



## AN INVESTIGATION INTO THE CHALLENGES FACED BY USERS OF ELECTRONIC PAYMENT PLATFORMS OF NIGERIAN BANKS IN RIVERS STATE, NIGERIA

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### Abstract:

This study investigates the challenges faced by users of electronic payment platforms of Nigerian banks in Rivers State, Nigeria. Four specific purposes and four research questions were posed to guide the study. The study adopted descriptive survey research using quantitative approach. Structured questionnaire was used for data collection. The questionnaire was validated by an expert of measurement and evaluation from Federal College of Education (Tech.), Omoku and a marketer from Ecobank Nig, Bayelsa branch. Cronbach alpha was used to obtain a reliability index of 0.86 for the instrument. Data collected were analysed using mean and standard deviation. The findings revealed that challenges faced by users of ATM machines for e-payment are poor network, waiting time on ATM queues, lack of provision of slips with updated balance after ATM transaction, insufficient number of ATM machines within banks, poor working conditions of available ATM machines within banks, and delay in reversal of ATM error transactions. The results also revealed that challenges faced using POS for e-payments are misused of personal information at POS terminals, prolonged period of reversing wrong or failed transactions, and malfunctioning of POS machines. The results also revealed that poor customer's information protection, unsecured internet transaction, difficulty of generating tokens, time spent on web page response, poor handling of internet banking complains by customer's service unit lack of physical back-ups for internet transaction, poor access to internet service, and poor bank's web content are challenges faced using internet banking for e-payments in Rivers State. The study also revealed that challenges faced using mobile banking apps for e-payment in Rivers State are poor quality of mobile banking apps, consistent update of mobile banking apps, payment limits on USSD and mobile banking apps, vulnerability of mobile banking transaction to activities of fraudsters, mobile phone virus, difficulty of navigation of mobile banking app's content and bureaucratic process of resolving wrong transactions.

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Based on the findings, it was recommended among others that Banks in Rivers State should champion the provision of good smartphones, computers and original antivirus in collaboration with tech companies to their customers at subsidize rate with a flexible repayment policy.

**Keywords:** technology, automated teller machine, point of sales, internet banking, mobile banking apps

## 1. Introduction

The introduction of communication networks and other technologies such as the internet, computer, mobile phones and smart technologies into the world of work and personal life has significantly affected the ways works are done. This is because these technological devices have helped to eliminate the barriers of place and of time in communication among other things (Njamanze, 2011) and are offering the possibility of real time remote communication between clients and their organizations. Consequently, to enjoy the benefits of the capabilities of these technological devices virtually all service industries around the world have adopted and integrated them into their everyday routines in order to effectively and efficiently deliver their products/services to existing and potential clients as well as facilitate growth (Valarmathi, Oshin & Bhat, 2017).

One service industry that has experienced upsurge in the adoption, integration and utilization of technological devices is the banking sector. Products/services of the banking sectors across the world and in Nigeria to be specific are now technologically driven. Bank services such as payment services, balance enquiry, mini statement of account, account opening, cheque book request and others are now being enjoyed by customers through electronic platforms. Supporting this fact, Elisha (2010) asserted that access to automated technological devices by both customers and banks have revolutionized the ways bank's products/services are being processed, packaged, delivered and consumed around the world. In same vein, Kelly and Palaniappan (2019) opined that the availability and accessibility to self-service technologies such as mobile phone and automated teller machines driven by internet connectivity has made it possible for the banking industry to deploy instant financial solutions like electronic payments, electronic balance checking, and electronic transfer of money to customers. The utilization of electronic platforms by banks and their customers to access and utilize banking products and/or services led to the evolvment of concepts such as electronic banking (e-banking), electronic payments (e-payment), electronic statement (e-statement) and electronic settlement (e-settlement).

Electronic payment (e-payment) which is the focus area of this study is seen as a key factor in the development of socio-economic activities of every nation. According to Abaenewe, Ogbulu, & Ndugbu (2013), e-payment is fast being embraced by many nations because of the convenience it brings to both customers and merchants by reducing the stress associated with traveling to banks, queuing, time wastage within

banking halls and risk of carrying bulk of cash. Roozbahani, Hojjati, and Azad (2015) noted that e-payment has become the most important aspect of today's commercial activities because it plays significant role as the stream for quick liquid (money) exchange which was a challenge during the manual payment system. In same vein, Valarmathi, Oshin and Bhat (2017) also noted that e-payment is the most prominent pillar of monetary transactions across the globe as it promotes quick payments and reduced high risks associated with cash movement. Underpinning the importance of e-payment, Kelly and Palaniappan (2019) noted that e-payment provides universal payment solutions by eliminating the need to carry cash, travel distance and ensuring prompt payments for socio-economic goods and services. However, it is worth noting that e-payment in Nigeria and the entire world is ensured through the functionality of channels provided by banks and other financial institutions.

