

such a payment medium makes the e-payment system a preferred alternative. However, the Nigeria Automated Clearing System (NACS) has been working to reduce clearing days and militate against fraudulent transactions.

An effective payment system is a vital part of the financial infrastructure of any economy. By enabling commercial transactions to be completed faster, safer and cheaper, it would have a positive impact on economic growth and global competitiveness.

The e-payments system is

still evolving in Nigeria but the emergence of switching companies like Inter-switch, e-tranzact, CTL is however, helping to blossom this aspect of the Nigerian payments system.

IV. CHALLENGES FACING EXISTING PAYMENTS INSTRUMENTS

The increasing level of economic activities in Nigeria, as well as advances in technology have continued to pose enormous challenges to the existing payment instruments.

CASH:

The Nigerian payments system is predominantly cash based, with about N545.8 billion cash in circulation. This large volume is attributable to the fact that over 90% of transactions in Nigeria are concluded using cash as preferred payment instrument. In spite of its wide acceptance, cash still faces major challenges primarily because of the people's psychology to hold and feel cash.

DIGITIZING MONEY:

For the Nigerian payments

<u>TABLE 1: KEY PAYMENT INSTRUMENTS</u>		
	PAYMENT INSTRUMENTS	KEY FEATURES
1	CASH (coins and notes)	80 – 90% of transactions are carried out through this means and we presently have, N545.8 billion cash in circulation
2	CHEQUES	Large value transactions are usually cheque based
3	ELECTRONIC FUNDS TRANSFER (EFT)	New product introduced to cater for electronic transactions which can be retail as in Nigerian Electronic Funds Transfer (NEFT) or wholesale as in Nigeria Interbank Settlement System (NIBSS) Fast Funds
4	PLASTIC MONEY	E-purse (Valucard), debit (ATM cards)/credit cards (MasterCard)

system to blossom serious attention must be paid to some “exotic” financial offerings, which include internet/e-banking, GSM/Mobile banking, electronic money, credit cards, debits cards, virtual recharge for Private Telephone Operators (PTO), E-cash by Digicash, EFT, SWIFT, ATMs.

Nigeria can replicate the success of South Africa where tremendous progress has been made in the use of digital money. The

estimated 44 million people in South Africa use debit/credit cards about 40 million times day. This is very impressive and worthy of emulation. In South Africa, these cards are being put to use in various areas: salaries, pensions, car parks, post offices, cinemas and stadia.

Because of the use of hi-tech security measures, like biometric verification, which includes the electronic reading of finger-

prints, incidents of fraud are easily thwarted. There is a well documented story of a fraudster who severed a deceased relative's thumb to fraudulently receive his pension money. The fraudster did not realize that the biometric reader also checks for pulse after verifying the fingerprint. This innovative technology helped to thwart the fraudster.

