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Investigating the use of E- Banking activities during the Covid-19 pandemic in Nigeria

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Abstract

The coronavirus (COVID-19) was declared by the World Health Organization (WHO) as a global pandemic and required certain safety precautions. These included wearing of face masks, washing of hands, and keeping necessary social distances between people. It is observed that most individuals did not follow these safety measures. For instance, during the pandemic, people did not adhere to the safety precautions of wearing face masks and social distancing. Also noticed was the large crowd at every bank branch, hence the question, why did people engage in physical banking amidst the deadly pandemic. Therefore, this research seeks to study the customer perception of Electronic Banking (E–banking) activities during the covid-19 era. The study focuses on five bank branches within the Ilorin metropolis. Data was obtained using structured questionnaires which was administered to sampled respondents, and analysis was done using Statistical Package for Social Sciences (SPSS). The results of the analyses showed that bank customers are aware that Covid-19 can be contracted from going to the bank to queue among the crowd. However, they had no choice due to constraints to the use of E-banking services. This study provided recommendations toward solving the challenges discovered to adequately safeguard both the system operators and the general public while using E-banking systems and services.

Keywords: Electronic Banking, Covid-19, Pandemic, Nigeria, FinTech.

INTRODUCTION

It is no news that Information and Communication Technology (ICT) has a major influence on the society, and that society is becoming hooked on technology. ICT can be defined as any device that allows the exchange or gathering of information through interaction or transmission. It includes anything from radio to satellite imagery to mobile phones and electronic money transfers (World Bank, 2011). Ukwuoma (2019) also defined ICT as a method of electronically getting, storing and sharing information needed for communication.

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The use of ICT has changed banking service activities such as opening of bank accounts, maintenance, and transaction processing (Syed, 2018). The banking industry uses ICT products such as automated teller machines, smart cards, internet banking, electronic funds transfer, electronic data interchange for banking activities.

The latest developments in recent digital times have enforced financial institutions to accept technology as a medium for constant growth in its operations. This has contributed to the emergence of Financial Technology (FinTech) field (Tut, 2023). As a result, banks should incorporate ICT into her business operations to stay relevant and competitive in a highly competitive market. This will further improve the performance of customer services, and managerial decision-making within the banking sector.

Globally, and Nigeria in particular, an increased need for ICT in the banking sector became inevitable and necessary. Invariably, ICT-driven financial systems and services are the way of the future. Ahn and Davis (2020) stated in his annual report that, Banks have begun to introduce technology-based banking products and services such as Automated Teller Machines (ATMs), and internet banking.

Furthermore, the expansion of ICT, has created tons of business opportunities, and the speed of managing financial transactions have increased tremendously. If properly carried out, the use of ICT improves optimum efficiency in commission delivery. However, the planning should be supported by a clear understanding of the service should be calculated, for optimum usage of the facilities to be accomplished. The customer service rate, traffic intensity, and therefore the total number of customers within the queue are included during this calculation. All these helps to form decisions at the level at which ICT are often applied for optimal performance in banking operations (Ahn & Davis, 2020).

The world experienced COVID-19 pandemic and has caused about 757,264,511 cases of infection and 6,850,594 cumulative deaths globally (Theiri & Alareeni, 2021; WHO.IN, 2020). This statistic indicates that proper safety measure rules and guidelines must be properly followed. However, during the peak of the pandemic period, it was observed that banks were still overcrowded with people and proper safety measures like the social distancing was not followed.

A number of research studies have been conducted in light of the use of technology in the banking industry different activities in many developing countries. For instance, Tut (2023) studied the impact of Covid-19 on the acceptance and use of e-payment and other FinTech technologies in Kenya, Verma and Tanwar (2022) also examine the impact of Covid-19 on e-banking activities in India before, during and after the Pandemic. Therefore, this study identifies the need to investigate the reason why people engaged in physical banking during the pandemic amidst the risk, and also taking into consideration the opportunity to transact banking activities via ICT. The study provides information on the types of E-banking activities that can be utilized in making bank transactions such that people don't need to visit the bank. Also, the different related works on E-banking activities, and banking activities during the pandemic are also studied. Issues associated with people engaging in E-banking activities are investigated and solutions are proffered. The following is a summary of our contribution:

- We assess customer knowledge on self-service in E-banking during the peak of the Covid-19 pandemic.

