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OPTIMIZATION OF INFORMATION TECHNOLOGY (MANAGEMENT INFORMATION SYSTEM) AS A STRATEGY FOR ACHIEVING BUSINESS OBJECTIVES AND COMPETITIVE ADVANTAGE: A FOCUS ON UNITY BANK PLC AWKA

Onuorah, Anthonia Ngozi and Okeke Margaret-Mary Ngozi
Department of Business Administration
Anambra State University, Igbariam Campus, Nigeria

ABSTRACT

This study investigates the optimizations of Information Technology in service industries in Awka Anambra State. Unity Bank Plc Awka branch was used as a focus of the study. Three hypotheses were formulated and tested to guide the research work. The study reveals that information technology increases performance and productivity and equally aid in achieving organizational strategic objectives, competitive advantage and accurate, sufficient and up to date information are generated through the use of information technology which also improve the effectiveness and efficiency of the organization. The Researcher recommends that optimization and proper management of information technology is necessary in order to attain to the organizational objectives and also achieve competitive advantages, Both large and small organizations are advised to optimize their information technology since they are valuable resources for knowledge workers, organizations and society. A four part information technology' strategy should also implement to reduce costs, increase efficiency and improve agency business process. Realizing the need for optimization will greatly improve services and service delivery, enhance policy making and enable enhanced analytic capabilities and reporting options. Keywords: Information, Information Technology, Service industries, optimization, Information Systems, Competitive advantage, objectives.

INTRODUCTION

It has become increasingly recognized that information is the most important strategic resource that any organization has to manage. Key to the collection, analysis, production and distribution of information within an organization is the quality of the information technology services provided to the business. It is essential that we recognize that information technology services are crucial, strategic, organizational assets and therefore organization must invest appropriate levels of resources into the support, delivery and management of these critical IT services and the IT systems that underpin them. However these aspects of IT are often overlooked within many organizations.

The challenge for a marketing strategy is to find a way of achieving a sustainable **competitive advantage** over the other competing products and firms in a market. A competitive advantage is an advantage over competitors gained by offering consumers greater value, either by means of lower prices or by providing greater benefits and service that justifies higher prices.

Porter suggested four "generic" business strategies that could be adopted in order to gain competitive advantage. The strategies relate to the extent to which the scope of a business' activities are narrow versus broad and the extent to which a business seeks to differentiate its products. Riley, (2012) Competitive advantage occurs when an organization acquires or develops an attribute or combination of attributes that allows it to outperform its competitors. These attributes can include access to natural resources, such as high grade ores or inexpensive power, or access to highly trained and skilled personnel human resources. New technologies such as robotics and information technology either to be included as a part of the product, or to assist making it.

Information technology has become such a prominent part of the modern business world that it can also contribute to competitive advantage by outperforming competitors with regard to internet presence. From the very beginning, i.e. Adam Smith's Wealth of Nation, the central problem of information transmittal, leading to the rise of middle-men in the marketplace, has been a significant impediment in gaining competitive advantage. By using the internet as the middle-man, the purveyor of information to the final consumer, businesses can gain a competitive advantage through creation of an effective website, which in the past required extensive effort finding the right middle-man and cultivating the relationship.

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Wikipedia Organizations must look for the ways and opportunities, how to survive in time of economic and financial crisis and try hard to execute all organizations activities in an optimum way. The solution can be found in optimization of managing decisions-making and production processes. To ensure it is critical to have required actual and valuable information, organizations information system must utilize available information technologies as a key of high quality information base and communication system-ensures obtaining , processing , provision and distribution of information.

The ultimate goals for any Management Information System are optimization. An integrated MIS should achieve optimization by performing the following three main functions for the organizations that it is applied into:

1. Provide information across various departments.
2. Facilitate decision making at the three tiers of management.
3. Serve as efficient means for managing business. Processes organizations can either provide service or manufactured goods as their products or more commonly a combination of both. Cilliers (2012)