Some notable e-payment channels provided by banks across the world for customers use are payment cards (debit or credit), internet banking, Point of Sales (POS) terminals, Automated Teller Machine (ATM), bank mobile apps, Automated Clearing House (ACH), direct debit/deposit and Real Time Gross Settlement (RTGS) system (Raji, 2014). According to Valarmathi, Oshin and Bhat (2017), channels provided by banks and other online payments platforms include ATM transfers, National Electronic Fund Transfer (NEFT), RTGS, Society for Worldwide Interbank Financial Telecommunication (SWIFT), PayPal, Payrtm, Mobiwick and others.

In Nigeria, the common e-payments channels enlisted on the Central Bank of Nigeria's e-payment statistic as at the end of 2019 are ATM, POS, Internet banking, Mobile money, NIP, NEFT, e-BillsPay, Remitta, m-Cash, Central pay and Intra-bank-e-payment (Central Bank of Nigeria, CBN, 2019). Of all these e-payment platforms, the most frequently used by all categories of customers in Nigeria (education and uneducated) are ATM, POS, Mobile banking apps, NIP, internet (web), e-BillsPay, and Remitta as shown in the CBN e-payment statistics based on volume of transactions on each of these platforms (CBN, 2019). It is important to note that in utilizing these platforms customers face lot of challenges, some which are frustrating and discouraging hence affecting their satisfactions level. Nevertheless, experience has shown that challenges encountered by users of these platforms are relative to their service providers as well as environment of operations. This is because the payment technology infrastructure deployed by each bank and other e-payment service providers differ across the sector (Ugwuanyi, Ogwunata and Ugwuanyi, 2013), and also the barriers to utilization of technologies are not same across Nigeria.

Several studies have been conducted to examine issues surrounding e-payment platforms in Nigeria and the reported results are not same across banks, States and the nation as a whole. For instance, Chiemeké, Ewwiekpaefe and Chete (2013) investigated the adoption of e-banking in Nigeria and revealed that the major challenges to e-banking in Nigeria are insecurity, inadequate operational facilities including telecommunications facilities, poor electricity supply, prevalence of electronic fraud, low literacy level, poor network communication and lack of trust. Fasah (2013) investigated perceived barriers

to adoption of e-payment among consumers, and found that four main reasons for rejecting e-payment by many of respondents to be knowledge of use; additional banking charges; poor telecommunication network; and consumer preference for traditional means of banking instead of electronic enabled banking services. Odia and Mamudu (2017) examined customers' satisfaction of electronic payment system in the Nigerian banking sector and revealed that the greatest challenges confronting the usage of e-payment are frequent network failure, poor network service coverage, system/machine failure leading to account debit without dispensing cash, withholding of ATM card and long queue or waiting time. Amene and Buta (2019) conducted a study on factors affecting customers' satisfaction towards the use of automated teller machines (ATMS) and revealed that factors such as unreliable network for ATM services, limited amount of money to be withdrawn per day, debit without cash payment, bank charges for ATM services, machine out of cash, card gets blocked or locked up and waiting in line to use ATM machine. However, a critical look at the existing literature on e-payment in Nigeria shows that most of the work focused mainly on factors influencing customers' satisfactions of the e-payment platforms while others concentrated on service quality of e-payments and customer's satisfactions. Notwithstanding the existing literature, factors affecting customer's satisfaction may vary from time to time and also customer's satisfaction can improved be assessed the challenges faced by the customers and solving them to meet their expectations. Nevertheless, to the best of the researcher's knowledge, none of the existing study has considered challenges faced by users of e-payment platforms in Rivers State and Nigeria as a whole. Therefore, this present study is conceived to fill this gap in literature.

## **2. Purpose of the Study**

The main purpose of this study is to investigate the challenges faced by users of e-payment platforms in Rivers State. Specifically, the study seeks to:

- 1) Determine the challenges faced by users of ATM for e-payment in Rivers State.
- 2) Determine the challenges faced by users of POS for e-payment in Rivers State.
- 3) Determine the challenges faced by users of Internet banking for e-payment in Rivers State.
- 4) Determine the challenges faced by users of Mobile banking apps for e-payment in Rivers State.