- We investigate the use, impact, and efficiency of E-banking features during the Covid-19 pandemic.

- We investigate the challenges of utilizing E-banking activities during the Covid-19 era, and proffer solutions.

ICT has an impact on every aspect of modern banking as it is an important part in daily banking tasks (Rahi, Alghizzawi, & Ngah, 2022). A number of research studies have been conducted in light of the use of technology in the banking industry different activities.

Tut (2023) studied the impact of COVID -19 pandemic on the acceptance of electronic payments and other financial technology (FinTech) platforms in Kenya. Specifically, the author postulated two hypotheses stating that COVID-19 encouraged the adoption of E-banking services in Kenya, and that the emergence of COVID-19 led to significant reduction in the use of electronic payment card system in Kenya. Based on the analysis of the aggregated data collected from relevant institutions, it was revealed that COVID-19 actually brought about a significant adoption of electronic banking such as mobile banking in Kenya. The result also supports the second hypothesis as it shows that most customers shifted from electronic payment card system to mobile banking system. He suggested that Africa and other developing countries should invest more heavily in FinTech solutions to cushion the effect of the pandemic.

In a research conducted by Verma and Tanwar (2022) to confirm the impact of COVID-19 on E-banking in India, authors examined the impact before, during and after the emergence of COVID-19. They found that there exists an increase in the use of E-banking systems during the pandemic. However, there was a little drop in the use of E-banking after the peak period of the pandemic. Their result also revealed some customers do encountered issues while engaging with some of the E-banking platforms. In addition, of all the factors considered to be responsible for the use of E-banking platforms during the three phases of pandemic, safety and security are the major significant influence according to majority of E-banking users during the COVID-19 (phase II). Indrasari, Nadjmie and Endri (2022) investigated the factors responsible for the satisfaction use of E-banking users during COVID-19 pandemic. The survey of 110 E-banking users revealed that the loyalty and satisfaction of E-banking users are determined by the E-banking service quality, design of the application and website, as well as the reliability of E-banking services. It further illustrated that privacy and security influences only user loyalty, not user satisfaction, while customer service and assistance do not affect both E-banking users' satisfaction and loyalty.

In Isibor et al, (2018), authors focused on customer satisfaction as well as economic growth in the banking sector. The hypotheses were tested using a statistical parametric test called the Pair Sample T-test, which was performed using the SPSS statistical software. The analysis disproves both null hypotheses, implying that technology-based banking has enhanced consumer fulfilment while also causing economic growth in Nigeria. They suggested that suitable legislation be enacted in all areas of E-banking so that both the system's operators and the general public are adequately safeguarded. Additionally, banks should make E-banking services free to encourage their consumers utilize them. Their study is similar to this research work because both are concerned with bank customers, however, theirs is concentrated on their satisfaction on economic growth while ours focus on customers perception during covid-19.

Oyinkola (2018) conducted a study on the impact of ICT on banking operations in the First Bank of Nigeria PLC. They utilized the primary data, and the study tools were questionnaires and personal interviews with bank employees and customers. Simple frequency percentage was the statistical method utilized and the hypothesis was confirmed using Chi-square. The findings showed that ICT has enanced the effectiveness of Nigerian commercial banks and customer satisfaction. The study further recommends that the government assists local IT enterprises as a form of encouragement on importation of IT equipment.

Nwakoby (2018) also did research, which looked at the impact of ICT on deposit money bank performance in Nigeria from 2006 to 2015. The findings reveal that the use of various kinds of ICT has a significant impact on the quality of banking processes, performance, and, in particular, the return on equity of banks. According to the study, investing in ICT should be a key component of a bank's overall strategy because it will help Nigerian banks become more efficient, profitable, and competitive. The study found that ICT has made it easier to pay for products and services, as well as any other type of transaction, through self-service facilities where potential customers may complete bank account opening forms immediately. Customers have been helped on verifying account numbers and receive instructions on when to obtain checkbooks and other banking materials.

