



## **CUSTOMER INFORMATION MANAGEMENT ON PERFORMANCE OF BANKING SECTOR IN NIGERIA**

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### ***Abstract***

This study examined the nature of the relationship that exists between Banks Profitability and the Adoption of Information and Communication Technology. A sample of (180) employees based on (9) selected banks was selected randomly for the purpose of this study across the banks operating in Anambra State of Nigeria. A structured questionnaire consisting of closed ended multiple choice-questions were employed for the survey. To ensure the validity of this research, the instrument was subjected to criticism by specialist in the areas of management research. Cronbach's coefficient alpha was used to determine the internal consistency and reliability of the work. Quantitative data were presented using tables - percentages and frequencies to facilitate easy understanding. The hypotheses were tested with data collected through the questionnaire. The hypotheses tested using F-Test as well as well known statistical package SPSS version 17.0 was used in order to analyze the data on the questionnaire. The data analysis showed that a positive correlation exists between ICT and banks profitability in Nigeria. The level of the regression coefficient as well as the factor analysis which revealed that an insignificant size of profit exist without the introduction of the ICT. The study recommends effective management of technological innovation for improved employees performance, customer's satisfaction, sustainable profit, increased return on investment, returns on equity, and to promote competitiveness in the Nigerian banking industry.

***Keywords: Information, Communication, Profitability, Customer Relationship Management and Banking Sector Viability.***

## **INTRODUCTION**

### **Background of the study**

The information needs of modern organizations have become quite enormous and challenging to the extent that every organization needs to pay great attention to how information is gathered, stored, disseminated and utilized. This situation has arisen because of factors such as increased organizational size, expanded operational scope, competitive influence and overall environmental vagaries. Today's organizations require tools to support quicker and automated decisions, as well as ways to minimize uncertainty; only an effective management information system can ameliorate this challenge (Gabriel and Obara, 2013).

Information management serve managers, professionals, database administrators and senior executives of organizations which design, implement and manage information system. March and Simon (2008) said that information management is the collection and management of information from one or more sources and the distribution of that information to one or more audiences. This sometimes involves those who have a stake in, or a right to that information. Management means the organization of and control over the structure, process and delivery of information.

Throughout the 1970s, information was largely limited to files, file maintenance and the life cycle management of paper-based files, other media and records. With the proliferation of information technology starting in the 1970s, the job of information management took on a new light, and also began to include the field of data Maintenance. No longer was information management a simple job that could be performed by almost anyone. An understanding of the technology involved, and the theory behind it became necessary (Kabiru and Abdullahi, 2012). As information storage shifted to electronic means, this became more and more difficult. By the late 1990s, when information was regularly disseminated across computer networks and by other electronic means, network managers, in an increasingly complex tasks, hardware and software. With the latest tools available, information management has become a powerful resource and a cause of large expense for many organizations.

Corporate information management has not been core tenet of most organizations. This position is rapidly changing as organization are confronted with compliance and regulatory demands and/or e-government targets all demanding more effective and efficient access to information. The result is that organizations have been jolted into reviewing their information practices realizing that they are suffering from information paralysis as information bases continue to grow unchecked resulting in information overload and poor quality of data of which banking industry is not an exemption (Keary, 1996). Banks are under more pressure now than ever before. Constantly, evolving regulatory requirements, rising costs, economic pressures, and increased competition from non-traditional entrants in the banking industry have created a challenging business environment for banks of all sizes. In addition, businessmen and consumers alike have come to expect a level of service unachievable using traditional product-centric systems that many banks still employ.

Jones (2012) had helped to highlight the needs for banks to manage their information by noting a number of factors. As service providers, financial institutions understand that their businesses; however, operationally, customers are often treated as conglomerates of several account numbers, rather than unique individuals with particular histories and specific needs. To achieve

true customer-centricity, organizations must address key operational channels to understand and service their customers better. Among the goals of an aspiring customer-centric organizations are: effective customer information management, integrated and coordinated customer-facing channels, and improved efficiency of core process.

As tales of piracy breaches spread through the media, customers are increasingly concerned about the security of their private information (Kabiru and Abdullahi, 2012). As the guardians of more personal customer information than any other business, in the interest of their reputation and continued viability, financial service organizations must keep this information safe. It is based on this that banks are acknowledging the need to put in corporate information policies and practices. Information managers are being appointed at senior level in the organization and not reporting through information technology but the corporate head. Record management has become a core competence and not a basement function and applied across the organization.

This study aims at assessing the effect of information management on the performance of banks in Nigeria, with a view to examining how the effective customer information management, integrated and coordinated customer-facing channels, and improved efficiency of core process can affect the bank performance in Nigeria with particular reference to banks operating in Anambra State.

### ***Statement of the Problem***

Information management is not a technology problem. Rather, it is about organizational, cultural and strategic factors that must be considered to improve the management of information within organization. Organizations are confronted with many information management problems and issues. In many ways, the growth of electronic information has only worsened these issues over the last decade or two. In fact, the practice of generating, processing, storing and retrieving of information at maximum security level become almost impossible. Management Information System (MIS) helps management in effective planning, organizing and controlling its workforce to achieve desired results. It therefore, means that the ineffective utilization of Management Information System (MIS) can result in low and poor performance. Also implies that Management Information System (MIS) is a necessity for successful management which could adversely affect the productivity of workers if not properly managed. Designing and implementing an effective information system becomes a challenge to most banks. The cost and management of these systems at times becomes constraints in the achievement of organizational goals. It is based on these reasons that necessitated the study.

### ***Objectives of the Study***

The main objective of this research work is to assess the effect of information management on the performance of banks in the Nigerian banking industry.

Specifically the study aims at achieving the following objectives:

- i. To examine the effect of customer information management on performance of banking sector in Nigeria.
- ii. To determine the integrated and coordinated customer-facing channels on the performance of banking sector in Nigeria.
- iii. To ascertain the efficiency of MIS core process on the performance of banking sector in Nigeria.

### ***Research Questions***

- i. What is the effect of customer information management in the banking sector of Nigeria?
- ii. To what extent do the integrated and coordinated customer-facing channels influence the performance of banking sector in Nigeria?
- iii. How and to what extent does MIS core process influence the performance of banking sector?

### ***Research Hypotheses***

Ho<sub>1</sub>: The customer information management does not have positive significant effect on the performance of banking sector of Nigeria

Ho<sub>2</sub>: The integrated and coordinated customer-facing channels does not have positive influence on the performance of banking sector in Nigeria

Ho<sub>3</sub>: The MIS core process does not positively influence the performance of banking sector in Nigeria.

### ***Significance of the Study***

The bank will be aware of the factors that influence their performances as regards to application of MIS. The bank will then be able to put up a corporate culture that will accommodate those factors. One way of doing this is to critically examining the management information system as it affects customer's behaviour in general.

The study will expose the bank customers to the benefits of the management information system/IT and relieve some of the fears inherent in the use of bank facilities. The customers will be well informed and prepared to accept the practice of customer facing channels and customer information management. It will equally help to improve customer banking culture through courteousness and good banking habit.

The study will assist the banking system to ascertain the level of acceptability of management information system. The study will also expose the strength and weaknesses of management information system as well as advance public knowledge on issues related directly and indirectly to MIS.

One of the significant contributions of this study is that it can add to the body of existing knowledge in organization theory and management. Apart from contributing to the knowledge of management information system and organizational performance, it forms a reference material for future research in this area.

### ***Scope of the Study***

This research work is restricted to the effects of management information system on the performance of commercial banks in Anambra State of Nigeria. The study is restricted to banks operating in Anambra State of Nigeria. The study also covered issues relating to management information system in the banking sector of Nigeria.

## **REVIEW OF RELATED LITERATURE**

### **Conceptual Framework**

#### ***The Nature and concept of MIS***

Management Information System (MIS) is basically concerned with the process of collecting, processing, storing and transmitting relevant information to support the management operations in any organizations (Ajayi, and Omirin, 2007). According to Heidarkhani, khomami, Jahanbazi,

and Alipoor (2013) management information system is kind of organizational information computer systems, that take internal information from operating processing system and summaries them to Meaningful and useful forms as management reports to use in performing management duties. According Asemi, Safari and Zavareh, (2011) management information system is one of the major computer based information systems. Its purpose is to meet the general information need of all the managers in the firm or in some organizational subunit of the firm.

According to Babu and Sekhar (2012) management information system is a collection of people, tools, procedures and software to perform various business tasks at various levels in the organization. According to Nowduri and Al-Dossary (2012) management information system is a computer based information system that provides for management oriented reporting based on transaction processing and business operations of the organization. According to Hasan, Shamsuddin and Aziati (2013) management information system is type of information systems that take internal data from the system and summarized it to meaningful and useful forms as management reports to use it to support management activities and managerial decision making. According to Al-Mamary, Shamsuddin and Aziati (2014) management information systems basically concerned with converting data from internal sources into information which is then communicated to managers at all the levels, in all functions to make timely and effective decisions for planning, directing and controlling the activities for which they are responsible.

