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E-Commerce Advertisement and Usage Experience: The Case of Nigeria

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Abstract: This study presents, at a glance, the level of awareness of some respondents about e-commerce platforms in Nigeria. It explores their preferences and provides some information on how they are responding to e-commerce commercials. The theoretical anchor is the Technology Acceptance Model. Some 97.5 per cent of the 200 respondents surveyed returned their completed questionnaire. The impressive number was as a result of the large number and efficiency of research assistants who administered the instrument in the Ado-Odo Local Government Area of Ogun State, a political subdivision of Nigeria. Results show low awareness, though respondents had opined that the e-commercials were helpful and factual. The results further indicate that the productivity expected by respondents as a result of e-commerce patronage is unimpressive owing to infrastructural deficit, insecurity, illiteracy and a weak legal system. Findings indicate that reading manuals in local languages can lead to a better user experience. The deployment of biometric applications for more security, extensive media campaign as well as better machine-customer interaction can also help.

***Keywords*:** Nigeria, E-commerce, Advertisement, Usage experience Digital wallet, Technology, ATM, POS.

Introduction

The need to stay in touch with advancements in business processes and transaction on a daily basis has necessitated an inclusive banking system for individuals (Sarvenaz & Elsadig 2013, p.1006) and organizations. For many folks, dealing with large volumes of cash is herculean; but the provision of techno-banking solutions seeks to unbundle the burden.

Scholars have relentlessly advocated an improved and efficient payment system that is less dependent on cash. Onwe (2013, p.58); Osazevbaru &Yomere (2015, p.2);Yaqub et al. (2013, p.208) express the viewpoint that efficient payment systems which depend less on cash is a necessity for national development and a required infrastructure for fast-forwarding economic derivatives in the 21st century.

Similarly, some research findings have hypothesized that a 10 per cent increase in the efficiency of national payment systems can cause a rise in GDP by 1 per cent (Cobbs, 2005 in Yaqub et al. 2013, p.206; Odior & Banuso 2012, p.305).

Statement of the Problem and Objectives of the Study

Development in the 21st century has been measured in several ways but the ability to automate an economy with cash carriage reduction is recommended as a major indicator of advancement (Adeoti, 2011, p.53; Jegede 2014, p.43; Shonubi 2012, p.14). The world is a shrinking marketplace where exchange rate is volatile and transactions are unstable; where hitch-free payment systems are now kernel to excellence in cash delivery.

In spite of the challenges faced by customers of ICTs at the introductory level (Omojola, 2009) there is little doubt that technologies have met money on the platform of communication in the banking sector, which is why Singh (2002 as cited in Basweti et al. 2013, p.324) opines that "banks have found themselves at the forefront of technology adoption for the past three decades." But the question is: do these technological gadgetries and hoopla of *cashlessness* work as programmed in Nigeria? Providing answers to this question, prima facie, is the chief objective of this research.

Prevalent systemic fraud, customer illiteracy, organized cyber-criminality, and infrastructural deficit in Nigeria seem to be threatening the noble technological intention of the digital wallet. The asphyxiation of the usability and interoperability of the cashless system stare Nigerians in the face and there seems to be a high possibility that future technology may cause more pain than gain for an average subscriber to e-commerce.

The following are the objectives of the study:

- To survey the current awareness profile of Nigerians about the digital wallets and its functionalities.
- To ascertain the most preferred communication and technology trend of Nigerians in the banking sector.
- To find out if the product usage experience of the digital wallet and the Central Bank of Nigeria's cashless policy drive are connected to advertisement and awareness initiatives.

Research Questions

The objectives above are indicators for the research questions listed below:

- What is the current awareness profile of Nigerians about the digital wallets and its functionalities?
- What are the most preferred e-commerce trends of Nigerians in the Banking sector?
- How does product usage experience equate with the cashless economy advertisement and awareness drives?

Why Go Cashless?

The cashless banking initiative aims at reducing, but not totally eliminating the quantity of physical cash circulating whilst boosting more electronically-oriented financial operations within the country (Omotunde et al. 2013, p.41; Osazevbaru & Yomere 2015, p.2). The idea behind the cashless economy does not refer to outright absence of cash movements in the economic terms, but one in which a larger percentage and volume of financial transactions are not based on hand to hand, interpersonal exchange of cash (Daniel et al. 2004;Olanipekun et al. 2013, pp.5-6; Yaqub et al. 2013, p.201).The improvements in the effort towards a cashless banking system has made it possible to make payments and a few other bank transactions over the mobile phones with or without internet connectivity (Osazevbaru & Yomere, 2015, p.3).

As a new era of technological revolution beckons, countries are beginning to compete and battle over the control of information rather than natural resources. The vogue today is the use of the e-platform which implies offering financial services through electronic media to various customers irrespective of time and 25location (Basweti et al. 2013, p.324; Onwe 2013, p.61).