### **2.1 Research Questions**

The following research questions guided the study:

- 1) What are the challenges faced by users of ATM for e-payment in Rivers State?
- 2) What are the challenges faced by users of POS for e-payment in Rivers State?
- 3) What are the challenges faced by users of Internet banking for e-payment in Rivers State?

- 4) What are the challenges faced by users of Mobile banking apps for e-payment in Rivers State?

## **2.2 Conceptual Review**

### **2.2.1 Electronic payment (e-payment)**

An effective payment system is seen as catalyst for socio-economic development of nations because it enables users to make payments for socio-economic goods and/or services when the need arises. Supporting this, Roozbahani, Hojjati and Azad (2015) noted that payment system is seen as a mechanism that serves as a vein through which money flow to different socio-economic actors and allow them to transfer money from one account to another. Gupta and Yadav (2017) noted that the evolution of payment system has significantly affected the sales of goods and services as the means of settlement for their value has now improved. The authors also noted that with the advancement in technology, payment system available to users has expanded to include electronic payment system (e-payment).

E-payment according to Torabi, Ghorbani, Bagheri and Tarighi (2011), is concerned with the transfer of an electronic value for payment normally from a payer to a payee through any available e-payment platform. Moertini, Athuri, Kemit and Saputro (2011) opined that e-payment is a payment service that uses information and communication technologies, including cryptography and remote communication networks to facilitate the settlement of financial bills. Roozbahani, Hojjati and Azad (2015) opined that e-payment has to do with the settlement of financial bills or obligations using electronic communication technology such as computer, mobile phone and ATM machine.

Some common e-payments channels enlisted on the Central Bank of Nigeria's e-payment statistic as at the end of 2019 are ATM, POS, Internet banking, Mobile money, NIP, NEFT, e-BillsPay, Remitta, m-Cash, Central pay and Intra-bank-e-payment (Central Bank of Nigeria, CBN, 2019). Of all these e-payment platforms, the most frequently used by all categories of customers in Nigeria (education and uneducated) are ATM, POS, Mobile banking apps, NIP, internet (web), e-BillsPay, and Remitta as shown in the CBN e-payment statistics based on volume of transactions on each of these platforms (CBN, 2019). Consequently, in the present study the coverage of e-payment platforms was limited to ATM, POS, internet and mobile banking apps.

### **2.2.2 Automated Teller Machine (ATM)**

Automated Teller Machine (ATM) according to Alexis and Chen (2019) is an electronic telecommunications device that enables customers of banks to perform financial transactions such as cash withdrawals, deposits, money transfer, checking balance or other information on customer's account at any time and without the need for interacting with bank staff. Odusina (2014) noted that ATM was the first well known automated machine to have been integrated into the banking sector in Nigeria in order to provide electronic access to customers' bank accounts. The author also noted that it enables banks

to provide customers with banking services such as withdrawal of cash, deposits, electronic payments of bills, printing of mini statements and cash transfers without entering the banking hall.

It is the capabilities of the ATM machine that made many banks across the world to deploy it for customer's access and utilization. Supporting this, Torabi, Ghorbani, Bagheri and Tarighi (2011) noted that ATM machines are becoming more and more widely spread across the world as virtually all major small towns and districts now have one of these machines to enable users have all day access to funds and means of e-payment. Rao, Rajasekhar and Ratnam (2013) noted that using the ATM requires customers to provide their respective Personal Identification Number (PIN) as authentication in order to access their bank accounts for cash withdrawals, cash transfers, e-Bill payments, checking account balance or purchase of prepaid mobile phone credit.

For the purpose of convenience, easy access to funds, cost reduction and 24 hours banking services all banks in Nigeria have mandated their customers to have access to ATM cards and utilize ATM irrespective of their age, gender and educational level. Supporting this, Odusina (2014) noted that the use of ATM makes life easier for customers because it reduces cost associated with cash withdrawal or transfers, saves time and easy access to cash even at odd time (mid-night for emergency). Alexis and Chen (2019) also noted that ATM adoption by banks has made banking easier, safer, quicker and more effective than it was years ago.

The availability and utilization of ATM comes with a lot of issues. Underpinning the importance of issues surrounding the use of ATM to the competitive advantage of banks, Torabi, Ghorbani, Bagheri and Tarighi (2011) noted the need to constantly evaluate customers' encounter with ATM machines as there are evidences of many security problems and dissatisfying issues still around the use of the ATMs. Charles (2016) also noted that with the proliferation of ATM and its accessibility to customers of different banks, there is need for banks who want to continue enjoying competitive advantage through ATM banking to understand issues emanating from customers interaction with their ATM in order to procure and install ATM technology with features that enhance the satisfaction of users.