Weihrich and Koontz [2001] defined Management Information system as a functional system of gathering, comparing, analyzing, and dispersing internal and external information to the enterprise in a timely, effective, and efficient manner.

Management information system can be defined as a support to management to provide the competitive advantage which must support the goals of the organization, Kenneth and Jane Laudon (2003) Dos Santos (1991), defined Management Information System as a planned system of collecting, processing, storing, and disseminating of data in the form of information needed to carry out the functions of management. It can also be a documented reports of the activities planned and executed.

Management information system use formalized procedures to provide management at all levels in all functions with appropriate information based on the data from both internal and external sources to enable them to make timely and effective decision for planning, directing and controlling the activities for which they are responsible.

An effective management information system typically employs computer and other sophisticated technology to process information that reflects the day to day operations of the company. Based on the above, management information system is an integrated manual computer system that provides information to support the operations of managements and the decisions making functions of a company. Management information system is also a collection of people, procedures and devices organized to convert data from internal and external sources into information and communicate such information in an appropriate form to management at all levels.

In some organizations, the Management Information System is manual with units submitting reports to upper-level manager on a regular basis. In large organization many of the MIS is computerized. A Management Information System [MIS] is a set of computer hardware and

software, gathered, organized, summarized, and reported information for use by managers, customers and other users. The broad definition of MIS which includes use of information system to provide value to external customers is consistent with essence of management that is, decision making.

Hayward and Broady (1995) argued that information and knowledge play an important role in the political and economic landscape. Over the last few decades, it has been shown that the information revolution has begun to change the very source of wealth for given countries (Bowes, 1995). Wealth is no longer material based. It is now perceived as knowledge to create value. The pursuit for wealth is now the pursuit for information and its application in business. The new information economy changes the definition of an asset and nature of wealth. Competition is no longer for the best piece of land but for the best information. The nations and enterprises that process the best information are the ones that lead in the global economies. Businesses and institutions that capitalize on information will be vastly different from those ones that competed mainly for material resources.

Information is essential for the continued existence and prosperity of enterprises as well as any country's economic wealth (Terblanche and Due Toit, 1996). Hayward and Broady (1999) perceive many of the difficulties associated with basic economic activities such as production and consumption to be concerned with acquiring and assessing information. They further note that economic models are often based upon a world where information is ready and easily available. It has been recognized that information is an important resource for business and public enterprises as well as being important for decision-making, marketing and production. Information as a resource contributes a lot to development in the sense that it increases the worker's efficiency which in turn influences and even determines the performance of the enterprise as a whole.

In enterprises, sophisticated managerial decisions are made daily, planning and projections for the future are undertaken, research is done and marketing decisions and strategies are applied. It is interesting to note that these and other related activities can only be performed successfully if relevant and accurate information is available. Relevant information seems to be an indispensable component of the enterprise if managers wish to stay abreast of the latest developments. Keary (1996) maintains that understanding the value of information is a critical element in the overall process of managing information. He further alleges that it is obvious but not always evident that information must be managed to give advantage to the enterprise. In the past, data was collected for the production of inventory and logistic purpose and was used to monitor and control these processes.

Boon (1990) defines information management as management of information as a resource, such that information functions as well as the information cycle are able to function optimally. He goes on to say that information management deals with the management of resources such as information media, people, information systems and physical facilities that are required if information is to play a role in the corporate, strategic, operational and personal level. Roets and Boon (1992) perceive information management as a process of planning, organizing, staffing, directing, coordinating and controlling diver's information activities including the formulation of information services, systems and formats for the purpose of achieving organizational objectives.

Fairer-Wessels (1997) believe that information management should be seen as the economic, efficient and effective coordination of the production, control, storage, retrieval and dissemination of information from external and internal sources in order to improve the

performance of the banks. In short, information management entails organizing, retrieving and maintaining information. It is closely related to overlapping with the practice of Data Management. Management Information System is a system approach to management that aims to continuously increase value of customers by designing and continuously improving organization process and system. Thus the design and operation of MIS as key system that can provide value to customers should be integrated to Total Quality Management [TQM] in the organization.

Historically, managerial uses of management information system were focused in making internal operations faster, more accurate and more efficient. Today, the more exciting users of management information system are those that provide additional values for external customers. Those managers who find ways to bring additional values to their external customers with the firm management information system will gain additional market shares.

### ***Benefits of MIS***

MIS provide reports to various managers among the middle and low level managers of the organization. Especially, for middle level managers management information system provides the organizational performance reports, which in turn help predicting the future performance of the organization (Nowduri and Al-Dossary, 2012). According to Nath & Badgujar (2013) management information system provides several benefits to the business organization: to come out with appropriate responses to a business situation; the means of effective and efficient coordination between different departments at all the levels of the organization; access to relevant data and documents; use of less labor; improvement in organizational and departmental techniques; management of day-to day activities.

Management information system provides a valuable time-saving benefit to the employees. Employees do not have to collect data manually for filing and analysis. Instead, that information can be entered quickly and easily into a computer program. Access to the information needed is faster. According to Babu & Sekhar (2012) the Primary purpose of management information system is to help an organization achieve its goals by providing managers with insight into the regular operations of the organization so that they can control, organize, and plan more effectively. In addition management information systems provide the right information to the right person in the right format at the right time.

### ***The customer information management and performance of the banking sector in Nigeria***

Customer information management (CIM) is the practice of managing customer data in an enterprise. It is a broad-level term that relates to the wider category of master data management. In customer information management/information technology, professionals deal with all of the customer identifiers and data points that exist within a given business architecture. One way to describe customer information management (CIM) is to contrast it with similar terms. For instance, customer relationship management is a term for systems and tools that help businesses work better with customers in communications or analyze ongoing deals or potential deals. By contrast, CIM is the process of getting bits of isolated data about customers and managing them as a whole or deploying them to places where they can do the most good.

Customer information management is typically done across structural design for instance, when banks are cross-indexing accounts to provide more readily accessible customer identifiers or names, or account histories, that would constitute CIM. In doing CIM, workers may need to deal with analyzing more structured or less structured data - for example, collecting stray bits of

information from Internet forums or mining customer names and numbers from letters or other print communications. The end goal of CIM is to order all of the information that a business has about customers in any part of its software structural design, breaking down data silos, so that the business has the best intelligence and benefits the most from its data assets.

### ***The customer-facing channels on the performance of banking sector in Nigeria***

Customer-facing is a hardware or software product, technology, or anything that the customer of a business deals with directly especially institutions like banks. This can include the user interface of a software application, the help desk that a customer can phone into, any mailing or other contact that a customer receives, or policies that describe how to interact with customers (since the customer will experience the effect of these policies).

Firms that have made this kind of information available via the web or mobile devices are achieving significant benefits. Increasing the convenience and/or value-added services for clients, business partners, and other external stakeholders helps companies forge stronger, longer-lasting, and more profitable business relationships.

Self-service applications not only improve customer and partner satisfaction; they can also help to dramatically reduce overhead costs. For companies that field a high volume of calls, the savings can be astounding. However, despite these significant benefits, companies are taking a long time to deploy self-service, business intelligence (BI), applications that can be used by anyone, regardless of technical expertise.

Customer data analytics can reap significant financial rewards for your organization's sales, marketing and customer service departments. With so much data to contend with, banks often struggle with making sense of information from customers, public records and external databases. This study evaluates the newest tools for making the process easier for IT managers and bank executives.

### ***MIS Core Process and Bank Performance***

The core business processes (high level; major business and financial services) performed at Bank as part of its product and service offerings includes - checking of accounts, Lending/Borrowing, mortgages, and credit/debit cards. The sequential steps required in a typical ATM transaction, such as drawing out cash or transferring funds from one account to another is majorly the core process of MIS. An information system in an organization is like the nervous system in the human body: it is the link that connects all the organization's components for example human resource, marketing, accounting and finance, operations, that is, production and service together and provides for better operation and survival in a competitive environment. Indeed, today's organizations run on information (Dandago, 2012).

Moreover, Managers need rapid access to information to make decisions about strategic, financial, marketing and operational issues that they can successfully handle information and applied it when making decisions. They see information as valuable asset, creation of information ethos is one part of ongoing process, and those companies which have successfully implemented change and created an information ethos have done so with the backing and leadership of the senior managers, and the CEO in particular (Owens et., al 1995).

Timely availability of relevant information is vital for effective performance of managerial functions such as planning, organizing, leading, and control. An information system in an



organization is like the nervous system in the human body: it is the link that connects all the organization's components together and provides for better operation and survival in a competitive environment. Indeed, today's organizations' managers run on information.

Turban, (2001) argued that information systems affect individuals in various ways. An Information System (IS) has great contribution to complete career effectively, to reduce error, reduce time to search documents, enhance productivity and supply quality information to make decisions and to set plans (short term and long term). (Baker, 1993), Each day computers help millions of people to do their jobs more effectively. For example, they can help managers decide on what action is most effective for the organization, computers assist in planning of future activities, and also assist in follow-up and control of activities in process. By using facts supplied by computers that are timely, relevant, and accurate, a manager can do a better job of identifying problems, opportunities, and solutions.

