Asian Economic and Financial Review
ISSN(e): 2222-6737/ISSN(p): 2305-2147

journal homepage: http://www.aessweb.com/journals/5002

ELECTRONIC PAYMENT CHANNELS IN THE NIGERIA BANKING SECTOR AND ITS IMPACTS ON NATIONAL DEVELOPMENT

Tijani, J. A.[1†] --- Ilugbemi, A. O.[2]

[1,2]*Department of Banking and Finance, The Federal Polytechnic, Ado-Ekiti, Ekiti State, Nigeria*

ABSTRACT

Electronic payment channels (EPC) are fast growing in Nigeria and are now the order of the day for effecting payments. These methods have brought a lot of convenience to both individual and corporate customers, unlike many years ago when the economy was heavily cash driven. This study examines the impact of electronic payments channels (EPC) on National development (ND). The survey was targeted at current and savings accounts customers of deposit money banks in Nigeria. One hundred and twenty (120) questionnaires were administered in six (06) banks in Ado –Ekiti metropolis. Ninety-Eight (98) questionnaires were returned for processing. The data was analyzed using inferential statistics specifically with the use of chi-square. The study reveals that electronic payment channels (EPC) have impacted on the economy and therefore contributing positively to national development (ND). It was recommended that the Central Bank of Nigeria (CBN) should mount other e-payment products for the promotion of trade and commerce in Nigeria. The Central Bank of Nigeria (CBN) should embark on intensive campaign for complete adoption of e-payment products especially at the grassroots level among others.

Keywords: Electronic payment channel (EPC), National development (ND), Automated teller machine (ATM), Point of sale (POS), Global system for mobile telecommunication (GSM), Community banks (CBs).

Contribution/ Originality

This study is relevant to the prevailing economic situation in Nigeria since it has x-rayed the various payment mechanisms opened to customers in the banking sector. The study relies on the existing inferential statistical analysis (Chi-Square) employed to ascertain that EPC are convenient channels for payments compared to conventional banking practice. Going through the literatures, this study in particular reference to Nigeria is one of the few that examined the issue of payment

† Corresponding author
DOI: 10.18488/journal.aefr/2015.5.3/102.3.521.531
ISSN(e): 2222-6737/ISSN(p): 2305-2147

mechanisms channels in relation to information and communication technology. The result is logical since it compared all the payment mechanism channels that are currently being used by financial institutions to effect payments. The primary contribution of this paper is that it is pointing to a very crucial area which all banks must embrace that is, ICT if such a bank is not prepare to go out of business. The study therefore documents that the Central Bank of Nigeria should mount other e- payment products for the promotion of trade and commerce, embark on intensive campaign for complete adoption of e- payment products and also to promote good and reliable capacity utilization to promote business growth and national development.

1. INTRODUCTION

The Banking sector is generally coming up in term of efficient service delivery especially in the area of payments to customers. This was not the case many years ago when the use of cheques, bankers drafts, bills of exchange and open account methods of payment were more rampant than the use of electronic payments systems. E-Payment employs cash substitutes such as debit cards, credit cards, electronic funds transfer, direct debits |credits, internet banking and e-payments systems.

The introduction of technology based payments systems has done a lot to increase the convenience of bank's customers, staffs as well as the society at large (Kelvin, 2012). Today, paying and receiving money between buyers and sellers are not necessarily done through raw cash. Such payment can be made using e-payment products such as ATM, internet, Point of Sale terminals (POS), Mobile money solutions and so on and so forth.

Although, the use of these payment mechanisms are not totally free from problems often, customers experience delay in having access to the services provided through this electronic channels (Olakah, 2012). One principal challenge in the use of (EPC) is power outage. Power problem is a monster threatening every business in Nigeria. It may fluctuate for hours and sometimes not available. These payment systems may experience failure at any time or malfunction and as a result frustrate transaction which may be urgent. A common ache in the use of one of the electronic payment devices known as ATM is the trapping of cards for days by the terminals thus preventing customers from making transactions until he or she is able to retrieve his card from the machine. Occasionally, the ATM may debit a customer's account without dispensing cash to him or she, such case has to be reported or the customer accepts liability. Generally, in every electronic card based payment mechanisms, "server down" is a usual slang, meaning that there is a network failure. When this occurs, the machine is temporarily unable to function properly or obey instruction given by the customers at the payment terminals.