Adeku (2020) conducted a study based on prospect theory to determine the risk orientation of Nigerian banks in terms of how they adopt technology and reasoned action theory to understand bank customers' intentions in taking advantage of E-banking prospects. The results of the survey show that people are heading toward the use of electronic banking transactions. And that technology has enhanced bank services.

The research work by Kenneth, Obiora and Jennifer (2021) determined whether ICT improves deposit in banks and if it is necessary for economic growth from the first quarter of 2016 to the fourth quarter of 2019. The study concluded that banks should guarantee consistent accessibility of funds in their ATMs, and should provide quick responses to client inquiries stemming from ATM malfunctions in terms of cash dispensing.

RESEARCH METHODOLOGY

Research design and sampling technique

This study employed survey research method as its approach. The method was considered suitable for this study because it uses a representative sample of the entire population and it is seen as having the highest level of dependence by the researcher to get useful and relevant information and to describe facts suitable for this study. The data was collected through the use of open-ended and close-ended questionnaires, where respondents were asked questions that led to achieving the research objectives of this study. Descriptive analyses were done using relevant percentages, as reflected in the tables and charts.

Sample population

The study's total population consists of 10,000 average number customers who visit all the bank branches every day. Although it is technically possible to use the complete population of the study, it may not be the best option given the vast number of people involved and the cost in terms of time and resources. As a result, we employed a population sample for the study.

Sampling procedure and Sampling selection

The sampling size for this study comprises of 385 respondents from a population of 10,000 customers of three commercial bank customers in Ilorin Metropolis. This figure was determined using the Taro Yamane's formula as cited in Adam (2020) as given thus:

$$n = \frac{N}{1 + N\varepsilon\, 2}$$

Where n= minimum returned sample size
N = the population size
ε = margin of error

RESULTS AND DISCUSSION

Demographic Data of Respondents

a) Educational level of Respondents

Table 1 shows the educational level of the respondents in their various disciplines. Most of the respondents are HND/BSc holders, this represents 50.1% of the total respondents. This is followed by ND/NCE, SSCE, MSC, JSCE, and Ph.D. with 23.6%, 19%, 4.9%, 1.8%, and 0.5% of the respondents respectively. This means that most of the customers that usually visit the banks based on our study are HND/BSc holders.

b) Familiarity of respondents with E-Banking Tools

This has been grouped into Automated Teller Machine (ATM), Point of Service (POS), Mobile Banking (MB), and Unstructured Supplementary Service Data (USSD). Table 2 - 5 display the familiarity of the respondents to different E-banking tools offered in Nigerian commercial banks.

Table 1: Educational Level of Respondents

Educational Level	Frequency	Percent	Valid Percent	Cumulative Percent
JSCE	7	1.8	1.8	1.8
SSCE	73	19.0	19.0	20.8
ND/NCE	91	23.6	23.6	44.4
HND/BSc	193	50.1	50.1	94.5
MSc	19	4.9	4.9	99.5
Phd	2	.5	.5	100.0
Total	**385**	**100.0**	**100.0**	

Table 2: Customer Familiarity with ATM

Familiarity	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	258	67.0	67.0	67.0
No	127	33.0	33.0	100.0
Total	**385**	**100.0**	**100.0**	

Table 3: Customer Familiarity with MB

Familiarity	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	227	59.0	59.0	59.0
No	158	41.0	41.0	100.0
Total	**385**	**100.0**	**100.0**	

Table 4: Customer Familiarity with POS

Familiarity	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	162	42.1	42.1	42.1
No	223	57.9	57.9	100.0
Total	**385**	**100.0**	**100.0**	

Table 5: Customer Familiarity with USSD

Familiarity	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	148	38.4	38.4	38.4
No	237	61.6	61.6	100.0
Total	**385**	**100.0**	**100.0**	

Out of the total 385 respondents asked on the familiarity of the four E-banking tools, 258 customers are familiar with ATM, 227 customers are familiar with Mobile Banking, 162 customers are familiar with POS and 148 customers are familiar with USSD. This means that most bank users are familiar with all the E-banking tools. However, they are more familiar with the ATMs.

c) Most preferred banking mode

Figure 1 shows that majority of bank customer preferred mobile banking mode of transaction. This was demonstrated by the result showing that 49.35% of respondents preferred mobile banking to other forms. This result was followed by ATM, POS, and USSD recording 18.44%, 13.77%, and 11.95% respectively. Figure 1 also shows that only a few numbers of bank customers representing 6.49%, preferred visiting banks for their transactions.