Kehinde and Yusuf (2012) Information System is very important in an organization because no organization can survive without information. Hence, the importance of Management Information System cannot be over emphasized in the 21st Century the world over. Caranana, (2012), said Information enables organization to make more accurate decisions. For this reason, the right amount of information at the right time is a key factor for every organization. Company managers take decisions, prepare plans and control their company's activities using information. An Information System (IS) plays a very important role in the organization, It creates an impact on the organization's functions, performance and productivity. The impact of Information System (IS) on the functions is in its management. With a good support, the management of marketing, finance, production and personnel become more efficient. The information system creates another impact in the organization which relates to the understanding of the business itself (Everest, 1976).

Since the information system works on the basic systems such as transaction, processing and databases, the drudgery of the clerical work is transferred to the computerized system, relieving the human mind for better work and it creates an information- based on work culture in the organization ([mu.ac.in/mis](http://mu.ac.in/mis)). Caranana (2012) said every person in the company needs or generates information, and therefore no person in an organization can be totally detached from its information system. (Baker, 1993 ) Each day computers help millions of people do their jobs more effectively. For example, they can help managers decide on what action is most effective for the organization, computers assist in planning of future activities, and also assist in follow-up and control of activities in process. By using facts supplied by computers that are timely, relevant, and accurate, a manager can do a better job of identifying problems, opportunities, and solutions.

Senn (1990), said that people in all jobs benefit in many ways from information system though they are not computer specialists. Each day IS help millions of people to do their jobs more effectively with greater efficiency, higher quality product or services, better information retrieval, eliminate paper works and instant share of information. In spite of its positive impact information system has its own negative impact. The major limitation or negative impact of IS include displace employees that is elimination of jobs, violate privacy, creates information anxiety (frustration), stress and injuries.

### ***Organizational Performance***

Management as defined by Robbin and Coulter (2003) is the process of getting activities completed efficiently and effectively with and through other peoples. The process represents the functions or primary activities engaged in by manager. These functions are typically labeled planning, organizing, leading, and controlling. Each organization has certain objectives and main objective of every organization is to earn profits by increasing performance (Shaukat, 2012).

Sushil and Agrawal (2003) discussed that organizations are now composed of five major components- Industrial Training/ Information System (IT/IS), organizational structure and corporate culture, management and business processes, organization's strategy, individuals and roles. These components are in stable condition, called equilibrium, as long as no significant changes occur in the environment or in any of the components. However, as soon as a significant change occurs, the systems become unstable and it is necessary to adjust some or all of the internal components since all are inter-related. Unstable organizations may be unable to excel or even survive; therefore, organizations need to respond by what it is called critical response activities, which deal not only with long term strategies, but also with the basic daily business activities (Mandel, 1994) now IT/IS has become a major facilitator of business activities in the world today to make organizations responsive and remain stable.

Performance management is a systematic process for improving organizational performance by developing the performance of individuals and teams. It is a means of getting better results by understanding and managing performance within an agreed framework of planned goals, standard and competency requirements. (Armstrong, 2009) Performance management is much more than appraising individuals. It contributes to the achievement of culture change and it is integrated with other key HR activities, especially human capital management, talent management, learning and development and reward management. Performance management is a process for establishing shared understanding about what is to be achieved and how it is to be achieved, and an approach to managing and developing people that improves individual, team and organizational performance (Armstrong, 2009).

The overall objective of performance management is to develop and improve the performance of individuals, teams and organizations. It is an instrument that can be used to achieve culture change in the shape of the creation of a high-performance culture. It aims at developing the capacity of people to meet, exceed expectations and to achieve their full potentials to the benefit of themselves and the organization. (Armstrong, 2009)

The performance as stated by Wheelen and Hunger (2000) is an end result of an activity and an organizational performance is accumulated end result of all the organization's work process and activities. Managers measure and control organization performance because it leads to better asset management, to an increased ability to provide customer value, to improve measures of organizational knowledge and measures of organizational performance do have an impact on an organization's reputation Wetherbe et. al. (1999). When the performance of the organization is assessed, the past management decisions that shaped investments, operations and financing are measured to know whether all resources were used effectively, whether the profitability of the business met or even exceeded expectations, and whether financing choice were made prudently. The most frequently used organizational performance measures include organization efficiency (productivity), organizational effectiveness and industry ranking.

### ***Theoretical Framework***

This study hinges on Grounded Theory which is a way of analyzing data, by firstly coding the information. The codes are some sought of labels that make qualitative data easy to separate, compile and organize (Hussey and Hussey, 1997). Some of the codes include axial, open and selective coding. The grounded theory, according to Hussey (1997), requires the discovery and creation of codes from interpretation of data. Selective coding is a process of selecting the core category and systematically, relating it to other categories and validating their relationships.

The Management Information System (MIS) also relies heavily on systems theory. The systems theory offers solutions to handle complex situations of the input and output flows. It uses theory of communication which helps to evolve a system design capable of handling data inputs, process, the outputs with the least possible noise or distortion in transmitting the information from a source to destination.

### ***Empirical Review***

Munirat, Sanni and Kazeem (2014) investigate various challenges and prospect of MIS in Nigeria. The study was conducted in Federal Capital Territory, Abuja, North-Central Nigeria with the use of questionnaire and interview to collect data. The study reported that the use of Information Systems (ISs) was encouraged by the technological breakthroughs; the advancements in telecommunications such as the internet, the globalization that created a global unlimited marketplace, the strong growing for information economy, and the rise of competitive digital firms. All of these factors transformed the ISs from data processing systems to decision support systems and become the foundation of the new business environment.

AL-Gharaibeh and Malkawi (2013) identify the impact of management information systems (MIS) on the performance of governmental organizations, Jordanian Ministry of Planning – case study, a sample consisted of 77 employees in the ministry, the study found that there is no impact of hardware and software equipment on the performance of governmental organizations, there is a significant impact of networks, individuals and procedures, and management information system as a whole on the performance of governmental organizations. At the end researchers recommended the ministry updating MIS continuously, engaging employees in building systems, and train them on the system.

Muhammad & Asfandyar (2012) demonstrate the impact of MIS training on the performance of the AG office Peshawar (kpk) employees, specially this paper accentuates on the core know-how of SAP (system application product), and the employees performance are measured with the help of SAP. The data were collected through primary and secondary data, Conclusion has been drawn from questionnaire which have been tabulated and presented through diagrams. The result indicated that SAP program enhances the operation more quickly than operated manually before, only entry is required and verification by authorized users are acquired to process all records. The recommendations and conclusions form the last part of this paper.

Naranjo (2009) analyzes the role of top management team in the relationship between management information systems and strategic performance. The study using data collected from 92 top management teams, it analyses how different team compositions interact with a sophisticated management information system, and how this interaction affects strategic performances, which are focused on cost reduction and flexibility. The study found the effect of management information system on strategic performance (focused on flexibility) is moderated by top management team diversity.

### ***Gap in Knowledge***

Many researchers have done research on management information system and organizational performance but none have covered the area which this work intends to examine. Hailu (2014) assess impact of information system on organizational performance with special reference to Ethio-telecom Southern Region, Hawassa, Ethiopia. Yaser, Alina and Nor (2014) investigated the meaning of management information systems and its role in telecommunication companies in Yemen, Malaysia. Alaa (2015) studied on the effect of management information system on organizational performance: applied study on Jordanian telecommunication companies. Shehadeh and Nazem (2013) empirically investigated the impact of management information systems on the performance of governmental organizations- study at Jordanian Ministry of Planning.

Yusuf, Isyaka and Kazeem (2014) examined the impact of management information system (MIS) on the performance of business organization in Nigeria. Kabiru and Abdullahi (2012) assessed the effect of information management on the performance of banks in the Nigeria banking industry. Among these studies, none of them was conducted in Anambra state. It was also observed that none of the previous research made use of MIS ingredient of customer-centric. This work will be conducted in Anambra state and make use of the core measure of MIS ingredient of customer-centric. Based on this note, this study will fill a gap by incorporating the core measure of MIS ingredient of Customer-Centric: customer information management, customer-facing channels and MIS core process as the core objectives of the MIS in the banking sector of Nigeria.

### ***Summary of Literature Review***

The Information System (IS) plays exactly the same role in the organization as the heart plays in our body. The system ensures that an appropriate data is collected from the various sources, processed, and sent further to all the needy destinations. The system is expected to fulfill the information needs of an individual, a group of individuals and the management functionaries. Virtually, no business or organization, large or small, can compete without information system. We truly live in a wired world! This chapter aims to assess management information system on organizational performance with special reference to banking sector in Anambra State, Nigeria. The researcher reviewed the literature based on conceptual framework, theoretical framework, empirical review and summary of the entire literature.