The development of different electronic payment systems has helped to enhance the payment of cash in banks up to a limit of ₦500, 000 (Five Hundred Thousand Naira only) daily by individual customers and ₦ 3,000,000 (Three Million Naira only) for corporate customers without attracting charges except withdrawal is above the limit stated. The payment has also promoted efficiency in the clearing of financial instruments between the banks and Central Bank of Nigeria

(2010). Despite the challenges attributed to the use of electronic payments devices, the devices have indeed provide relieve and convenience to the banking public, thereby promoting trade and commerce and helping to grow the sectors of the economy.

1.1. Statement of the Problem

The use of conventional system of payment in the banking sector had been in use for too long a time. This system of banking is outdated and is characterize with a lot of problems such as time wastage, inconvenience to customers and so on and so forth. However, the advent of (EPC) in the banking sector has changed the face of delivery systems, Queuing in the banks has been minimized, confirmation of the validity of transactions by customers specifically for overseas transactions is almost immediate compare to the past years, the new system has brought a lot of consciousness to the banking industry through its simplicity and efficiency in processing and delivery of customers services unlike in the former system of payments which involves a lot of documentation and physical presence at the desks of banks Managers before concluding such transactions. This innovation has facilitated reduction in the clearing cycle to T+2 for both local and upcountry instruments in clearing areas other than lagos while the clearing cycle for lagos was T+1 due to the implementation of cheques truncation exercise. This was not the case in the past years. Thus, this study will examine the impact of (EPC) on (ND).

1.2. Objective of the Study

The study examines the impact of the (EPC) on (ND). This is achieved by examining the following-

- The timely access to the use of E-payment Channels by customers
- The safety and security of the (EPC) and its reliability to customers.
- Measure the contributions of the (EPC) to National Development

1.3. Research Questions

- What is the average length of time at which the e-payment channels could provide services to customers?
- Are the E- payments channels safe, secured and reliable to transact business by customers?
- Has the E- payments channels been contributing to National Development?

2. LITERATURE REVIEW

2.1. Development in the E-Payment Systems in Nigeria

E-payment systems are the instruments, organizations, operating procedures, information and communication systems employed to initiate and transmit payments from a payer to a payee and for settling payments that is, transfer money (Imafidon, 2013). The E-payments channels are the

apparatus used to safely and efficiently transfer monetary value in exchange for goods and services as well as financial assets (Oloruntoyin and Olanloye, 2012).

In 2007, a survey conducted on Nigerian e-banking customers provided accurate and credible feedbacks on the performance of banks and their ratings in electronic banking; that is, first hands knowledge of banks performance across e-banking channels in different regions of the country. Firsthand knowledge of performance of the competition, information on the key drivers of excellent performance in e-banking channels that is ATM, Point of Sale, and cards; direct customers feedback on e-banking services and products in Nigeria.

Okafor (2008), perceives the ATM as an electronic device which allows a financial institution's customer to use a secured method of communication to access their accounts, make cash withdrawals or cash advances using credit cards and checking their account balances without need for human teller or cashier.

E-payments systems are becoming popular among banks and non-bank financial institutions in Nigeria, a survey conducted by Interware consulting, reveals that, ATM Point of sales (POS), are still evolving and that various banking services rendered by Nigerian banks is mostly limited to the traditional services.

Ebulu (2008) asserts that in the banking industry, customers are gradually coming to terms with the arrays of products vaunted by banks in their bid to offer convenient banking services to their customers. On daily basis depositors are inundated with an array of service options which they are encouraged to embrace as they canvass ease access to cash as well as deepen their relationship with the banks and of course the fad is paying off. Through the e-banking payment channels customers may deposit cash, transfer money, recharge GSM prepaid account, credit postage stamp and so on and so forth. According to Atteh (2012), payment systems are related collection of structure of instruments for settling payments and transactions or part thereof. Although the system work together but each of the instruments share attributes of being exchangeable with one another through substitution and convertibility mechanisms.

Uwah (2011) examines the various categories of payments systems ranging from: cash- paper-based instruments, paperless or electronic instruments, and other payment instruments. Paper based instruments include cheques, bank drafts, debit cards, credit cards, and traveller's cheques. Although, cheque is a major payment instrument in Nigeria, they are not popular for day to day payment because of high incidence of dud cheques and forgeries, a safe financial system is thus hedged on effective payment infrastructure which are core to the financial stability of a country. (Ibrahim, 2009).

In his contribution, Tijani (2013), observes that payment systems are accessible and can be measured in terms of their reliability, transaction costs and risks. The reliability of payment system can be increased if all factors surrounding the efficiency of the electronic payments could be upgraded to prevent system breakdown and area of financial risks which may arise in form of liquidity risk, credit risk and systematic risk.