The growth experienced by nations running a cashless economy in the last three decades necessitated among several other reasons, the directive by the Central bank of Nigeria (CBN) and the Nigeria Inter-Bank Settlement System (NIBSS) concerning the setting of cash withdrawals and lodgment limits on transactions above the 500,000

individual and three million naira corporate withdrawal/ lodgment limits for which three and five per cent processing fees will be charged correspondingly. In concretizing this initiative, a test run was carried out in Lagos from April 2012 (Osazevbaru & Yomere 2015, pp.3-4; Shonubi 2012, p.14). Thereafter, the policy was extended to five states (Kano, Ogun, Rivers, Anambra, and Abia) and Abuja on October 1, 2013 and to the entire country in July 1, 2014 (Osazevbaru & Yomere 2015, p.3). The cardinal objectives of the policy are:

- to drive the development and modernization of Nigeria's payment system in line with the country's vision of becoming one of the top 20 economies of the world by year 2020,
- to reduce the cost of banking services (including the cost of credit) and drive financial inclusion by providing more efficient transaction options and greater reach,
- to limit high cash usage outside the formal sector and thereby improve the effectiveness of monetary policy in managing inflation and encouraging economic growth, and
- to curb some of the negative consequences associated with high physical cash usage, including high cost of cash: robberies, corruption and leakages through money laundering, fraud and cash-related crimes. (CBN, 2011; Osazevbaru &Yomere 2015, p.3; Olanipekun et al. 2013, p.5; Shonubi, 2012, p.14; Yaqub et al. 2013, p.204).

Okafor & Ezeani (2012, p.18) and Shonubi, (2012, p.14) reiterate that the introduction of this policy is expected to foster exploration of the existing alternatives to physical cash transactions ranging from checks, passbooks, payment cards (ATM and POS) and the mobile banking platforms by bank customers whilst subtly decongesting the traffic of physical cash movement across long distances. This is in a bid to achieve a higher level of financial inclusion in the country.

According to the country's apex bank, ATMs remain the most patronized e-payment channels, accounting for (97.8%), Web (1.0%), POS terminals, and mobile payments (0.6%) each. Similarly, in terms of the value of transactions made, ATMs account for 93.4 per cent, web 3.5 per cent, POS 1.9 per cent and mobile payments, 1.2 per cent (Yaqub et al. 2013, p.206).The motive behind the introduction and implementation of the cashless/e-payment initiative is to inspire the unbanked populace into the financial mainstream (E-PRAN, 2010, p.4, Yaqub et al. 2013, p.205) and mop up excesses to firm up the nation's currency.

Benefits of a Cashless Economy

The use and consistent maintenance of the cashless financial platforms provide some benefits for bank customers, the government and even private organizations across board. For the customer, the adoption of cashless platforms affords convenience and speed in the execution of banking transactions either online, from their mobile phone or through the use of the issued plastic cards. Also, the availability of different service options makes it possible to carry out several operations within the shortest time possible (Okafor & Ezeani, 2012, p.19) whilst reducing the risk of cash-related crimes as a result of less or total removal of physical cash transition from place to place.

For corporations, organizations and institutions, digitalized money affords greater ease in accessing capital for daily business (Sarvenaz & Elsadig, 2013, p.1007), eliminates risky cash residency in the vault, whilst transfers to clients and customers alike on a daily basis could be carried out over the internet or via the mobile technology platforms. Thus, cash handling costs are reduced and revenue leakages are discovered easily and blocked.

For government organs and agencies, continuous reduction in the over reliance on physical cash for financial transactions and the traceability of illegally issued funds are enhanced since the computer records all transactions carried out within a stipulated period of time. Governments at all levels, through the cashless system could ensure increased tax collection and ensure greater financial inclusion of Nigerians through multimedia communication of advertising messages.

On E-Commerce

E-commerce is the use of the internet for financial services marketing communication, customer identification, online payment and delivery of goods and service (Ayo et al. 2011). The annexation of this system into the business chain has enhanced through the use of information and communication, the improvement of corporate relationships, creation of new ones and improvement of business efficiency without geographical and spatio-temporal limitations.

Nigeria is the fastest growing telecommunication country in Africa (Ayo et al. 2011, p.5109) and the rise in internet usage and online representations by Nigerians has been on the continual increase since the new millennium- almost doubling each year. Despite the growth and infiltration of Nigeria's media space by e-commerce firms, some citizens still believe that such transactions carried over these platforms may not be considered safe

and therefore abstain totally from using them.

Two leading business models exist under the e-commerce platforms in Nigeria, namely: Business to Business (B2B) which embodies transactions between two corporate organizations, characterized by exchange of large product quantity and gaining lower price margins. On the other hand is the Business to Consumer (B2C) platform which is carried out between an organization and an individual (usually, the customer), involving smaller product volumes and higher margins. Others are the Business to Portal (B2P) model, Consumer to Consumer (C2C) and the Business to Affiliate (B2A) model etc. The most relevant of these to this study are B2B and B2C.

Digital Wallets

Digital wallets function like the traditional wallet but with extra application features packaged to sell with ease, speed and flexibility whilst providing more security and back up of owner's transaction details online and real time. Digital wallets are an improvement on the traditional business models that encourage transfer or exchange of monetary value physically.