## **METHODOLOGY**

### ***Research Design***

This study used a descriptive survey design. Descriptive survey design is concerned with collecting data from a sample of a population in order to describe conditions or relationships that exist, opinions that are held, processes, that are going on, effort that are evident or trends that are developing (Nworgu, 2006). The purpose of a survey research, in the views of Ezejeluo, Nkamnebe and Nwanna (2008) is not the collection of data, per se, but the discovery of meaning in the data collected, so that facts and events can be better understood, interpreted and explained. Data will be collected based on the concepts defined in the research model and hypothesis to be tested. The study is a descriptive survey because it will adopt the use of questionnaires aimed at finding the effect of management information system on the performance of banking sector in Anambra State of Nigeria.

### ***Area of Study***

The area of the study is Onitsha metropolis in Anambra State, South-Eastern Nigeria. Onitsha metropolis cuts across two LGAs in Anambra State, viz: Onitsha North and Onitsha South. Onitsha metropolitan city is the commercial nerve of the Eastern Nigeria; hence testing the effect of management information system on the performance of the banks in the city could be used to generalize the situation of all other parts of the South-east: the trading nerve of the nation.

### ***Population of the Study***

The target population for the study is all the staff of commercial banks that operate in Nigeria. Twenty five commercial banks emerged in Nigeria from the 2005 bank consolidation/reform exercise. After two months of successful completion and emergence as one of the twenty five (25) banks that met the ₦25bn capital base deadline, IBTC-Chartered Bank Plc and Stanbic Bank Ltd merged to form Stanbic-IBTC plc, reducing the number of emerged banks to 24. In September 2011, the CBN rescued three (3) failing banks (AfriBank Plc, Bank PHB Plc, Spring Bank Plc) and reconstituted them into government owned banks collectively called Bridge Banks and individually known as Mainstreet Bank Ltd, Keystone Bank Ltd and Enterprise Bank Ltd, respectively. In late 2011, Eco Bank plc absorbed Oceanic Bank plc while Access Bank plc absorbed Inter Continental Bank plc. Also, later on, FCMB absorbed FinBank plc. This reduced the total number of quoted commercial banks to 21 (18 public limited liability companies and 3 government owned).

### ***Sample and sampling techniques***

Purposive sampling was adopted to select 9 commercial banks in Onitsha, Anambra State for the study. Analysing with the 21 commercial banks will be unnecessary since a sample of 0.05 proportion of the population is believed to be satisfactory in making inferences (Amadi, 2005). Therefore, a purposive sampling technique was adopted to select nine (9) banks: Eco bank plc, UBA plc, First Bank of Nigeria plc, Access Bank plc, FCMB plc, GTBank plc, Fidelity Bank plc, Union bank plc and Zenith Bank plc representing about 38%. These selected banks have elements of the old and new generations, as some of them acquired/merged with other banks during the consolidation process of 2005. They operated paper based systems at inception and later adjusted at the dawn of ICT revolution. A sample of (180) employees based on (9) selected banks was selected randomly for the purpose of this study across the banks operating in Onitsha metropolis, Anambra State of Nigeria.

### ***Instrument for Data Collection***

A structured questionnaire consisting of closed ended multiple choice-questions were employed for the survey. Given that most of the items in the questionnaire were targeted to measuring the respondents' perceptions and attitudes, hence, Likert-type scale is considered more appropriate and reliable Adeoye and Lawanson (2012). The Five-Point Likert's scale having the ratings of "very much satisfied" (1) and "not satisfied" (5) were used.

### ***Validity of the Instrument***

To ensure the validity of this research, the instrument was subjected to criticism by specialist in the areas of management research aside from peer review conducted by the researcher. Hence, the validity of the instrument were ascertained by giving out copies of the drafted questionnaire, research questions, hypotheses, alongside with the purposes of the study, to an expert from the department of Business Administration. He was asked to check the face and content validity of

the instrument to see if the instrument will actually measure what it intends to measure. The suggestions and recommendations of the expert were used to correct the drafted questionnaire. Finally the questionnaire was face and content validated by the supervisor who went through them and made necessary corrections.

**Reliability**

Cronbach’s coefficient alpha was used to determine the internal consistency and reliability of the multiple item scales. Cronbach’s alpha will be used in this study because every item was measuring an underlying construct (Leech, Barrett, & Morgan, 2005). The Cronbach’s alpha was computed for the items that made the construct used in this study. A decision rule used in the study is based on the minimum acceptable level suggested by Nunnally (1978) which is 0.70. When Cronbach alpha test, alpha value is above 0.7, the result of this study would indicate an overall higher reliability factor.

Table 3.1: Cronbach’s Alpha Reliability Statistics

| Cronbach Alpha | Cronbach Alpha based on standardised items | No. of items |
|----------------|--|--------------|
| 180            | 0.125                                      | 28           |

Source: Computed with SPSS 17.

The alpha value for the construct indicated that the items that formed them had reasonable internal consistency reliability of 0.125. Hence the instrument was considered appropriate for the study (George and Mallery, 2003). This implies that the questionnaire is valid for measuring the management information system on bank performance in Anambra State of Nigeria.

**Method of Data collection**

Copies of the questionnaire were administered and collected by the researcher herself with the aid of two assistants whom the researcher trained on how to administer and collect the instrument. The researcher went to branches of selected banks (Eco bank plc, UBA plc, First Bank of Nigeria plc, Access Bank plc, FCMB plc, GTBank plc, Fidelity Bank plc, Union Bank plc and Zenith Bank) in Onitsha to distribute the questionnaire to the bank staff who were on duty the day the questionnaires was distributed.

**Method of Data analysis**

The data collected were quantitative. After data collection, quantitative data questionnaires were checked for completeness and data coded for easy input. Quantitative data were presented using tables - percentages and frequencies to facilitate easy understanding. The hypotheses were tested with data collected through the questionnaire. The hypotheses tested using F-Test. A well known statistical package SPSS (Statistical Package for Social Sciences) version 17.0 was used in order to analyze the data on the questionnaire.

**Decision Rule**

Using the SPSS, the hypotheses were tested at 0.05 level of significance. At 5% level of significance, reject null hypotheses for tests with probability estimates lower than 5% (0.05) and conclude that they are statistically significant. Otherwise, we accept (when probability estimates are above 0.05) and conclude that there is no overall statistically significance.

**PRESENTATION AND ANALYSIS OF DATA**

**Description of the Respondents**

The respondents to the study are analyzed based on gender, age, marital status and occupation.

The result showed that the respondents comprised 80 (44.4%) male and 100 (55.6%) female. Thus the study had more female than male. Based on age, persons Less than 25 years old are 60 (33.3%); 25 to 35 years are 80 (44.4%) and persons more than 35 years old are 40 (22.2%). The results showed an equitable distribution of age, though persons of younger age are more in number. By marital status, single persons are 80 (44.4%) and married persons are 90 (50.0%) while separated/divorced respondents are 10 (4.6%). Based on level, Clerical staff are 36 (20.0%), junior Staff are 80 (44.4%) while senior Staff respondents are 64 (35.6%) respectively.

**Table 4.1:** Characteristics of the respondents

|                       | Categories             | Frequency  | Percentage (%) |
|-----------------------|------------------------|------------|----------------|
| <b>Gender</b>         | Male                   | 80         | 44.4           |
|                       | Female                 | 100        | 55.6           |
|                       | <b>Total</b>           | <b>180</b> | <b>100.0</b>   |
| <b>Age</b>            | Less than 25 years old | 60         | 33.3           |
|                       | From 25 to 35 years    | 80         | 44.4           |
|                       | More than 35 years old | 40         | 22.2           |
|                       | <b>Total</b>           | <b>180</b> | <b>100.0</b>   |
| <b>Marital Status</b> | Single                 | 80         | 44.4           |
|                       | Married                | 90         | 50.0           |
|                       | Separated/Divorced     | 10         | 5.6            |
|                       | <b>Total</b>           | <b>180</b> | <b>100.0</b>   |
| <b>Level</b>          | Clerical staff         | 36         | 20.0           |
|                       | Junior Staff           | 80         | 44.4           |
|                       | Senior Staff           | 64         | 35.6           |
|                       | <b>Total</b>           | <b>180</b> | <b>100.0</b>   |

Source: Field Survey, 2016

## ANALYSIS OF RESEARCH QUESTIONS

**Research Question One:** What is the effect of customer information management in the banking sector of Nigeria? Questionnaire items 5 to 9 addressed the research question one which attempt to determine the effect of customer information management on the performance in the banking sector of Nigeria.

