

EFFECT OF INFORMATION AND COMMUNICATION TECHNOLOGY ON ORGANIZATION PERFORMANCE IN THE BANKING SECTOR

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ABSTRACT

This study is aimed at examining The Effect of Information and Communication Technology on Organization Performance in Banking Industry. Implying that the introduction of Information and Communication Technology in banking services has a positive effect in the development and growth of the organization. Also, to indicate that customers are their asset and the best possible way to satisfy them is to give them the best services. Based on the result, it was observed that information and communication technology leads to efficient and effective performance of banks and information and communication technology leads to competitive advantage over others and thus increases banks profitability.

KEYWORDS: Smart Cards, Telephone Banking, Internet Banking, Electronic Funds Transfer, ATM, Banking, Networked Organization

INTRODUCTION

Information has always been an integral part of every organization operation and manager job, its importance and the need to manager it continue to grow at a nominal rate.

A powerful force that is driving the world towards converging commonality is technology from beginning of the human era, technology has been one of the most essential and most important factors for the development of mankind. During the last two hundred years, technology changes have often related to economic growth in the form of new types of goods and services.

Information Technology can therefore be defined as the modern handling of information by electronic means which involve access storage, processing of electronic technology in its various forms in order to improve the operations and profitability of the business as a whole.

The growing importance of information technology stem down from increasing complexity of organization environments and the ever growing complexity of information created by that complexity.

For information to be useful to a manager it must be accurate as it should provide a valid and reliable reflection of reality, it has to be timely sources it has to be available on time for appropriate managerial duties.

Information must also be complete as it provides the manager with all of the fact and details he/she needs. Information also has to be relevant as this assures the managers that the information is useful to them in their particular circumstances for the particular need.

The greatest innovation that has taken place in the twentieth century is in the realm of information technology. The introduction of computers and the advances in information technology have transformed the global economic landscape and have particularly put banking industries on accelerated pace of development.

Information technology is a term that encompasses all forms of technology used to create, store, exchange and use information in its various forms (business data, voice conversations, still images, motion pictures, multimedia presentations, and other forms, including those not yet conceived). It's a convenient term for including both telephony and computer technology in the same word. It is the technology that is driving what has often been called "the information revolution". (Charles Babbage, 2001).

The banking industry today appears to be at crossroads. Banks are under increasing pressure to offer better services to the customers, with the new technology aiding globalization and integration of the world's financial market. There has been a drastic increase in the expectation of customers for newer products and alternative delivery channels. Now, customers are unlikely to adopt and adapt to the so-called mass produced and mass marketing myopia which characterized the pre-1986 banking period (Zeller, 2002). Now they want bank products and services that meet their specifications.

They are prepared to pay for the extra values that satisfy their extra-personalized products or services as well as personalized marketing, in the same vein they are prepared to switch from one bank to another, minding the old ties. Once they identify gaps in the service delivery of their banks. Just as computerization provides limitless opportunities for banks to innovate in the areas of new products and services and cut down turnaround time often associated with these services. It also creates unprecedented threat to them.

Today, information and communication technology has received great thoughtfulness across various industries and substantial positive effort on banking transactions, bank's profitability, cashier's work, services, patronage etc.

CONCEPTUAL CLARIFICATION

Various Risk Associated with Information and Communication Technology

Information technology is without doubt an enabler of quality services in banks, because of inherent speed and accuracy associated with information technology in bank services delivery. It has become the indispensable tool deployed to maximize banks competitive advantage. However, there are known risks associated with information and communication technology which includes:

Customers/Staff Alienation

The desire to serve customers well is the bedrock of innovation in the method of service delivery. Under the manual regime of service delivery, service relation is defined by customers to employees (CTE) but information technology changed the paradigm to customers, the machine (ATM). This would have adverse impact on knowing your customers well. It is acknowledged that efficient and effective service deliveries are positively correlated. But at what cost to the customers and the banks are such innovation and deployment of IT acceptable and even reasonable.

Job Cut

Evidence in all information technology development and developing economics point to one fact that it always come with massive job cut. This could create socio-economic problems. Though information technology creates a new

kind of job and new wealth within the economy, we still have no record that all those that lost their jobs were given new jobs.