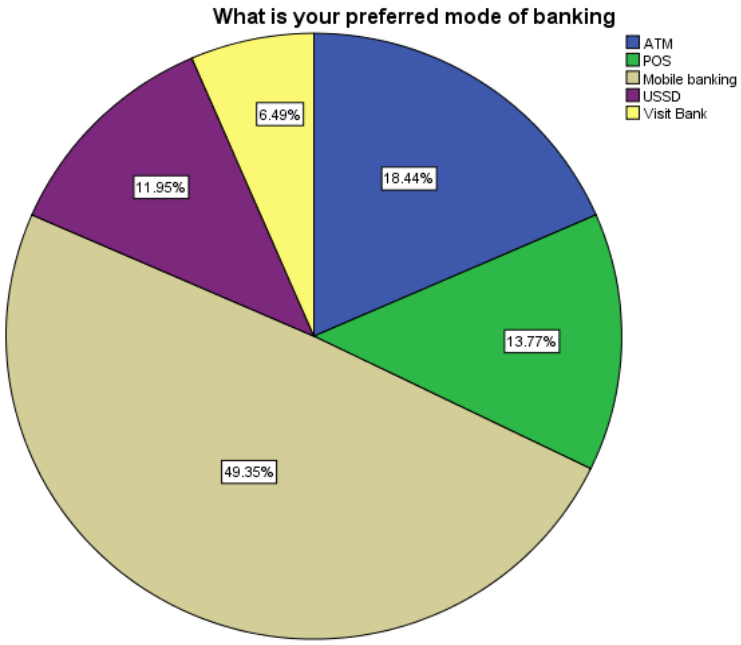

Figure 1: Most Preferred Banking Mode by Customers

d) How often do you go to the Bank to perform transactions?
Here we intend to observe if bank customers visit the bank to make transactions or not as shown in figure 2. Figure 2 shows that 53.4% of the customer in this study, go to the bank occasionally, 21.6% go to the bank sometimes, 13.8% (53) never visits banks, 7% often visit the bank, and 4.2% always visit the bank.

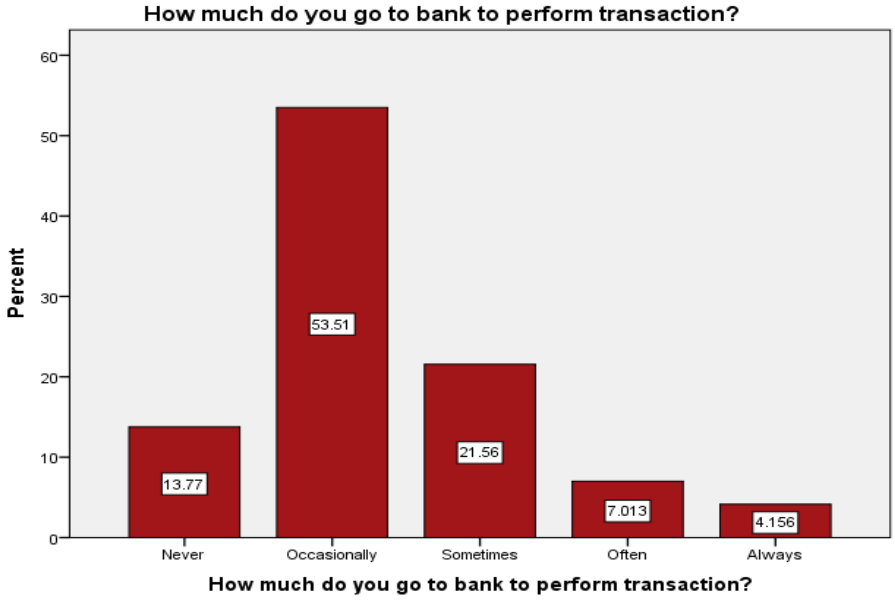

Figure 2: Visitation to Bank for Transaction

e) Customer care attends to transaction complaints via email
Table 6 shows that 128 respondents making up 33.2% of respondents are aware that bank transaction complaints can be attended to by customer care via email. Also, 230 respondents i.e. 59.7% of the total respondents are not aware that bank transaction complaints can be attended to by customer care via email. This implies that the majority of bank customers do not know that customer care can attend to their complaints via email, and shows some of the reasons why bank users insist on visiting the bank to carry put complaints or bank transactions.