**Table 4.1: CUSTOMER INFORMATION MANAGEMENT**

| S/N | Variables   | Very Much Effective | Much Effective | Slightly Effective | Low Effective | Not Effective |
|-----|---|---------------------|----------------|--------------------|---------------|---------------|
| 5   | How effective is the internet services your bank is using to capture all client details | 80 (44.4%)          | 70 (38.9%)     | 24 (13.3%)         | 6 (3.3%)      | 0             |
| 6   | How effective is your bank in maintaining clients database                              | 70 (38.9%)          | 80 (44.4%)     | 20 (11.1%)         | 8(4.4%)       | 2 (1.1%)      |
| 7   | How effective is databases adjustment communicated to bank                              | 40 (22.2%)          | 60 (33.3%)     | 40 (22.2%)         | 30 (16.7%)    | 10 (5.6%)     |

|   | customers   |               |               |               |             |             |
|---|---|---------------|---------------|---------------|-------------|-------------|
| 8 | How effective is your bank feedback mechanism in dictating mistakes   | 50<br>(27.8%) | 78<br>(43.3%) | 42<br>(23.3%) | 6<br>(3.3%) | 4<br>(2.2%) |
| 9 | How effective is your control measure in protecting customers account | 40<br>(22.2%) | 76<br>(42.2%) | 60<br>(33.3%) | 4<br>(2.2%) | 0           |

**Source:** Field Survey, 2016

The result of Question 5 showed that 80 (44.4%) respondents are of the view that the internet services banks is using to capture all client details are very much effective, 70 (38.9%) of the respondents said much effective, 24 (13.3%) answered to a slightly effective, other remaining for respondents 6 (3.3%) said to a low effective while none gave an answer to no effective. This means that majority of the respondents are of the view that the internet services banks is using to capture all client details are effective in Anambra state.

From the questionnaire item number 6, it indicates that 70 (38.9%) respondents are of the view that banks maintenance of clients database are very much effective, 80 (44.4%) of the respondents said much effective, 20 (11.1%) answered to a slightly effective, 8 (4.4%) said to a low effective while 2 (1.1%) of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that banks maintenance of clients database are effective in Anambra state.

It was gathered from question item 7 that 40 (22.2%) of the sampled population are of the view that databases adjustment communicated to bank customers very much effective, 60 (33.3%) of the said it is much effective, 40 (22.2%) answered slightly effective, another 30 (16.7%) of them said that it is low effective while the remaining 10 (5.6%) of the respondents said that it is not effective. Thus, based on the majority view, it was observed that databases adjustment communicated to bank customers effective in Anambra State.

Answers from questionnaire question item number 8 showed that 50 (27.8%) are in agreement that bank feedback mechanism in dictating mistakes are very much effective, 78 (43.3%) of the said it is much effective, 42 (23.3%) answered slightly effective, another 6(3.3%) of them said that it is low effective while the remaining 4 (2.2%) of the respondents said that it is not effective. This means that majority of the respondents are in agreement that bank feedback mechanism in dictating mistakes are effective in Anambra State.

From the questionnaire item number 9, it indicates that 40 (22.2%) respondents are of the view that control measure in protecting customers account in the bank are very much effective, 76 (42.2%) of the respondents said much effective, 60 (33.3%) answered to a slightly effective, 4 (2.2%) said to a low effective while none of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that control measure in protecting bank customers account are very effective in Anambra state.

**Research Question Two:** To what extent do the integrated and coordinated customer-facing channels influence the performance of banking sector in Nigeria?

Questionnaire items 10 to 15 addressed the research question two which attempt to determine the extent integrated and coordinated customer-facing channels influences the performance of banking sector in Nigeria.



The result of Question 10 showed that 40 (22.2%) respondents are of the of the view that customers alert at every transaction via SMS or email are very much effective, 60 (33.3%) of the respondents said much effective, 40 (22.2%) answered to a slightly effective, other remaining for respondents 30 (16.7%) said to a low effective while 10(5.6%) gave an answer to no effective. This means that majority of the respondents are of the view that customers alert at every transaction via SMS or email are very effective in Anambra state. Answers from questionnaire question item number 11 showed that 52 (28.9%) are in agreement that customer information on the website concerning product/services of bank are very much effective, 68 (37.8%) of the said it is much effective, 40 (22.2%) answered slightly effective, another 16 (8.9%) of them said that it is low effective while the remaining 4 (2.2%) of the respondents said that it is not effective. Thus, majority of the respondents are in agreement that customer information on the website concerning product/services of banking sector is effective in Anambra State.

**Table 4.2: CUSTOMER-FACING CHANNELS**

| S/N | Variables  | Very Much Effective | Much Effective | Slightly Effective | Low Effective | Not Effective |
|-----|--|---------------------|----------------|--------------------|---------------|---------------|
| 10  | How effective is customers alert at every transaction via SMS or email                                       | 40<br>(22.2%)       | 60<br>(33.3%)  | 40<br>(22.2%)      | 30<br>(16.7%) | 10<br>(5.6%)  |
| 11  | How effective is customer information on the website concerning your product/services                        | 52<br>(28.9%)       | 68<br>(37.8%)  | 40<br>(22.2%)      | 16<br>(8.9%)  | 4<br>(2.2%)   |
| 12  | How effective is your connections with other banks through the ATM   | 30<br>(16.7%)       | 58<br>(32.2%)  | 72<br>(40.0%)      | 12<br>(6.7%)  | 8<br>(4.4%)   |
| 13  | How effective is ATM machines in either accepting or rejecting credit/debit cards                            | 40<br>(22.2%)       | 50<br>(27.8%)  | 20<br>(11.1%)      | 40<br>(22.2%) | 30<br>(16.7%) |
| 14  | How do you treat clients complaining of ATM network failure  | 34<br>(18.9%)       | 48<br>(25.6%)  | 60<br>(33.3%)      | 30<br>(16.7%) | 10<br>(5.6%)  |
| 15  | How effective is your customer care person in taking calls from customers having problem with bank statement | 70<br>(38.9%)       | 80<br>(44.4%)  | 20<br>(11.1%)      | 8<br>(4.4%)   | 2<br>(1.1%)   |

**Source:** Field Survey, 2016

From the questionnaire item number 12, it indicates that 30 (16.7%) respondents are of the of the view that connections with other banks through the ATM are very much effective, 58 (32.2%) of the respondents said much effective, 72 (40.0%) answered to a slightly effective, 12 (6.7%) said to a low effective while 8 (4.4%) of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that connections with other banks through the ATM are effective in Anambra state.

The result of Question 13 showed that 40 (22.2%) respondents are of the of the view that ATM machines in either accepting or rejecting credit/debit cards are very much effective, 50 (27.8%) of the respondents said much effective, 20 (11.1%) answered to a slightly effective, other

remaining for respondents 40 (22.2%) said to a low effective while 30 (16.7%) gave an answer to no effective. Thus, from majority view point, the ATM machines in either accepting or rejecting credit/debit cards are slightly effective in Anambra state.

The result of Question 14 showed that 34 (18.9%) respondents are of the of the view that bank's treatment to clients complaining of ATM network failure are very much effective, 46 (25.6%) of the respondents said much effective, 60 (33.3%) answered to a slightly effective, other remaining for respondents 30 (16.7%) said to a low effective while 10 (5.6%) gave an answer to no effective. This means that majority of the respondents are of the view that bank's treatment to clients complaining of ATM network failure are effective in Anambra state.

From the questionnaire item number 15, it indicates that 70 (38.9%) respondents are of the of the view that customer care person in taking calls from customers having problem with bank statement are very much effective, 80 (44.4%) of the respondents said much effective, 20 (11.1%) answered to a slightly effective, 8 (4.4%) said to a low effective while 2 (1.1%) of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that customer care person in taking calls from customers having problem with bank statement are very effective in Anambra state.

**Research Question Three:** How efficient is MIS core process on the performance of banking sector? Questionnaire items 16 to 22 addressed the research question two which attempt to determine the efficient of Management Information System (MIS) core process on the performance of banking sector in Anambra State. The result of Question 16 showed that 30 (16.7%) respondents are of the of the view that the connections with other banks are very much effective, 58 (32.2%) of the respondents said much effective, 72 (40.0%) answered to a slightly effective, other remaining for respondents 12 (6.7%) said to a low effective while 8 (4.4%) gave an answer to no effective. Thus, from majority view point, the connections with other banks are very effective in Anambra state.

From the questionnaire item number 17, it indicates that 56 (31.1%) respondents are of the of the view that validation of PIN in banks are very much effective, 44 (42.4%) of the respondents said much effective, 60 (33.3%) answered to a slightly effective, 14 (7.8%) said to a low effective while 6 (3.3%) of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that validation of PIN in banking sector are effective in Anambra state.

