Nigerian Cashless Banking Policy: A Multi-Aspectual View of Trust Issues Affecting the Adoption of E-Commerce and Other Technology Tools

Abdul-Hamid A.Kaduna¹, Mu'azu A. A. Kaduna², Hayatu M. Kaduna³

^{1, 2, 3}State University, Department of Mathematics and Computer Science, Tafawa Balewa Way, Kaduna, Nigeria

Abstract: The growth in Information Technology has led to the transformation of the banking system towards providing efficient services while simultaneously being time and cost effective. This led to the introduction of the cashless policy in Nigeria. Understanding both the negative and positive implications of this policy as well as factors that will help or deter it is crucial to its long-term success hence the use of Aspectual Analysis to dissect the various aspects that influence implementation and rate of adoption.

Keywords: Cashless Banking, E-commerce, Technologies

1. Introduction

The growth in Information Technology has led to the transformation of the banking system towards providing efficient services while simultaneously being time and cost effective (Ugwuanyi andUgwuanyi 2013). This transformation alongside the strong presence of corruption and its effect on economic growth led to the introduction of the cashless policy in Nigeria (Central Bank of Nigeria 2011).

The use of e-commerce tools such internet banking, e-wallet and point-of-sale machines were used alongside withdrawal limits on the automated teller machines to discourage cash transactions and drive the transition (Shonubi 2012).

However, while this policy provides the advantages that come with technological adoption, it also inherits some of its inadequacies with reports of internet fraud, lack of awareness and slow rate of adoption among others (Akhalumeh and Ohioka, 2011).

It is therefore imperative that its impact both progressive and undesirable be understood from all spheres in order to achieve the planned outcomes successfully.



Figure 1 show that there are five major factors; that areaffecting trust and the adoption of e-commerce and other technology tools in Nigeria. Beneath is the discussion of construction of research model and hypotheses.

2. Internet Network

Internet trust is normally based on the network safeguards, protective measures and control mechanisms, the technology aim to provide a reliable transaction from accurate, timely as well as complete data transmission. (Pauline et al, 2002)

An efficiency of the network technology can go a long way in reducing customer's time wastage and increase the speed of the transaction in return would increase Nigerian customer's adoption andtrust in e-commerce. (Riggins, 1998) Trustworthy Banks and firms In Nigeria were able to use the advanced technology to satisfy their customer's need by delivering services on time, so that technology can contribute to increase customer satisfaction as well as customer's adaption and trust in e-commerce as a result of Nigerian Cashless banking policy. For this reason, organization and banks implements the advance and suitable technology measures to improve the customer trust in Ecommerce and there adoption. Thus the previous formulated hypothesis has positively affected the adoption of ecommerce and Trust.

H1: A customer's internet network will positively affects the adoption of e-commerce and level of trust in e-commerce

2.1 Technology

Advanced technology can contribute to increase the ecommerce performance in several ways (Robert G.). The Nigerian government has made a lot of the effort in helping to increase the customer's adoption and trust in electronic networks and investing heavily in terms of technology with collaboration with Nigerian Information technology development agency which helps in building capacity of Nigerians. As such, it has positively affects customers adoption and trust in e-commerce *H2: Technology will positively affect the customer's adoption and trust in e-commerce*

2.2 Website Design

There are many authors whoimpression that the design of the website can influence customer's trustworthiness of an online stores which is necessitated by cashless policies. According to Pauline et al (2000) the manipulation of visual elements in the interface can influence trustworthiness of an online store. Pauline et al (2000) state that " the design of the e-commerce website need to recognize the kind of experience and social indications people need to able to be adopted and have trust. Therefore it is vital banks, and other online retailers to develope-commerce website which can increase the customer as a result will increase their adoption due to comfortable interaction between them and the system. Based on reason above, the resulting hypothesis is formulated:

H3: The design of e-commerce site will positively affect theadoption of e-commerce and customers trust in e-commerce

