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Automated Teller Machine and Marketing Implications in a Cashless Economy (A Study of Port Harcourt Metropolis)

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Abstract: ***The dawn of Automated Teller Machine (ATM) in conventionality with apex bank policy is swiftly changing the banking transactions in Nigeria. The ATM technology has in no doubt taken banking in Nigeria to a more scientific level for what it should be. The benefits range from receiving cash anywhere ATM is, and at any time of the day and determining the limits of cash an individual should carry at any point in time, thereby reducing crime rate and risk of being attacked. However, any technology advance is usually faced with some challenges of which ATM is not in exclusion. This paper presents a study of the marketing implications of ATM in a cashless economy. It aims at determining the extent to which the automatic teller machine (ATM) has improved the effectiveness, efficiency and service delivery of banks in Nigeria; analysis of how banks and customers have reacted to this new development brought about by advent of ATM is made. The factors affecting the full development of ATM in Nigeria as well as viable solution are clearly stated. The result of the study indicates that ATM has immensely enhanced bank transactions in Nigeria. Although customers and banks were facing some challenges, which is hoped, will be resolved in the nearest future.***

Keywords: ATM, Bank transactions, Cashless economy, Challenges and Service delivery

1. Introduction

An electronic and computerized telecommunication device used for automatic financial transactions in a bank and public domain without resort to bank tellers and to human clerks is referred to as *The Automated Teller Machine (ATM)*. Aside decongesting the banking halls, some of the understandable benefits of the ATM include the 24/7 entrée to bank accounts, the stress free process of making account balance enquiries, as well as the instant printing of statement of account, paying of bills, and purchase of air time for mobile phones. New technologies emerge in the world on a regular basis whether or not these technologies remain and are successful is dependent on the degree to which they are accepted or adopted by the members of society. Nigerians are excited about the Automated Teller Machine card and have embraced its use as fast as they did other technologies like GSM in 2001 and electric power converter; like the GSM, the ATM also conferred a sense of class on its first few users, but its widespread usefulness and the dreams of the pioneers of the payment system in Nigeria, to turn the country from a cash-based to a card–based economy within a short time, meant that ATM card could not remain the exclusive preserve of few for long (Ebiringa, 2010).

Automated Teller Machines can offer significant benefits to both banks and their depositors. The machine can enable depositors to withdraw cash at more convenient times and place than during banking hours irrespective of any branch of a bank. At the same time, by automating services that were previously completed manually, ATMs can reduce the costs of servicing some depositor's demands (Ebiringa, 2010). These potential benefits are multiplied when banks share their ATMs, allowing depositors of other banks to access their accounts through a bank's ATM. Interswitch Nigeria Limited is the financial technology company that provides the platform on which the ATM works in Nigeria. It reported that it had 43 million ATM transactions on its network in October 2010 (The Business Eye, 2010). That represented a huge increase considering that the figure for June 2009 was 33 million. The 2014/2015 figure is about 52 million beating the mark of 49 million. This statistics showed the popularity and the high rate of acceptance of the machine in the country.

The Purpose of the Study

The purpose of this paper is to conduct an empirical analysis of the marketing implications of ATM in the Nigerian banking system with a view to providing recommendations that will bring about an improved efficiency in the use of ATM

2. Review of Related Literature

The prevalence of Automated Teller Machine (ATM) in the nation's economy has, no doubt, given a new face to the banking system in Nigeria. It is fast transforming the country from cash-base economy to a card-base economy. Like every innovation, the ATM has its merits and demerits. Despite its numerous merits, it has some drawbacks especially here in Nigeria which if worked on, will immeasurably improve banking system in Nigeria. Hence, the choice of this topic which looks at the roles, challenges and implications of adoption of automated teller machine in improving banking services in Nigeria. ATMs have been analyzed in the literature for some thirty years. The earliest studies concentrate on explaining the adoption of this new technology. Mandell (1977) discusses ATM adoption in the USA. The first ATM was installed in the USA in 1969 and as opined by Mandell, only 10% of all national banks had adopted even one ATM after eight years.