Due to the fact that management and decision making does not depend only on early and actual information but knowledge of managers and employees who prepare necessary documents are the most important also importance of information and tasks required to prepare systems change. It can be stated that information revolution did not bring only a change in information understanding, its consequence is a change in a way of manipulation with information. It is critical to manage technologies used to cover information needs of environment in which they are spread and manage the way in which they are provided due to information needs of competent people through activities of which they change to knowledge. Both areas claimed that this task is not simple due to the fact that it is not possible to define exactly all the factors which influence organization knowledge management. An important part of this form of management is a human factor and ability of organization to utilize possibilities of information technologies the most effectively as well. The problem in such a way of management is a big dependence on employee's knowledge which must be willing to share it with the others and on their skills and abilities to apply available IT and tools supported by them. Management of a system of such networks is very complicated especially when it is a must to consider the balance between costs ratio to solutions effectiveness since this is a very sensitive. Pomffyova (2010) In this paper we are going to concentrate on application of integrated Information technology in a service based organization and critically evaluate how information technology has helped them to improve in their performance and also attain to organizational objectives and competitive advantage over their competitors.

STATEMENT OF THE PROBLEM

Nowadays organizations have to adapt quick changes in their surroundings and this is really a demanding process, where the way and speed of response condition the total success of doing business, it means whether an organization strengthens its competitiveness or it may happen that an organization losses its market place or fades.

Optimization of information communication becomes one of the major strategies of improving organizational performance .The problem statement of this paper is to evaluate how optimization of information technology assist organizations to improve their performance and achieve the organizational objectives.

OBJECTIVES OF THE STUDY

The broad objectives of this paper are to look at the application of integrated management information System in a service based organization i.e. banks. Other objectives include:

1. To evaluate how optimization of Management information System help service organizations improve their job performance and productivity.
2. To assess whether information technology helps organizations to achieve their objectives.
3. To assess if the IT provide organization with sufficient and up-to-date information
4. To find solutions to the above problems.

SCOPE AND LIMITATION OF THE STUDY

The researcher limited its work on service based organizations in Awka metropolis and Unity bank plc Awka branch was used as a focus of the research work. Time constitute the major constraints throughout the period of the research.

African Journal of Management and Administration, Volume 6, Number 2, 2013**SIGNIFICANCE OF TIK STUDY**

With the market competitions becoming stronger and stronger, it is more important to optimize information technology in our organizations. Optimizing our information system is not only has momentous current significance but also has far-reaching theoretical significance.

The study is considered imperative since the knowledge will provide managers and individuals with information about sales, inventories and other data that would help in managing organizations effectively and efficiently.

REVIEW OF SOME RELATED LITERATURE

All the managerial functions -planning, organizing, leading and controlling rely on a steady stream of information about what is happening at and beyond an organization. Only with accurate and timely information can managers monitor progress toward their goals and turn plans into reality. If managers cannot stay on track , anticipating potential problems, developing the skills to recognize when corrections are necessary, and then making appropriate corrections or adjustments as they progress, their work may be both fruitless and costly. Stoner et al (1995]

Information systems enable managers to control how they do business. Should you need financing , the bank computer can help the salesperson check your credit quickly and close sale. From the largest corporation to the modest hometown auto dealer, the computer plays a vital parts in the control of business operations Stoner et al (1995]

The information system in the past were based in file techniques and information retrieval in large files , however with computer popularization and technology this reality suffered deep changes and almost all current information system are supported by a computational base (Dias 2006}.

The Information System based in computer according to Stair (1999 } are systems that use hardware , soft ware database, telecommunication procedures and people for the collection , storage , changing of data into information and the dissemination of this information .

The International Foundation for Information Technology (IF4IT) provides three definitions for Information Technology:

1. The technology used for the study, understanding, planning, design, construction, testing, distribution, support and operations of software, computers and computer related systems that exist for the purpose of Data, Information and Knowledge processing.
2. The industry that has evolved to include the study, science, and solution sets for all aspects of Data, Information and Knowledge management and/or processing.
3. The Organization in an enterprise or business that is held responsible and accountable for the technology used for planning, design, construction, testing, distribution, support and operations of software, computers and computer related systems that exist for the purpose of Data, Information and Knowledge management and/or processing.

The Information Technology Association of America (ITAA) defines Information Technology as:

"The study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware." IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and securely retrieve information.

The combination of telecommunication and computer science for the capture, storage and transmission of information to every nook and corner

Moresi (2000) opined that the information systems have developed to optimize the flow of relevant information in the scope of an organization triggering a knowledge process and of decision making and intervention on the reality,

Rowley (2002} slated that in a general way, there is a consensus that an information system should be strategic and contribute to make an organization reach its goals.

