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## **DOMESTIC ELECTRONIC PAYMENT IN NIGERIA: THE CHALLENGES**

**By**

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### **1. INTRODUCTION**

The payments system, of which electronic payment is one, is an important anchor for economic and social development in any economy. An efficient payments system enhances the operation of a market economy and assists in the maintenance of monetary and financial stability by providing ease of trade, convenience and general economic well-being through the transmission of money between parties. It is no wonder therefore that over time, it has become a core function of central banks worldwide to ensure the efficiency, integrity and safety of the payments system by instituting, in collaboration with other key stakeholders in the payments process, sound

operating policies and practices.

A payments system is a mechanism that facilitates intermediation through the transfer and the processing of the value of money from the payer (buyer) to the payee (seller) in the process of exchanging goods and services. The system invariably includes not only the instruments, such as cheques, money orders, wire transfers, electronic transfers and other payment instruments, but also organizations, operating procedures and information and communications arrangements that are used in initiating and transmitting payment instructions from one party to another in settling obligations. The payments system enables the financial

sector to serve the needs of the real sector, and therefore its development and sophistication is a necessary precondition for business development both domestically and internationally. Payment instruments are of many forms, such as cash, cheques, traveller's cheques, money orders, debit and credit cards, wire transfers, automated clearing house transfers, point-of-sales and automated teller machines (ATMs).

In Nigeria today, cash is the most popular form of payment for consumers. But cash is the most costly and least profitable payment instrument. The use of cheque as a payment instrument is not a widespread practice, due to a number of reasons,

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including lack of trust in, and dishonesty on the part of, the issuer of the cheque and the non-enforcement of the Dud Cheques Act, which criminalises the issuance of cheques on unfunded accounts in Nigeria. The challenge to the Central Bank of Nigeria and the other stakeholders in the financial industry is how to enhance the use and acceptance of other forms of payment instruments in Nigeria. Efforts must be made to enhance the use of wire payments, debit and credit cards and other electronic instruments, in order to reduce the over-reliance on cash as the major means of payment.

The main focus of this paper is on the use of electronic payments in Nigeria and the challenges facing the institution of an electronic payments system in the country. The thesis of this paper is that the payments system can be enhanced in Nigeria through the use of electronic instruments as a means of leapfrogging from the current, mainly cash-based payments system to a

modern electronic payments system. The remainder of this paper is structured to discuss in Section 2 the general theme of electronic payments system, while in Section 3 we discuss the extent of growth in the application of electronic payments in Nigeria. In Section 4 we consider the challenges to growth and development of electronic payments system in the country, while in Section 5 we make some concluding remarks.

## **2. THE ELECTRONIC PAYMENT SYSTEM.**

The electronic payments system is a system that enables funds to be transferred electronically between individuals, financial institutions, companies and the government sector. The electronic payments system is made possible by the existence of electronic money (e-money) which can be defined as a stored-value or prepaid product in which a record of the funds or value available to the consumer for multipurpose

use is stored on an electronic device in the consumer's possession. Electronic money has also been defined by the European Monetary Institute as "an electronic store of monetary value on a technical device, including prepaid cards, that may be widely used for making payments to entities other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument." Typically, therefore, electronic money has the following features:-

- a) Value is stored electronically in a device such as a chip card or on a hard drive in a personal computer
- b) Issued on receipt of funds of an amount not less in value than the money value issued; and
- c) Generally accepted as a means of payments by enterprises and persons other than the issuer.

The two main types of electronic money are card-based e-money (electronic purse) and network or software-based e-money (digital cash). Other variants of card-based, e-money include public telephone cards, transport cards, telephone recharge cards, vending machines, etc.

The electronic payments system is amenable to the following services:-

- a) Funds transfer:
  - ✍ Bank to bank (through NIBSS)
  - ✍ Customer to other banks
  - ✍ Customer to customer
- b) E-Purse transactions:
  - ✍ Load and unload from ATMs, Point of Sales (POS), etc
- c) Debit transactions:
  - ✍ Using bank's in-branch and offsite ATMs
  - ✍ POS transactions at merchants

- d) Credit transactions: and
- e) Other transactions, such as:-
  - ✍ Cheque book order; balance enquiry, statement generation, etc.