In line with the objective of the payment system vision 2020, the (CBN) adopted payment system policies that will help to migrate from a cash based economy to an e-payment driven economy.

According to CBN (2010) the following measures will assist the country in her drive towards this laudable objective:

- Setting up of an independent audit of 16 mobile payments schemes which were on a pilot run. Pursuant to the issuance of final operating license.
- Sensitize stakeholders on the approved direct debit rules to facilitate the use of electronic payments.
- Issuance of guidelines on the initiatives highlighted to improve public confidence in the payment system especially the area of payment of taxes electronically, paying salaries, pensions by organizations with more than 50 employees and electronic payments suppliers.
- Commencement of the upgrade of the real time gross settlements system to meet the requirements of FSS 2020.
- Direct all banks to implement the 10 digit Nigeria uniform bank account number (NUBAN) with a transition period of one year with expectation to reduce the volume of unprocessed transactions due to wrong account numbers, number of postings to wrong accounts by recipient banks and incidence of delayed in presentation of automated clearing house.

The Central Bank of Nigeria, adopted the following initiatives to enhance the Nigerian payment system.

- Fixing of a daily cumulative limit of N500,000 for individual customers and N3,000,000 for corporate customers on cash withdrawals. The above measure was introduced to reduce the high and sustainable currency issue and management expenses thereby promoting the use of cost effective non-cash payment modes.
- Over the counter encashment of third party cheques above N500,000 will be disallowed forthwith when value for such cheques shall only be received through clearing.
- The policy abolished cash in transit (CIT) lodgment services, and advice merchant customers to engage the services of CIT companies to facilitate cash movements on agreed terms and conditions.
- The policy also prohibits exclusive acquired contracts for card schemes to enhance interoperability.
- Massive deployment of point of sales (POS) terminals under the shared service project with a view of reducing the cost of operations and
- Approved in principle, a strategic alliance with the Nigerian postal service (NIPOST) to integrate the “post” into the payments system by offering branchless banking to reach the remote parts of the country.

The initiative was expected to promote confidence in the system, enhance efficiency, improve customer convenience and facilitates financial inclusion. This led to a growth rate of 17.79 and 7.06 percent respectively in Central Bank of Nigeria interbank transfer between the first half of 2011 and second half of 2010.

So also, Cheque clearing in the first half of 2011 declined by 12.30 percent and 4.74 percent to N16,188,775 billion and N9, 919.05 billion respectively from N18,458,480 billion and N10,412.12 billion recorded in the second half of 2010. The decline was attributed to increase in the use of other modes of payment, such as RTGS, NIBSS interbank Funds Transfer (NEFT), automated Teller Machines (ATMs), mobile banking, and Internet payments among others. The Volume and value of electronic card payments transactions increased to N167,962,665 billion and N764.14 billion during the first half of 2011, from N106,739,822 billion and N610.22 billion respectively during the second half of 2010, reflecting an increase of 57.36 percent and 25.22 percent respectively. The growth was attributed to the public confidence in card payments, following the enhanced security features in the cards and adoption of stringent measures to combat frauds and deepens the use of electronic payments. From the available data, it was gathered that among the e-payments channels the most popular was the ATM (98.09%) followed by web (internet) (0.72%) and mobile (0.71%). The least patronized was the Point of Sales (POS) terminal accounting for 0.48% of the total e-payment transactions (National Bureau of Statistics, 2012).

3. METHODOLOGY

The research was conducted using primary data specifically, the use of questionnaire. The survey was targeted at current and savings accounts customers of the bank financial intermediaries operating in Nigeria. One hundred and twenty (120) questionnaires were administered in six banks within Ado-Ekiti metropolis. Ninety eight (98) questionnaires were returned for processing. The data collected were analyzed using inferential statistics specifically the use of chi-square.

represented as $(fo\text{-}fe)^2$

fe

Where- fo is the observed frequency.

Fe is the expected frequency.

The following Hypothesis shall be tested.

3.1. Statement of Hypotheses

1. Ho: E-payment channels have not been providing quick and timely service to customers in Nigeria.
2. Ho: Bank customers do not have access to safe, secured and reliable services using the e-payment channels
3. Ho: The E-payment channels have not been contributing to national development.

