# Consumer Payment Pattern and Motivational Factors for Using Debit Card in Nigeria 

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#### Abstract

This study examined payment pattern adopted by consumers and motivational factors for using debit card as well as direction of preference for electronic payment instruments. Cross sectional data were collected from 300 randomly sampled respondents from 20 local government areas of Lagos state, Nigeria. The result of the analysis shows that paper-based instruments such as cash and cheque continue to remain a dominant form of payment in Nigeria economy. Convenience of use and time saving benefit are among the motivational factors influencing consumers' continuous use of debit cards. Sustaining the ease of transaction and reducing glitches that may hamper timely delivery of transactional services are vital to ensuring continuous use of electronic payment system.


Key words: Debit cards, payment pattern, motivational factors, transaction, economy, Nigeria

## INTRODUCTION

The role and importance of efficient payment systems has been closely monitored and promoted by monetary authorities in all countries. However, the Nigerian payment system that is cash-driven cannot and has not guaranteed the much needed efficient and effective transactions required for a sustainable economic development. Among the problems often associated with cash transactions are armed robberies, use of counterfeit bank notes, frauds, inconveniences of carrying large quantities of currency notes, long period of waiting in bank halls, frequent trips to banks, frequent printing of bank notes (Nnanna and Ajayi, 2005).

In spite of the practice of modern payments system in the world with their attendant advantages for both consumers and financial institutions, it has not become mainstream activities in Nigeria (Kolodinsky et al., 2004). Nigerian consumers and banks apparently still regard in-person banking as a more important method for money transactions. This cash-based payments system is responsible for the N545.8 billion currently in circulation (CBN, 2004). This represents about $90 \%$ of the total volume of cash in circulation compared to 4 and $9 \%$ in the UK and the USA, respectively (Ovia, 2005). Despite the overwhelming superiority of electronic payment options, business-to-business transactions are still predominantly consummated in Nigeria with the use of cash and to a limited extent bank's cheques or certified cheques.

The unintended social and economic costs (risks and inconveniences) associated with cash transactions are alarming. The most obvious has to do with insecurity (considering daily loss of lives from the activities of
fraudsters and armed robbers) as enhanced and encouraged by cash payments system. There is also the inconvenience of carrying larger volume of currency notes, the use of counterfeit banknotes, time loss as a result of long period of waiting and making frequent trips to banks. The monetary authorities also bear the high cost of printing bank notes due to the short life cycle of notes and the cost of moving large amount of cash from banks to banks and across the country. Over-dependence on cash for transaction also implies that much cash is held outside the banking system which naturally reduces the capacity of banks to lend to the productive sectors of the economy.

It is for some of these reasons that a forward-looking economy should seriously think of embracing the modern payments system, such as credit card, electronic money, electronic fund transfer, Automated Teller Machine (ATM) and debit card. Debit card is particularly important in a growing economy as Nigeria. For instance, debit card will promote better services to customers because it is a very fast and speedy means of financial transaction. It is more efficient than cash and there will be drastic reduction in the printing of bank notes. It will remove the high cost of handling and printing notes. It will also increase profitability due to considerable reduction in overheads and most importantly, it will enhance security of life and property from armed robbery incidences that have become a common phenomenon in the country. Debit card will also make it possible for more money to be available to lend to the productive sectors of the economy. This will bring about positive impacts on economic growth and global competitiveness. However to ascertain the enumerated benefits of this payment instrument, there is

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a need to determine the factors influencing the use of debit card in Nigeria. In fact, the global trend in the use of electronic payment system, particularly the growing popularity of e-Commerce calls for studies such as this. All the empirical studies that are related to the use of debit card as a payment instrument are foreign researches conducted in advanced countries of the world. This is the gap that this study hopes to fill.

## MATERIALS AND METHODS

This study was carried out in Lagos state, Nigeria. Lagos state is located on the South-Western part of Nigeria on the narrow coastal flood plain of Bight of Benin. Lagos state is bounded in the North and East by Ogun state, in the West by the Republic of Benin and in the South by the Atlantic Ocean. Territorially, Lagos state encompasses an area of 358,862 ha or $3,577 \mathrm{~km}^{2}$. Lagos state has a population of $>9.6$ million people across its 20 local government areas. About 300 consumers were randomly sampled. Data for the study were collected using structured questionnaire. Analysis of the data was carried out using descriptive analysis.