### **2.2.3 Point of Sales (POS)**

To ease payment between customers of banks holding debit cards and merchants, the Point of Sales (POS) device has been given to designated merchants by their bankers. According to Titus, Basil and Greg (2017), POS is also referred to as Point of Purchase (POP) because it tells the time and place where a customer makes payment to merchants for goods or service rendered. Nnamani and Makwe (2019) also noted that POS or Point of Purchase (POP) is a terminal device that facilitates payment for goods sold or purchase by deducting the value from the card holder's account after authentication into the merchant's account and printing the receipt for the transaction.

This e-payment device helps significantly to promote the cashless economy policy of nation because as noted by Titus, Basil and Greg (2017), it is a noncash payment

platform for goods and services rendered by merchants. Supporting this fact, Odia and Mamudu (2017) noted that using POS a customer rather than carrying cash for payment only presents an encoded debit card to the merchant who inserts it into a POS terminal for the purpose of effecting payment. However, it is worth noting that in Nigeria, access and the use of POS is not restricted to only merchants for the purpose of goods or service payment. This is because as listed by CBN (2015), the stakeholders who have access to the POS include Payments Terminal Service Aggregator (PTSA), Payments Terminal Service Providers (PTSP) and Card Schemes or Associations.

### **2.2.3 Internet Banking**

One important e-payment platform that has received acceptance from enlightened and technological savvy banking customers is the internet banking. Internet banking according to Chiemeké, Ewwiekpaefe and Chete (2013) has to do with the provision of banking services over the internet. Mohsen, Najma and Mohommad (2015) defined internet banking as a banking channel that provides bank's customers with a wide range of financial and non-financial services through the bank's website. Richard (2015) defined internet banking as the means by which customers transact business with their banks using the banks' websites on the Internet network. Abbasi and Kamran (2017) noted that unlike in the developed countries, banks' customers in the developing countries have not fully embraced internet banking due to difference in educational background, access to internet connectivity, personal experience and social-cultural backgrounds.

One basic feature of the internet banking is that it gives bank access to distance customers. Zhengwei (2012) noted that internet banking enables banks to gain access to customers outside their area of operation as long as they are internet users, hence reduced costs associated with marketing as well as improved competitiveness. Mohsen, Najma and Mohammad (2015) noted that banking through the internet has become strategic means by which both customers and banks obtain higher efficiency, control of operations and cost reduction by substituting paper based and labor intensive methods with automated processes yielding to higher productivity and profitability. Banks in Nigeria now offer a wide range of services through internet banking. According to Adekannbi (2018), internet banking services offered by Nigerian banks include electronic funds transfer, account balance enquiry and statement, automatic payroll deposits, bill payments, airtime purchases, cheque confirmation, salary advance request, investment and loans, standing order, foreign exchange transactions and feedback to customers.

Nevertheless, Zhengwei (2012) discovered in the study of factors that affect customer's satisfaction of internet banking that privacy, reputation and price are key factors affecting customer satisfaction in the internet banking service. Hence, Abbasi and Kamran (2017) noted the need for continuous research on how customers feel about internet banking considering the huge investments in internet infrastructure made by banks adopting this platform because failure of customers to use such platform may translate to losses from such investments.

### **2.2.4 Mobile Banking apps**

Global access to mobile phones has increased the development of mobile apps meant to connect organizations to their clients. The banking industry is not left behind in this regard. Many banks and other financial institutions now have their own apps through which customers can manage their accounts. Supporting this, Santhosh and Ragahavendra (2015) noted that financial institutions want more people to try banking on mobile banking apps. According to Nazrul, Mustafi, Rahman, Nower, Rafi, Mayisha and Hassan (2018), mobile banking app requires the use of a smartphone to perform online banking tasks such as monitoring account balances, transferring funds between accounts, bill payment and locating and buying call credit.