The numerous challenges of traditional wallet necessitated its digitalization with the mobile phone which allows the user to store much personal information and encrypt such from the eyes of a third party, an additional value of security in the operations of daily financial transactions. The digital wallet also has the ability to search and locate the card needed per time by name, keywords, service provider, etc. (Balan, et al, nd: p.1).

Taghiloo et al. (2010, p.11) reveal that digital wallets are designed to function in two sides - the software and information components. The software component "provides security and encryption for personal information useable for actual financial transactions" while the information component comprises preloaded details including, but not limited to shipping address, billing address, etc. as provided and updated by card owner time and again.

Digital wallet technology has birthed applications such as *PayPal*, *Google* and recently, *Apple*. Check et al. (2014, p.7) note that consumers with near-field communication (NFC) enabled mobile devices are capable of using their smart phones configured with any of these applications to transact cashless payments on POS terminals outside banking premises.

Chiejena & Shoremekun (2013, p.54) inform readers that the near-field communication refers to a "set of standards governing the establishment of radio communication between devices by bringing them close to each other

(within a few centimeters) or touching them together". It is common knowledge that the distance factored into the use of NFC-enabled devices assures greater security in the mobile transaction carried out by the consumer when compared with the credit cards that demand physical contact with dealer's device. A popular NFC in Nigeria is branded *PayAttitude.*

While tracing the historical development of what has come to stay as the digital wallet today, GPayments' Whitepaper (2001, pp.1-2) stresses that wallets have transited from being an attachment to the complete dressing or a fashion complement, to becoming a personal item of value which an average adult carries around. With the advent of technology, therefore, the concept of the traditional wallet has been made to domicile in the plastic cards with magnetic inlay which securely bears personal account information. These cards aid individuals to carry value across far distances, allowing global usability without borders. These numerous benefits of digital wallets notwithstanding, the loss of the instrumental card to a fraudulent mind could destroy the value of the card. Secondly, its functionality demands extra expenses on its digital security.

The Automated Teller Machine (ATM) and the Point-of-Sale Machine

Automated Teller Machines were introduced to function primarily as cash dispensers but advancement in financial technology has expanded the scope of coverage of ATMs to deposits, bill payments, airtime recharge, data purchase and even interbank funds transfer. Rose (1999) describes the ATM to be a combination of:

> …a computer terminal, record keeping system and cash vault in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a personal identification number (PIN) or by punching a special code number into the computer terminal linked to the bank's computerized records 24hours a day (in Jegede, 2014, p.41).

Ancient economic transactions were totally devoid of any monetary instruments because the entire process of goods/value exchange was premised on the barter systems (Adeoti, 2011, p.53; Adeoti 2013, p.2082). Nigeria's monetary history records the use of cowries as a pioneering instrument of exchange for goods, followed by coins and papers. Today, digital e-commerce instruments of credit and debit cards are speedily replacing coins and papers with attendant increases in the patronage of ATM and POS machines world over (Tijani & Ilugbemi 2015, p.524).

Faleye et al. (2013, p.3) quote the e-commerce firm *Interswitch* as saying that there are "only 9,000 ATM terminals serving 30million customers accounting for 100million transactions monthly;" resulting in the elimination of long queues usually seen in commercial banking halls (Jegede, 2014, p.42). Ogbuji et al. (2012) adds that the introduction of ATMs in Nigeria accounts for the reduction in the known 'labor-intensive' processes previously associated with financial transactions, as well as the significant growth in ATM adoption by Nigerian banks (Adeoti, 2011, p.53; Jegede 2014, p.43).

Contrarily, however, is the viewpoint of Omankhanlen (2009) that "the current upsurge and nefarious activities of ATM fraudsters is threatening electronic payment systems" in the country (Adeoti, 2011, p.54), suggesting that the financial technology could be carrying a bag of challenges deserving examination.

Challenges of E-Commerce Technology in Nigeria

Technology in Nigeria is faced with a lot of challenges as listed below:

- The inadequacy of banking infrastructure to match the high demands of running an effective cashless payment system is affecting the system negatively (Olanipekun et al. 2013, pp.6-7***)***. This is witnessed daily with the long queues at ATM points all across the town.
- Odior & Banuso (2012, p.307) recommend that the ATM and POS systems have to be expanded "to touch at least 40 per cent of the whole economy before any meaningful effect can be achieved". The consistent drive by the Nigeria Inter-Bank Settlement System PLC and the Central Bank of Nigeria for cashless transaction platforms without adequate arrangements being made alongside for more ATM and POS terminals would make the initiative only a farce.
- The growth and introduction of new technology has continued to come with the new way of making people lose their money (Adewuyi, 2011, p.154). The consistency of fraudulent acts and security lapses in the Nigerian economic systems seem to put con artists steps ahead of the Nigerian government. The existence of anomalies in the system is crippling the efficiency of payment and transaction (Okoye & Ezejiofor 2013, p.245).
- Literacy of banking activities and principles for effective cashless banking operations has not been well publicized in the Nigerian system (Olanipekun et al. 2013:6, 7). A lot of Fraudulent activities have been on the increase as a result of the lack of proper orientation of a large percentage of the banking public not to share

certain personal information, either in a mail or via SMS text to unknown individuals of fraudulent schemes set up to swindle bank customers of resources.