Table 6: Awareness of Customer Care via Email
Do you know that customer care attends to customer complaints through email

Awareness	Frequency	Percent	Valid Percent	Cumulative Percent
yes	128	33.2	33.2	33.2
Not sure	27	7.0	7.0	40.3
No	230	59.7	59.7	100.0
Total	**385**	**100.0**	**100.0**	

Furthermore, we intend to seek if there is any relationship between the level of education of respondents and awareness of customer care via email as shown using the Chi square analysis in Table 7.

Table 7: Chi square Test of customer care attending to mail and educational level
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.355[a]	10	.594
Likelihood Ratio	8.993	10	.533
Linear-by-Linear Association	1.108	1	.293
No. of Valid Cases	**385**		

The result indicates that there is no significant relationship between the knowledge that customer care can attend to their complaints via email and their educational level. This is because the p-value (0.594) is greater than the 0.05 level of significance.

f) Awareness of Covid-19 spread in the bank

As shown in Table 8, 373 (96.9 %) of the respondent are aware that covid-19 can be contracted in the bank, while 12 (3.1%) disagreed that they are not aware that covid-19 can be contracted in the bank. This implies that the majority of bank customers are aware that covid-19 can be contracted in the bank and still take health risks to go to the bank to queue among the crowd of people.

g) Secured with physical bank transaction as compared to E-banking services.

The result shown in Table 9, show that 196 (50.9 %) of the respondent feel safe when transacting in the bank, rather than using e-platforms, 88 (22.9 %) does not feel safe when transacting in the bank, rather than using e-platforms, and 101 (26.2 %) are not sure if they feel safe when transacting in the bank, rather than using E-platforms. This implies that only half of the respondents feel safe using E-banking services, a percentage of the other half does feel safe, while the other percentage is not sure of their safety in carrying out transactions in the bank.

Table 8: Awareness of Covid-19 Contraction in the Bank
Are you aware covid-19 can be contracted in the bank?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	373	96.9	96.9	96.9
	No	12	3.1	3.1	100.0
	Total	385	100.0	100.0	

Table 9: Secured with physical bank transaction

I feel safe when transacting in the bank, rather than using e-platforms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	196	50.9	50.9	50.9
	Not sure	101	26.2	26.2	77.1
	No	88	22.9	22.9	100.0
	Total	385	100.0	100.0	

h) Fear of Cybercrime limits the use of E-banking services.

As shown in Figure 3, 50.91 % of the respondents said the fear of cybercriminals is the reason they prefer to do transactions in the bank, 21.30 % disagreed with the statement, and 27.79% are not sure if the fear of cybercriminals is why they prefer to do transactions in the bank.

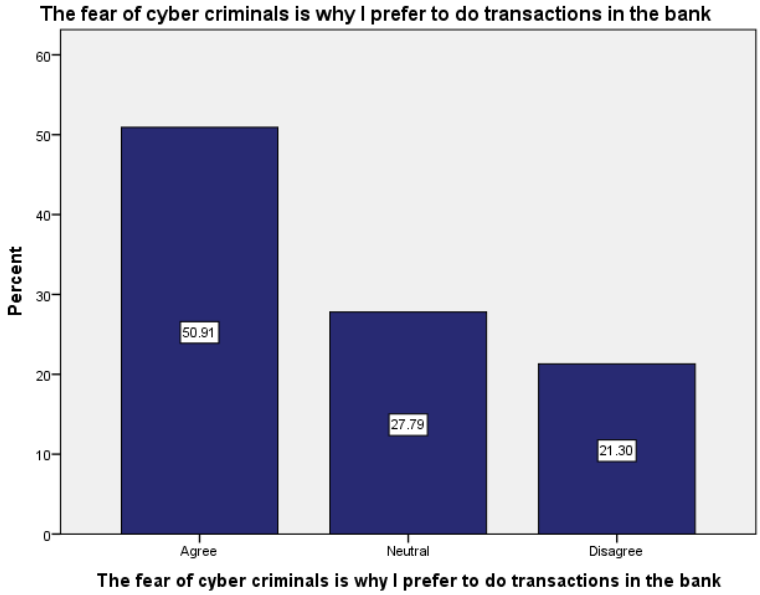

Figure 3: Why customers prefer to do transaction in banks

This implies that many customers prefer to carry out their transactions in banks because of the fear of cybercrime.