Risks of Swallowing Core Banking Business

There is the risk that information technology precedent over core business of banking. In the long run, it may permanently impair the factor competitiveness of Nigeria banks. Consequently the solution to this may according to Will Locks (2002) be computer (IT) out sourcing as practiced by common-wealth bank of Australia, Xerox etc. According to well and Broad Bent (1998) IT out sourcing is the handing over to third party, the management and operations of IT assets and activities this can later lead to greater strategic losses. They may include:

- Lower return on assets;
- Significant increase in information system staff turnover.
- Longer time to market new products

System Operation Risks

As noted earlier, Etim (2003) posit that computerization of bank services rest on computer and telecommunication, which could be susceptible, to system failure, internet manipulations and inconsistent regulatory policies. This risks include:

- Scanning Automated system
- False data entry
- Virus
- Fraudster logging into telecommunication Network
- Inconsistent regulatory system

Implication for Information and Communication Technology for Customer Service for Bank

In the new competitive arena, it is not the possession of IT that will determine how successful banks will be but the success will be calibrated by the risk management experts in IT development. And managing these risks is a better understanding of the implication of computerization of services on the following:

- **Customer/Staff Interaction with Information Technology:** Effective and efficient information technology of service must think about the customers and staff, not how bank deploy IT to foster only mechanical service delivery of bank customers Davenport (2001) called this a human centered approach to IT, which contrasts with the standard IT view. This approach recognize that:
 - Information evolves in many directions, taking on multiple meanings.
 - People don't share information easily.

- **Job Shredding:** This is an inevitable adjust to service information technology implementation. Job cut should be preceded with retraining and resettlement activities to make those displaced by IT development add more wealth to the industry or outside it.
- **Core Banking and Information Technology:** Bank must always ensure the IT services core-banking activities and not core-banking fitting into IT legacy. We have several evidence that tend to indicate that over-bloating the importance of information technology usually end in computerization replacing core-banking activities which it ought to serve. Although most organizations tend to practicalise this by out-sourcing IT to third party, this has to be pursued with caution.
- **System Operation Risk and Information Technology:** System failure and other associated operational risks are those which cannot be ruled out in banks that embrace computerization of customers service. Furthermore, system manipulation, bugs wire tapping and unauthorized access are crime that go hand in hand with information technology. However, banks must weigh the types of system and operations that pose greater risk to information security.

In order to minimize such risk, dynamic technology controls in respect of information security should be put in place, including the following:

- Encryption
- Message authentication
- Security software
- Data retention

LITERATURE REVIEW

Anderson 2010 says information technology is a term which generally may be considered to be the harnessing of electronic technology in its various terms in order to improve the operations and profitability of the business as a whole.

Since the 18th century, the world experienced an accelerated rate of change in science and technology, medicine, economics, government, philosophy and art. These are sample or signs to show that the past is a mere prologue to an ever greatest rate of change in the future. Emery 2007 believes that information technology provides the engine that drives much of the current change. Based on spectacular advances in microelectronic, information technology is moving towards a global , rapid and revolutionary change, just as previous technological developments put their stamp on an era, information technology is becoming so central to our economy, culture and our daily lives that we will regard this era as "THE INFORMATION AGE" information technology stems down from the increasing complexity of the organization environment and the ever growing amount of information created by that complexity. Banks uses information technology to improve the working of its information system.

According to Parker 2003, information system or management information system is any system that provides people with relevant data information relating to organizations operations. Management information system (MIS) collectively supports and meets the needs of people in an organizations environment either be efficient processing data to assist with the transaction worked or by alternatively supplying information to authorized people in a timely manner.

THEORETICAL FRAMEWORK

Computer Network Technology

The ability to access those geographically outside the reach of data users would have been impossible without the emergence of computer data network. Advance computer technology and telecommunications made it possible from computers within a geographically disperse area or city with the help of high-speed telecommunication infrastructure are involved in the Wide Area Network. And within a single location, it was possible to build a local Area Network (LAN).

With the availability of these networks, effective data carrier platforms for customer service delivery could be affected. It is possible for customers whose accounts are not domicile in a particular branch to be served. Because data networks enable quick validation of their transactions. High speed LANs also makes it possible for many tellers to concurrently share the same customer information base. With this level of advancement, the old telex message system between banks and amongst branches, of the same bank are now being phased out by the new network driven electronic funds transfer and clearing system.

Electronic Funds Transfer

Baker and Brandel (2001) define electronic funds transfer as any transfer of fund which is initiated through an electronic terminal, telephone instrument or computer or magnetic tape so as to order or authorize a financial institution to debit or credit an account, the system allow an hours anywhere in the country. It provides a more suitable and cost effective way of transferring funds.

IT does not mean money in the true sense of it. But rather its only link with money is through the units in which the debits are denominated in real money units. Electronic funds transfer systems are connected with the primary management of information between banks and the resulting changes that affect bank records.