- Electricity and critical infrastructural deficiency clearly portray the inability of the Federal Government till date to provide either an alternative source of power supply, or a permanent solution to the electricity crisis in Nigeria is affecting, not only the manufacturing or construction industries, but more so the banking sector. Banking solutions in the E-commerce chain require constant electricity and stable internet services to run (Brewer et al.2006, p.16).
- Lack of suitable legal and regulatory framework for e-payments make sure Nigeria's current laws do not accommodate electronic contracts and signatures (Okoye 2013, p.5; Yaqub et al. 2013, p.210)
- Bank customers should not only possess the ability to read and write, but the basic ICT skills required to interface with 21st century technology (Basweti et al. 2013, p.330; Brewer et al. 2006, p.19; Yaqub et al. 2013, p.210). E-commerce education in the country is low right now.
- With the increase in ATM usage came the increase in fraud perpetuated by thieves on non-suspecting customers. Omankhanlen (2009 in Adeoti 2011, p.54) asserts that the continued fraudulent activity could be traced to the silence of many banks on ATM frauds and the refusal to share vital information that could help curb the menace.

Some of the other known challenges with ATM usage in Nigeria include withholding of customers' cards, vocal messages that attract external attention, non-availability of required denomination needed by customer card/ PIN theft (Okafor & Ezeani, 2012, p.22).

Jegede (2014, p.46) blames the indiscriminate issuance of cards to customers without regard to literacy level as cause for ATM frauds – poor handling of cards, pins, and responses to unsolicited emails and text messages requesting card details. Jegede states further that the high level of ATM fraud and scams is threatening the continual usage of the machine as it is fast becoming a source of worry and concern far above the benefits it can provide its users. According to Shonubi (2012, p.14), the E-payment platforms like the ATM and POS still experience certain hitches that transactions:

- E-payment systems are yet to be totally immune to infrastructural challenges of power, telecommunications constraints and operational irregularities.
- Incessant GPRS network down time, in relative terms, is also a big

issue because the GPRS system powers many ATMs and POS machines.

Problems of the Dispensing Machines

Unlike the power-consuming, cash dispensing and heavily patronized ATM, the battery-operated, lowly utilized, pint-sized, payment receipting POS machine is still at the arm's length of digital wallet customers in Nigeria. ATM is highly publicized and advertised in both conventional media such as large digital billboard screens (Morah & Omojola, 2013, p.388) and non-conventional outlets such as the house sign system (Omojola, 2015, p.5371). POS does not have such exposure.

A cursory look into the acceptance disparity of the two machines indicates that whilst ATM communicates with its users, POS interfaces with its subscriber-owner; ATM puts money in the pocket as *receivement* whereas POS credits the closet as *commitment*; and while ATM affords multiple exchanges of receiving, sharing and confirming, POS provides a one way track of *pay and go*. Should there be network hiccups midway into a transaction, ATM customers could afford to move on, whilst POS customers would need cash bailout or forgo the transaction.

However, in spite of these ATM-POS value disproportions, both machines share the following challenges as fundamental instruments of digital wallet:

- Lucas Ajanaku reported in Nigeria's *The Nation* newspaper (2016) that congestions have hit ATMs throughout the country due to 75 per cent deficit in the availability of the machines. Queues are returning to the banking halls for cash. In the same vein, many sales outlets that have invested in multiple POSs are abandoning the machine due to intermittent breakdown of communication network. Counter demand for cash is returning gradually.
- Consumer apathy occasioned by systemic frauds, misunderstood service charges, card jamming, inoperative holiday service and delayed transactions is trailing both ATMs and POSs (E-PRAN, 2010, p.7).
- The cost of purchasing, maintaining and replacing ATMs as well as the cost of owning and subscribing to POSs are astronomical; which is why banks in Nigeria could only afford to acquire 9,000 out of 60,000 units needed in the country. This shortfall would exhume the cash concept and bury the noble digital wallet idea of *cashlessness*.
- Interconnectivity and interoperability is the situation where all banks are linked such that the card of a customer of a

particular bank would function in the machine of another bank. The starring reality, especially in Nigeria, is that many customers experience the inability of their issued cards to transact business with all POS devices of all banks. Consequently, multiple card ownership to access multiple POS terminals is gaining grounds. Instead of walking light with a single wallet, subscribers are carrying multiple wallets due to the challenges of interoperability.

- Security concerns, data connectivity and technical challenges of ATMs and POSs are known all over the world. But what is Nigerian is the trend of armed robbers and kidnappers tracking or transporting their victims to ATMs to make withdrawals. In a state of palpable insecurity, it may be preferred to keep the cash in the bank and move on without the digital wallet.
- Internal fraud and un-reversed transaction errors are challenges confirmed by Onwe (2013, p.61) as facing digital wallets. Many unscrupulous employees, especially in banks' information technology department have mastered the act of digitally defrauding wallet users whilst blanking out their victims (in collusion with some employees of telephone services providers) from receiving transaction alerts.
- Longer time frame in the settlement/reconciliations of daily banking activities which prompted Yaqub et al. (2013, p.211) to advocate for legislations binding the banks to be held responsible in cases of late delay in final settlement of daily transactions.