In the information system, many are the instruments used to represent the knowledge of a given knowledge area, in the process of information recovery, the informative potential should be evaluated not only by the quantity but also mostly by the quality and access of a possibilities to information because the speed with which we can get information depends on the use of instruments adequate to the clients reality. In short system may be evaluated a set of inter-related parts, interacting to reach certain goals. Silva and Dias (2007} A management information system (MIS} provides information that is needed to manage organizations efficiently and effectively.

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Management information system involves three primary resources: people, technology, and information or decision making. Management information systems are distinct from other information systems in that they are used to analyze operational activities in the organizations. Academically, the term is commonly used to the group of information management methods tied to the automation or support of human decision-making e.g. decision support system, expert systems and executive information systems.

A successful MIS supports a business long range plans, providing reports based upon performance analysis in areas critical to those plans, with feedback loops that allow for titivation of every aspect of the enterprise, including recruitment and training regimens. MIS not only indicates how things are going, but also why and where performance is failing to meet the plan. These reports include near -real time performance of cost centers and projects with detail sufficient for individual accountability (Wikipedia)

MIS and the information it generates are generally considered essential components of prudent and reasonable business decisions. The importance of maintaining a consistent approach to the development, use, and review of MIS systems within the organization must be an ongoing concern for bank management. MIS should have a clearly defined framework of guidelines, policies or practices, standards, and procedures for the organization. These should be followed throughout the organization in the development, maintenance, and use of all MIS. Cilliers (2012)

MIS is viewed and used at many levels by management. It should be supportive of the organizations longer term strategic goals and objectives. To the other extreme it is also those everyday financial accounting systems that are used to ensure basic control is maintained over financial record keeping activities. An organization MIS should be designed to achieve the following goals:

- a. Enhance communication among employees
- b. Deliver complex material throughout the organization
- c. Provide an objectives system for recording and aggregating information.
- d. Reduce expense related to labor-intensive manual activities
- e. Support the organizations strategic goals and direction

Because MIS supplies decision makers with facts, it supports and enhances the overall decision making process. MIS also enhance job performance throughout an organization. At the most senior level, it provides the data and information to help the board and management make strategic decisions. At other levels, MIS provides the means through which the organizations activities are monitored and information is distributed to management, employees and customers.

Effective MIS should ensure the appropriate presentation formats and lime frames required by operations and senior management is met. MIS can be maintained and developed by either manual or automated systems or a combination of both. It should always be sufficient to meet an institutions unique business goals and objectives. The effective deliveries of an organizations products and services are supported by the MIS. These systems should be accessible and usable at all appropriate levels of the organization. MIS is a critical components of the institutions overall risk management strategy. It supports management ability to perform such reviews. MIS should be used to recognize, monitor, measure, limits and manages risks. Risk management involves four main elements:

- a. Policies or practices.
- b. Operational processes.
- c. Staff and management.
- d. Feedback devices.

Frequently, operational processes and feedback devices are intertwined and cannot easily be viewed separately. The most efficient and useable MIS should be both operational and informational. As such management can use MIS to measure performance, manage resources, and help an organization comply with regulatory requirements. IT can also be used by management lo provide feedback on the effectiveness of risk controls. Controls are developed to support the proper management of risk through the institutions policies or practices, operational processes, and the assignment of duties and responsibilities to staff and managers. Technology advances have increased both the availability and volume of information management and the directors have available for both planning and decision making. Correspondingly, technology also increases the potential for inaccurate reporting and flawed decision making. Because data can be extracted from many financial and transaction systems, appropriate control procedure must be set up to ensure that information is correct and relevant. In addition, since MIS often originates from multiple equipment platforms including mainframes, minicomputers, and microcomputers, controls must ensure that systems on smaller computers have processing controls that are as well defined and as effective as those commonly found

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on the traditionally larger mainframe systems. All organizations must set up a framework of sound fundamental principles that identify risk, establish controls, and provide for effective MIS review and monitoring systems throughout the organization.

Commonly, an organization may choose to establish and express these sound principles in writing to enhance effective communications throughout the organization.