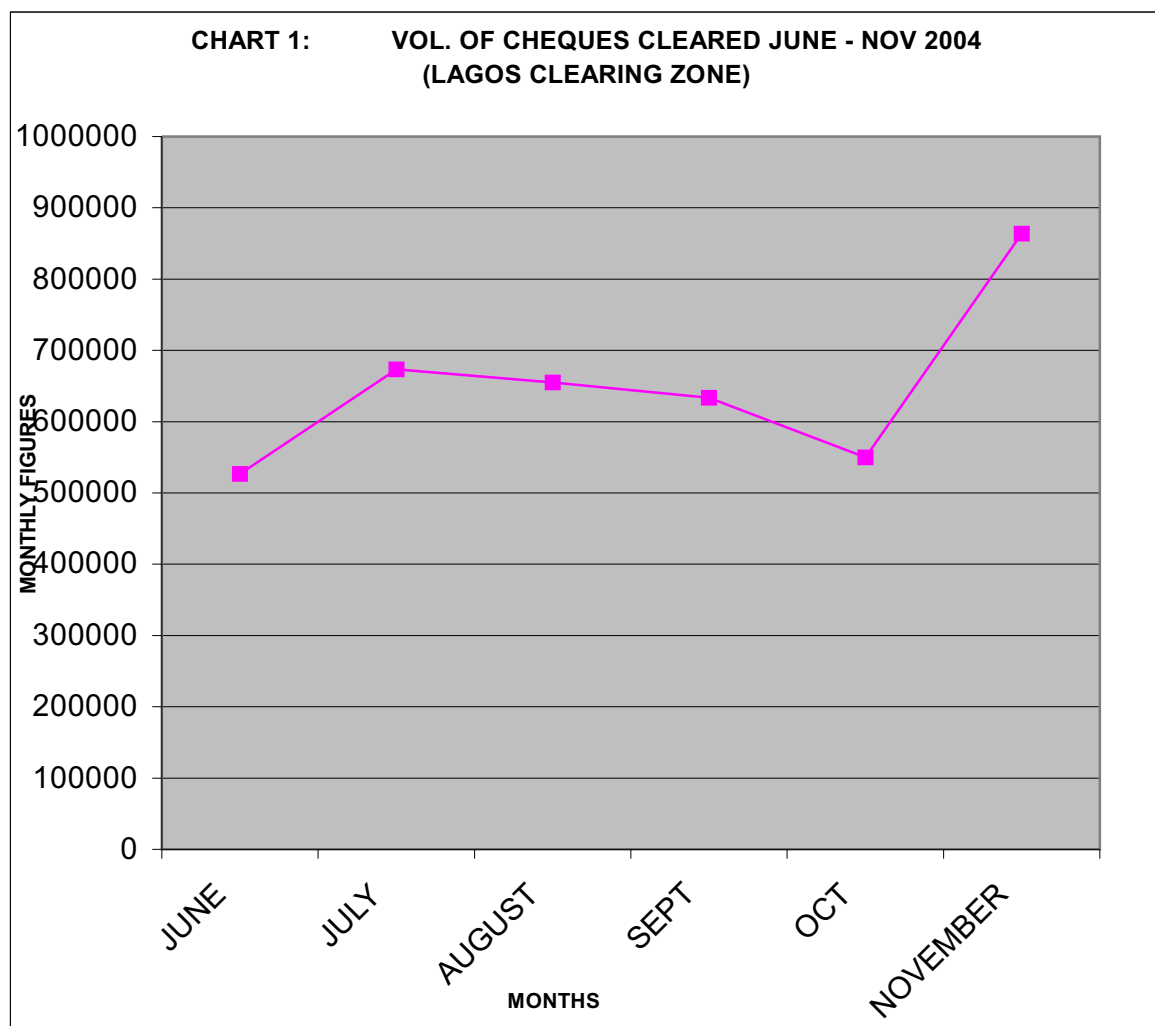
TABLE 2: CHALLENGES FACING CASH

High cost of handling and printing	About N1.3b is spent annually on printing Naira notes. (<i>Daily Independent, 2004</i>). Approximately N10.00 is spent on printing a N5.00 note. (<i>Thisday, 2004</i>)
Security	Cash transactions in Nigeria are hindered by fear of theft and loss to hoodlums
Mutilation	Much of the cash in circulation are mishandled, mutilated and exposed to wear and tear
Dearth of coins in the system	Although coins were the first form of modern legal tender introduced in the Nigerian payments system, they seem to have disappeared in the past decade.
Absence of high denomination Naira notes	With N500.00 as highest denomination, money spent on printing remains high.
Currency counterfeiting	Currency counterfeiting poses a major obstacle to confident usage of coins and notes.

CHEQUES:

Cheques come next in terms of usage though the level of acceptance is still low while user apathy remains high. The other challenges plaguing cheques include:

TABLE 3: CHALLENGES FACING CHEQUES	
Lack of Quality Control of Instrument	The system records as high as 30-35% rate of rejection of cheques due to non-conformity with MICR cheque standards far above the tolerable rate of between 1-3%
Fraud and Forgeries	249 forged cheques presented in 2003 leading to a loss of N209m (<i>NDIC, 2003</i>). Insider complicity remains a key factor in cases frauds and forgeries
High incidence of returned cheques	238 cases In March 2004, 545,904 instruments were processed in the Lagos Clearing House. Out of this number, about 15,785 or 2.90% were unpaid. 75% of such returns were due to insufficient funds in the customers' account.
Long clearing days	Since the CBN's introduction of two clearing sessions in 2003, the clearing days for local cheques have been reduced from four to three days, while the upcountry cheques still take six days to clear.
Non-enforcement of the Dishonored Cheques Act -	The Dishonoured Cheques (Offences) Act No. 44 of 1977 stipulates punishment for issuance of dud cheques; but this Act is not being enforced, to deter issuance of dud cheques.
Poor banking culture in Nigeria	Cash in circulation outside the banking system was put at about N545.8 billion as at December 2004. This represents about 90% of the total volume of cash in circulation compared to 4% and 9% in UK and USA, respectively.