Theoretical Framework

The Technology Acceptance Model (TAM), developed by Venkatesh & Davis (2000) as an improvement on the initial works of Davis (1986), helps explains why users may decide to adopt or reject an innovative idea or information system. Individuals' potential usage behavior as a result of exposure to innovation that was previously unpopular or unknown is the kernel of this model. It places usability choice of the potential consumer on two major beliefs of *perceived usefulness* and *perceived ease of use*. According to Omotayo & Dahunsi (2015, p.119), "this model helps to understand how the effects of these determinants change with increasing user experience over time with the target system."

Perceived usefulness (PU) refers to the extent to which an individual believes that using a technology innovation would enhance productivity or raise performance. Many studies (Omotayo & Dahunsi 2015; Luarn & Lin, 2005; Su, Tsai and Hsu 2013) confirm that the perceived usefulness of an innovation could trigger adoption of

same. In this case, the perceived usefulness attached to the digital wallet, the ATM or the POS by a potential user will determine whether or not such innovation will be adopted and whether or not continual use is ensured.

Perceived ease of use (PEOU) on the other hand refers to the degree to which a potential user of an information system would experience less demand for physical and/or mental efforts in the use of such innovation. Omotayo & Dahunsi (2015, p.122) opine that "technology that is perceived to be easier to use than another is more likely to be more accepted by users, and using it can increase job performance."

This clearly reveals that the ease or perceived ease in the use and adoption of the digital wallet, the ATM card/ machine or POS machine in the process of business transactions could aid the adoption of this innovation. This further explains that when difficulties are experienced more often, there is a higher possibility that such technology be shelved by a potential user.

Method

Questionnaire was used to determine the awareness profile of Nigerians about digital wallets and their functions. For this study, 200 copies of the instrument were administered to respondents, out of which 195 were returned, having being correctly filled by the respondents, leading to a response rate of 97.5%. The robust response was achieved because no fewer than 14 research assistants were deployed to the target respondents. The research policy adopted was *wait-and-collect* as the respondents were encouraged by the assistants to complete the questionnaire on the spot.

The respondents were residents of the Ado-Odo Local Government Area of Ogun State. Ogun State of Nigeria was selected because of the highly visible usage of the e-commerce systems. Purposive sampling was carried out as a guarantee for the simple percentage analyses which would allow results to be seen at a glance. Another reason for using the purposive sampling system was the non-availability of a standard database from which probability sampling could be carried out.

Results and Discussion of Findings

Research Question 1: What is the current awareness profile of Nigerians about the digital wallets and its functions?

Table 1: Representation of the awareness profile of respondents about e-commerce, including digital wallets

Response Category	***f***	**%**
I am Aware	75	38.5
I have no idea	120	61.5
Total	**195**	**100.0**

Table 1 above reveals that there is a low awareness rate. About two-thirds of the study population do not know what a digital wallet is used for (Table 2). There could be several reasons for this phenomenon. One key reason could be the infancy phases of the cashless policy initiative in Nigeria which has not been highly publicized or well heard and known of. Digital wallet is popular in the developed countries of Europe and America due to the robust economic system in place in such nations. Nigerians are yet to acclimatize on what the system demands and this may be responsible for the low awareness. With deeper purview into the existing awareness on the digital wallet, respondents were further questioned about their awareness on the functionalities of the digital wallet

Table 2: Respondents' awareness about the functions of a Digital wallet

Response Category	***f***	**%**
I know its functions	66	33.8
I don't have a clue	129	66.2
Total	**195**	**100**

Results obtained on Table 2 show that almost the same percentage of respondents who knew nothing about digital wallet was also oblivious of its functionalities. As a response to the research objective, it is seen from the foregoing tables that there is a rather low awareness about digital wallet and its uses.

Research Question 2: What are the most preferred e-commerce trends of Nigerians in the Banking sector (ATM, POS, web, Mobile etc platforms.)? With the continuous innovative drive for greater automated banking inclusion, there has been a consistent rise and development of technologies to aid banking transactions. To this end, respondents were queried on which of the e-commerce banking platform was most preferred.

Table 3: Table showing the most preferred e-commerce transaction platform

Response Category	***f***	**%**
Mobile Banking	28	14.4
POS	29	14.9
Web	4	2.1
ATM	107	54.9
Over the counter	27	13.8
Total	195	100

Results on Table 3 show a high preference for the Automated teller Machine (ATM) when placed side by side with the other systems. There could be several reasons that account for this obvious preference. These could range from the higher availability rating of the ATM when compared with the other platforms or simply because, Nigerians are not yet cashless policy-compliant, and since the ATM still dispenses cash, it is most preferred. The Central Bank of Nigeria in collaboration with the NIBSS should strive through more publicity and creative ideas to encourage a larger percentage of customer inclusion (of Nigerians) into the cashless policy movement.