Risks reflect the potential, the likelihood, or the expectation of events that could adversely affect earnings or capital. Management uses MIS to help in the assessment of risk within an organization. Management decisions based upon ineffective, inaccurate, or incomplete MIS may increase risk in a number of areas such as credit quality, liquidity, market /pricing, interest rate, or foreign currency. A flawed MIS causes operational risks and can adversely affect an organization's monitoring of its fiduciary, consumer, fair lending, Bank secrecy Act or other compliance related activities.

Since management requires information to assess and monitor performance at all level of the organization, MIS risk can extend to all levels of the operations. Additionally, poorly programmed or non-secure systems in which data can be manipulated and or systems requiring ongoing repairs can easily disrupt routine work flow and can lead to incorrect or impaired planning.

To function effectively as an interacting, interrelated and interdependent feedback tool for management and staff, MIS must be usable. The live elements of a useable MIS system are; Timeliness, Accuracy, Consistency, completeness and relevance.

Although MIS does not necessarily reduce expenses, the development of meaningful systems, and their proper use, will lessen the probability that erroneous decisions will be made because of inaccurate or untimely information. Erroneous decisions invariably misallocate and / or waste resources. This may result in an adverse impact on earnings and /or capital MIS which meets five elements of usability is a critical ingredient to an organization's planning process should include consideration of MIS needs at both the tactical and strategic levels.

Without the optimization of effective MIS, it is more difficult for management to measure and monitor the success of new initiatives and the progress of ongoing projects. Two common examples of this would be the management of mergers and acquisitions or the continuing development and the introduction of new products and services.

A reliable information System for operations is vital to support this outstanding economic growth and provide efficient help to organizations in driving standard work practices. Harsh (2011)

The management information system integrates a number of advanced analytical functions for operational real-time control based on multi-criteria optimization tools but also scenario analysis, strategic planning, and optimization within a shared common information basis.

Information systems of the past have tended to concentrate on explicit knowledge (eg linear programming to balance a ration) and to lesser extent tacit knowledge. Many of the problems of the future will involve tacit knowledge. The challenge will be designing information systems that will allow for an easier and more effective means of sharing tacit knowledge. The internet will no doubt play a key role in meeting this challenge. Marsh (2011)

There will be no quick and easy solutions on how to design the information system of an organization, indeed each organization will likely have its own unique system that has been tailored to meet the special informational requirement of the organization and address the needs of the entire supply chain. Those that are able to build and effectively utilize the information system of the future will have a strategic advantage over their competitors. Harsh (2011)

A major challenge for our global information society is to manage its information resources to benefit all members of society while meeting the strategic goals of organizations and nations. This means for example, using information systems to find more efficient, profitable and socially responsible ways of using the world's limited supplies of materials, energy, and other resources. Since the information systems of so many organizations are interconnected by local, regional, and global telecommunications networks, knowledge workers can now access and distribute information and manage resources all over the world. For this reasons, information systems play an increasingly vital role in our global economies. Brien (1993)

The success of an information system should be measured not only by its efficiency in the use of information technologies, but also by its effectiveness in meeting the goals of end users and their organizations. Brien (1993) In some ways, running a successful business has become a lot harder than say 10 years ago. We are all taking advantage of the opportunities presented to us by the global market, and we also have to deal with the Optimization of Information Technology (Management Information System) as a Strategy for Achieving Business Objectives and Competitive Advantage: A Focus on Unity Bank Plc Awka

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disadvantages, Competition is fierce and margins are a lot tighter. Business owners, have to manage costs more effectively and find innovative ways to operate. Innovation and experimentation are key enablers for any business. Information Technology was used in the past to gain an advantage over competitors who were still struggling to process information, and were still following manual paper based procedures. Today, Information Technology systems are prevalent in businesses of all sizes. This means the key to obtaining advantage over your competition is not the possessing of Information Technology, but how well you exploit it. BTO (2007)

The management of Information technology tends to take a life of its own, separate from the core business. Business technology optimization is basically pulling Information technology back into the business and making sure that it is serving the business correctly. BTO is not complicated; it is basically a back to basics approach to IT management. Every technology purchase or modification has to have a businesses requirement standing firmly behind it. Every IT professional should view themselves as businesses people, rather than primarily technologists. With this attitude business technology optimization will become second nature. BTO (2007).