Source: CBN

ELECTRONIC FUNDS TRANSFER (EFT)

Electronic Funds Transfer (EFT) refers to the system of transferring money from one bank account to another without physical money changing hands. One of the most widely used EFT programs is Direct Deposit/Direct Debit; in which money is deposited straight into a beneficiary's

bank account. EFT is used for both credit transfers, such as payroll payments, and for debit transfers, such as mortgage payments and other periodic payments.

EFT has an edge over other payment instruments because it is safer, more secure, more efficient, more convenient and more cost effective than paper, cheque payments and collections.

However, the number of companies and individuals who make and receive payment through EFT is still relatively small in the country. EFT products in use in Nigeria include, Direct Debit, NEFT, NIBSS Fast Funds, eTranzact, Western Union, Mobile Banking and SWIFT.

Nigerian Electronic Funds Transfer (NEFT):

NEFT came into operation in March 2004. It has two modes: the Single Item and the Bulk NEFT. The Single Item is for account holder to account holder funds transfer while Bulk NEFT is for transfers from one account to multiple beneficiaries as in payroll/pension payments. As at today, the maximum value you can transfer through NEFT is N1m.

Challenges of NEFT transactions include the fact that there is a lack of public awareness on the existence of NEFT; there is insufficient remitter transaction details, only Credit Transfers are possible, sort code directory is inadequate, sender must be physically present in the bank to issue the instruction while sender and beneficiary must be account holders. There is also the issue of unreliable infrastructure to support NEFT. The availability and reliability of electricity and telecommunications infrastructure is key to the

efficient operation of this mode of payment.

NIBSS Fast Funds:

NIBSS Fast Funds was introduced in March 1999 to handle high value, online real time transfers between account holders in different banks. But it is cumbersome; transfer process involves taking diskettes physically to NIBSS. It is also not on-line, real time.

Real Time Gross Settlements (RTGS):

RTGS, which was expected to come into operation in the third quarter of 2004, is designed for Real Time Gross Settlements and high value inter-bank/ banks to discount houses payments.

SWIFT:

SWIFT is designed for international payments using a messaging system. It facilitates international trade, Letters of Credit, etc. and its transfers are characterized by high transaction costs denominated in US dollars because

the network is not domiciled in Nigeria.

PLASTIC MONEY

Plastic Money refers to any card based device (online or offline), which carries monetary value that could be used as a means of settling financial obligations. There are three basic types of Plastic Money namely e-Purse, Debit Cards and Credit Cards

e-Purse:

Also called electronic wallet, an e-purse carries a pre-loaded monetary value and can be used as a means of payment for multiple small value purchases. E-purse (e.g. ValuCard and SmartPay) is the predominant type of plastic money in use in Nigeria at the moment. But less than 1% of the Nigerian population use e-Purse.

The major problems facing e-purses include the fact that they are offline and not integrated with host Banks. They are proprietary, prone to fraud, lead to delays in loading cards for customers,

do not have enough Point of Sales (POS) terminals and user acceptance is low.

However, the synergy between Visa Card and Valucard coming on the heels of Visa's acquisition of a 15% stake in Valucard N2.8m (The Guardian, 2004) is expected to turn the tide. With our large population, huge market size, and a humongous N545.8bn of cash in circulation, the value of Valucard transactions will definitely witness a quantum leap when all these hiccups are removed while Visa's market share in Africa would grow.