Research Question 3: How does product usage experience equate with the cashless economy advertisement and awareness drives?

Upon the successful cashless policy campaign in Lagos in April 2012 and other states of the federation in October 2013 and July 2014 respectively, respondents were asked how well these campaigns over the various media platforms have influenced their choice on whether or not to 'go cashless':

Table 4: Respondents who claimed that e-commerce advertisements have influenced their choice to go cashless

Response Category	***f***	**%**
Strongly Agree	62	31.8
Agree	102	52.3
Undecided	10	5.1
Strongly Disagree	20	10.3
Disagree	1	0.5
Total	195	100

Table 4 shows that the campaign has been rather successful following the fact that a larger percentage of survey respondents have been

positively influenced to adopt more cashless banking initiatives. This does not totally abdicate the fact that less than a quarter have not been influenced to join the trend for daily e-banking transactions. Following the questions already asked, respondents were asked how well they found the adverts on the telecommunications trends helpful especially in terms of its usability and user friendliness.

Table 5: Respondents who considered the claims made in the adverts to be true and helpful

Response Category	***f***	**%**
Strongly Agree	43	22.1
Agree	115	59.0
Undecided	35	17.9
Strongly Disagree	2	1.0
Disagree	0	0.0
Total	195	100

Table 5 clearly reflects that a larger percentage of the survey respondents (81%) found the advert claims to be true and helpful in creating an informed guidance on their already made choice to adopt the cashless policy drive. This is clearly supported by the Technology Acceptance Model which anchors that the perceived ease of use of a new technology would in the end foster the decisions to accept such technology.

Following the claims of some findings (E-PRAN, 2010, p.4; Onwe 2013, p.61; Yaqub et al. 2013, p.210) about the POS machine not receiving as much attention as the ATM and considering the fact that the POS is meant to drive the cashless policy initiative better, the more this innovation is driven, the better efficiency the cashless policy drive holds. Therefore respondents were asked about their experience in using the POS machine.

Table 6: Respondents' usage experience of the Point-of-Sale (POS)

Response Category	***f***	**%**
Favorable	104	53.3
Unfavorable	19	9.7
Undecided	43	22.1
Total	195	100

Findings of this survey indicate that a larger percentage of respondents had a favorable perception of the POS machine. However, this

contrasts the findings of the work cited earlier in this work, claiming that the wrong perception of the POS was responsible for the low usage of POS. A paradox seems to exist therefore, since a larger percentage now claims a favorable usage experience.

Summary of Discussion

Based on the survey conducted on the awareness profile of respondents about the digital wallet, it was discovered that about two-third of the study population knew nothing about the digital wallet while about 66% had no knowledge of what it was used for. Considering the benefits the digital wallet affords its owners, and with the massive availability of such applications on most mobile phones today, it can be said that the present ignorance is as a result of the low awareness made through the media (main stream or social) on how to run a less cash-dependent economy through technologies like the digital wallet which are readily available on *Android*, *Blackberry*, *Microsoft* and *iOS* powered mobile devices.

It also turned out that the Automated Teller Machine (ATM) was the most preferred and adopted e-commerce transaction platform. This preference is possibly linked also to the ability of the Automated Teller Machine to dispense cash (aside other mobile functions) when compared with the other platforms (POS, Web, Mobile Banking etc.). More publicity is needed to prove that money in a customer's digital wallet is as potent and safe (or useful) as when in the bank vault. These are gaps meant to be filled in Central Bank of Nigeria's publicity drives towards a less cash dependent economy.

Conclusion and Recommendations

The ATM and POS machines were used as case studies in capturing the development, adoption and usage experience with regard to thee-commerce platforms. The study has proved that there is low awareness of the meaning and function of the digital wallet, regardless of the communication messages about the ATM which a larger percentage of the respondents considered helpful and truthful. Additional problems of infrastructure, insecurity, weak legal framework guiding e-commerce transactions as well as ignorance of the profitability of these platforms were identified to be the major drawbacks in the adoption of these E-Commerce technologies.

The following recommendations are necessary in forestalling the emerging problems associated with the use of digital wallet in Nigeria:

1. Illiterate customers should not be issued ATM cards unless having been properly trained. Training manual should be created by the Central Bank of Nigeria and adapted to suit individual bank's requirements and indigenous

languages, and passed down as training guide for new customers and intending ATM card users. Another option along this line is the issuance of a directive from the CBN that all banks develop a compulsory ATM guide in training their potential ATM card owner on how to secure his funds, make the most of the ATM card and guide against cloning or hacking as the case may require.