The Slate of Ohio is implementing a four-part IT optimization strategy to reduce costs, increase efficiency, and improve agency business processes. The four strategic components are focused on improving IT planning, -reducing infrastructure complexity, increasing the use of enterprise applications/solutions, and employing business intelligence tools. Davis (2011)

In today's highly competitive, technology dependent workplace, IT organizations struggle to deliver a consistent, high quality customer experience at the lowest possible cost. IT is a service business within the business. To that end, IT must promote alignment between business processes and IT services. This alignment requires that IT apply best practices in all aspects of IT delivery to create a foundation for continuous improvement in the IT customer experience and the cost of providing optimized IT services. Maryville's (2012)

By improving availability and performance while lowering the cost of operations, the ITRO approach ensures that the right IT processes are defined and optimized to provide the greatest value to business organizations. Mnrville's (2012)

The use of information technology will lead to higher quality decisions , to a reduction in time required to authorized proposed organization actions and the time required to make decisions will be reduced Huber (1990).

The quality of any management decision suffers each time appropriate information is lacking. However, given the right information in the right form and at the right time to meet needs of users has always been considered as an important objective in information systems development and management Etusa-Mensah (1996).

TYPES OF MANGEMENT INFORMATION SYSTEM

Management information systems can be used as a support to managers to provide competitive advantage. The system must support the goals of the organization. Most organizations are structured along functional lines and the typical systems are identified as follows by Reniaayson (2008);

Accounting management information systems. All accounting reports are shared by all levels of accounting managers.

Financial management information systems. The financial management information system provides financial **information** to all financial managers within an organization including the chief financial officer. The chief financial officer analyzes historical and current financial activity, projects future financial needs, and monitors and controls the use of funds over time using the information developed by the MIS department.

Manufacturing management information systems. More than any functional area, operations have been impacted by great advances in technology. As a result, manufacturing operations have changed. For instance, inventories are provided just in time so that great amounts of money are not spent for warehousing huge inventories . In some instances, raw materials are even processed on railroad cars waiting to be sent directly to the factory. Thus there is no need for warehousing.

Marketing management information system; A marketing management information system supports managerial activity in the area of product development, distribution , pricing decisions, promotional effectiveness and sales forecasting . than any other functional area, marketing systems relies on external sources o More f data. These include competition on and customers for example.

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Human resource management information system: Human resource management information systems are concerned with activities related to workers, managers and other individuals employed by the organization. Because the personnel function relates to all other areas in business, the human resource management information system plays a valuable role in ensuring organizational success. Activities performed by the human resources management information systems include, work-force analysis and planning, hiring, training and job assignments. Alfred Sarkissian also enumerated the following as the type of management information system:

1. Transaction-Processing Systems

Transaction-processing systems are designed to handle a large volume of routine, recurring transactions. They were first introduced in the 1960s with the advent of mainframe computers. Transaction-processing systems are used widely today. Banks use them to record deposits and payments into accounts. Supermarkets use them to record sales and track inventory. Managers often use these systems to deal with such tasks as payroll, customer billing and payments to suppliers.

2. Operations Information Systems

Operations information systems were introduced after transaction-processing systems. An operations information system gathers comprehensive data, organizes it and summarizes it in a form that is useful for managers. These types of systems access data from a transaction-processing system and organize it into a usable form. Managers use operations information systems to obtain sales, inventory, accounting and other performance-related information.

3. Decision Support Systems (DSS)

A DSS is an interactive computer system that can be used by managers without help from computer specialists. A DSS provides managers with the necessary information to make informed decisions. A DSS has three fundamental components: database management system (DBMS), which stores large amounts of data relevant to problems the DSS has been designed to tackle; model-based management system (MBMS), which transforms data from the DBMS into information that is useful in decision-making; and dialog generation and management system (DGMS), which provides a user-friendly interface between the system and the managers who do not have extensive computer training.

4. Expert Systems and Artificial Intelligence

Expert systems and artificial intelligence use human knowledge captured in a computer to solve problems that ordinarily need human expertise. Mimicking human expertise and intelligence requires the computer to do the following: recognize, formulate and solve a problem; explain solutions; and learn from experience. These systems explain the logic of their advice to the user; hence, in addition to solving problems they also can serve as a teacher. They use flexible thinking processes and can accommodate new knowledge.