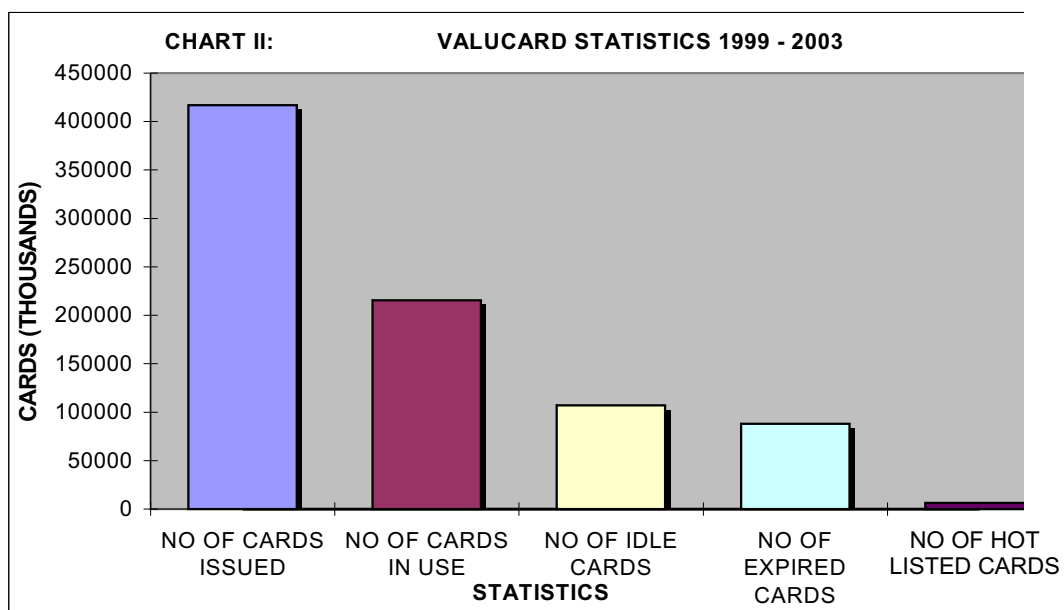
The key problems facing the acceptance and use of debit cards/ATM services in Nigeria today include: limited geographic spread of financial institutions, especially in small towns, inadequate infrastructure, lack of public awareness, lack of interoperability between issuers/service providers as well as security concerns.

Other major challenges would include, lack of technical expertise as well as experienced and knowledgeable personnel. There is also the problem of substantial financial resources required to deploy ATMs.

Credit Cards:

This allows the holder to make purchases and/or withdraw cash up to the prearranged credit line. The credit is settled either in part or in full within a specified period. In 1951, Diners Club issued the first credit card to 200 customers who could use it at 27 restaurants in New York. This was the beginning of credit card issuance. Today, credit cards are used in more than 100 countries worldwide to: pay for goods and services, settle bills over the phone or by Direct Debit, order goods and services over the phone and the internet, withdraw cash from ATMs at home

VALUCARD STATISTICS



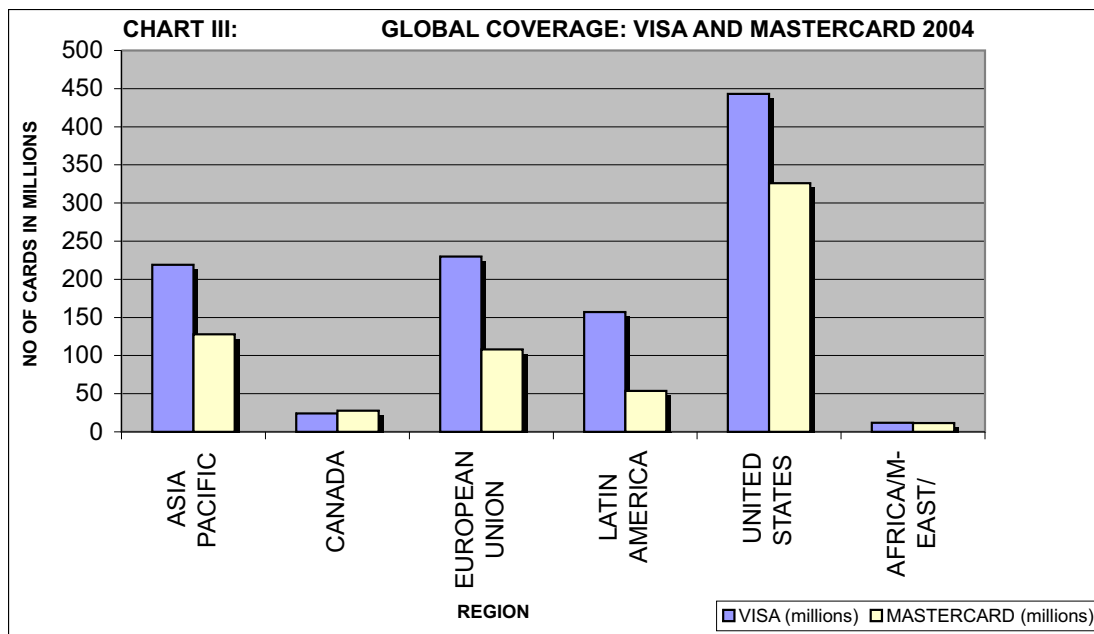
Source: Valucard Nigeria, 2004

and abroad, spread payments of more expensive purchases etc. Examples of internationally recognized credit cards are Visa, Diners, MasterCard, Discover, American Express, etc. The only credit card in use in Nigeria is the MasterCard launched recently by Ecobank.