Mandell stated that a bank's adoption of innovation depend for example, on its size, branching status and competitive position;. Hannan and MeDowell (1987) examined how

firms react to rivals precedence in technology adoption process. The authors used the adoption of ATMs by a large sample of US banking firms in 1971-1979. There are studies on ATM pricing and fees. There are various fees related to ATMs: An interchange fee is a fee that the customer's bank pays to the ATM owner when the customer uses another bank's ATM. A surcharge fee is paid by the cardholder to ATM owner. A foreign fee is paid by the cardholder to his bank when using another bank's ATM. These and other fee definitions are found in McAndrew, (2003); Salop, (1990).

Mutates and Padilla, (1994) investigated shared ATM networks, banking competition and fees. The authors used a three-bank model to study the manner in which banks make their ATM networks compatible. They concluded that in equilibrium, either a subset of banks will share ATM networks or there will be total incompatibility. This is a somewhat surprising result, since many national ATM networks seem to be compatible. On the other hand, there have been changes in compatibility during the 1990s. The paper was published in 1994, when incompatibility was more typical than nowadays. According to Mutates and Padilla (1994), fully compatible network are found in countries where the banking system is highly collusive, dominated by public banks, or competing in different geographical markets. The use of ATM and the relationship between banking efficiency is a complex one (Asif Khan, 2011). This is because the overall levels of efficiency and productivity do influence the organization overall success Adeoti, (2011). This explains why most modern banking sectors develop ways of increasing organization and workers' efficiency. Some of these ways include goal setting, job enrichment, adoption of information technology, globalization, training and development (Ebiringa, 2010). All these represent several practical ways of increasing banking sector's performance, which could also be a reflection of institutions efficiency.

3. Research Design

Since this study is a descriptive and analytical research design, a detailed questionnaire with sufficient and accurate information aimed at identifying variables and their relationship to one another were designed. The questionnaire was designed to sample the opinion of ATM users and ATM custodians on the role and impact of Automated teller machine (ATM) on Nigeria banking system. Individuals in the group were selected using random sample method. The obtained data was used to test the hypotheses and answer questions projected in this paper.

Research (Target) Population
The population of this study covers ATM users and ATM custodian of Banks within Port Harcourt Metropolis from different age group, family background and different educational status. The target population of this study comprises the collection of all items or subject that process the characteristic of the phenomenon being studied.

Construction and Administration of Research Instrument
In order to achieve the aim of this study, a questionnaire administration method was adopted for the collection of the primary data that are thereafter, analyzed. The first questionnaire was meant for the ATM user while the second one was meant for the ATM custodians.

Sample/Sampling Producer
A sample is a small part or amount of something that is examined in order to find out something about the whole (Creswell 2009). The sample of this study consist of one hundred(100) people out of which seventy (70) ATM users and thirty (30) ATM custodian of banks in Port Harcourt metropolis were randomly selected.

Method of Data Collection
The researcher personally administered the questionnaire by visiting the various branches of bank and ATM terminals within Port Harcourt metropolis. A questionnaire was given to thirty (30) ATM Custodians/janitors, seventy (70) ATM users randomly in a fair and uniform manner.

Method of Data Analysis
In this study we used the Statistical Package for Social Sciences (SPSS) (version 14.0; Computer software) for data analysis. The adopted statistical techniques employed include: table of frequency and simple percentage.

4. Data Analysis and Presentation

Presentation Data

It is an indisputable fact that data collection plays a vital role in any research. While the administration of questionnaire was used in gathering data, frequency table and bar chat are adopted in presenting the data. In all, data were collected in different branches of banks' ATM terminals within Port Harcourt metropolis. Thirty (30) questionnaires were issued to janitor while seventy (70) questionnaires were issued to ATM users. In all, hundred (100) questionnaires were given out and all the hundred (100) was collected.

