria, on this basis.

### 1.3 Objectives of the study

- The study's primary goal is to look into digital transformation and customer satisfaction in the banking industry in Bayelsa State, Nigeria. The following are

the precise goals:

- To ascertain the types of e-banking channels used by customers
- To assess the level of customers satisfaction with the usage of e-banking channels
- To examine the perceptions of customers on the impact of digital transformation in the banking industry

### 1.4 Research questions

The following questions led the study.

- What e-banking channels do users use?
- How satisfied are customers with their use of e-banking channels?
- What are customers' perceptions of the impact of digital transformation in the banking industry?

### 1.5 Hypothesis

- There is no significant relationship between digital transformation and customer satisfaction in the banking sector in Bayelsa State.

### 2.1 Theoretical framework

The ABCD framework and the structural model were utilized to develop the theoretical model for this study. Improving customer experience is one of the most compelling reasons businesses embrace digital transformation (Sahu & Mollah, 2018) <sup>[18]</sup>. It was discovered that a better customer experience could increase client happiness and loyalty (Nuri & Andi, 2018) <sup>[14]</sup>. Providing the services your target clients want is the key to sustaining customer gratification and devotion (Strieter *et al.*, 2006) <sup>[21]</sup>. Several factors impact the accomplishment of digital transformation for improving customer experience, including ease of use, service availability (Sahu & Mollah, 2018) <sup>[18]</sup>, and other factors such as the ease and efficiency of digital transformation's services. These elements are crucial in digital transformation to improve customer experience (Sahu & Mollah, 2018) <sup>[18]</sup>. Improving the quality of services provided to clients is among the essential things that might positively impact their experience. The following variables are used to describe service quality in this model: Simplicity refers to how customers can conduct banking transactions. Flexibility refers to the capacity to conduct banking transactions from any location. Time approach (speed): the shortest amount of time required to complete a banking transaction. Convenience: the number and quality of financial services available to consumers and the efficiency of these services in conducting banking transactions.

### 2.2 Literature review

There have been several studies on digital transformation and customer satisfaction. This section provides a summary of some of these investigations.

Salawu & Salawu (2007) <sup>[19]</sup> investigated Internet banking's emergence in Nigeria. The research assesses the practical benefits of e-business as an organizational tool and its ramifications for banking operations and consumer satisfaction procedures. Cross tabulations and Chi-square were used to evaluate the data. The findings directly link high levels of automation in financial services and improved service performance. The study concluded that bank managers should be educated about and use Internet technology in the banking processes. The nation must be

effectively linked to the international community afforded by the Internet for the banking sector to advance at a faster rate technologically.

Customers' satisfaction with service delivery via electronic banking channels was evaluated by Evbayiro-Osagie & Evbayiro (2017)<sup>[11]</sup>. Three hundred thirty electronic banking consumers were chosen as the sample and were analyzed with descriptive statistics. The data revealed that ATMs were the most widely utilized e-channels and that customers were satisfied with the services offered by these channels. Banks should devise methods for vigilantly monitoring e-banking transactions and successfully continuing to know your client's rules.

Iriobe & Akinyede (2017)<sup>[12]</sup> investigated the consequence of financial technology services on bank customer gratification in Nigeria. Explanatory and informal research designs were used. The study's participants were university students from Nigeria, with five universities chosen randomly. The primary data was gathered by sending 250 structured questionnaires to universities nationwide. The data was analyzed and presented using SPSS. The study's findings revealed that bank customer gratification is inspired by the accessibility of financial technology services, transaction costs, availability of technology services, operations of technology services and business, and lastly, ease and security. However, the worth of financial technology has a considerable beneficial impact on the gratification of bank customers. Furthermore, good financial technology services help satisfy and keep consumers, and continued contentment leads to a rise in bank revenue.

Agboola *et al.*, (2019)<sup>[4]</sup> investigated the impact of digitization on commercial bank achievements in Nigeria. Three hundred seventy non-managerial employees from a commercial bank were chosen for the study using a purposive sample approach and simple random selection. The questionnaire was the primary data collecting technique, and it was analyzed using SPSS version 25. The results revealed that there was a marginally strong positive significant association between the digitalization process and bank performance. Furthermore, in Nigeria, there is a strong correlation between product uniqueness and bank success. If digitalization techniques are correctly executed, they would significantly influence Nigerian commercial bank performance.