Debit Cards:

Debit cards enable the holder to have purchases and withdrawals charged directly to funds in his account. Examples of major Debit cards include VISA, Eurocard, MasterCard, and American Express etc. In Nigeria, the only example of debit card is the ATM cards

the customer to perform some of the common teller transactions, such as cash withdrawals, deposits and transfers. ATMs are generally accessible 24 hours a day, 7 days a week, 365 days a year. The first cash dispenser was installed in London in 1967 followed by the first present day style ATMs in 1974. Since then,



Source: Visa International

The challenges facing credit card use in Nigeria include: absence of a credit risk management framework in the country, absence of a national identification scheme, high percentage of unbanked population, and lack of enabling legal framework.

being issued by banks on the Inter-Switch network. About 12,000 debit (ATM) cards have been issued in Nigeria; but only 8,000 of these cards are in active use.

The Automated Teller Machine (ATM) is a cash-point machine that allows

ATMs have revolutionized banking services, giving costumers 24 hours a day access to cash rather than only during banking hours.

As ATMs proliferate in Nigeria, it is pertinent to consider issues of security of the machines and

customers as well availability of constant power supply.

V. ENHANCING THE EFFICIENCY OF OUR PAYMENTS SYSTEM

Having identified the multifarious challenges facing the existing payment instruments, it would be

such as cheques, digital and plastic money.

CASH:

To encourage the use of other payments instrument, the dependence on cash must be de-emphasized. The CBN must in addition to the measures in place come up with a more efficient cash management

of 2004 should be enforced.

CHEQUES:

User apathy and lack of trust remain the major challenges facing cheque use in Nigeria. To overcome this, The Dishonoured Cheques (Offences) Act of 1977 should be reviewed and enforced while offenders should be blacklisted after being made to pay deterrent charges.

TABLE 4: HISTORY OF ATMS IN NIGERIA	
Introduced	Early 1990s by SGBN
Number of ATMs in Nigeria	Over 150
Active	Less than 80
Interoperability	Launch of InterSwitch by a consortium of banks is aiding interoperability
Banks on-line	7 banks already connected online real-time

Sources: Independent Industry Sources

pertinent to recommend ways in which these can be improved upon and enhanced so that we may be able to boast of a payments system that is efficient, reliable, convenient, safe, secure and in line with global best practices.

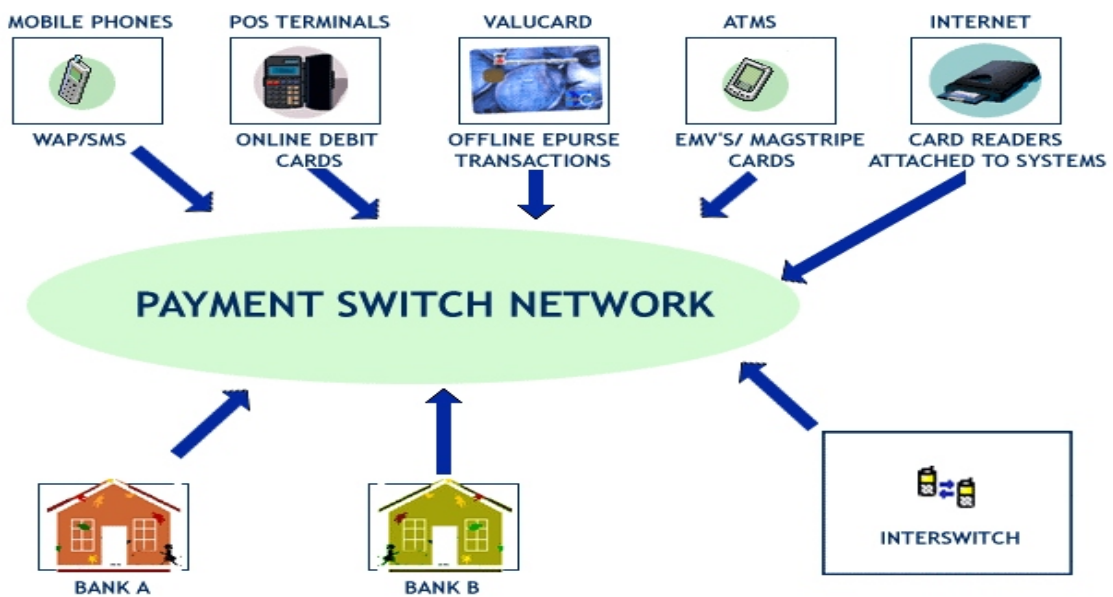
The major objective is to reduce the dependence on cash and encourage the use of non-cash instruments