Aleksandra (2018) noted that mobile banking apps development has led to high accessibility and flexibility in banking as customers can quickly and safely deliver money and perform swift and easy transactions regardless of their location and possession of physical tokens such as cash or credit cards. Haselton (2017) noted that using the mobile banking app requires the user to download desired app and setting up the app using card details either manually or through mobile phone camera. After successfully setting up mobile banking apps, they can be used for bill payment, account transfers, peer-to-peer transfers, proximity and remote payments, discounts, mobile ticketing (Oliveira, Thomas, Baptista, & Campos, 2016). Santhosh and Ragahavendra (2015) noted that as good as access to mobile banking apps may be to customers it is essential to understand the primary problems associated to their usage in order to improve on customer's mobile banking experiences.

Several studies have been carried out on mobile banking, but little has concentrated on the factors affecting users of mobile banking apps. Valarmathi, Oshin and Bhat (2017) discovered that major problems faced by customers in the use of mobile banking app have to do with constant need for app upgrades, speed rate of service delivery, the need for a perfect app and cybercrime. Nazrul, Mustafi, Rahman, Nower, Rafi, Mayisha, and Hassan (2018) in their study of mobile banking discovered that convenient and responsive system, transaction security and technological difficulty are significant factors that affect the customers' experience.

## **3. Method**

The study adopted descriptive survey research design using quantitative approach. The research design is deemed appropriate since it focuses on generating data through the opinions of respondents with respect to the specific purposes of the study. Ezekiel, Oguzor, Onyeukwu, Onwuchekwa and China (2017) indicated that descriptive survey research is the most appropriate research design when it comes to assessing opinion of respondents on the characteristics of phenomena under investigation.

The population of the study is estimated to be about 7,409,304 people living in the 23 local government areas of Rivers State who are made up of existing and potential customers of major banks in State (source: 2007 provisional population census figures).



However, for the purpose of this study, 25 % of the local government areas in the State which is approximately 6 local governments were selected and a sample size of 750 existing customers of banks in Rivers State, that is, 125 customers of banks per each of the local government selected were used for the study. The 6 local government areas used for the study are Ogba/Egbema/Ndoni, Ahoada East, Obiakpo, Emohua, Abua-Odual, and Eleme Local Government Areas (LGAs). The LGAs were selected using simple random sample and the respondents that make up the sample size were selected using convenient sampling technique.

A researcher’s developed instrument titled “Challenges Faced by Users of E-payment Platforms in Rivers State Questionnaire (CFUEPinRSQ)” was used for the study. The instrument contains 36 items. 10 items to research question 1 and 3 respectively and 8 items to research question 2 and 4 respectively. The responses option were based on 4 points rating scale of: Strongly Agreed (SD – 4 marks), Agreed (A – 3marks), Disagreed (D – 2marks) and Strongly Disagreed (SD – 1mark). The instrument was subjected to face-validation by two experts, one expert of Educational Measurement and Evaluation from Federal College of Education (Tech.), Omoku and a bank marketer from Ecobank of Nigeria, Bayelsa Branch. The corrections of these experts were used to modify the instrument in order to produce the final copy used for the study. Cronbach Alpha statistics was used to test for the reliability of the instrument using responses from 15 banks customers in Bayelsa State. The computation gave a reliability index of 0.86. Data collected were analysed using descriptive statistics of mean and standard deviation to answer the research questions. For decision making, the following were used as guide: Mean of 3.5 above was regarded as Strongly Agreed, 2.5 to 2.99 was regarded as Agreed, 1.5 to 2.49 was regarded as Disagreed and below 1.5 was regarded as Strongly Disagreed.

#### 4. Results

**Table 1: Demographic Statistics of Respondents**

<b>Gender</b>				
<b>Variable</b>				<b>% of Total</b>
Male	387			52%
Female	363			48%
Grand total	750			100%
<b>Educational Qualification</b>				
Variables	Male	Female	Total	% of Total
FSLC/WAEC/SSC	102	86	188	25%
NCE/OND/HND/B.Sc	240	256	496	66%
M.Sc/MBA/Ph.D	45	21	66	09%
Grand total	387	363	750	100%

Table 1 show the gender distribution of male to female out of the total respondents is 387 and 363 respectively. It also shows that those with FSLC/WAEC/SSS are 188 made up of 102 male and 86 female constituting 25% of the total respondents, those with

NCE/OND/HND/B.Sc are 496 made up of 240 male and 256 female constituting 66% of the total respondents; and those with M.Sc/MBA/Ph.D are 66 made up of 45 male and 21 female constituting 09% of the total respondents. Therefore, majority of the respondents are holders of NCE/OND/HND/B.Sc which means they are capable of indicating challenges relating to their utilization of e-payment platforms offered by their bankers.