**Table 4.3: EFFICIENCY OF MIS CORE PROCESS**

| S/N | Variables  | Very Much Effective | Much Effective | Slightly Effective | Low Effective | Not Effective |
|-----|--|---------------------|----------------|--------------------|---------------|---------------|
| 16  | How effective is the connections with other banks                    | 30<br>(16.7%)       | 58<br>(32.2%)  | 72<br>(40.0%)      | 12<br>(6.7%)  | 8<br>(4.4%)   |
| 17  | How effective is your bank in validate PIN                           | 56<br>(31.1%)       | 44<br>(42.4%)  | 60<br>(33.3%)      | 17<br>(7.8%)  | 6<br>(3.3%)   |
| 18  | How effective is drawing out cash or transferring funds in your bank | 30<br>(16.7%)       | 50<br>(27.8%)  | 50<br>(27.8%)      | 30<br>(16.7%) | 20<br>(11.1%) |
| 19  | How effective is information to                                      | 20                  | 60             | 60                 | 36            | 4             |

|    |   |               |               |               |               |              |
|----|---|---------------|---------------|---------------|---------------|--------------|
|    | customers on withdrawal fee   | (11.1%)       | (33.3%)       | (33.3%)       | (20.0%)       | (2.2%)       |
| 20 | How effective customers account information                           | 40<br>(22.2%) | 60<br>(33.3%) | 40<br>(22.2%) | 30<br>(16.7%) | 10<br>(5.6%) |
| 21 | How effective is verification of accounts in your bank                | 50<br>(27.8%) | 58<br>(43.3%) | 42<br>(23.3%) | 6<br>(3.3%)   | 4<br>(2.2%)  |
| 22 | How effective are asset based lending and business loans in your bank | 40<br>(22.2%) | 76<br>(42.2%) | 60<br>(33.3%) | 4<br>(2.2%)   | 0            |

**Source:** Field Survey, 2016

From the questionnaire item number 18, it indicates that 30 (16.7%) respondents are of the view that drawing out cash or transferring funds in the bank sector are very much effective, 50 (27.8%) of the respondents said much effective, 50 (27.8%) answered to a slightly effective, 30 (16.7%) said to a low effective while 20 (11.1%) of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that drawing out cash or transferring funds in the bank sector are effective in Anambra state.

The result of questionnaire question 19 revealed that 20 (11.1%) respondents are of the view that the information to customers on withdrawal fee are very much effective, 60 (33.3%) of the respondents said much effective, 60 (33.3%) answered to a slightly effective, other remaining for respondents 36 (20.0%) said to a low effective while 4 (2.2%) gave an answer to no effective. Thus, majority view point revealed that the information to customers on withdrawal fee are very effective in Anambra state.

From the questionnaire item number 20, it indicates that 40 (22.2%) respondents are of the view that customers account information in the banking sector are very much effective, 60 (33.3%) of the respondents said much effective, 40 (22.2%) answered to a slightly effective, 30 (16.7%) said to a low effective while 10 (5.6%) of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that customers account information in the banking sector are effective in Anambra state.

The result of Question 21 showed that 50 (27.8%) respondents are of the view that verification of accounts in banking sector are very much effective, 78 (43.3%) of the respondents said much effective, 42 (23.3%) answered to a slightly effective, other remaining for respondents 6 (3.3%) said to a low effective while 4 (2.2%) gave an answer to no effective. Thus, from majority view point, verification of accounts in banking sector are very effective in Anambra state.

From the questionnaire item number 22, it indicates that 40 (22.2%) respondents are of the view that asset based lending and business loans in your banking sector are very much effective, 76 (42.2%) of the respondents said much effective, 60 (33.3%) answered to a slightly effective, 4 (2.2%) said to a low effective while none of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that asset based lending and business loans in your banking sector are very effective in Anambra state.

Performance based questionnaire questions on the indication of services rendered to customers of the banking sector in Nigeria.

Questionnaire items 23 to 28 addressed the research question the performance indicator questions in the banking sector in Anambra State. Answers from questionnaire question item number 23 showed that 56 (31.1%) are in agreement that the information available to complete a

task in banking sector are very much effective, 44 (24.4%) of the said it is much effective, 60 (33.3%) answered slightly effective, another 14 (7.8%) of them said that it is low effective while the remaining 6 (3.3%) of the respondents said that it is not effective. Thus, majority of the respondents are in agreement that the information available to complete a task in banking sector are effective in Anambra State.

From the questionnaire item number 24, it indicates that 30 (16.7%) respondents are of the view that the information suitable with all managerial level are very much effective, 58 (32.2%) of the respondents said much effective, 72 (40.0%) answered to a slightly effective, 12 (6.7%) said to a low effective while 8 (4.4%) of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that the information suitable with all managerial level are effective in Anambra state.

**Table 4.4: THE PERFORMANCE OF EMPLOYEE AS A WHOLE**

| S/N | Variables   | Very Much Effective | Much Effective | Slightly Effective | Low Effective | Not Effective |
|-----|---|---------------------|----------------|--------------------|---------------|---------------|
| 23  | How effective is information available to complete the work in your bank  | 56 (31.1%)          | 44 (24.4%)     | 60 (33.3%)         | 14 (7.8%)     | 6 (3.3%)      |
| 24  | How effective is the information suitable with all managerial level   | 30 (16.7%)          | 58 (32.2%)     | 72 (40.0%)         | 12 (6.7%)     | 8 (4.4%)      |
| 25  | How effective have information systems help in supporting decision making activities within the administrative system | 20 (11.1%)          | 60 (33.3%)     | 60 (33.3%)         | 36 (20.0%)    | 4 (2.2%)      |
| 26  | How effective is the legislation and regulation written to measure the performance of employees                       | 40 (22.2%)          | 50 (27.8%)     | 20 (11.1%)         | 40 (22.2%)    | 30 (16.7%)    |
| 27  | How effective is workshop for employee to disseminate the culture of performance measurement                          | 34 (81.9%)          | 46 (25.6%)     | 60 (33.3%)         | 30 (16.7%)    | 10 (5.6%)     |
| 28  | How effective is administrative unit that specialize in measuring the performance of employee                         | 70 (38.9%)          | 40 (44.4%)     | 20 (11.1%)         | 8 (4.4%)      | 2 (1.1%)      |

**Source:** Field Survey, 2016

The result of Question 25 showed that 20 (11.1%) respondents are of the view that information systems help in supporting decision making activities within the administrative system are very much effective, 60 (33.3%) of the respondents said much effective, 60 (33.3%) answered to a slightly effective, other remaining for respondents 36 (20.0%) said to a low effective while 4 (2.2%) gave an answer to no effective. Thus, from majority view point, the information systems help in supporting decision making activities within the administrative system are effective in Anambra state.

The result of Question 26 showed that 40 (22.2%) respondents are of the view that the legislation and regulation written to measure the performance of employees in the banking sector

are very much effective, 50 (27.8%) of the respondents said much effective, 20 (11.1%) answered to a slightly effective, other remaining for respondents 40 (22.2%) said to a low effective while 30 (16.7%) gave an answer to no effective. This means that majority of the respondents are of the view that the legislation and regulation written to measure the performance of employees in the bank are effective in Anambra state.

Answers from questionnaire question item number 27 showed that 34 (81.9%) are in agreement that workshop for employee to disseminate the culture of performance measurement in banking sector are very much effective, 46 (25.6%) of the said it is much effective, 60 (33.3%) answered slightly effective, another 30 (16.7%) of them said that it is low effective while the remaining 10 (5.6%) of the respondents said that it is not effective. Thus, majority of the respondents are in agreement that workshop for employee to disseminate the culture of performance measurement in banking sector are effective in Anambra State.

From the questionnaire item number 28, it indicates that 70 (38.9%) respondents are of the of the view that administrative unit that specialize in measuring the performance of employee in the bank are very much effective, 80 (44.4%) of the respondents said much effective, 20 (11.1%) answered to a slightly effective, 8 (4.4%) said to a low effective while 2 (1.1%) of the sampled population gave an answer to no effective. This means that majority of the respondents are of the view that administrative unit that specialize in measuring the performance of employee in the banking sector are effective in Anambra state.

### TEST OF HYPOTHESES

The hypotheses to be tested are presented in a null form.

#### *Test of Hypothesis One:*

**Ho<sub>1</sub>:** The customer information management does not have positive significant effect on the performance of banking sector of Nigeria. The result on Table 4.5 addressed objective one for the study, which aims to explain the effect of customer information management on bank performance in Anambra State. From the table, the correlation coefficient is 0.996. This shows that a positive relationship exists between customer information management and bank performance. The results indicate that a unit rise in customer information management will lead to about 0.98 unit rise in performance. However, the coefficient of determination ( $R^2 = 0.993$ ) indicate that 99.3% of changes in bank performance can be explained by customer information management in the selected banks in Anambra State.

Furthermore, the Regression Coefficient is 1.175. Like the correlation coefficient, this equally indicates that positive relationship exists between customer information management and bank performance. It shows that a unit presence of customer information management brings about 118% improvements in the performance of banks in Anambra State.

| <b>Table 4.5: Regression Result (Using OLS Method)</b>       |              |   |              |
|--|--------------|---|--------------|
| <b>Dependent variable: Organizational Performance</b>        |              |   |              |
| <b>Independent variable: CUSTOMER INFORMATION MANAGEMENT</b> |              |   |              |
| Variable   | Coefficients | t-value   | Sig. (Prob.) |
| C  | -0.906       | -18.367   | .000         |
| Log (CIM)  | 1.175        | 72.752  | .000         |
| R = 0.996 <sup>a</sup>                                       |              | R <sup>2</sup> = 0. 993                               |              |
| Adjusted R <sup>2</sup> = 0. 993                             |              | t-statistic = 24254.024 (Sig. @ 0.000 <sup>a</sup> ). |              |
| DW = 0.393   |              |   |              |

**Source:** Field Survey, 2016

The test of hypothesis is done with the t-statistics. The t-value is 24254.024 with probability value (sig. value) of 0.000. Since the p.value is greater than 0.05 level of significance, we reject the null hypothesis that customer information management does not have positive significant effect on the performance of banking sector of Nigeria. The study thus concludes that customer information management have a significant positive relationship on the performance of banks in Anambra State.