system as well as more effective modes of reducing the volume of cash in circulation.

Further more, large denomination currency notes as well as coins should be introduced while the cash transaction limit of N500, 000 for individuals and N2, 000,000 for corporate organizations included in the Money Laundering Act

Borrowing a leaf from the Association for Payment Clearing Services (APACS) system in Europe, cheque standards should be enhanced to cover the quality of the instrument, ink, security features etc while ensuring that banks adhere to an industry standard in respect of size, grammage, cheque number digits, encoding ink etc.

PAYMENTS SWITCH SCHEMATIC DIAGRAM (INTER SWITCH)



To facilitate the tracking of repeat offenders, banks should issue a unique ID code for every bank account holder which will apply universally to all banks as well as RC numbers for corporate accounts. Banks can also employ Biometrics and biodata for Individual account holders to assist in tracking down offenders and establishing a credit bureau.

EFT:

Credit must be given to NIBSS for their efforts so far in making the NEFT product more efficient and

user friendly. However, a lot still has to be done in the area of creating awareness for the products. Banks should provide the enabling infrastructure to enable customers to issue instructions through diverse channels like the Internet, mobile phones, Personal Digital Assistants (PDAs) etc.

NIBSS, Interswitch and other switches should also interconnect to enhance the efficiency of the payment medium.

NIBSS FAST FUNDS AND RTGS.

For seamless functioning and efficiency, the NIBSS fast funds and RTGS should be allowed to cater for the needs of customers seeking same day high value payments and real time high value payments, respectively.

PLASTIC MONEY

e-Purse, debit and credit cards

To encourage the use of plastic money all delays associated with loading these cards should be removed to allow for

unhindered access while service providers must ensure that their products are interoperable.

To ensure that standards are met, all cards must be Europay Mastercard Visa (EMV) compliant while a Bankcards Center and Certification Authority should be established to coordinate the issuance of chip based cards as well as the maintenance and processing of card based payments.

In addition, Government must encourage revenue collection through cards and online payments system while NIBSS should be upgraded to play the role of a National Switching Company and the National Gateway. Banks and service providers should also collaborate to ensure that the general public is sensitized through awareness creation to aid acceptance of any new e-payment schemes.

VI: CONCLUSION:

An adequate and functional Information and Communications Technology (ICT)

infrastructure is essential to the realization of an efficient, reliable, prompt, accessible, secure, and cost effective payments system. A functional ICT infrastructure is very crucial, as this would facilitate the adoption and acceptance of non-cash products by enabling:

- ✍ Interoperability;
- ✍ Reliable payments validation capabilities;
- ✍ Ability to centralize customer profiles;
- ✍ Accurate and comprehensive audit trails;
- ✍ Generation of centralized transaction data;
- ✍ Data storage and disaster recovery capability.

The other key requirement would be an effective and enabling legal framework put in place to protect both the customers and service providers. In this light, we ought to take a few practical steps in this regard as there is the urgent need to:

- ✍ Examine our laws, regulations and licensing practices to identify and remove barriers to competition, innovation and the development and deployment of advanced e-payment services that would meet the payments needs of Nigerians
- ✍ Put in place consumer protection laws to safeguard the interest of end users of e-payment instruments Consumers, for example, must be protected against fraudulent charges, non-delivery of electronically purchased merchandise, unauthorized use of credit cards, etc
- ✍ Enact clear and unambiguous laws supporting payment finality, payment netting and collateral arrangements.
- ✍ Ensure that these laws are enforced and not left redundant as is the case with the Dishonoured Cheques (Offences) Act No. 44 of 1977.