UTILIZATION OF INFORMATION SYSTEMS IN MANAGERIAL DECISION MAKING IN FINANCIAL INSTITUTIONS

The universal acknowledgement by industrialized nations that information is a national resource vital for decision-making and that information technology is developing countries to recognize importance of information technology. Various types of decision makers in developing countries seeking to obtain relevant and timely information include biological , technical and social science researchers, extension agents , teachers , marketing and business firms operators, managers, farmers , administrators , planners and policy makers.

On a daily basis a manager has to make many decisions. The types of decisions being made by different levels of managers may be quite different, but all decision makers attempt to bring about a more productive and socially beneficial economic system to their organizations. Their decisions are affected by quality and timeliness of supporting information available to them. In other words, given a set of possible decisions, a manager will act on basis of information at hand. Some of these decisions are routinely inconsequential, while other have drastic impacts on operations of the firm of which they work. Some of the decisions could involve large sums of money being gained or lost and whether or not the firm accomplishes its missions and its goals.

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Although information systems are considered to belong to an applied discipline, there is need for an understanding of the underlining basic concepts by information systems as a collection of people, procedure, a data of sometimes hardware and software that collects, process, stores and communicates data for transaction processing at operational level and information to support management decision making. In other to understand the information system concept further, Salton (2005) highlighted the most important

computer based information systems as follows:

- a. Information Retrieved System
- b. Questions-answering system
- c. Database System
- d. Management information system
- e. Decision support system

Information systems also help upper level managers chart through the constantly changing business environment of the firm. Industrial firms, service companies and financial institutions in market economies rely on these systems extensively, without them modern market economies will not exist in their present. Therefore, design of computer based systems to support decision making is inspired by the notion that information of good quality, both in content and presentation is essential for good decisions. In our increasingly complex world, task of decision-making must respond quickly to events that seem to take place at an ever-increasing pace. However, different types of data are needed to support different aspects of managerial decision making. A manager is frequently concerned with problem finding that is to determine if a problem exists and to solve it. This means that obtaining adequate and valid information is essential as the success of the business depends to a large extent on the ability of the management to make good and viable decisions.

The aim of this study is not only to reveal unexploited opportunity of information Technology in managerial decision making but also to be used for guiding strategy building process of organizations. Knowing the needs in information technology development will also point out evolving characteristics of society for which appropriate information professionals must be produced.

Decision support system have provided tremendous analytic tool for middle management. When a business event occurs for example whether it is the issuing of an invoice, the ticking over into a new financial quarter or staff attendance at a training course this event provides indicators of any actual or predicted change in the state of the organization. Therefore management information system should focus on providing managers with prosperities information that report on the performance of the organization.

THEORITICAL FRAMEWORK

TECHNOLOGY ACCEPTANCE THEORY (TAM)

Davis et al (1989) Technology Acceptance Model (TAM). TAM predicts user acceptance of any technology is determined by two factors: perceived usefulness and perceived ease of use. Perceived usefulness is defined as the degree to which a user believes that using the system will enhance his or her performance. Perceived ease of use is defined as the degree to which the user believes that using the system will be free from effort. According to TAM, both perceived usefulness and perceived ease of use have a significant impact on a user's attitude toward using the system. To be accepted, a technology must satisfy basic usability requirements and be perceived as useful by its intended user community. User experience and training will impact acceptance levels as will the manner in which the technology is implemented to contribute to organizational goals and working practices.

INNOVATION DIFFUSION THEORY (IDT)

Innovation diffusion theory explains individual's intention to adopt a technology as a modality to perform a traditional activity. The theory is developed by Rogers. The critical factors that determine the adoption of an innovation at the general level are the following: relative advantage, compatibility, complexity, trialability and observability.

DECOMPOSED THEORY OF PLANNED BEHAVIOR (DTPB)

The second reviewed theory is the decomposed theory of planned behavior. The theory was developed by Taylor and Todd. The theory postulates that the intention to use a certain technology is influenced by attitude, subjective, norm and perceived behavior control.