**Test of Hypothesis Two:**

**Ho<sub>2</sub>:** The integrated and coordinated customer-facing channels do not have positive influence on the performance of banking sector in Nigeria

| <b>Table 4.6: Regression Result (Using OLS Method)</b> |              |   |              |
|--|--------------|---|--------------|
| <b>Dependent variable: Organizational Performance</b>  |              |   |              |
| <b>Independent variable: CUSTOMER-FACING CHANNELS</b>  |              |   |              |
| Variable   | Coefficients | t-value   | Sig. (Prob.) |
| C  | 0.019        | 1.069   | .287         |
| Log (CIM)  | 0.974        | 155.737   | .000         |
| R = 0.996 <sup>a</sup>                                 |              | R2 = 0. 993   |              |
| Adjusted R2 = 0.993                                    |              | F-statistic = 24254.024 (Sig. @ 0.000 <sup>a</sup> ). |              |
| DW = 0.393   |              |   |              |

**Source:** Field Survey, 2016

The result on Table 4.6 addressed objective two for the study, which aims to explain the effect of integrated and coordinated customer-facing channels on bank performance in Anambra State. The correlation coefficient from the above table is 0.996. This shows that a positive relationship exists between integrated and coordinated customer-facing channels and bank performance. The result indicates that a unit rise in integrated and coordinated customer-facing channels will lead to about 0.996 unit rise in performance. However, the coefficient of determination (R2 = 0.993) indicate that 99% of changes in bank performance can be explained by integrated and coordinated customer-facing channels in the selected banks in Anambra State.

Furthermore, the Regression Coefficient is 0.974. This indicates that positive relationship exists between integrated and coordinated customer-facing channels and bank performance. It shows that a unit presence of integrated and coordinated customer-facing channels brings about 97% improvements in the performance of banks in Anambra State.

The test of hypothesis is tested with the t-statistics. The t-value is 24254.024 with probability value (sig. value) of 0.000. Since the P.value is greater than 0.05 level of significance, we reject the null hypothesis that integrated and coordinated customer-facing channels do not have positive influence on the performance of banking sector in Nigeria. The study thus concludes that integrated and coordinated customer-facing channels have a significant positive relationship on the performance of banks in Anambra State.

**Test of Hypothesis Three:**

**Ho<sub>3</sub>:** The efficiency of MIS core process does not positively influence the performance of banking sector

| <b>Table 4.7: Regression Result (Using OLS Method)</b>      |              |  |              |
|---|--------------|--|--------------|
| <b>Dependent variable: Organizational Performance</b>       |              |  |              |
| <b>Independent variable: EFFICIENCY OF MIS CORE PROCESS</b> |              |  |              |
| Variable  | Coefficients | t-value  | Sig. (Prob.) |
| C   | -0.137       | -4.569   | .000         |
| Log (CIM)   | 1.037        | 95.338   | .000         |
| R = 0.990 <sup>a</sup>                                      |              | R2 = 0.981   |              |
| Adjusted R2 = 0.981   |              | F-statistic = 9089.272 (Sig. @ 0.000 <sup>a</sup> ). |              |
| DW = 0.439  |              |  |              |

**Source:** Field Survey, 2016

The result on Table 4.7 addressed objective three for the study, which aims to explain the effect of efficiency of MIS core process on bank performance in Anambra State. The correlation coefficient from the above table is 0.990. This shows that a positive relationship exists between efficiency of MIS core process and bank performance. The result indicates that a unit rise in efficiency of MIS core process will lead to about 99% unit rise in performance. However, the coefficient of determination (R2 = 0.981) indicate that 98% of changes in bank performance can be explained by efficiency of MIS core process in the selected banks in Anambra State.

Furthermore, the Regression Coefficient is 1.037. This indicates that positive relationship exists between efficiency of MIS core process and bank performance. It shows that a unit presence of efficiency of MIS core process brings about 104% improvements in the performance of banks in Anambra State. The test of hypothesis is tested with the t-statistics. The t-value is 9089.272 with probability value (sig. value) of 0.000. Since the p.value is greater than 0.05 level of significance, we reject the null hypothesis that efficiency of MIS core process does not positively influence the performance of banking sector. The study thus concludes that efficiency of MIS core process have positively influence the performance of banking sector in Anambra State.

**DISCUSSION OF FINDINGS**

The findings of this research work is in line with the theoretical expectation that systems offers solutions to complex situations of the input and output flows and uses communication which helps a system design capable of handling data inputs, process, the outputs with the least possible noise or distortion in transmitting the information from a source to destination. The result of the objective one revealed that customer information management have a significant positive relationship on the performance of banks in Anambra State. Dandago and Rufai (2012) in their view said customers are often treated as conglomerates of several account numbers, rather than unique individuals with particular histories and specific needs. To achieve true customer-centricity, organizations must address key operational channels to understand and service their customers better. The result indicate that a unit rise in customer information management will lead to about 0.98 unit rise in performance. However, the coefficient of determination (R2 = 0.993) indicate that 99.3% of changes in bank performance can be explained by customer information management in the selected banks in Anambra State.

The finding of the objective two showed that integrated and coordinated customer-facing channels have a significant positive relationship on the performance of banks in Anambra State. This relies heavily on systems theory and in line with theoretical expectation that information

well handled will relatively improve the general performance of organisation. This hugely supports the goals of aspiring customer-centric organizations Dandago and Rufai (2012) and concludes that for a bank to continue to remain financially viable and managerially performing, it must give high priority to information management, especially in terms of financial analysis. This shows that a positive relationship exists between integrated and coordinated customer-facing channels and bank performance. However, the coefficient of determination ( $R^2 = 0.993$ ) indicate that 99% of changes in bank performance can be explained by integrated and coordinated customer-facing channels in the selected banks in Anambra State. Furthermore, the Regression Coefficient is 0.974. This indicates that positive relationship exists between integrated and coordinated customer-facing channels and bank performance. It shows that a unit presence of integrated and coordinated customer-facing channels brings about 97% improvements in the performance of banks in Anambra State.

The objective three of this research work revealed that efficiency of MIS core process have a positive influence on the performance of banking sector in Anambra State. Information enables organization to make more accurate decisions. For this reason, the right amount of information at the right time is a key factor for every organization. Company managers take decisions, prepare plans and control their company's activities using information (Caranana, 2012). The result indicates that a unit rise in efficiency of MIS core process will lead to about 99% unit rise in performance. Furthermore, the Regression Coefficient is 1.037. This indicates that a strong positive relationship exists between efficiency of MIS core process and bank performance. An IS plays a very important role in the organization, it creates an impact on the organization's functions, performance and productivity.

## **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

### ***Summary of findings***

Based on the review of related literature, analysis and interpretation of data and general observations, the following are the major findings of the study:

1. that customer information management have a significant positive relationship on the performance of banks in Anambra State. The result indicate that a unit rise in customer information management will lead to about 98% unit rise in performance of banking sector in Anambra State.
2. that integrated and coordinated customer-facing channels have a significant positive relationship on the performance of banks in Anambra State. It shows that a unit presence of integrated and coordinated customer-facing channels brings about 97% improvements in the performance of banks in Anambra State.
3. that efficiency of MIS core process have a positive influence on the performance of banking sector in Anambra State. It shows that a unit presence of efficiency of MIS core process brings about positive improvements in the performance of banks in Anambra State.

### ***Contribution to Knowledge***

It was observed that majority of researchers have done several research on management information system and performance of commercial banks in Nigeria but none of them have covered the area which this work have taken care of. This work was conducted in Anambra state and used the core measure of MIS ingredient of customer-centric. Based on this note, this study has filled a gap by incorporating the core measure of MIS ingredient of Customer-Centric: customer information management, customer-facing channels and MIS core process as the core objectives of the MIS in the banking sector of Nigeria.



## CONCLUSION

Information is among the crucial factor of production, hence, it should be treated equally like human and financial resources of the company. Corporate information management appears not to have been a core tenet of most organizations in Nigeria. This position is rapidly changing as organizations are confronted with compliance and regulatory demands and/or e-government targets all demanding for more effective and efficient access to information and its management. It was observed that customer information management, integrated and coordinated customer-facing channels and efficiency of MIS core process have a positive influence on the performance of banking sector in Anambra State. Based on this not the study concludes that management information system have a significant positive relationship to the performance of commercial banks in Anambra state, Nigeria.

## RECOMMENDATIONS

According to the finding of the study we can give some suggestions that might help improve the performance of banking industry in Nigeria.