✍ Ensure that taxation mechanisms for electronically initiated payments and transfers are legally specified.

✍ Guard against systemic distress, which can erode public confidence in the banking system and cause user apathy towards non-cash payment instruments.

✍ Put in place effective laws and regulations against money laundering. This is necessary because many electronic cash systems enable person-to-person transfers, i.e. a transaction between a consumer and another consumer without recourse to a bank or a merchant as intermediary. Using a

telephone line, it is possible to transfer sums of money to and from anywhere in the world.

With all these in place, the nation's payments system would certainly enter into a new era of efficiency, reliability, promptness, accessibility, security, and cost effectiveness.

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Mr. Jim Ovia

ENHANCING THE EFFICIENCY OF THE NIGERIAN PAYMENTS SYSTEM

By
Jim Ovia*

INTRODUCTION:

The most significant development of the 20th century, which has significantly influenced business operations, is the emergence of the information age. The progress achieved in Information and Communications Technology (ICT) has made it possible for information to be digitized and transmitted faster, cheaper and in mega or terra bytes. Money has over time become mere information. Currency notes are converted to data, which are transmitted through telephone lines and satellite transponders. New financial services such as e-payments system have been created. Overall, transaction costs have crashed, while physical barriers to financial transactions are

speedily effacing. The fast paced innovations and blossoming e-commerce is attributable largely to the dissipation of barriers to the flow of information, capital, goods and financial services.

If you swipe your debit/credit card at a store in Abuja, you will trigger a sequence of events. The account number stored in your card's magnetic stripe or chips zooms across leased phone lines or wireless communication medium, to the merchant's bank in Lagos for authorization. It sends messages back over hundreds of miles in mere seconds. Authorization is granted or denied. This is an example of how the e-payment system works.

A payments system refers to

a set of instructions and procedures used for the transfer of value and settlement of obligations arising from the exchange of goods and services within a defined market.

The ultimate goal of any payments system is to ensure that exchange of monetary value is achieved using payment instruments that offer the least risk, inconvenience and cost. An efficient payments system must be defined by a few attributes. It must be: reliable, prompt, accessible, secure, and cost effective.

This paper examines ways of enhancing the efficiency of the Nigerian payments system in an effort towards meeting global standards. The paper is structured into six sections. Following this

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introduction, section II x-rays the digital revolution and its impact on banking services. Section III presents the current state of the Nigerian payments system while Section IV highlights the challenges facing the existing payment instruments. Section V discusses ways in which the Nigerian payments system can be improved upon while Section VI concludes the paper with some recommendations.




II. DIGITAL REVOLUTION AND BANKING

The digital revolution has radically changed the way we offer financial products and services. The traditional brick and mortar banking is gradually giving way to an e-platform, which enables the offering of financial services through the electronic media to various customers irrespective of place, time and distance.

The prospect of the digitization of our payments system prompts us to take a serious look at Bill Gates' comments in his book,

“Business @ the speed of thought” where he avers that: *“The successful companies [countries] of the next decades will be the ones that use digital tools to re-invent the way they work. These companies will make decisions quickly, act efficiently and directly touch their customers in positive ways. Going digital will put you on the leading edge of a shock wave of change that will shatter the old ways of doing business”* (Gates, 2000)

We are already beginning to experience that the contact points for financial services are increasingly being represented by:

-  An icon on a PC screen;
-  An icon on the web browser;
-  A button on the GSM handset

Each of these tools could be deployed or used by a customer to initiate a banking transaction. This is no longer futuristic, but a reality. It is already happening now.

III. THE NIGERIAN PAYMENTS SYSTEM

Nigeria presently operates a predominantly cash based payments system and has, according to the CBN, N545.8 billion currently in circulation (CBN, 2004). Efforts should be made to digitize this amount.

Nigeria's cash based economy is attributable to the psychology to physically hold and touch a payment medium like cash; a culture informed largely by ignorance, illiteracy and lack of appreciation of the merits of digital payment instruments like Smart Card, Debit Card or electronic funds transfer.

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 bankers' cheques or certified cheques. The time lag between cheque lodgments and receipt of value as well as the high risk of fraud associated with