i) Lack of access to internet and smartphones limits use of E-banking services

As shown in Figure 4, 142 respondents (36.9%) said the reason they don't utilize E-banking is as a result of no access to smartphones and the internet. 144 respondents (37.4%) disagreed with the statement, and 99 respondents (25.7%) are not sure if lack of access to smartphone and internet is why they don't use E-banking. This depicts that customers are unable to utilize E-banking services due to lack of access to a smartphone and the internet.

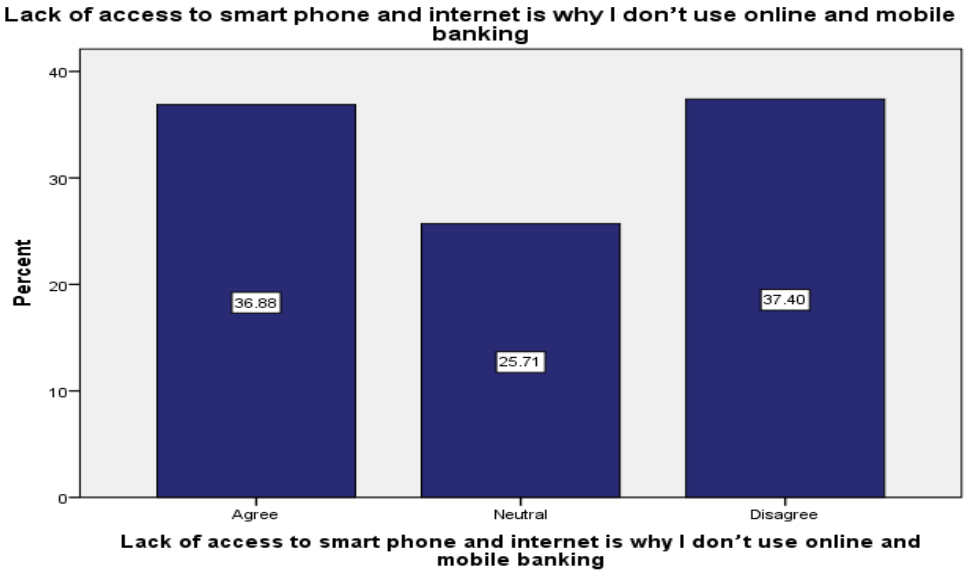

Figure 4: Lack of access to internet and smartphones limits use of E-banking services.

j) Difficulty navigating through E-banking Platforms

Figure 5 shows that 142 (36.9 %) of the respondent said that they find it hard to navigate through E-banking platforms, such as USSD, Mobile applications and online purchases, 170 (44.2 %) said that they do not find it hard to navigate through E-banking platforms, such as USSD, Mobile applications, and online purchases, and 73 (19 %) are not sure they find it hard to navigate through E-banking platforms, such as USSD, Mobile applications, and online purchases. This result means that majority of the respondents do not find it difficulty navigating through the E-banking platforms. However, for the fact that quiet a number of bank customers (36.9%) still find it difficult to navigate through the E-banking platform means that more efforts need to be done on various platforms to make it more accessible and easier to navigate. This will encourage more customers digital or E-banking inclusiveness and further promote digital transformation.