A study on digital transformation in financial services offering was undertaken by Abdulquadri *et al.*, (2021)<sup>[1]</sup>: A Nigerian perspective on chatbot adoption. Academics utilized the Search-Access-Test (S-A-T) model to determine how Nigerian banks utilize chatbots. According to the statistics, most Nigerian banks are currently using chatbots to boost client encounters and monetary presence. Perhaps the most viable service was WhatsApp. Female gender identity was frequently used to brand and present chatbots. Even though Nigeria is a diverse nation having English as its primary dialectal, none of the chatbots employed any of the Nigerian dialects.

Customer contentment in the internet age: evidence from Islamic banking, according to Zouari and Abdelhedi (2021)<sup>[24]</sup>. To the previous SERVQUAL model of five dimensions, two more dimensions, digitalization and compliance, have been added. In 2018, 145 Tunisian Islamic bank clients completed a self-administered questionnaire for the study. The effect of digitalization on customer satisfaction is estimated using factor and regression analysis. To explore

the impact of service quality on factor structure features, notably digitalization. The article illustrates an optimistic and substantial association between customer gratification and the primary characteristics of quality customer service. Customer experience and the influence of digital transformation in Palestinian banks were investigated by Abuhasan and Moreb (2021)<sup>[2]</sup>. The research questions were answered using a quantitative approach. According to the study, digitization has increased customer pleasure and devotion in the Palestinian financial sector by making banking faster and more efficient for clients and allowing them to complete financial operations anywhere and at any time. According to the report, banks should enhance interest rates by offering appealing features and special deals exclusively via electronic banking technology.

### 2.3 Methodology

The survey was conducted using a descriptive survey design. Bayelsa State had a population of 1,704,515 people, according to the 2006 census. An online questionnaire was used to collect the information, and the number of people who completed the questionnaire served as the study's sample. The study's sample size was 558 people who completed an online questionnaire. The questionnaire was sent to several online platforms in Bayelsa State, including Whatsapp and LinkedIn, used by students, teachers at various educational institutions, and other professionals. For research questions 2 and 3, a four-point Likert scale of 'Strongly Agree,' 'Agree,' 'Disagree,' and 'Strongly Disagree' response types was utilized. The study's data were analyzed to see whether there was any internal consistency of reliability, and Cronbach alpha values of 0.89 for Digital Transformation and 0.92 for Customer Satisfaction were found. The questionnaire was deemed credible based on the coefficient obtained. A mean answer of less than 2.5 was rated extremely poor for Survey Question 2. Mean response of 2.5 or more was considered very high.

Similarly, a mean response of less than 2.5 was classified as "negative perception," while a mean response of 2.5 or more was "positive perception." Statistical Product and Service Solutions (SPSS) version 23 calculated the mean and standard deviation. Pearson's product-moment correlation coefficient was utilized to test the hypothesis at 0.05 significant levels. The results are listed in the tables below.

KEY: SA= Strongly Agree; A=Agree; SD=Strongly Disagree; D=Disagree.

### Results

The study's findings are shown in the tables below, alongside clarifications.

### Demography

Table 1: Sex

Sex	Frequency	Percentage (%)
Male	206	37
Female	352	63
Total	286	100

According to Table 1, 352 (63%) of the responders were female, whereas 206 (37%) were male. This implies that the great majority of the study's respondents were female.

**Answering research questions**

This section examines the study's findings concerning the research questions posed. Tables 2-4 show the outcomes.

**Research question 1:** What is the e-banking channels used by customers?

**Table 2:** E-Banking channels used by customers

S.No	E-Banking Channels	Yes	No
1.	ATM	435 (78%)	123 (22%)
2.	Mobile banking	396 (71%)	162 (29%)
3.	POS	256 (46%)	302 (54%)

4.	Internet banking	234 (42%)	324 (58%)
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Table 2 reveals the type of e-channels used mainly by customers. From table 2, 435(78%) of the customers used Automated Teller Machine (ATM), 396(71%) used mobile banking, and 256 (46%) used Point of Sale (POS), while 234(42%) used Internet banking. This infers that the majority of the bank customers under study used ATMs.

**Research question 2:** What is the level of customer satisfaction with e-banking channels?

**Table 3:** Level of Customers Satisfaction with E-Banking Channels

S.No	Level of Satisfaction	SA	A	D	SD	Mean	SD	Remark
1.	The cost of e-channels services is satisfactory	390	135	33	-	3.6	0.59	Very Satisfied
2.	With e-channels, banks render consistent services to customers	309	189	60	-	3.4	0.68	Very Satisfied
3.	E-banking services are very efficient	336	138	57	27	3.4	0.85	Very Satisfied
4.	E-channels are very easy to use	309	189	60	-	3.4	0.68	Very Satisfied
5.	E-channels has reduced the waiting time and long queue in the banks	270	210	78	-	3.3	0.71	Very Satisfied
6.	E-channels transactions are fast	270	240	48	-	3.3	0.85	Very Satisfied
7.	E-channels information available to customers are easy to understand	318	120	63	57	3.3	1.01	Very Satisfied
8.	E-channels are situated close to customers	240	225	48	45	3.2	0.89	Very Satisfied
9.	I am delighted with the e-channels services	240	225	48	45	3.2	0.89	Very Satisfied
	Grand Mean					3.3	0.70	

Table 3 shows the level of customer satisfaction with the use of e-channels. The grand mean (3.3) is bigger than the criteria mean (2.5), indicating that respondents are pretty happy with the usage of e-banking channels.