The rapid development in information and communication technology (ICT), especially through the internet, has brought in its wake a new world order in information and business management. The internet has affected positively in no small measure the way business is conducted globally by affecting transaction costs, efficiency, competition, price-transparency convenience, etc. In the same manner, the payments architecture has been modernised drastically to support the new business culture through electronic means of settlement. Hence, we now have an electronic payments system which support:-

- a) Electronic Bill Presentment and payment (EBPP)
  - b) Electronic funds transfer (EFT)
  - c) Real time gross settlement system (RTGS), and
  - d) Electronic clearing.
- Electronic Payments System automates the entire payment process, from delivering the invoice, sorting the payment to match a particular debt, securing payee approvals and delivering final payment to the vendor. The broad benefits accruable from the electronic payments system include:-
- (a) Information Paired with Payment Electronic Payments System has the unique ability to ensure critical invoice information is delivered alongside the payment.

(b) **Electronic Information Repository:-** Historical data from the invoice and payment ends are stored in a central repository, providing interested parties from both the payer and payee organisations easy access to critical information.

(c) **Payment Flexibility:-** The emerging electronic payments system provides companies with greater flexibility, particularly with regard to form of payment.

(d) **Money - Saving Opportunity:-** By using electronic payments system, companies' liquidity is enhanced by removing the float.

It is necessary to note, however, that an electronic payments system can only be effective and user-friendly when a number of issues have been considered thoroughly and solutions provided, for:-

(a) Foolproof verification procedures

(b) Effective use of digital signatures

(c) The security of banking computer systems

(d) Client P. C. security, in the case of electronic commerce, and

(e) Managing client information interception risks, etc.

There is no doubt that for Nigeria to benefit from the progress being made in world commerce through the internet and also to derive benefits from the payments architecture that support this new commerce, the country has to redouble effort in its march towards electronic payments system. The new computer-based innovations have led to electronic trade finance, whereby letters of credit are processed electronically and documents interchanged electronically (an example is Bolero.net which enables trade finance

electronic document interchange). In the same vein, all banking services have been transformed in the more advanced economies to electronic processes in services like account management, loans, credit card, etc

Overall, it is pretty clear that emerging payment technologies provide huge opportunities to the business world, from saving money to decreasing float to improving cash flow. The payment systems that Nigerian businesses are currently accustomed to, most of which are cash and cheque payments, are inefficient and increasingly becoming antiquated. We live in a technology-driven world and it is time the Nigerian business community began to recognise the value that new technology systems deliver when it comes to delivering payment. According to the UN Economic and Social Council, in a White Paper titled. "The Virtuous Circle: Electronic Payments and Economic Growth", it was noted that "Electronic

payments are at a critical threshold of growth". It continued further, "In developed economies, the continued expansion of payment options is a key factor in reducing friction and creating economic efficiencies. In developing and transitional economies, electronic payment systems can play a powerful role in modernizing financial systems, creating economic transparency and contribute to greater predictability, liquidity and stability".

### **3 ELECTRONIC PAYMENT SYSTEMS IN NIGERIA.**

A rudimentary level of electronic payments system has been put in place by the Nigerian Automated Clearing System (NACS), which adopts a procedure that facilitates the automated clearing and processing of cheques on-line using a combination of MICR and imaging technology. The system enables cheque documents to be captured and processed at high speed with the use of reader/sorter

machines and state-of-the-art computer technology. The NACS currently provides the necessary anchor for electronic payments system in Nigeria.

The NACS has been able to:-

- (a) Provide an efficient and cost effective processing of clearing instruments based on electronic data presentation;
- (b) Reduce the cheque clearing cycle to two working days for local clearing and five working days for up country/inter-state clearing;
- (c) Conduct more than one clearing session per day (Lagos Clearing Zone), thereby reducing float;
- (d) Maintain and enforce standards for clearing procedures, communication and quality of clearing instruments;

(e) Promote effective control through tracking/reconciling of physical instruments with related electronic data; and

(f) Create and maintain a database of clearing activities and transactions for use by participating banks.

The two clearing sessions a day in Lagos which commenced on May 2, 2003 has been enabled by the installation of MICR equipment with the NACS' software. In the same vein, the Central Bank of Nigeria migrated from the use of telex messages to the use of the Enhanced Transfer Module (ETM) since February, 2004 for large value transfers from the twenty two Branches of the Bank to the Head Office. A major move towards enhancing electronic payments system in Nigeria is the current effort of the CBN to implement the Real-Time Gross Settlement System (RTGS) in the banking industry, which has the potential of

instantaneous, real-time processing and final settlement of funds transfer instructions between and among banks in the industry. RTGS systems are typically electronic systems, using telecommunications networks, which transmit and process information on-line. Being a gross settlement system, transfers are settled individually, that is without netting debits against credits so as to enhance the irrevocability and immediacy of funds transfers and finality of payment. The eventual adoption of RTGS is an indication of a slow but sure movement towards the use of modern technology to enhance the country's payments system.