4. DATA PRESENTATION AND ANALYSIS

Table-1. Category of customers Employed in the research

Category	No of customers	%
Current A/C customers	41	42
Savings A/C customer	57	58
Total	98	

Source; Field survey, 2014

The research was based on two major customers of banks i.e. the current accounts customers (42%) and the savings accounts customers, (58%)

Table-2. Timely Access to the use of E-payment channels by customers

Category	Less than 30 mins	Above 30 mins	Total
Current A/C	32	9	41
Savings A/C	43	14	57
Total	75	23	98

Source; Field survey, 2014

Considering the timing of service delivery to customers through e-payment channels, 77% accesses the services in less than 30 minutes while 23% accesses the service above 30 minutes. So, it was concluded that the e-payment channels have been providing quick and timely services to customers in Nigeria. This was confirmed by table 2 (Appendix 1) that the empirical value is greater than the critical value, so, the null hypothesis which states that the EPC has been providing timely services to customers was upheld.

Table-3. Safety and security of the E-payment channels to customers

Category	Less Safe & Secured	Safe & Secured	Total
Current A/C	12	29	41
Savings A/C	24	33	57
Total	36	62	98

Source; Field survey, 2014

On the safety and security of the E-payment Channels to customers and their financial resources, 37% of the respondents observe that the channels are less secured while 63% of the respondents assert that the channels are secured. From the analysis, the empirical value is greater than the critical value, so the null hypothesis is rejected .Thus confirming the fact that bank customers resources are safe and secured using (EPC) (see table 3 appendix)

Table-4. Reliability rating of the use of E-payment Channels by Customers

Category	Less Reliable	Reliable	Total
Current A/C	18	23	41
Savings A/C	23	34	57
Total	41	57	98

Source; Field survey, 2014

From the above, 42% of the respondent emphasize that the e-payment channels are less reliable while 58% observe that they are reliable. In the analysis the empirical value is greater than the critical value, so the null hypothesis is rejected. Therefore, the E- payments Channels are reliable. See table 4 appendix 4.

Table-5. Contributions of E- Payment Channels to National Development

Category	Negative	Positive	Total
Current A/C	03	38	41
Savings A/C	08	49	57
Total	11	87	98

Source: Field Survey, 2014

The extent to which the use of the E-payments have been contributing to the society was confirmed by 89% respondents who affirms that the E-payments channels have been contributing significantly to economic development while 11% of respondents attested that the E-payments have not been contributing to national development. From table 6 appendix 1, it was resolved in the study that (EPC) have been contributing positively to national development as the empirical value of 1.0849026 is greater than the critical value of 0.00393.Therefore, the null hypothesis was rejected and the alternate hypothesis was accepted.

5. RESULTS OF FINDINGS

5.1. Findings from the Study Revealed the Followings

The (EPC) are accessible to customers as reasonable numbers of people are satisfied through the channels daily. The (EPC) are available within the premises of deposit money banks, market centres, and other strategic locations for customers to interact with their banks.

- The (EPC) is very convenient to customers compared to conventional banking practice where customers must be physically present at the point of requisition for banks services. Today, a customer initiates transactions at the comfort of their homes, offices, and even on the road without actually visiting their banks.
- The (EPC) are reliable, although, their operations may sometimes be frustrated by power outage leading to server down. Power failure may sometimes delay transactions to be consummated by the customers and this may have untold consequences on the customers personal or business relationship.
- The (EPC) have been contributing positively to National Development through timely access in processing customers transactions. Customers now enjoys ease, safe and quick dealings with their banks and were able to do business with third parties all over the world at their prefer time and place.

6. CONCLUSION

E-payments channels have been assisting the society in effecting timely payment for transactions compare to the past years. Reasonable numbers of people have access to the services

provided through the Automated teller machine, Electronic point of sales, internet, mobile money and other electronic payment channels for quick service delivery. These payments channels are safe, convenient and reliable. They are incomparable to conventional banking practice. This fact is evidenced from the reduction in the level of people queuing to be served.

The payments channels are reliable, although their services may sometimes be frustrated by power outage. The problem of capacity utilization is a cankerworm affecting every business organizations in Nigeria. As a result of the reliability of these channels in assisting customers in processing transactions, the E-payments channels have indeed contributed a lot to the Development of the country.

7. RECOMMENDATIONS

The positive contributions of e-payment channels to National Development can never be overemphasized. Therefore, to sustain and improve on the current height the following recommendations are proffered.

- Banks and other financial institutions should intensity efforts in mounting other e-payment channels to promote trade and commerce in Nigeria.
- The Central Bank of Nigeria should embark on intensive campaign for complete adoption of e-payments products especially at the grassroots.
- The government should provide good and reliable capacity utilization to promote business growth and national development.