## RESULTS AND DISCUSSION

Payment pattern adopted by respondents: Table 1 shows a summary of various payment options available and being used by the respondents. The use of cash as a payment instrument tops the list ( $65.3 \%$ ), followed by cheque (about $15 \%$ ). Respondents also use a combination of various payment instruments as they found convenient. Those with two different combination of payment instrument make up of $7.7 \%$ while the rest of the respondents adopted three different combination of payment pattern. Factors advanced for variability were availability, accessibility and ease of use.

The various payment options being used by the respondents was in line with the findings of Stavins (2001) who found that consumer's preferences for

| Table 1: Payment pattems adopted by respondents |  |  |
| :--- | :---: | :---: |
| Payment pattem | Frequency | Percentage |
| Cash | 196 | 65.3 |
| Cheque | 44 | 14.7 |
| Debit card | 24 | 8.0 |
| Credit card | 6 | 2.0 |
| Cash/cheque | 14 | 4.7 |
| Cash/debit | 5 | 1.7 |
| Cheque/credit | 4 | 1.3 |
| Cash/cheque/debit | 4 | 1.3 |
| Cash/cheque/credit | 3 | 1.0 |
| Total | 300 | 100.0 |

Field Survey, 2010
payment instruments were not uniform. This study also supports the findings of Mantel and McHugh (2001). The result showed that despite the prediction of cashless society for decades, paper-based instruments such as cash and cheque continue to remain a dominant form of payment in the economy.

Length of use of debit card: Table 2 shows how long the respondents have been using debit card. The time ranges from 1-5 years. This length of time indicated that debit card use is a new phenomenon in the country that is gradually coming to limelight. Majority in the user category (about $43 \%$ of users) started using it about 2 years ago. As time is lagged further, the proportion decreases, implying the newness in the introduction and adoption/use of the technology.

Other electronic payment instruments used by respondents: A summary of all other electronic payment instruments being used by the respondents is showed in Table 3. Top on the list is the ATM (59.0\%), followed by credit card and direct deposit. A good number of the respondents used a combination of the various payment instruments, especially ATM/master card and credit card/cheque.

Direction of preference for electronic payment instruments: Here respondents were asked to make a choice between pairs of payment instrument. The summary of the various findings can be found in Table 4. Comparing debit card to cash, $58.0 \%$ of the respondents

Table 2: Length of use of debit card

| Duration (years) | Frequency | Percentage |
| :--- | :---: | :---: |
| 1 | 28 | 9.3 |
| 2 | 63 | 21.0 |
| 3 | 31 | 10.3 |
| 4 | 17 | 5.7 |
| 5 | 8 | 2.7 |
| Non-users | 153 | 51.0 |
| Total | 300 | 100.0 |

Table 3: Other electronic payment instruments used by respondents

| Other electronic payment instrument | Frequency | Percentage |
| :--- | :---: | :---: |
| Automated Teller Machine (ATM) | 177 | 59.67 |
| Credit Card (CC) | 14 | 4.67 |
| Direct deposit | 5 | 1.67 |
| Electronic Cheque (EC) | 4 | 1.30 |
| Electronic Fund Transfer (EFT) | 36 | 12.00 |
| Master Card (MC) | 14 | 4.67 |
| GSM/mobile banking | 3 | 1.00 |
| ATM/direct deposit | 12 | 4.00 |
| ATM/EC | 2 | 0.67 |
| ATM/EFC | 4 | 1.33 |
| ATM/MC | 20 | 6.67 |
| FTM/CC | 9 | 3.00 |
| Total | 300 | 100.00 |

Field Survey, 2011
preferred debit card to cash while (42.0\%) preferred the use of cash to debit card. A good number of respondent prefer debit card to cheque (50.7\%) while the balance of ( $49.3 \%$ ) preferred using cheque instead of debit card. The research also found out the preference of the respondent with respect to debit and credit cards. The respondent preferred the use of credit card (59.3\%) to the use of debit card (40.7\%).