2. Banks should introduce biometrics as security measures. The biometric authentication system could be based on ocular details (iris, vasculature, retina, etc.) or through the fingerprint, palm print, finger knuckle print, hand geometry etc. The presence of these features is a sure way to guide against the falsification of bank transaction details. This is premised upon the scientific discovery that no one shares the same biometric details with another.
3. Media campaigns should be intensified on the need to use POS machines whilst debunking the myths held about the operations of the POS transaction platform. The banking public in Nigeria needs to be provided with the right information, which among other things should include clearing all misconceptions about the POS systems. This can be done through effective media (social and mainstream) campaigns.
4. Government should establish a legal framework to guide and regulate e-payments and accommodate electronic contracts and signatures. Adequate legal frameworks that guide reconciliation, immediate ratification of digital transfers etc. should be put in place. The existence of these frameworks would boost customers' confidence.
5. Payment machines should be programmed to indicate account balances instead of mere display that available funds are insufficient- customers may likely make do with what the machine has left instead of totally turning back disappointed.
6. One major drawback in the use of the ATM is the non-availability of cash when transactions need to be made. The use of electronic triggers to alert bank staff at control centers on cash stock profile is recommended for smoother running, maintenance and usage of the systems.

References

Adeoti, O. O. (2013). Challenges to the efficient use of point of sale (POS) terminals in Nigeria. *African Journal of Business Management*, *7*(28), 2801-2806.

Adeoti, J. A. (2011). Automated Teller Machine (ATM) frauds in

Nigeria: The way out. *Journal of Social Sciences*, *27* (1), 53-58.

Adewale, A.A., Ibidunni, A.S., Badejo, J., Odu, T., &Adoghe, A.U. (2014). Biometric enabled e-banking in Nigeria: Management and Customer's perspectives. *Information and Knowledge Management, 4*(11), 23-28.

Adewunmi, S. (2010).An ideal ATM implementation in an unsecured environment. *Proceedings of the International Conference on Software Engineering of the Intelligent Systems, Ota, Nigeria: 1*, 1-8.

Adewuyi, I. D. (2011). Electronic banking in Nigeria: Challenges of the regulatory authorities and the way forward. *International Journal of Economic Development Research and Investment, 2*(1), 149-156.

Ajanaku, L. (2016)."Diminishing Naira crippling ICT". *The Nation Newspaper*, August 30, 2016. Retrieved fromhttp://www.thenationolineng.net/dimishing-naira-crippling-ict-2/

Ayo C. K., Adewoye J. O., & Oni A. A. (2011). Business-to-consumer e-commerce in Nigeria: Prospects and challenges. *African Journal of Business Management*, 5(13), 5109-5117, 4 July, 201. Retrieved fromhttp://www.academicjournals.org/AJBM.

Balan, R. K., Ramasubbu, N., &Tayi, G. K. (n.d.). Digital wallet: Requirements and challenges. *Singapore Management University and SUNY at Albany*, 1-6.Retrieved from https://apollo.smu.edu.sg.

Basweti, O.K., Mases, C.B., & Martin, O.R. (2013).The impact and challenges of

information communication technology adoption in the Tanzanian banking sector. *International Journal of Academic Research in Business and Social Sciences, 3*(2), 323-334.

Brewer, E., Demmer, M., Ho, M., Honicky, R. J., Pal, J., Plauche, M., & Surana, S. (2006). The challenges of technology research for developing regions. *Emerging Economies*, 15-23. Retrieved June 20, 2016 from http://www.idi.ntnu.no/grupper/su/bibliography/pdf/2006/Brewer2006pc.pdf

Central Bank of Nigeria (2011). Money market indicators: money and credit Statistics. *CBN Statistical Bulletin*. [Data file] Abuja: CBN Publications.

Central Bank of Nigeria. (2012). *"Toward a cashless Nigeria: Tool and strategies."*Retrieved June 24 from http://www.ncs.org.ng/wpcontent/uploads/2012/08/cashless2012-4.pdf

Check, L., Huiskamp, W. & Malinowski, A. (2014). "E-commerce trends and payment challenges for online merchants: Beyond payment." *Moduslink Whitepaper*,p.1-25.

Chiejena, C. C. & Shoremekun, O. E. (2013).Emerging technology trends that could transform the way financial transactions occur. *Journal of Economics and Sustainable Development, 4*(9), 53-60.

Daniel, D.G., Swartz, R.W., & Fermer, A.L. (2004). *Economics of a Cashless Society: An Analysis of Costs and Benefits of Payments Instruments.*AEI-Brookings Joint Centre for Regulatory Studies.

Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results. Retrieved from http://hdl.handle.net/1721.1/15192

E-PRAN (2010).*White Paper on Point on Sale (POS) Terminals as an E-payment Channel*. Lagos: E-Payment Providers Association of Nigeria.

Falaye, A., Adepoju, A., Yakubu, D. & Oludare, I. (2013).A Survey of ATM Security implications within the Nigerian banking Environment. *Journal of Internet Banking and Commerce, 18*(1), 1-16.

GPayments. (2001). *Electronic wallets: Past, Present and Future.*Retrieved from https://www.gpayments.com/pdf.

Idolor, E.J. (2010). Bank frauds in Nigeria: underlying causes, effects and possible remedies. *African Journal of Accounting, Economics, Finance and Banking Research,6*(6), 62-80.

Jegede, C. A. (2014). Effects of automated teller machines on the performance of Nigerian banks. *American Journal of Applied Mathematics and Statistics, 2*(1), 40-46.