REFERENCES

Atteh, O., 2012. Cashless policy: Implementation, challenges and the way forward. A Paper Delivered at the Bankers Dinner, Osogbo,24, May.

Central Bank of Nigeria, 2010. Annual Reports and Accounts, December, 24: 18.

Ebulu, S., 2008. ATM scaling the hurdles: The nations, news papers, Wednesday, February, 27: 21.

Ibrahim, D., 2009. Bottlenecks in operation cashless and the way forward. A Paper Presented at Bankers Dinner, Ibadan, 18 April.

Imafidon, A., 2013. Challenges of E-banking and payment systems in Nigeria. Journal of The Chartered Institute of Bankers of Nigeria, Lagos, April-June. pp: 39.

Kelvin, O., 2012. Mobile money for financial inclusion. Journal of Macro Finance, Africa, Nett, Lagos, 4: 14.

National Bureau of Statistics, 2012. Annual Statistical Reports, 13: 11.

Okafor, L., 2008. Nigeria payments system: The role of the banking industry. Paper Presented at the CBN Seminar on the Dynamics of Managing the Nigeria Payment System in the 21st Century.

Olakah, 2012. Benefit, challenges and prospects of a cashless economy. Journal of The Chartered Institute of Bankers of Nigeria, Lagos. Jan-March: 11.

Oloruntoyin, S.T. and D.O. Olanloye, 2012. The role of information communication technology (ICT) on national development. International Journal of Economic and Development Issues, 1&2(11).

Tijani, J., 2013. Integrating the unbanked and under-banked Nigeria population into formal financial services through mobile money solution. Journal of Pristine, Zaria, 8(1): 158.

Uwah, 2011. Operations cashless. An article published in the leadership Newspapers, Wednesday, 22, June: 27.

Appendix-1.

Table-1. Timely Access to the use of E-payment channels by customers

Parameter	Fo	Fe	Fo-Fe	{Fo-Fe}2	[Fo-Fe}2/Fe
C- High	9	9-62	-0.62	0.3844	0-039958419
S-high	14	31.37	-17.37	301.7169	9.618007651
C-low	32	31.38	0.62	0.3844	0.01224984
S-low	43	13.38	29.62	877.3444	65.57133034
					75.24154625

Source: Field Survey, 2014

The empirical value is greater than critical value so the null hypothesis is rejected and the alternate hypothesis which state that E-payment channels have been providing quick and timely service to customers was upheld.

Table-2. Safety and security of E-payment channels to customers

Parameter	Fo	Fe	Fo-Fe	{Fo-Fe}2	[Fo-Fe}2/Fe
C- High	12	15.06	-3.06	9.3636	0-621752988
S-high	24	20.94	3.06	9.3636	0.447163323
C-low	29	25.94	3.06	9.3636	0.360971472
S-low	53	36.06	-3.06	9.3636	0.259667221
					1.689555004

Source: Field Survey, 2014

Empirical value is greater than the critical value so the null hypothesis is rejected. Therefore, it can be concluded that bank customers resources are safe and secured with the use of E-payments channels

Table -3. Reliability rating of the use of E-payments channels by customers

Category	Fo	Fe	Fo-Fe	{Fo-Fe}2	{Fo-Fe}2Fe
CA – High	23	23.85	-0.85	0.7225	0.03029
SA – High	34	33.15	0.85	0.7225	0.02179
CA – Low	18	17.15	0.85	0.7225	0.04213
SA – Low	23	23.85	-0.85	0.7225	0.03029
					0.1245

The empirical value of 0.1245 is greater than the critical value of 0.00393. It is therefore concluded that the E-payment channels are reliable.

Degree of Freedom

(Row -1) (Column - 1) = (2 - 1) (2 - 1) = 1x1 = 1 = 0.00393

Table -4. Contributions of E- Payments Channels to National Development

Parameter	Fo	Fe	Fo-Fe	{Fo-Fe}2	[Fo-Fe}2/Fe
C- promoting	38	36.38	1.62	2.6244	0-072138537
S-promoting	49	50.60	1.60	2.56	0.50592885
C-not promoting	03	4-60	1.60	2.56	0.556521731
S-not promoting	08	6-39	1.61	2.5921	0.4056499452
					1.084902613

Source: Field Survey, 2014

In this case, the empirical value {1.084902613} is greater than the critical value {0.00393} so, the null hypothesis is here by rejected at 95% c confidence level. It can be concluded that the E-payment channels have been contributing positively to national development.