2.3 Bank's Reputation

According to George (2014) banks strive to establish a favorable reputation, in order to increase the customer trust and adoption to e-commerce. He also believed that the reputation of a little known party can supplement and influence the first impression that its makes on other parties and a positive reputation can be able to build up the adoption.On the basis of the above.adoption is a widely recognized predictor of trust, it can be seen as factor that affects the Nigerian customer's assessment of cashless baking and e-commerce trustworthiness. Thomas and Paolo (1994) defined familiarity as the condition for trust because it create a framework and understanding of the environment and the trusted part within which the expectations of trust can be explicated. In the Nigeria, both purchaser and nonpurchasers seek cues that would indicate the reputation of a bank on the Web. Therefore, most of the Nigerians prefers to deal with the well-knownbanks that has built reputation from the past, which normally gives the confidence for them to purchase products or services through the internet. In light of the above, the following hypothesis is formulated:

H4: Bank's reputation will certainly affect the customer's adoption and trust in e-commerce

2.4 Security and Privacy

Security and privacy are among the main issues that scares Nigerians from the cashless banking and e-commerceand make them prefer to buy the product or services in the physical store rather than online (Rogers,2003). Verisign (2000) understood that security and privacy are among the important factors that affects the confidence of customers doing transaction online. He believed that some of the customers accept the risk of using credit card in places such as shopping Centre, because they can see and touch the merchandise and make judgments about the store. While organizations used internet to do transaction, the customers cannot even see and touch the merchandise, it is difficult for them to make a judgments about the security and privacy of their data. Hence, the security privacy will affect the customer trust in e-commerce.

On the other hand, not only that, privacy can also mean "the claim of individuals, groups, or institutions to determine for themselves when, how and what extent information about them is communicated to others". In the e-commerce, trust can be viewed as the customer's expectation, because the customers believe that banks and online business treat the customer's information fairly confidential (Fichman, 1999). Most of the Nigerians are very sensitive on the privacy in cashless banking and e-commerce; they are always apprehensive in giving the credit card information to the online vendors. Therefore, Privacy is an important factor where the banks and online vendors need to look into it. Therefore it is needed for banks and online vendors to address customer's concerns about the security and privacy. For this reason, the following hypothesis is formulated:

H5:Security and Privacy will negatively affect the customer trust and adoption in e-commerce.

The list of hypotheses for this study is as follow:

- *H1:* A customer's internet network will positively affects the adoption of e-commerce and level of trust in e-commerce
- *H2:* Technology will positively affect the customer's adoption and trust in e-commerce
- *H3:* The design of e-commerce site will positively affect the adoption of e-commerce and customers trust in e-commerce
- *H4:* Bank's reputation will certainly affect the customer's adoption and trust in e-commerce
- *H5:* Security and Privacy will negatively affect the customer trust and adoption in e-commerce.

3. The Theory of Modal Aspects and its correlation to the Nigerian cash policy implementation

According to Basden (2010) in ordinary language, Aspects are "spheres of meaning" as they are the different approaches taken to define a given a situation that is good and or bad. He went further to argue that while the likes of Maslow's hierarchy of needs were a suite of aspects, the best suite comes from Dutch philosopher Herman Dooyeweerd because it is more "grounded in careful philosophical thought" and far-reaching. The fifteen spheres as defined by Dooyeweerd and explained by Basden (2010) include:

Quantitative (Q)

This aspect deals with amounts (experience, wisdom, average and so on); statistics and different forms of quantity among others. An instance in cash policy is mathematical estimations of reduced cash outflow. According to Muyiwa et al (2013) statistical data was obtained from Central Bank of Nigeria portal that gave the population of Lagos state where the implementation is being spearheaded as 17 million people, available Point of Sales (POS) being approximately 60 and having 24 ATMs for every100,000 people. Odior and Banuso (2012) also reasoned that ATMs, mobile banking, POS and other tolls would have to increase by 40% to be sufficient. Based on this data, Muyiwa et al (2013) deduced that there aren't enough tools in place to

satisfactorily support the transition. It can therefore be inferred that the desired impact of these tolls cannot be fully experienced until there are enough to service such a large population.

Spatial (S)

This aspect has to do with continuous extension, layouts, distance, shapes and so on. An instance here is constantly extending the completion deadline of a project.Based on insufficient IT infrastructure, it could be argued that less infrastructure leads to slower adoption. Slower adoption increases the possibility of extending the date of completion.

Kinetic (K)

This has to do with acceleration. An example is the rate at which the public put to use the cashless policy tools. It can be said that this rate of adoption could be affected by the literacy level of the population especially in the north were it is poor and as a result affecting how fast the public is able to learn, understand and consequently adopt 'unconventional' ways of doing business Odior and Banuso (2012). According to Rogers (2003) there is a direct relationship between how fast users adopt a technology and how much they understand it.