**Research Question 1:** What are the challenges faced by users of ATM for e-payment in Rivers State?

**Table 2:** Summary of Mean and Standard Deviation  
on Challenges faced by Users of ATM for e-payment in Rivers State

S/N	Items	Mean	Std	Decision
1	Poor network	2.71	1.09	Agreed
2.	Charge per transaction on ATM cards	2.45	1.06	Disagreed
3.	Waiting time on ATM queues	2.61	1.06	Agreed
4.	Lack of provision of slips with updated balance after ATM transaction	2.75	1.12	Agreed
5.	Insufficient number of ATM machines within banks.	2.55	1.00	Agreed
6.	Negative attitude of bank ATM guards towards ATM customers	2.34	0.97	Disagreed
7.	Poor working conditions of available ATM machines within banks	2.74	1.02	Agreed
8.	Delay in reversal of ATM error transactions	2.75	1.08	Agreed
9.	ATM fraud	2.30	1.03	Disagreed
10.	Transaction limit	2.43	0.98	Disagreed

**Source:** Field Survey, 2020.

Table 2 shows that the respondents agreed that poor network, waiting time on ATM queues, lack of provision of slips with updated balance after ATM transaction, insufficient number of ATM machines within banks, poor working conditions of available ATM machines within banks, and delay in reversal of ATM error transactions are some challenges faced by users of ATM for e-payment in Rivers State with mean scores of 2.71, 2.61, 2.75, 2.55, 2.74, 2.75 and standard deviation of 1.09, 1.06, 1.12, 1.00, 1.02, and 1.08 respectively. However, the respondents disagreed that charge per transaction on ATM cards, negative attitude of bank ATM guards towards ATM users, ATM fraud and Transaction limit are challenges faced by users of ATM for e-payment in Rivers State with mean scores of 2.45, 2.34, 2.34, 2.43 and standard deviation of 1.06, 0.97, 1.03, and 0.98 respectively.

**Research Question 2:** What are the challenges faced by users of POS for e-payment in Rivers State?

**Table 3:** Summary of Mean and Standard Deviation  
on Challenges faced by Users of POS for e-payment in Rivers State

S/N	Item	Mean	Std	Decision
1.	Difficulty of use	2.49	1.02	Disagreed
2.	Misused of personal information at POS terminals	2.51	0.94	Agreed
3.	Charges on POS transaction	2.45	1.00	Disagreed
4.	Prolong period of reversing wrong or failed transactions	2.68	0.98	Agreed
5.	POS fraud	2.47	0.96	Disagreed
6.	Processing speed of POS	2.34	1.01	Disagreed
7.	Transaction limit	2.34	0.98	Disagreed
8.	Malfunctioning of POS machines	2.68	1.06	Agreed

**Source:** Field Survey, 2020.

Table 3 shows that the respondents agreed that misused of personal information at POS terminals, prolonged period of reversing wrong or failed transactions, and malfunctioning of POS machines are challenges faced by users of POS for e-payments in Rivers State with mean scores of 2.51, 2.68, 2.68 and standard deviation of 0.94, 0.98 and 1.06 respectively. However, the respondents disagreed that difficulty of use, charges of POS transaction, POS fraud, processing speed of POS, and transaction limit are challenges faced by users of POS for e-payments in Rivers State with mean scores of 2.49, 2.45, 2.47, 2.34, 2.34 and standard deviation of 1.02, 1.00, 0.96, 1.01, and 0.98 respectively.

**Research Question 3:** What are the challenges faced by users of Internet banking for e-payment in Rivers State?

**Table 4:** Summary of Mean and Standard Deviation  
on Challenges faced by Users of Internet Banking for e-payment in Rivers State

S/N	Item	Mean	Std	Decision
1.	Poor internet service	2.39	0.97	Disagreed
2.	Poor customer's information protection	2.51	1.09	Agreed
3.	Unsecured internet transaction	2.72	1.03	Agreed
4.	Charges on internet payment transactions	2.46	1.07	Disagreed
5.	Difficulty of generating token	2.59	1.06	Agreed
6.	Time spent on web page response	2.54	1.08	Agreed
7.	Poor handling of internet banking complains by customer's service unit	2.63	1.05	Agreed
8.	Lack of physical backups for internet transaction	2.61	1.04	Agreed
9.	Poor access to internet service	2.52	1.05	Agreed
10.	Poor bank's web content	2.57	1.03	Agreed

**Source:** Field Survey, 2020.

Table 4 shows that the respondents agreed that poor customer's information protection, unsecured internet transaction, difficulty of generating tokens, time spent on web page response. poor handling of internet banking complains by customer's lack of physical bank ups for internet transaction, poor access to internet service, and poor bank's web content are challenges faced by users of internet banking for e-payments in Rivers State

with mean scores of 2.51, 2.72, 2.59, 2.54, 2.63, 2.61, 2.52, 2.57 and standard deviation of 1.09, 1.03, 1.06, 1.08, 1.05, 1.04, 1.05 and 1.03 respectively. However, the respondents disagreed that poor internet service and charges on internet banking transaction are challenges faced by users of internet banking for e-payments in Rivers State with mean scores of 2.39, 2.46 and standard deviation of 0.97 and 1.07 respectively.