A major progress towards instituting an electronic payments system was achieved by the Nigerian Inter-bank Settlement System (NIBSS) with the introduction of NIBSS FastFunds in 1999. The NIBSS FastFunds was introduced to cater for the funds movement needs of high networth individuals

and corporate bodies requiring funds transfer for the same-day value. The minimum amount transferable was put at N500,000 at inception, but has since been reduced to N100,000, in order to encourage wider participation. Another innovation of NIBSS is the NIBSS Electronic Funds Transfer (NEFT), which commenced on March 15, 2004 and operates in a manner close to the GIRO payment method in the Western World. NEFT is a high volume, low value transfer system which is amenable to use in settling periodic direct debits or credits such as standing orders, government payments, utilities bills and salaries. There is no doubt that a milestone has been achieved in the development and introduction of NEFT, which in conjunction with the other innovations in the payments system, is placing Nigeria on the path to electronic payments system. It is, however, too early to judge, because improvements in the payments system so far are more or

less islands of progress and do not have a full knock-on effect on the entire system. A knock-on effect will only be achieved when the entire payments spectrum is hinged on electronic payments system that will cover business-to-business (B2B), business-to-customer, (B2C) and person-to-person (P2P) relationships.

At this juncture, it is appropriate to highlight some electronic money instruments that are making in-roads to the country's financial firmament. Among the instruments are:-

The automated teller machines (ATMs), which were first introduced in Nigeria by Societe Generale Bank Nigeria Limited in 1984. Since then, a number of banks has installed ATMs, in and off-site, especially at hotels and commercial centres. ATMs are part of electronic payments system, even though the end result of the services is cash receipt by the customer from the dispensing machine. Banks

are increasingly becoming aware of the role of ATMs in service delivery, as well as the benefits accruing from significant cost efficiencies by transferring in-branch teller transactions to ATMs. Although the level of ATM absorption in Nigeria is low relative to its age, there is a growing interest in ATMs in Nigeria, and it is hoped that sooner than later, especially with the licensing of Cards Technology Limited (CTL) to operate financial cards transmission switching facility, the necessary infrastructural backbone for the effective take-off of ATMs will be laid in the country. A switching facility, especially a national switching facility, is highly essential in promoting efficient use of plastic money. An effective switching facility provides flexibility and interoperability in card transactions, a requirement for mass deployment of ATMs in any economy.

**Debit and credit cards:-** Debit and credit cards are multipurpose electronic products. A debit card

enables its holder to have purchases directly charged to funds on his or her account at a deposit money bank, while a credit card enables the holder to make purchases as well as withdraw cash up to a pre-arranged limit. Some examples of debit cards in Nigeria include Valucard, Smartpay, Union Bank's EasyCash Card, First Bank's First Cash, United Bank for Africa's Serve YourselfCard, Zenith Bank's EazyCard and a host of other similar card products being offered by other banks. Although credit cards are very popular in the developed world, it is not so in Nigeria yet; although a number of initiatives by banks is in the pipeline to commence the issuance of credit cards in Nigeria.

**Mobile and internet payments** are becoming a reality in Nigeria, although only very few banks have set up the necessary infrastructure to use these payment modes. Some banks allow valuable customers to transact business with them through

the use of mobile phones for transactions including balance enquiries, request for cheque books as well as payment instructions for the benefit of third parties. There is no doubt that with more banks and customers getting hooked to the internet in the near future, there will be more services rendered on this platform.