Physical (P)

This aspect deals with matter, heavy and light fields, push and pull forces, energy to name just a few. A protest to stop the implementation of the policy that leads to vandalism of tools like the ATM machines is an example of how the physical aspect can occur here. The possibility of this with the current unrest in the North-East cannot be disregarded and this could reduce the number of IT infrastructure available hence affecting how fast implementation is completed.

Biotic

The biotic aspect deals with life and living organisms, health or illness, hunger, growth and so on. If the cashless policy is considered hazardous to the wellbeingof Nigerians, it has a biotic aspect that is closely related to the physical aspect.

Psychic (P)

This is also known as the Sensitive aspect. It is about emotions, feelings confusion, human reaction and so on. If the central bank were to turn a blind eye towards the failure in the implementation of the cashless policy, there is a psychic aspect. During the course of research in Lagos, Muyiwa et al (2013) discovered that people felt the adoption of the cashless policy could improve employment if companies like that of the POS machines were to be established in Nigeria due to the increased demand. This could work in the favour of cashless implementation because according to Rogers's (2003) Diffusion of Innovations Theory, If users feel positively towards the impact of a new technology, they are more likely to adopt it and at a faster rate.

Analytic (A)

Analytic aspect deals with differences of identification, awareness, logic and clarity among others. The inclusion of automated banking is capable of enhancing the swiftness of operations and productivity (Adeoti, 2005, p. 213-244 and Ovia, 2005, p. 31-38, quoted in Ugwuanyi and Ugwuanyi 2013 p. 2). Despite interruptions due to network failure in banks, there is still significant improvement in comparison to when "banking halls were characterized by long queues mainly as a result of delays in the traditional banking operations" (Ugwuanyi and Ugwuanyi 2013). When citizens can see the difference be it positive or negative in efficiency of their banking transactions, it can be construed that there is a strong analytic aspect to the policy implementation.

Formative (*F*)

This aspect deals with the human being's ability to freely form and shape things and achieve goals and objectives. It involves structure, forms, technology, and history among others. If the policymeets the 2020 agenda as desired by the Central Bank, there is a formative aspect of achieving that goal. The possibility of this formative aspect being a reality is subject to debate with issues of literacy, awareness and adequate infrastructure pending Muyiwa et al(2013).

Lingual (L)

This involves symbols and what they stand for, documentation, line of communication, expression and so on. Ensuring that all information disseminated by the Central Bank about the policy is accurate is of the lingual aspect.

Social (S)

Social institutions, organizations, inter-personal relationships, and behavior towards others are parts of the social aspect. How banking institutions are able to actively engage their customers in adopting cashless tools is a measure of theirsocial efficiency hence of this aspect.

Economic (E)

This aspect deals with parsimony, management, availability, lack thereof and so on of resources, commerce and so on. Resources are not necessarily monetary; they could be time, manpower among others. The effect of shortage in the economic aspect of availability of resources can be seen in the quantitative, spatial, kinetic, analytic and formative aspects. This shows that a significant amount of the issues that could hinder the success of the policy stem from defects in the economic aspect.

Aesthetic (A)

This aspect involves, conflict, harmony, surprise, humor, enjoyment style among many others. The cooperation of banks in launching more electronic banking and mobile banking processes is crucial to satisfactory implementation.

Juridical (J)

This has to do with giving and receiving what is due, people's rights and responsibilities, legal systems and laws, politics, and appropriateness. Government legislatures, continuance despite changes in government in the Central Bank and the nation as a whole are areas of concern. It is also important to tackle the problem of Internet fraud in order to avoid providing a loophole for corruption particularly since one of the main selling points of the policy according to the Central Bank (2011) is to "curb corruption".

Ethical(E)

This aspect involves right and what is wrong. It also involves generosity, sacrifice, selfishness, modesty to name just a few. If leadersset a tone that hiders successful implementation due to it affecting their personal interest or political ambitions, there is an Ethical aspect of selfishness and questionable patriotism. It is also in direct contradiction with the Central Bank's ambition to encourage development through the cashless policy.