**Research Question 4:** What are the challenges faced by users of Mobile banking apps for e-payment in Rivers State?

**Table 5:** Summary of Mean and Standard Deviation  
 on Challenges faced by Users of Mobile Banking Apps for e-payment in Rivers State

S/N	Item	Mean	Std	Decision
1.	Poor quality of mobile banking apps	2.69	1.03	Agreed
2.	Consistent update of mobile banking apps	2.61	1.02	Agreed
3.	Payment limits on USSD and mobile apps	2.71	0.98	Agreed
4.	Vulnerability of mobile banking transaction to activities of fraudsters	2.79	1.05	Agreed
5.	Mobile phone virus	2.53	1.02	Agreed
6.	Difficulty of navigation of mobile banking app's content	2.68	1.04	Agreed
7.	Bureaucratic process of resolving wrong transactions	2.58	1.09	Agreed
8.	Charges relating to mobile banking app's transactions.	2.42	1.00	Disagreed

**Source:** Field Survey, 2020.

Table 5 shows that the respondents agreed that poor quality of mobile banking apps, consistent update of mobile banking apps, payment limits on USSD and mobile banking apps, vulnerability of mobile banking transaction to activities of fraudsters, mobile phone virus, difficulty of navigation of mobile banking app's content and bureaucratic process of resolving wrong transactions are challenges faced by users of mobile banking apps for e-payments in Rivers State with mean scores of 2.69, 2.61, 2.71, 2.79, 2.53, 2.68, 2.58 and standard deviation of 1.03, 1.02, 0.98, 1.05, 1.02, 1.04 and 1.09 respectively. However, the respondents disagreed that charges relating to mobile banking app's transactions is a challenge faced by users of mobile banking app for e-payments in Rivers State with mean score of 2.42 and standard deviation of 1.00.

## 5. Discussion of Findings

The findings of this study show that virtually all banks' customers have basic education which is sufficient enough to use e-payment channels of the banks. The findings related to specific purpose one show that challenges faced by users of ATM for e-payments in Rivers State are poor network, waiting time on ATM queues, lack of provision of slips with updated balance after ATM transaction, insufficient number of ATM machines within banks, poor working conditions of available ATM machines within banks, and delay in reversal of ATM error transactions are some challenges faced by users of ATM for e-payment. These findings are supported by the discovery of Chiemeké, Ewwiekpaefe

and Chete (2013) when their investigation revealed that the major challenges associated to any aspect of e-banking in Nigeria are inadequate operational facilities including telecommunications facilities, poor network communication and lack of trust. The findings are also in line with the discovery of Odia and Mamudu (2017) when their study revealed that the greatest challenges confronting the usage of e-payment are frequent network failure, poor network service coverage, system/machine failure leading to account debit without dispensing cash, withholding of ATM card and long queue or waiting time. The findings are also related to the discovery of Amene and Buta (2019) when their investigation revealed that factors such as unreliable network for ATM services, debit without cash payment, and waiting in line to use ATM machine, however, the results of this study are contrary to their discovery of bank charges for ATM services as a challenge of users of ATM machines for e-payments.

The findings of this study also revealed that the challenges faced by users of POS for e-payment payments in Rivers State are misused of personal information at POS terminals, prolonged period of reversing wrong or failed transactions, and malfunctioning of POS machines are challenges faced by users of POS for e-payments.

The findings of the study also revealed that the challenges faced by user of internet banking for e-payments in Rivers State are poor customer's information protection, unsecured internet transaction, difficulty of generating tokens, time spent on web page response. poor handling of internet banking complains by customer's lack of physical bank ups for internet transaction, poor access to internet service, and poor bank's web content are challenges faced by users of internet banking for e-payments. The present findings are supported by Zhengwei (2012) finding that lack of privacy in internet banking affects customers satisfaction of this e-payment platform.