Analysis of Findings - ATM User (Please see Appendix A for Table of Responses)

In **Table 7 item**, 97.1% of the respondents said they know how to use the ATM while the remaining 2.9% said that they do not know how to use the ATM. In **Table 8 item**, 15.7% of the respondents said that they use the ATM once in a week, 44.3% use it twice in a week, and 28.6% use it once in two weeks while the remaining 14.4% use it wherever they feel like using it. In **Table 9** item, 28.6% of the respondents said that they use ATM mostly in the morning, 31.4% use it in afternoon while the remaining 40% prefer using the ATM in the evening. In Table 10 item, 44.3% prefer to use the ATM during weekdays while the remaining 55.7% prefer to use ATM during the weekends. **In Table 12,** 48.6% of the respondents said that the ATM is moderately accessible to them, 47.1% said that they do give their ATM is fairly accessible to them while the remaining 4.3% said that the ATM is not accessible to them.

In **Table 13** question item, 90% of the respondents prefer ATM withdrawal while the remaining 10% prefer cheque booklet to the ATM. In **Table 14** item, 45.7% of the respondents said that they do give their ATM card to people

to withdraw for them while the remaining 54.3% said that they have never given their ATM card to anyone to withdraw for them. In **Table 16** Item, 32.9% of the respondents believe that the ATM, is moderately interactive, 55.7% believe that the ATM is fairly interactive while the remaining 11.4% said that the ATM is not interactive. In **Table 17** item, 18.6% of the respondents believe that they do experience cash dispense error, 27.1% seldom experience cash dispense error while the remaining 54.3 said that they do not all experience cash dispense error.

In **Table 18** Item, 44.3% of the respondents said that they do not experience card trap while the remaining 55.7% said they do not experience card trap. In **Table 19** question item, 17.1% of the respondents said that they do experience PIN error while the remaining 82.9% said that they do not experience PIN error. In **Table 20** question item, 62.9%of the respondent said that they do experience Invalid transaction error message while the remaining 37.1% said that they do not experience such.

In **Table 21** question item, 18.6% of the respondents said that they have lost their ATM card before while the remaining 81.4% said that they have never lost their ATM card before. In **Table 22** question item, 58.6% of the respondent said that they are constrained by the daily withdrawal limit while the remaining 41.4% said that they are not constrained by the daily withdrawal limit. In **Table 23** question item, 72.9% of the respondents said that their ATM, problems are always resolved while the remaining 27.1% said that their ATM problems are not always resolved.

Table 25 showed the age categories of the ATM custodians, where 73.3% are in the age bracket of 18 – 35years while 26.7% were in the age bracket of 36 – 65 years. In **Table 26,** it was shown from the responses that 13.3 has 1-6months work experience, 26.7 has 7 – 12 months experience those with 1 – 2 years work experience has 26.7 % whereas 33.3% of the custodians has 2 years and above experience on the job. In **Table 27,** 53.3% of the responding believes that the ATM is highly interactive while the remaining 46.7% believe that the ATM is moderately interactive. In **Table 28** item, 26.7% believe the erratic power supply by PHCN does not have any effect on ATM. In **Table 29** question item, 36.7% of the respondents said that the most reported ATM problem is cash dispense error, 40% of the respondents believe that slowness of the machine is the most reported ATM problem while the remaining 23.3% believe that user unfriendliness is the most reported ATM problem. In **Table 30** question item, 33.3% of the respondents believe that the ATM has brought a very high efficiency to the banking system. 53% said that ATM has brought a high efficiency to the banking system while the remaining 13.3% believe that ATM has moderately brought efficiency to the banking system. On the ninth problem item, 86.7% of the respondents said that ATM problems are often resolved while the remaining 13.3% said that ATM problem are seldom resolved.