Luarn, P., & Lin, H. H. (2005).Towards an understanding of the behavioral intention to use mobile banking. *Computers in Human Behavior, 21*, 873–891.

Morah, N. & Omojola, O. (2013). Digital large screens as a community medium: Interactivity and community relevance in focus. In A. Ojebode (Ed.), *Community Media for Development and Participation: Experiences, Thoughts and Forethoughts*. Ibadan: John Archers Publishers.

Odior, E. S. & Banuso, F. B. (2012). Cashless banking in Nigeria: Challenges, benefits and policy implications. *European Scientific Journal, 8*(12), 829-316.

Ogbuji C.N., Onuoha C. B. & Izogo, E. E., (2012).Analysis of the negative effects of the

Automated Teller Machine (ATM) as a channel for delivering banking services in Nigeria.DOI: http://dx.doi.org/10.5539/ijbm.v7n7p180.

Okafor, E. E. & Ezeani, F. N. (2012).The empirical study of the use of Automated Teller Machine (ATM) among bank customers in Ibadan metropolis, South-western Nigeria. *European Journal of Business and management, 4*(7), 18-33.

Okoye, P. V. & Ezejiofor, R. (2013).An appraisal of cashless economy in the development of Nigerian economy. *Research Journal of Finance and Accounting, 4*(7), 237- 252.

Okoye, V. O. (2013). E-banking in Nigerian banking industry: challenges and prospects. *International Journal for Management Science and Technology,1*(6), 1-8.

Olanipekun, W.D., Brimah, A.N. & Aigbe, S.T. (2013). Role of electronic banking in enhancing human resource performance and customer satisfaction: Evidence from Guaranty Trust Bank plc. Nigeria. *International Journal of Business and Behavioral Sciences, 3*(4), 36-44.

Omankhanlen, O. (2009). ATM Fraud rises: Nigerians groan in Nigeria. *Daily News*, Sunday, June 21, 8-10.

Omojola, O. (2009).English-oriented ICTs and ethnic language survival strategies in Africa. *Global Media Journal,* Vol. 3 (1), pp. 1-14.Retrieved from *http://globalmedia.journals.ac.za /pub/article/view/18.*

Omojola, O. (2015). House sign advertising design and graphic application imperatives. *Encyclopedia of Information Science and Technology* (3rd ed., pp. 5371-5380). Hershey, Pennsylvania: IGI-Global.

Omotayo, F. & Dahunsi, O. (2015).Factors affecting adoption of point of sale terminals by business organizations in Nigeria. *International Journal of Academic Research in Business and Social Sciences, 5*(10), 115-136.

Omotunde, M., Sunday, T. & John-Dewole, A. T. (2013).Impact of cashless economy in Nigeria. *Greener Journal of Internet, Information and Communication Systems,1*(2), 40-43.

Onwe, U. B. (2013). The Nigerian financial market and the challenges of information technology based operational services. *Kuwait Chapter of Arabian Journal of Business Management Review,2*(6), 58-65.

Osazevbaru, H. O. & Yomere, G. O. (2015).Benefits and challenges of Nigeria's cashless policy. *Kuwait Chapter of Arabian*

Journal of Business Management Review, 4(9),1-10.

Rose, P.S. (1999). *Commercial Bank Management*. Boston: Irwin/McGraw-Hill.

Sarvenaz, H. K. & Elsadig, M. A. (2013). The impact of e-commerce on labor productivity in Iranian Manufacturing SMEs.*Middle-East Journal of Scientific Research, 15* (7), 1005-1020.

Shonubi, A. (2012). Towards a cashless Nigeria: Tools and strategies: Business implication. A p*resentation at the Nigeria Computer Society 24th National Conference*, July 25, 2012.

Singh, S., Chatwal, S.S., Yahyabhoy, T.N. & Yeo, C.H. (2002). Dynamics of innovation in e-banking .Retrived from http://aisel.aisnet.org/ecis2002/147.

Su, S., Tsai, C. & Hsu, W. (2013). Extending the TAM Model to explore the factors affecting intention to use telecare systems.*Journal of Computers*, *8*(2), 525-532.

Taghiloo, M., Aghelli, M. A. & Rezaeinezhad, M. R. (2010). Mobile based secure digital wallet for peer to peer payment system. *International Journal of UbiComp (IJU): 1*, 1-11.

Tijani, J. A. & Ilugbemi, A. O. (2015). Electronic payment channels in the Nigeria banking sector and its impacts on national development. *Asian Economic and Financial Review*, *5*(3), 521-531.

Ugwu, E., Eze, E.O. & Ugbene, I. J. (2012).On the technological promises and challenges facing e-business in Nigeria.*Computing, Information Systems & Development Information, 3*(4), 9-14.

Venkatesh, V. & Davis, F. D. (2000).A theoretical

extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, *46* (2), 186-204.

Yaqub, J. O., Bello, H. T., Adenuga, I. A. & Ogundeji, M. O. (2013). The cashless policy in Nigeria: prospects and challenges. *International Journal of Humanities and Social Science, 3*(3), 200-212.