#### **4.0 CHALLENGES TO DOMESTIC ELECTRONIC PAYMENTS SYSTEM.**

The changing payments landscape has brought with it new challenges for the regulators, operators and the consuming public. It has imposed on the regulators and supervisors of the system the need to fashion out new monitoring and control mechanisms that can adequately address risks of new dimensions and complexity. The Central Bank of Nigeria and other regulators (including self-regulators) should institute adequate legal infrastructure to regulate the payment and settlement activities. A

variety of debit and credit payment instruments and payment technologies that can support the efficient discharge of payment solutions are now available. The problem is how to establish the necessary legal framework that will ensure the safety and soundness of the banking and payment systems, promote market discipline, as well as protect customer rights and the public trust in the banking and payment systems in the midst of the myriad of electronic payment modes. It has been suggested by Nsouli and Schaechter (2002), that the regulatory challenges posed by e-banking and electronic payments system can be tackled through four methods, viz:-

- a) Adaptation keeping regulations up to date in the light of how rapidly technology is changing.
- b) Legalization ensuring legal definition, recognition and permission for new methods of conduc-

ting transactions, new instruments and new service providers, for example, the definition of electronic signature.

- c) Harmonisation ensuring that domestic laws and regulations are in tandem with the international regulations on electronic banking and payments, and
- d) Integration ensuring that information technology issues and their accompanying operational risks are included in bank supervisors' safety and soundness evaluations.

The challenge in Nigeria is to have an electronic payments system that is safe, sound and secure. But the choice of the payments system is not an easy task, given the great technological advancements in payments architecture over the past ten years. Technology is an enabler and it has improved the

payments systems world-wide, but it also poses a great challenge to, especially, developing countries like Nigeria that may not be able to cope with frequent technological changes in the payments solutions. The major problem here are the huge investment outlay required to keep pace with technological developments, as well as the indigenization of the payments system's technology. Apart from the risk of technological obsolescence and rapid changes in payments solutions technology, we must have in place the necessary and supportive environment that will guarantee that:-

- (a) Sufficient risk management measures and techniques that will cater for the different risk profiles in the electronic payments system are in place;
- (b) A strong and widely accessible institutional framework as well as infrastructure to make available cost effective pay-



- ment services to the people are in place;
- (c) Adequate communications and energy infrastructure that can effectively and efficiently support modern, electronic payments system activities are in place.
- (d) Suitable technical processes and solutions (hardware and software) that are most appropriate to Nigeria are in place.
- (e) There is a wide stakeholder acceptability, ownership and legitimacy of the payments system solutions, and
- (f) A virile private sector which will be supportive of the initiative and provide competitively priced, suitable and widely accessible payment services is in place.
- education and enlightenment. Therefore, a great challenge to implementing an electronic payments system in Nigeria is the issue of public enlightenment. All segments of the society must be educated, in order to sensitise them on the payments system. This is not an easy assignment as it involves the expenditure of a large amount of resources. Owing to the relatively low level of awareness on new technologies available for the payments system solutions and the widespread illiteracy in computer and general education in the society, there is an urgent need to carry out sensitisation seminars and workshops across the length and breadth of the country, targeting the different segments of the society and in languages understood by them. This means that the sensitisation effort has to be carried out not only in English, but in, virtually, all the spoken languages in the country, in order to achieve massive support for the electronic payments system.
- There should be a nationwide education and marketing programme to promote the benefits of electronic payments system. This programme must be reduced, as suggested above, to as many local languages as possible in order to achieve maximum reach. The enlightenment campaign blitz should be through both the print and electronic media to sensitise all stakeholders in all socio-economic and geographical strata of the society, as is done in other jurisdictions, such as the United States of America. There should be promotional materials for use by financial institutions, consumer organisations, cooperative groups, social/cultural groups, the academic community, market men and women associations and a host of other interest groups.
- A political will to support the emerging electronic payments system in Nigeria is critical to its eventual success. For instance, the success of electronic pay-

What is stated above is a potpourri of issues that require a lot of stakeholder

ments system in the USA has been propelled by public policy on the matter, with regard to coming up with legislations to support the position of government on electronic payments system. In this regard, the Treasury Department of the United States America, in September 1997, published its "Notice of Proposal for Electronic Funds Transfer (EFT) '99' for public reaction. EFT '99 required that all of the government's payments, other than tax refunds, be made electronically starting from January 1, 1999. In fact, the law also set up an interim programme under which all new recipients of Federal payments coming on stream after July 1996 must receive their payments electronically, if they had a bank account. The EFT'99 encouraged private sector competition for the business of handling government payments, as well as sought to maximize the interests of payments recipients no matter their circumstance. As at September, 1997, experience under the interim programme had

been very encouraging. Over 85 percent of all new social security annuitants were receiving direct EFT payments, reflecting a high level of acceptance of the programme.