Motivational factors for using debit card: Table 5,>70\% of the respondents agreed that they will use debit card because of its convenience. This position was supports the study carried out by Mantel (2000a) where he found that the personal preference for using electronic banking was convenience among others. This same position was held by Gerdes and Walton (2002) when they reviewed the trends in the use of electronic payments in USA and found that the use of electronic payment was on the increase because of its convenience.

On the incidence of armed robbery, the survey revealed that $>71 \%$ of the respondent agreed that debit card will reduce incidence of armed robbery in Nigeria while about $19 \%$ disagreed. Earlier study by Mantel (2000b) and Hirschman (1982) also found that security considerations were positively associated with the use of debit card.

Another fact that characterizes business activities in the Nigerian economy is the bulky nature of financial transactions. It is a common occurrence for large volume of money to be moved from one place to another. The result of this finding was that bulkiness will be eliminated if debit were to be used by the generality of the people. This position was supported by as high as $72 \%$ of the respondents.

Table 4: Preferences for electronic payment instruments

| Variables | Responses | Frequency | Percentage |
| :--- | :---: | :---: | :---: |
| Prefer debit card to cash | Yes | 174 | 58.0 |
|  | No | 126 | 42.0 |
| Prefer debit to cheque | Yes | 152 | 50.7 |
|  | No | 148 | 49.3 |
| Prefer debit to credit | Yes | 122 | 40.7 |
|  | No | 178 | 59.3 |


| Statements <br> (Reasons for using debit card) | Levels of agreement ( $\mathrm{N}=300$ ) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | SA | A | U | DA | SD |
| Convenience | 116 | 96 | 27 | 15 | 46 |
| Reduce the incidence of armed robbery | 107 | 107 | 29 | 9 | 48 |
| Time saving | 99 | 110 | 26 | 22 | 43 |
| Reduction in the need for cheque and large cash | 138 | 78 | 23 | 13 | 48 |
| 24 h availability | 93 | 93 | 31 | 37 | 46 |
| Avoid over spending and be disciplined in spending | 61 | 68 | 43 | 74 | 54 |
| Improved bank services | 98 | 114 | 36 | 20 | 32 |

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In addition, this research effort enquired whether or not there is any relationship between debit card use and time. About $70 \%$ of the respondents agreed that debit card saves time and is efficient. This finding was in consonance with the findings of Anguelor et al. (2004) which revealed that many electronic banking techniques in the market place were time saving because of their speedy processing methods. Frame and White (2002) summary on financial innovation discovered that new techniques provide improved services to customers.

In terms of availability, $62 \%$ of the respondents agreed that debit card is readily available. However, $27.7 \%$ disagreed with this assertion. Anguelor et al. (2004) conducted a study of consumer's use of electronic payment system and found that the use of electronic payment instrument promised around the clock availability.

Frequent access to cash encourages indiscipline spending. There was the proposition that debit card encourage disciplined spending. This is because it is going to make spending a restricted exercise as opposed to routine caution less idea. From the current survey, 43\% of the respondent agreed that debit card helped them to plan their spending and reduced over spending. According to Gans and King, electronic payment system or e-Banking promise to help families to plan and manage their finances, pay their bills on time and avoid over spending.

Finally, $50 \%$ of the respondents agreed that debit card improves bank services while $17.4 \%$ disagreed. Frame and White (2002) also supported this view when they undertook a study on financial innovation and discovered that electronic payment instruments provide improved products and services. This view was similarly held by Anguelor et al. (2004) in their study of consumer's use of electronic payment system when they asserted that using debit cards attracts un-banked and under-banked customers, proves speedy processing and reduces costs.

## CONCLUSION

This study analyzed payment pattern adopted by consumers; motivational factors for using debit card and direction of preference for electronic payment instruments. The finding of this study showed that despite the prediction of cashless society for decades, paper-based instruments such as cash and cheque continue to remain a dominant form of payment in the economy. A combination of the various payment instruments, especially ATM/master card and credit card/cheque were found to be dominant among
consumers. The findings also show that usage of electronic payment instruments provide improved products and services attracting un-banked and underbanked customers and providing speedy processing and reduce costs. The finding of the study also indicates preference of the respondent to debit and credit cards.

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