Telephone Banking

Tele-banking can be considered as a form of remote or virtual banking which is essentially the delivery of financial services via telecommunication devices which can perform retail banking transactions such as checking account balance, funds transfer between current, savings and credit card accounts, stop cheques orders and payment of due bills too.

Telephone banking services are on four level:

- Accessing of account balances
- Transfers of staff
- Transfers to third party
- E-Commerce payment

It is easy to use and above all, it does not demand users complex information technology knowledge.

Internet Banking

The emergence of internet banking has brought about unimaginable possibilities in the area of cost reductions, creation of new services and personalization of customer relations. In addition, it has challenged banks “marketing

myopia". As banks have been able to automate most of their routine banking practices. They have been forced by market discipline to shift to spectacular enhancements in the banking practice of marketing and client relations.

- First generation referred as "brochure-ware" banks at this level only acquire websites which are nothing more than information center about the bank.
- Second generation also known as transaction stage, it enables banks to do banking business on the web.
- Third generation stage:- This allow banks to offer customers with a range of integrated and interactive services.

Nigerian banks are in the second generation stage. However, it will require much more aggressive spending on internet-based infrastructure, enhancement of knowledge base of users as well as adapting Nigerian legal system to be compatible with internet technology. Furthermore, customer bank cards will dovetail into electronic cash system that supports internet banking.

Automated Teller Machine (ATM)

Another area which information technology has been deployed is the automated teller machine. It is a cash dispenser which is designed to enable customers enjoy banking services without coming into contact with bank tellers. It also contains the problem of overcrowding in banks. It is now run 24-hours by some banks.

Smart Cards

Smart cards which made it debut on Nigerian market in 1999 utilize micro processor and some limited memory capable of storing between eight to ten thousand characters. Banks in Nigeria have ventures into smart card business because it would enable them retain their customers by providing new services. Moreover, smart cards provide safety net that help banks stay ahead of fraud.

Cheney (2002) posits that smart card is a computer based electronic purse, which is devised to facilitate cash transactions without a card hold being bothered by the inconvenience of carrying cash about. It is in fact a giant leap from conventional credit cards with magnetic stripes. However, study has indicated that it has being very successful worldwide.

LITERATURE ON THE SUBJECT MATTER

Technological developments particularly in the area of telecommunication and information technology are revolutionizing the way business done. Electronic banking is now thought to hold the promises of a new commercial revolution by offering an expensive (cheap) and direct way to exchange information and to sell or buy products and services. This revolution has set in motion, a revolution in the banking sector for the provision of a payment system that is compatible with the demands of the electronic market place.

In line with global trends, banking businesses in Nigeria has witnessed phenomenal changes especially since the middle of 1980s and these have manifested in the enormous volume and complexity of operations, increased innovation and variety in service delivery, financial liberalization and growing competition. These development have not only been driven by technological advises but have also in turn spawned technological development. According to Ogwuma (2002), he said that given the role of technology has played in the modernization of the banking sector especially in terms of development of new banking services and the payment system as well as strategic management in the emerging market

economics. Nigeria banking industry must enlarge and deepen on their technological base, if they are to be viable domestically and competitive internationally.

According to Tajudeen (2002), posits that companies that view computerization as a never-ending process fare better. Here he said critical future role of technology in Nigeria's banking development is to eradicate intensive labour operation. It has been observed that one of the reasons why some businessmen avoid banks is the long waiting time banks. Recent experience shows that those banks which computerized a significant part of their activities have reduced the waiting time in banks.

According to Henderson (2002), Chairman of Boston University's Information system Department, believes that companies experience greater productivity gains when they constantly evolve their automation to meet changing competition. Those that fail to adopt changing business technology shut themselves off from future productivity gain. Computerization of customer service in banking industry is believed to have no option for any bank to be relevant in today's banking world.

Nigerian Banks have no alternative but to embrace the new information technology in order to achieve increased efficiency and competitive advantage. It is encouraging that a few Nigerian banks have joined the global trend and are obviously, reaping the immense benefit.

Ovia (2002) mentioned that when he recently surfed the net, he visited Barclays Bank web page and was delighted to note that Barclays Bank's web page has developed a United Kingdom's (UK) first shopping mall on the internet to offer a secure credit payment facility like "credit card". The planetary adoption of the free market mentality is made possible by the "global village" phenomenon. Through satellite communication, fibre optic cable, the internet, digital information transaction and high speed computers, people around the world are practically neighbours. The value of globalized financial markets and availability of worldwide capitals complete the markets and availability of worldwide capitals complete the sense for the rise of a globalizational permeated life and market value system.