It is clear that the Central Bank of Nigeria (CBN) alone cannot ensure a smooth transition to an electronic payments environment in Nigeria. For instance, an EFT mandate for government payments can ultimately succeed only if the public is willing to accept it and the effort to achieve that acceptance should not be underestimated. It is a task that requires the active participation and support of the private sector institutions banks, commercial enterprises, etc. The level of awareness among the public should be enhanced and sustained on the benefits of electronic payments system in order to achieve their "buy-in".

One of the greatest challenges to the implementation of an electronic payments system in Nigeria is that of

changing the attitude of people to migrate from cash transactions to electronic payments, which will mean a major change in the way in which they handle their financial transactions. Even with the people and corporate organisations that use cheques in payment for goods and services, there will still be some education and promotion of the benefits of electronic payments system. Many people that use cheques will not find it easy to give it up because it is a kind of a status symbol to own and write out cheques in settlement of debts or obligations. Some will also doubt the work ability of the new payments system, as against a general feeling of security with the tangible comfort of cash or a cheque. Flowing from this is the challenge of how to bring on board to the electronic payments system millions of Nigerians who are illiterate, rural-based and have not had access to any bank or financial institution and therefore do not have any bank account. The task here is how to integrate this

## 5. CONCLUDING REMARKS

We have looked at electronic payments system in general, the extent of its application in Nigeria and have also considered some obstacles or challenges that have to be surmounted for a successful adoption of electronic payments system in Nigeria. Electronic Payments System offers enormous potential, but measures need to be developed to prevent abuses inherent in this environment. Businesses can reap significant rewards by leveraging electronic payments system. The benefits which can be gained, including significant cost savings, improved cash flow and greater efficiency will enable enterprises to focus financial and human resources on other more critical business activities. Nigeria should move away from the tedious process that involves receiving a paper cheque or cash, opening the envelope or till, filling out a deposit slip and bringing the payment to the bank.

Nothing said in this paper should be construed to mean that we are not ripe for electronic payments system. No nation waits until all the problems associated with a system are overcome before adopting the system and fine-tuning it to make the necessary progress. The role of the Central Bank of Nigeria in the payments system is, essentially, ensuring a smooth functioning, efficiency and effectiveness of the system. The CBN should continue to play this role through its current efforts at repositioning itself to be more effective and efficient, as captured by its restructuring exercise, in order to further:-

- (a) the development of a sound financial system, which can support an efficient payments system;
- (b) facilitate payments finality;
- (c) enhance the legal framework to ensure the smooth functioning of all parties in the envisaged payments

system, through ensuring that the right institutions, institutional arrangements and financial instruments support the course of electronic payments system in Nigeria.

- (d) effectively supervise and regulate agents in the system, and
- (e) provide critical short-term liquidity as a lender of last resort to stabilise the payments system at times of hiccups in the process

large number of people in the informal sector to the formal sector in order to extend the benefits of the electronic payments system to them. It is achievable if well thought-out strategies are mapped out to phase them in to the new payments system. It only requires commitment, purposeful direction and massive enlightenment campaigns.

In this regard, three key issues need to be addressed, viz:-

- (a) The financial industry must develop innovative and attractive electronic accounts or products that will meet the basic needs of unbanked, as well as illiterate and other disadvantaged Nigerians;
- (b) The industry and government should show strong commitment and effort to educate the entire population about the benefits of opening such an electronic

account(s);

- (c) The need to invest in electronic infrastructure at homes and businesses in order to support the use of electronic payments as a convenient and relatively low cost alternative to cash and cheques.

The establishment of a Payment Systems Division in the Banking Operations Department of the Central Bank of Nigeria underscores the importance attached to improving the Payments System in Nigeria, charged with some specific responsibilities on the issue. Equally noteworthy is the National Committee on Payment Systems (NCPS) constituted by the Bank in 2003 with specific responsibilities for improving the payments system in Nigeria. While all these efforts are noble, it is our opinion that the mandate of the NCPS, especially, should be enhanced to include the following essential activities:-

- (a) Serving as a forum for the analysis of technological and market trends on payments systems;
- (b) Providing a mechanism for consultation with payments system providers and users;
- (c) Advising the CBN and government on medium and long-term public policy issues relating to consumer, government and corporate payments; and
- (d) Collaborating with the private sector to identify barriers to innovation in the payments system, identify strategies to enhance the long-term efficiency of the existing Nigerian payments system and developing strategies for transition to the next generation of electronic payments.

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