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ACTOR-NETWORKTHEORY (ANT) - posits a heterogeneous network of humans and non-humans as equal interrelated actors. It strives for impartiality in the description of human and nonhuman actors and the reintegration of the natural and social worlds. For example, Latour (1992) argues that instead of worrying whether we are anthropomorphizing technology, we should embrace it as inherently anthropomorphic: technology is made by humans, substitutes for the actions of humans, and shapes human action. What is important is the chain and gradients of actors' actions and competences, and the degree to which we choose to have figurative representations. Key concepts include the inscription of beliefs, practices, relations into technology, which is then said to embody them. Key authors include Latour (1997) and Gallon (1999).

SOCIAL CONSTRUCTION OF TECHNOLOGY (SCOT) - argues that technology does not determine human action, but that human action shapes technology. Key concepts include:

- **Interpretive flexibility:** "Technological artifacts are culturally constructed and interpreted ... By this we mean not only that there is flexibility in how people think of or interpret artifacts but also that there is flexibility in how artifacts are designed."
- **Relevant social group:** shares a particular set of meanings about an artifact
- **closure and stabilization;** when the relevant social group has reached a consensus
- **wider context:** "the sociocultural and political situation of a social group shapes its norms and values, which in turn influence the meaning given to an artifact"

STRUCTURATION THEORY- defines structures as rules and resources organized as properties of social systems. The theory employs a recursive notion of actions constrained-and enabled by structures which are produced and reproduced by that action. Consequently, in this theory technology is not rendered as an artifact, but instead examines how people, as they interact with a technology in their ongoing practices, enact structures which shape their emergent and situated use of that technology. Key authors include DeSantis and Poole (1990), and Orlikowski (1992).

SYSTEM THEORY - considers the historical development of technology and media with an emphasis on inertia and heterogeneity, stressing the connections between the artifact being built and the social, economic, political and cultural factors surrounding it. Key concepts include reverse salients when elements of a system lag in development with respect to others, differentiation, operational closure, and autopoietic autonomy. Key authors include Thomas P. Hughes (1992) and Luhmann (2000)

RESEARCH METHODOLOGY

The sample size of this paper comprises of all the workers in unity bank Awka branch which is 36 employees. Both primary and secondary data was used for data collection and the data was analyzed using percentage analysis and chi-square statistical tool.

HYPOTHESIS

Three hypothesis were formulated and tested to guide the research work

1. **H1:** Optimization of Information Technology help organization improve their job performance and productivity.
Ho: Optimization of Information Technology does not help organization improve job performance and productivity.
2. **H1:** Information Technology helps organization to achieve organizational objectives and competitive advantage.
Ho: Information Technology does not help organization to achieve organizational objectives and competitive advantage.
3. **H1:** information Technology aid organization to meets the information processing needs of the organization and provide organization with sufficient and up to date information
Ho: Information Technology does not aid organization to meets the information processing needs of the organization and provide organization with sufficient and up to date information.

RESEARCH QUESTIONS AND RESPONSES

1. Does optimization of information system and usage increase organizational productivity and job performance?
2. Does information system helps organization to achieve its objectives
3. Does Information System in your organization provide accurate and up to date information needed in your organization?

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DATA PRESENTATION AND ANALYSIS RESEARCH QUESTIONS AND RESPONSES

Research question one. (TABLE 1)

Does optimization of information system and usage increase organizational productivity and job performance?

Responses		
	FREQUENCY	%
Strongly agreed	21	58.3
Agreed	10	27.7
Undecided	-	-
Disagree	5	13.8
Strongly Disagreed	-	-
TOTAL	36	100

Source: Field Survey 2012

RESEARCH QUESTION TWO (TABLE)

Does the use of Information System helps organization to achieve its stated goal and objectives and competitive advantage

Responses		
	FREQUENCY	%
Strongly agreed	26	72.2
Agreed	10	27.7
Undecided	-	-
Disagree		
Strongly Disagreed	-	-
TOTAL	336	100

Source: Field Survey 2012

RESEARCH QUESTION THREE (TABLE 3)

DOES INFORMATION SYSTEM IN YOUR ORGANISATION PROVIDES ACCURATE AND UP TO DATE INFORMATION NEEDED IN YOUR ORGANISATION

Responses		
	FREQUENCY	%
Strongly agreed	23	63.8
Agreed	11	30.5
Undecided	-	-
Disagree	2	5.5
Strongly Disagreed	-	-
TOTAL	36	100

Source: Field Survey 2012

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TESTING OF HYPOTHESES

Using the formular $\frac{X^2(O_i - e_i)^2}{e_i}$

Where O_i = Observed frequency
 e_i = Expected frequency

Decision Rule: The hypothesis is accepted if the computed value of X^2 is less than the critical value of X^2 otherwise the hypothesis is rejected.