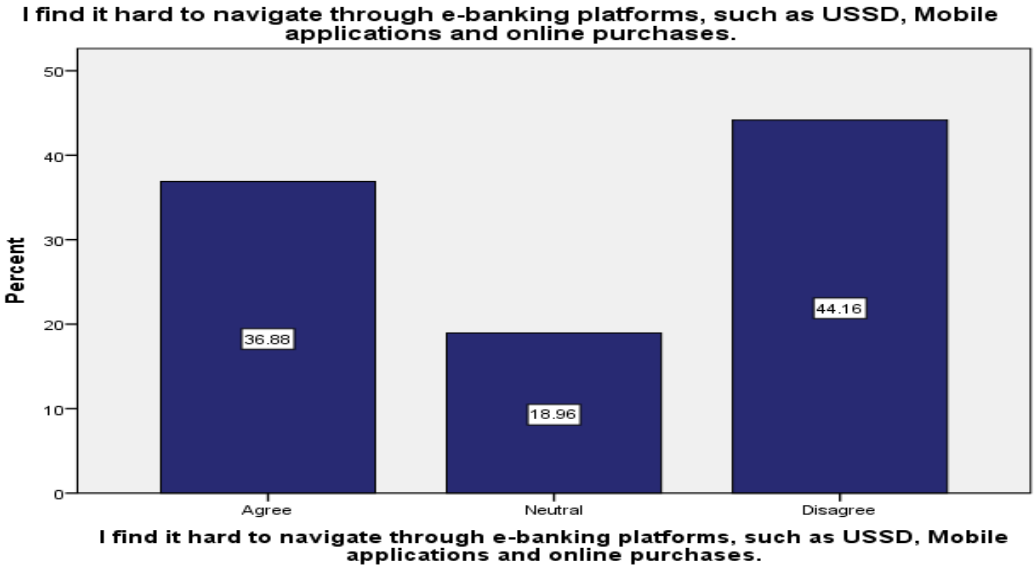

Figure 5: Difficulty navigating through E-banking Platforms

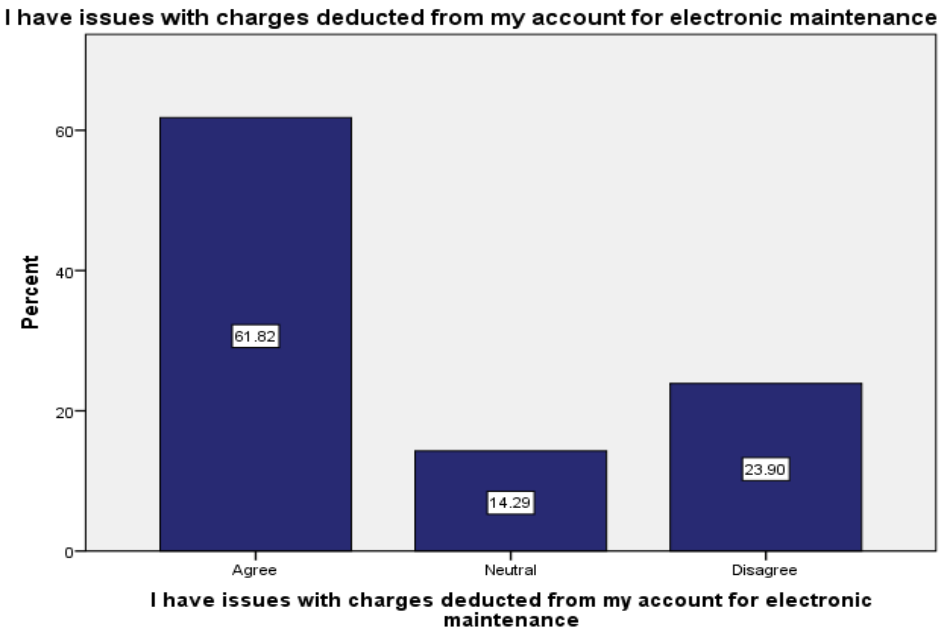

Figure 6: Deduction of charges limits use of E-banking services.

k) Deduction of charges limits use of E-banking services.

Figure 6 shows that 238 respondents (61.8 %) have issues with charges deducted from their bank account for electronic maintenance, 92 respondents (23.9 %) does not have issues with charges deducted from their bank account for electronic maintenance, and 55 (14.3 %) are not sure if they have issues with charges deducted from their account for electronic maintenance. This implies that bank customers are actually bothered about charges that the bank deducts for their account maintenance and other charges, while a second larger ratio does are not bothered that bank deduct charges from their bank account. This further shows why respondents prefer to visit the banks for bank transaction rather than utilizing E-banking services.

l) Comparing the results of findings with some findings from the literature

Table 10 discusses and compared the findings of the work with others in the literature.