The findings of this study also revealed that the challenges faced by user of mobile banking apps for e-payments in Rivers State are that poor quality of mobile banking apps, consistent update of mobile banking apps, payment limits on USSD and mobile banking apps, vulnerability of mobile banking transaction to activities of fraudsters, mobile phone virus, difficulty of navigation of mobile banking app's content and bureaucratic process of resolving wrong transactions are challenges faced by users of mobile banking apps for e-payments. These findings are in line with the discovery of Valarmathi, Oshin and Bhat (2017) when they discovered that major problems faced by customers in the use of mobile banking app have to do with constant need for app upgrades and speed rate of service delivery. The findings are also supported by the findings of Nazrul, Mustafi, Rahman, Nower, Rafi, Mayisha, and Hassan (2018) when they discovered that convenient and responsive system, transaction security and technological difficulty are significant factors that affect the customers' experience in mobile banking application.

## **6. Conclusions**

Based on the findings of this study, it can be concluded that there are a lot of challenges faced by users of e-payments platforms in Rivers State. However, while most of the

challenges are within the internal locus of control of the banks to address in order to sustain customers confidence in the use of e-payment platforms for payment purposes, other challenges are not within the banks control to resolve directly. Challenges associated with the use of ATM machines for e-payments in Rivers State are all within the control of the banks to resolve but not all the challenges associated with the used of POS, internet banking and mobile banking apps for e-payments in Rivers State are within banks control to resolve directly. The challenges not within banks absolute control to resolve are the misused of personal information at POS terminals, poor access to internet service, and mobile phone apps virus. Nevertheless, the banks can still ameliorate customers' confidence in the continuous use of e-payment platforms for payments purposes in Rivers State by collaborating with relevant stakeholders who are directly involved with the challenges discovered.

## **7. Recommendations**

Based on the findings of this study and the conclusions drawn, the following recommendations are put forward for implementations:

- 1) Banks in Rivers State should address the issue of poor ATM network by subscribing the service providers with the best networks for their ATM machines.
- 2) Banks in Rivers State should provide more functional and modern ATM machines capable to serving the bulk of their customers within the State, at least each branch of the banks should have nothing less than 10 functional and modern ATM machines.
- 3) Banks in Rivers State should ensure that their ATM machines provide receipts of updated balance on account after e-payment transaction.
- 4) Banks in Rivers State should from time to time organize seminars for holders of their POS machine on the confidentiality of customer's information.
- 5) Banks in Rivers State should treat issue of error or failed transaction on e-payment platforms with utmost priority in order to ensure the reversal of wrong debits less than 24 hours of transaction.
- 6) Banks in Rivers State should endeavour to recall all malfunctioning POS machines with their customers and replace them with better ones.
- 7) Banks in Rivers State should file in complain of poor internet banking services relating to token generation, ease of web page navigation and clarity of web page content to their corporate headquarters in order to improve on customer's experiences.
- 8) Banking industry in Nigeria should collaborate with internet service providers to expand internet service coverage to remote parts of the country using the best network technology.
- 9) Banks in Rivers State should champion the provision of good smartphones, computers and original antivirus software in collaboration with tech companies to their customers at subsidize rate with a payment period spread in such a way that

the customers will not feel the burden of paying for desired device in order to encourage the use of e-payment platforms.

### **Conflict of Interest Statement**

I hereby declare that this study has no conflict of interest. The study was embarked upon without bias to any financial institution and all the cost associated to the work was borne by the researcher in order to advance knowledge in electronic payments and customers' satisfaction. Consequently, the work was done without prejudice to any organization's interest.

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Mrs. Oyemakara Mary Ifeoma holds a Masters Degree in Accountancy. She is a lecturer in the Department of Accounting Education, School of Secondary Education (Business), Federal College of Education (Tech.), Omoku-Rivers State, Nigeria and had accumulated working experience as marketer of one of the prominent Nigerian commercial banks. She is also one of the Directors of Hytech online banking (banking agent) and Frank Flourish Communications Nigeria Limited, Rivers State. She has attended conferences and workshops within and outside Nigeria. She has also published in many reputable journals within and outside Nigeria. She is married to Mr. Hyginus Onyemekara and blessed with children.

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Mary Ifeoma Hyginus Oyemakara  
AN INVESTIGATION INTO THE CHALLENGES FACED BY USERS OF ELECTRONIC  
PAYMENT PLATFORMS OF NIGERIAN BANKS IN RIVERS STATE, NIGERIA

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