Degree of freedom = 2-1=1

Level of significant = 0.05

H_I: Optimization of Information Technology help organization improves their job performance and productivity.

H₀: Optimization of Information Technology does not help organization improve job performance and productivity.

TABLE 4

Response	Observed frequency	Expected frequency	$O_i - e_i$	$(O_i - e_i)^2$	$X^2(O_i - e_i)^2$
					e_i
Agreed	31	18	13	169	9.3
Disagreed	5	18	-13	169	9.3
Total	36	36	0	338	18.6

3. **H_I:** Information Technology helps organization to achieve organizational objectives and competitive advantage

H₀: Information Technology does not help organization to achieve organizational objectives and competitive advantage.

TABLE 5

Response	Observed frequency	Expected frequency	$O_i - e_i$	$(O_i - e_i)^2$	$X^2(O_i - e_i)^2$
					e_i
Agreed	26	18	8	64	3.5
Disagreed	10	18	-8	64	3.5
Total	36	36	0	128	7

3. **H_I:** Information Technology aid organization to meets the information processing needs of the organization and provide organization with sufficient and up to date information

H₀: Information Technology does not aid organization to meets the information processing needs of the organization and provide organization with sufficient and up to date information.

TABLE 6

Response	Observed frequency	Expected frequency	$O_i - e_i$	$(O_i - e_i)^2$	$X^2(O_i - e_i)^2$
					e_i
Agreed	34	18	16	256	14.2
Disagreed	2	18	-16	256	14.2
Total	36	36	0	512	28.4

RESEARCH RESULTS

The research reveals as follows:

- * Unity bank makes use of information technology in their day to day running of their business
- * The systems provide information necessary to manage an organization effectively and efficiently.
- * Unity bank designed their information system to enhance communication among employees and customers.

Optimization of Information Technology (Management Information System) as a Strategy for Achieving Business Objectives and Competitive Advantage: A Focus on Unity Rank Plc Awka

- * The information system of the bank provides an objective system for recording information and support the organizations strategic goals and direction
- Optimization of information system improved job performance and increase productivity.
- Times are being saved with the use of information system.
- The optimization of Information technology aid organization to achieve its competitive advantage which has become a popular cliché.

RECOMMENDATIONS

- * There should be a proper management of information system in an organization it is a major challenge for managers.
- * Every organization both large and small is advised to make use of information system for they are valuable resources for knowledge workers, organization and society.
- * A four -part information Technology strategy should be implemented in order to:
 - reduced costs
 - increase efficiency
 - improve agency business processes.

CONCLUSION

For most business, there are a variety of requirements for information. Senior managers need information to help with their business planning, middle management need more detailed information to help them monitor and control business activities. Employees with operational roles need information to help them carry out their duties.

As a result, business tend to have several information system operating at the same lime and to maintain steady and accurate information in every organization optimization of information technology becomes vital A potential problem with relying on electronic communication and processing of information is the loss of the vital human clement. Sometimes, because of the complexity of information, an MIS report cannot effectively summarize it. Very rich information is needed to coordinate and run an enterprise and certain classes of information cannot be quantified.

REFERENCES

- Brien O (1993) Management information System. A Managerial end user perspective
- Business technology optimization (2012)
- Cilliers (2012) managing information system: A case study of Dell
- Davis (2011) IT Optimization information centre
- Harsh (2011) International journal of systems application, engineering and development no 3 vol 5
- Mary Ville (2012) Information technology Resource optimization methodology
- Morga (2011) Applications of theories and models for information and communication techniques Journal of information technology vol 1 no 2
- Pomffyova y (2010) Process management (INTECH}
- Reniaayson (2008) Management Information System and optimization of the state owned enterprises International journal on information.
- Stoner et al (1993) Management sixth edition, Pearson Education, Inc and Dorling Kindersley publishing Inc
Wikipedia. Free Encyclopedia