- Nigerian banks should put in place policies for managing the information life cycle for integrating the information flows into the business plan of banks; they should ensure information accuracy, relevance and up to date review.
- Nigerian banks should ensure that mechanisms exist to identify the costs of information assets and their contribution to the value added to the banks.
- Updating information systems continuously and top management support to the role of MIS in improving governmental organizations performance.
- Engaging employee of governmental organizations in the analysis, design, construction and development of information system.
- Train employee on how to use information system to improve their performance.

## REFERENCES

- Abell, A. and White, M. (2012). *Developing content framework for intranets with information audits.* (Online). Retrieved on 20/5/2012  
<http://www.general.rau.ac.za/inforsci/Raujournal/vol>
- Ajayi, I. A., and Omirin, F. F. (2007). The Use of Management Information Systems (MIS) In Decision Making In The South-West Nigerian Universities, *Educational Research and Review*, (2)5, 109-116.
- Al-Mamary, Y.H., Shamsuddin, A., and Aziati, N. (2014), The Role of Different Types of Information Systems in Business Organizations: A Review, *International Journal of Research*, (1)7, 333-339.
- Asemi, A., Safari, A. and Zavareh, A.A. (2011). The Role of Management Information System (MIS) and Decision Support System (DSS) for Manager's Decision Making Process. *International Journal of Business and Management*, (6)7,164-173.
- Auster ,E. and Choo, W.C. (1993). "Environmental Scanning by CEOs' in two Canadian Industries". *Journal of the American Society for Information Science*. Lawrence Erlbaum Associates. (1)2. 194-203
- Babu, K.V.S.N.J., and Sekhar, B.M.R (2012). MIS. Vs. DSSS in Decision Making, *Global Journal of Management and Business Research*, (12) Issue 16 Version 1.0.
- Barclay, K. and Oppenheim, C. (1994). *An evaluation of Info - Mapper software at train load coal.* Aslib Proceedings 46(2). Birger Hjørland Publisher.
- Boon J.H. (1990). "Information management; an education perspective". *South African Journal of Development Quarterly*. (58)4 319-327

- Bowes, R. (1995) *How best to find and fulfill business information needs*. Aslib Proceedings. 47(5). MCBUP Ltd.
- Broadbent, M, (1989). "The emerging phenomenon of knowledge management". *Australian Library Journal*, February: 6–22.
- Broadbent, M. (1984). *information management and educational pluralism*. Education for Information. 11.Reprint: Royal melbourne institute of technology department.
- Broadbent, M. (1997) "The emerging phenomenon of knowledge management" . *The Australian Library Journal*. Print: Royal melbourne institute of technology department. 2: 209-227
- Buchanan, S. and Gibb, F. (1998). "The information audit: an integrated strategic approach". *International Journal of Information Management*. Elsevier Publisher. (18)1. 29-47.
- Casmir, F. (1983). "Identifying the information manager". *Public Relations Journal*. Newbury Park. (39)2 28-29.
- Choo, W. (1995) *Information Management for the intelligent organisation: roles and Implication For the professional* (Online), Retrieved on 20/5/2012 from [www:http://www.128.100.159.139/FIS/Respub/DLC95.html](http://www.128.100.159.139/FIS/Respub/DLC95.html).
- Condie, R., Munro, B., Seagraves, L., & Kenesson, S. (2007). The impact of ICT in schools – a landscape review. Coventry: Becta. Available at: <http://webarchive.nationalarchives.gov.uk/20101102103654/publications.becta.org.uk/download.cfm?resID=28221>
- Cortez, M. and Kazlauskas, J. (1996). *Information policy audit; a case study of an organizational analysis tool*. Proceeding of School Business Officials International Conferences, Charlotte NC.
- Cronin, B. (1992) *Information science in the international arena: an educator's perspective*. Proceedings. (44)4, MCB UP Ltd.
- Cronin, B. (1994). "The Internet and competitive intelligence: A survey of current practice", *International Journal of Information Management*. MCB UP Ltd. (14)3. 204-222.
- Dandago, K.I. and Rufai, A.S. (2012) the effect of information management on the financial performance of banks in Nigeria (2006-2010), *International Journal of Arts and Commerce*, (1) 5, 263-278.
- Drucker, P. (1988). *The coming of the new organisation*. New York: Harvard Business publishing.
- Du Toit, A.S. A. and De Villiers J. A. (1996). *Strategic adaptability and information management*. South African institute of management conference, Graham town.
- Eaton, J. and Bawden, A. (1991). *What kind of resource is information*. (10)2. Boulder, C.O: westview Press.
- Fairer- Wessels, F. and Boon, J. (1995). "Information management education". *Towards an Interdisciplinary approach*. *South African Journal of Library and Information Science*. Series 3. (63)4: 179-186.
- Gabriel, J.M.O. and Obara, L.C. (2013). Management Information Systems And Corporate Decision– Making: A Literature Review. *The International Journal Of Management* 2(3), 78-82. Retrieved from <http://www.theijm.com/vol2issue3/10.279.pdf>
- Granger , M. (1996). Integrating the Internet into the business environment. *Electronic Networking Applications and Policy*. (6)23. Idea Publishing, Harissburg.
- Hailu, T. (2014). The Impact of Information System (IS) on Organizational Performance: With Special Reference to Ethio-Telecom Southern Region, Hawassa. *European Journal of Business and Management*, (6)37, 331-338.Retrieved from [www.iiste.org/Journals/index.php/EJBM/article/download/18726/18880](http://www.iiste.org/Journals/index.php/EJBM/article/download/18726/18880)
- Hasan, Y., Shamsuddin, A., and Aziati, N. (2013), The Impact of Management Information Systems adoption in Managerial Decision Making : A Review, *The International*

- Scientific Journal of Management Information Systems*, (8)4, 010-017.
- Hayward, T. and Broady, J.E. (nd) "The role of information in strategic management process". *Journal of Information Science*. British Library Research and Innovation Centre Publisher. (21)4: 257-272.
- Heidarkhani, A., khomami, A.A, Jahanbazi, Q., and Alipoor, H. (2013). The Role of Management Information Systems (MIS) in Decision-Making and Problems of its Implementation, *Universal Journal of Management and Social Sciences*, (3)3, 78-89.
- Herring, J. (1991). "Information management, the convergence of professions". *International Journal of Information Management*. Elsevier ltd. (11)2: 144-155
- Horton F. W. (1992). *The corporate information management function*. Aslib Proceedings. (44)3 MCB Ltd publisher.
- Hussey, J. and Hussey, R. (1997). *Business Research: a practical guide for undergraduate and postgraduate student*. London: Macmillan.
- Jones, W. (2012) *Managing financial information by banks*, *Adastra Corporation Journal*. Retrieved on 16/5/2012www.adastracorp.com/Industries/FinancialServices.
- Kabiru, I.D. and Abdullahi, S.R. (2012). Effects of management information system on the financial performance banks in Nigeria; *International Journal of Arts and Commerce*, 1(5), 263-278.
- Keary, M. (1996). *Information management as an instrument of change*. Managing Information. (3)7. Moira Duncan Publisher.
- March, J. G. and Simon, H. A. (1958) *Organizations*, quoted in Pradeep praduman wg (2008) John Wiley & Sons
- Morrison J.L. and Held W., (1989). "Developing environmental scanning/forecasting systems to augment community college planning". *VCCA Journal*. Chapel Hill Copytron. (4)1: 12-20
- Nath, R.P., and Badgujar, M. (2013) Use of Management Information System in an Organization for Decision Making, *ASM's International E-Journal of Ongoing Research in Management And IT*.
- Newson J. and McInerney C. (1990). *Environmental scanning and the information manager*. Special libraries 18.
- Nowduri1, S., and Al-Dossary, S. (2012). Management Information Systems and Its Support to Sustainable Small and Medium Enterprises, *International Journal of Business and Management*; (7)19, 125-131.
- Orna, L. (1992). *Information policy issues and challenges for organizations*. Aslib Information. Second Edition. Gower/Aldershot.
- Robertson G. (1994). "Information audit: a broader perspective". *Managing information* (1) 4: 34-36.
- Roets, Y. and Boon, Y. (1992). "Information Manager, an exploratory study". *South African Journal of Library and Information Science*. (60)3. 137-147
- Slater, S. and Narver, J.C. (1995). "Market orientation and the learning organization". *Journal of marketing*. ABI/inform Global. (56)3: 63-74
- Taylor, A. Farrell, S. (1992). *Information Management in context*. Aslib proceedings.
- Terblanche, C. and Du Toit, A.S.A. (1996). "Technikon information services to commerce and industry": *An exploratory study South African Journal of Library and Information Science*, (64)2: 101-107
- Ward, S. E. (1985). "Communications: the challenge for the information manager". *Journal of information Science*.. SAGE Publisher, inc. (11)3, 131-137

- Waston, H. J., Carroll, A. B., & Mann, R. I. (1987). *Information Systems for Management*. Plano, TX: Business Publications Inc.
- Willard N. (1993). "Information resources management". *Aslib Information*. IRM Network. Vol. 21(5).

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