Banking as we know it, is the human intervention in the process of applying pre-determined technical procedures and investors. In order to fulfill those functions in this present highly competitive operating scenario, modern information technology is being employed.

Isoun (2002) also states that their vision is to make Nigeria an IT capable country in Africa and a key player in the information society, using IT as engine for sustainable development and global competitiveness. Our mission is to utilize IT for education, creation of wealth, poverty eradication, job creation and global competitiveness. Hence this shows how information and communication technology can be beneficial in the banking industry, which is an integral part of the whole economy.

The aim of this paper is to review the effect of information and communication technology in banking industry. Therefore it is instructive to underscore the salient theoretical framework of this study. The introduction and use of information and communication technology have a great deal of impact on banking industry. This effect include the staffing nature and the mix structure of the banking industry through the creation of an "IT" department. As well as the effect on some complex decisions are computers that would be used to process data of diverse nature for diverse uses.

Psychologically, the effect of information and communication technology may involve the exhibition of non-appreciation and resistance on the part of some staff who may be outright antagonists to the information technology in the banking industry.

The effect of information and communication technology reviews the computer as an aid to management in the performance of its various functions. The functions performed by management are many and varied. They include planning, controlling, decision making, coordinating, organizing motivating and directing. Computer is very crucial to these functions and performs a supportive role towards their effective performance. Management essentially runs the affairs of the banking industry by organizing the four major resources mainly; money, material, men and machine. So the review of information and communication technology will revolutionalized the way things are done on customer service in the banking industry.

ENABLING TECHNOLOGY

Bank information technology rest on computers, computer components and telecommunication and aims principally at two targets:

- The automation of all routine task;
- Speed up to data processing activities and complete elimination of paper work.

Computers were first applied commercially in batch processing systems. This required the capture of activities as they occur while actual processing was later effected. In many instances computer centers, where the processing are done were located physically away from where the data were captured.

The advances in the integration of telecommunications and computer technology gave opportunities for multi-branch banks to connect their remote data capture terminals to data stations. With the birth of this, came a new culture called on-line, real time processing and it became possible for customer's transactions to be processed instantaneously, removing the constraints imposed by batched processing and geographical limitations. This advantage was further enhanced with the arrival of mini-computers, micro-computers and their peripherals, because of their enhanced processing capacity. Most branches of banks have a stand-alone or networked computers with the interconnectivity of computer system and compatibility of branches are able to consolidate information at their head office without physically moving out to the branches.

Two major approaches are used by the banking sector in Nigeria to computerize their operations. These approaches are;

- Front Office Automation
- Back office Automation

Front Office Automation

This approach involves the computerization of service that relates directly to customers, such costumer service include withdrawals, inquiries, request for account balance etc. The objective of this approach is to provide customers with prompt efficient and higher of quality services. Most banks are currently focused on this approach.

Bank Office Automation

This approach involves the computerization of bank office operations. These include processing of vouchers, cheques, loans, foreign exchange transactions etc. The objective of this approach is to automate the internal process of the organization.

RESEACH METHODOLOGY

This work was secondary method, that is, comprised the researcher's effort to visit the library for the purpose of gathering information and materials from textbooks, journals, magazine, newspaper and unpublished materials which directly or indirectly related to the topic of study.

CONCLUSIONS

Banking service delivery using information and communication technology has become inevitable, customers are now pressing hand deep for extra value that meet their specification. As it is, traditional banking services must be reformed fast enough to fill the gap through information and communication technology.

However, it has been noted that information and communication technology enables banks to improve on the services delivered to their customers, given them competitive advantages and reduce customer waiting time in the bank through prompt service delivery occasioned by the use of computer.

Also, bank staff attitude to work and customer has improved as a result of easy handling of work caused by information and communication technology. Customer's interest and patronage has also increased because of the unabridged access to their account and other benefits like online banking, Smart cards, ATM's and so on. And also there have been reduction in the risk of unexpected occurrence.

RECOMMENDATIONS

Based on the above findings, I hereby recommend the following:

- That bank must appreciate their staff's efforts and in turn ensure that their staff appreciate that customers are assets and as such they must be attended to in time and with care through the use of information and communication technology facilities.
- Information and communication technology should be managed in such a way that they do not alienate both customer and bank staff and also to prevent enormous risk that is associated with information and communication technology.
- Staff must be subjected to regular training so as to meet the standard and specification of customer through up to date technology.

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