Pistic (P)

This is also referred to as the Faith aspect. It deals with the issues of trust and suspicion, loyalty and betrayal, vision, morale, commitment, religion among others. Creating awareness on the existence of these tools is not enough to speed up adoption. Renewing the lost faith of the citizens due to past experiences with poor governance and abandoned government policies is important. Users are more likely to adopt an innovation when they have faith in its continuity and outcome (Rogers 2003)

4. Conclusion

Although seemingly beneficial, a multi-aspectual view of the cashless policy shows that infrastructure, literacy, exposure, unrest, unemployment, enhanced efficiency in banking operations, extension of adoption agenda, marketing and advertisement, faith in the Nigerian government as well legal, political and continuance implications are among the numerous issues that all have to be dissected and tackled if the 2020 agenda of the Central Bank and its desire to not just have a successful implementation, but also earn relevance with advanced economies are to be attained. This in turn could arguably aid the growth and development of Africa's largest economy in different spheres.

Moreover, a lot of papers have been published in the area of cashless banking but those authors have not included and analyzed how it will affect trust in e-commerce. This study concludes that while trust is a critical factor in explaining trust and adoption of e-commerce, it is important to pay attention to bank's reputation, security and privacy.

Nevertheless, in previous researches, technology, website design & usability and privacy appear to be the top main concerns for consumers' trust in e-commerce the adoption cashless policy and e-banking, As trustworthiness of Banks and Web Vendors lies at the heart of persistent Business to Customer e-commerce (B2C e-commerce) relationship, web-based organizations need to find ways of improving customers' perception of their trustworthiness in order to utilize fully the prospective of Nigerian cashless Banking policy e-commerce adoption.

References

- Adeoti, J. O. (2005) 'Information Technology Investment in Nigerian Manufacturing Industry: The Progress So Far', Selected Papers for the 2004 Annual Conference, Ibadan: NigerianEconomic Society. pp 213-244.
- [2] Akhalumeh, P.B., and Ohiokha, F. (2011) 'Nigeria's

Cashless Economy; The Imperatives' *International* Journal of Management & Business Studies. vol.2 pp. 12 - 17.

- [3] Basden A. 2010 (updated 23 Oct 2010, cited 02 May 2014) 'Aspectual Knowing' *The Dooyeweerd Pageshttp://www.dooy.salford.ac.uk/knowing.html*
- [4] Central Bank of Nigeria 2011, (updated 2011, cited 01 May 2014) 'Further Clarifications on Cash-less Lagos Project' Central Bank of Nigeriahttp://www.cenbank.org/cashless
- [5] Muyiwa O., Tunmibi S. and John-Dewole A.T. (2013) 'Impact of Cashless Economy In Nigeria' Greener Journal of Internet, Information and Communication Systems Vol. 1 (2), pp. 040-043.
- [6] George Tsakraklides. (2014). Investment banking reputation market research - restoring trust in the financial services sector *Marketing, Business, Economy* & *Finance*. 1 (1), 3-15.
- [7] Pauline Ratnasingam, Paul A. Pavlou, Yao-hua Tan. (2002). The Importance of Technology Trust for B2B Electronic Commerce. 15th Bled Electronic Commerce Conference eReality: Constructing the eEconomy. 1 (1), 2-15.
- [8] Odior, E.S., and Banuso, F.B. (2012) 'Cashless Banking in Nigeria: Challenges, Benefits & Policy Implications' *European Scientific Journal*. Vol. 8, pp. 12 – 16.
- [9] Ovia, J. (2005), 'Enhancing the Efficiency of the Payment System in Nigeria', *CBN Bullion*, Vol. 29 (1), pp. 8-18.
- [10] Rogers E.M. (2003) 'Diffusion of innovations fifth edition' the Free Press, New York Pp107, pp111, pp127
- [11] Thomas j. Chemmanur and Paolo Pulghieri. (1994). Investment Bank Reputation, Information Production, and Financial Intermediation . *THE JOURNAL OF FINANCE* . XLIX, NO. 1 (1), 3-17.
- [12] Ugwuanyi W. and Ugwuanyi G.O. (2013) 'Evaluation of Information Technology (It) Investments on Bank
- [13] Returns: Evidence from Nigerian Banks' *Research Journal of Finance and Accounting* Vol.4, No.4.
- [14] Robert G. Fichman . (1999). The Diffusion and Assimilation of Information Technology Innovations. . 1 (3), 3-21.