In **Table 31** question item, 96.7% of the respondents want ATM to be encouraged while the remaining 3.3% prefer that the ATM be discouraged. In **Table 32** problem(s) Item, 26.7% of the respondents believe that the ATM is highly secured when compared with the conventional banking system, 63.3% believe that the ATM is moderately secured while the remaining 10% believe that the ATM is fairly secured believe compared with the conventional banking system. In **Table 33,** 46.7% of the respondents said that they often receive the complaint about cash dispense error while the remaining 53.3% said that they seldom receive the compliant about cash dispense error.

In **Table 34** question item, 83.3% said that they do receive complaint about card trap while 16.7% said that they have never received any complaint about card trap. In **Table 35** item, 73.3% of the respondents said that they do receive complaints about ATM card loss, while 26.7 said they do not. In **Table 36** question item, 53.3% of the respondents said that they do receive complaints about PIN error while the remaining 46.7% said that they do no not receive complaints about PIN error.

5. Summary of Finding

Following an exhaustive and meticulous research, the following discovered through this study:

1) ATM usage has not been fully deployed in Nigeria.
2) On use transaction (using a bank's ATM card on the bank's ATM) is usually faster than not-on use transaction (using a bank's ATM card on another bank's ATM)
3) The Level of awareness about ATM is much higher in the urban areas than the rural areas.
4) The ATM has remained exclusive of the elites due to lack of public awareness.
5) ATM users are usually constrained by the daily withdrawal limit, which allow the preference for the conventional banking system where such constraints rarely occur.
6) Some of the problems encountered while using ATM are user-oriented and are avoidable.
7) ATM users go through a lot of difficulties rectifying any anomaly experienced while using the ATM.
8) ATM is only available at bank and few franchised quick service restaurants, big hospitals and churches premises.
9) Most of the ATMs are always out of cash mostly on weekends and public holidays; as efforts by customers are met with, "out of order, pls try later", "temporarily unavailable", "out of use" etc. banks that were kind enough to station personnel at the locations will tell you," cash just finished", or. "yet to be loaded".
10) The ATMs in Port Harcourt are prone to Poor Network most times.

6. Conclusions

There is no doubt that the introduction of ATM into Nigerian banking sector has contributed immensely to the growth, development, effectiveness, efficiency and service delivery of banking services in Nigeria. It has indeed suddenly made Nigerians card-conscious rather than the usual habit of carrying cash all about and nursing the fear of being robbed. Thus, what we need is modern ATMs with prompt response to the on-screen command, within minutes; we can have the required amount of money coughed out by the machine.

Though, the ATM like every other innovation has its positive and negative sides, the merits tend to outweigh the demerits. With time, measures by the banks and the switching company (interswitch), the services offered by machine will be better and acceptable to all.

7. Recommendations

In view of this study, the following recommendations are made:

1) ATMs should be at most strategic areas for easy access by users.
2) The maximum daily withdrawals should be upgraded.
3) Network Service providers should improve on network provision by having alternatives.
4) Banks should ensure that ATM usage has been fully deployed in both the urban and rural areas in Nigeria.
5) Efforts should be geared towards ensuring that both on use transaction and not-on use transaction should have faster transaction timing.
6) Orientations on the level of awareness about ATM should be made higher in every nooks and crannies of the country sequel to the cashless policy in the country.
7) The ATM should not be an exclusive of the elites but to all and sundry.
8) It is advisable to consider having both Interswitch and Quickcash cards just in case one disappoints, though that will mean having bank accounts with two banks on the different platforms; e.g zenith (interswitch) and etb (quickcash).
9) Interested Investors and entrepreneurs should be involved in this business. They can make ATM more accessible by partnering with Store, café, restaurant hotel, etc owners to install and manage ATM in high human traffic areas this will make ATM more accessible and reduce the queue currently being experienced at some ATM locations across the country.
10) Modern ATMs should be installed to avoid the usual entrapping of cards, which takes a long process to retrieve.

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