Table 10. Comparing Researches on E- banking activities

Authors	Research Concern	Comparison with the proposed study
Tut (2023)	Impact of COVID-19 on Customer adaption of E-banking	This work is related to present work because they both assess the influence of COVID-19 on Customer use of E-banking system. However, our work is different in the sense that it also assessed the perception of customers on E-banking platforms during the pandemic.
Verma & Tanwar (2022)	Impact of COVID-19 on Customer use of E-banking before, during and after COVID-19 pandemic	This work is similar to our work, but ours mainly focus on assessing the perception of electronic banking platform users during the COVID-19. That is, assessing customer's knowledge about E-banking platforms and services, determine their usage and satisfaction, and identify some of the challenges hindering smooth navigation or use of the various E-banking platforms and features.
Indrasari, Nadjmie & Endri (2022)	Factors that determine the satisfaction and loyalty of E-banking users during COVID-19	This work is similarly to our work because it also focuses on E-banking customers during COVID-19. Nevertheless, its main focus was to identify the determinants for customer satisfaction and loyalty.
Isibor et al, (2018)	Customer satisfaction as well as economic growth:	The study is much related to this project work because both works are concerned with bank customers, however, the former is concentrated on their satisfaction and economic growth while the present focus is on customers' perception during covid-19.
Oyinkola (2018)	Banking operation	Both studies differ in that while the present project work concentrates on customers' perception towards ICT, the former study concentrates on the significance of ICT and its use for banking activities at the Tertiary level of education.
Nwakoby, Charity & Ofobruku (2018)	Bank performance	The studies both differ in that while the present project work concentrates on customers, the former study concentrates on the bank itself.
Adeku (2020)	Customers intentions	This study is related to this project work in that both works are concerned about bank customers perception on the use of e-banking, the former looked at risk orientation, using secondary data from CBN and NDIC while the present project work is limited to primary data from bank customers in Ilorin, and also, the present study is focusing on customer perceptions during the covid-19

CONCLUSION

This study investigated customer perception of ICT use in banking activities during the COVID-19 pandemic. It studied the behavioral responses of bank users on the use of E-banking systems, their perception and preference for the traditional banking service knowing the risk and dangers involved in mixing with crowd that makes them open to COVID-19 disease. The study assessed customer knowledge about self-service in E-banking, it also investigated the usage, impact, and efficiency of E-banking features during the Covid-19 pandemic. Furthermore, it checked out the degree of acceptance of E-banking platforms by bank users, and importantly it looked at the challenges of E-banking during the covid-19 pandemic. To achieve these objectives, the research questions were subjected to customer perception of the use of ICT for banking activities during the Covid-19. The analysis of uses' responses revealed that most bank customers are aware that Covid-19 can be contracted from going to the bank to queue among the crowd, and they are aware of the risk involved, but still go to the bank. Many customers are also aware of the various E-banking tools that are provided by the bank, even though a few percentages still prefer to go bank other than using those e-banking tools. Majority of respondents are not aware that banks attend to their

customer complaints via email, but the other minority are aware and some are not sure, this could be as a result of the late response of mail requests, mostly within 24 hours.
Moreso, the study showed that most customers do not visit the bank for transactions, as they prefer to use E-banking services. Also, many of bank customers does not feel safe using E-banking services because they are not certain of the security E-banking platform provides for their money. The study also reveals that lack of access to a smartphone and the internet is also a challenge for people who use E-banking services, and a high percentage find it hard to navigate through E-banking platforms. A very high percentage of bank customers, do not like that they are being charged for electronic maintenance and other services.

Consequently, this study recommends that continuous awareness on various E-banking services and platforms be created to customers to increase user acceptability of the services. Similarly, some of the charges that usually lead to over deduction or undue deduction of charges as a result of using E-banking platforms should be reviewed to encourage more use. More importantly, the E-banking platforms need to be enhanced to improve usability and accessibility of the services. This will allow users to have seamless experience when navigating through the platforms.

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