**Research question 3:** What are customers' perceptions of the impact of digital transformation in the banking industry?

**Table 4:** Perceptions of Customers on the Impact of Digital Transformation in the Banking Industry

S.No	Perceptions of Customers	SA	A	D	SD	Mean	SD	Remark
1.	Digital transformation has saved me the stress and time of going to the bank	330	150	30	48	3.4	0.92	Positive Perception
2.	Digital transformation has promoted and improved the quality of banking services in Nigeria	336	138	57	27	3.4	0.85	Positive Perception
3.	Thanks to the digital revolution, banking activities may now be conducted at will.	270	210	78	-	3.3	0.71	Positive Perception
4.	Thanks to digital change, banking services are now available 24 hours a day, seven days a week.	240	225	48	-	3.2	0.89	Positive Perception
5.	Digital transformation has brought banking services closer to me	204	309	21	24	3.2	0.71	Positive Perception
6.	Digital transformation has increased the volume of my transactions	240	210	63	45	3.2	0.91	Positive Perception
	Grand Mean					3.3	0.83	

Table 4 depicts consumer perceptions of the effect of the technological revolution on the financial system. The grand mean (3.3) is more significant than the criteria mean (2.5), indicating that consumers have a favourable impression of the financial sector's impact on digital transformation.

**2.4 Hypothesis:** There is no significant relationship between digital transformation and customer satisfaction in the banking sector in Bayelsa State.

**Table 5:** Relationship between digital transformation and customer satisfaction

Variable	Mean	Standard Deviation	N	R	p-value	Remark
Digital Transformation	19.8	4.9	558	0.983	0.006	Significant
Customer Satisfaction	29.7	6.3				

$\alpha = 0.05$

Table 5 depicts the link between digital transformation and customer satisfaction in Bayelsa State's banking industry. The table reveals a p-value of 0.007 and a positive high correlation coefficient of 0.983. The p-value is smaller than the alpha value of 0.05 when testing the hypothesis at 0.05. This implies that the null hypothesis has been rejected. As a result, there is a significant correlation between digital

transformation and client satisfaction in Bayelsa State's banking business. The study's favourable relationship suggested that digitalization had a beneficial impact on consumer delight.

**2.5 Discussion**

The study looked at digital transformation and consumer

gratification in the banking sector in Bayelsa State. The ATM is the most commonly utilized banking e-channel. This could be attributed to the convenience of ATMs, which allow customers to do quick self-service activities such as deposits, cash withdrawals, bill payments, and account transfers. This data is consistent with Evbayiro-Osagie & Evbayiro (2017) <sup>[11]</sup>, who discovered that the ATM is the most often used e-banking channel among bank clients. According to research question two, bank consumers are pretty satisfied with the usage of e-banking channels. This is due to its capacity to give consumers fast, easy, convenient, and consistent services, as opposed to traditional banking services marked by long lines and delays, among other things. According to research question three, customers had positive perceptions of the impact of digitization in the banking sector. It improved service quality and offered users the freedom to perform bank transactions anywhere and anytime, which further increased client gratification and devotion. This finding is consistent with Abuhasan & Moreb's (2021) <sup>[12]</sup> finding that digitization has improved customer gratification in the Palestinian banking sector. Finally, the hypothesis test showed a substantial link between digital transformation and customer gratification in Bayelsa State's banking sector. The study's favourable relationship implied that digital transformation had a beneficial impact on consumer satisfaction. This is in line with Zouari & Abdelhedi's findings from 2021, which indicated a good and significant association between digital transformation and consumer happiness.

## 2.6 Conclusion and recommendations

The ATM was the most commonly used banking e-channel. Bank customers are delighted with the use of e-banking channels; customers have positive perceptions of the influence of digitization in the banking industry; and an essential link between digital transformation and customer gratification in the banking sector in Bayelsa State, Nigeria. Based on their findings, the researchers resolved that bank should continue to provide e-banking services and improve digital services to customers.

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