

# Aftermath of Management Information System on Managerial Decision Making in Nigeria Television Authority

Nwakoby Nkiru Peace PhD<sup>1</sup>, Ihediwa Augustina Anekperchi<sup>1</sup>, Chukwurah Daniel Chi Junior PhD<sup>2</sup>

<sup>1</sup>Department of Entrepreneurship Studies, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka

<sup>2</sup>Dept. of Public Administration, Faculty of Social Sciences, Chukwuemeka Odumegwu Ojukwu University, Igbaram

**Correspondence: Nwakoby Nkiru Peace – [nwakobyn@yahoo.co.uk](mailto:nwakobyn@yahoo.co.uk)**

**Abstract:** *This study primarily examined the aftermath of management information system on managerial decision making in Television Authority a study Nigeria Television Authority Awka, Anambra State (2010 - 2015). The specific objective set to achieve in the study were to ascertain the effectiveness of the management information system used by NTA, Awka in Decision making, to determine the challenges faced by NTA, Awka in the use of their current management information system. Literatures were strictly guided by the research objectives. The theoretical formwork adopted was the prospect theory. The study made use of descriptive survey research design. The method for its data collection was through the primarily and secondary sources. The data collected were analyzed using frequency table and simple percentage statistical. The hypotheses were tested with the usage of chi-square. The result obtained showed that Organizational decision making could be improved by proper implementation of Management Information System. We can deduce that proper decision making resulting from the implementation of a sound and functional Management Information System can go a long way in ensuring the survival of an Organization. It is vital to remember that, improvement in decision making is fundamentally meant to ensure customer satisfaction while organizations continue to flourish in success.*

**Keywords:** Managerial Decision Making, Management Information System, NTA

## Background to the Study

The rate at which public organizations are winding up these days is a serious signal that something is wrong with their decision making system. The deplorable state of majority of these public organizations such as the Nigeria Television Authority (NTA) in spite of the billions of naira being injected into the sector annually is having a ripple effect on the economy of Nigeria. A good number of these organizations have either been closed down owing to the fact that they could no longer fulfill the purpose for establishing them or have been privatized with the intent to address the anomaly as this has greatly increased the rate of unemployment or caused a sharp decline in the standard of living (Lingham, 2015).

In recent past, a lot of measures such as downsizing and mere introduction of computers in the work place considered ideal to address this problem were initiated by the federal Government, but it yielded little or no results while the problem persists. This clearly points to the fact that, the managers charged with the corporate responsibility of making dynamic decisions that would put this organization on the path of sustainable growth and quality service delivery are not making the right decisions or do not have access to accurate, timely and quality information (Laudon, 2016).

Managers and business leaders have to accomplish several functions and perform different roles. These roles are connected to communication, information and decision making. The decision managers make often influence the lives of many individuals, business and even the whole society.

Decision making is one of the primary responsibilities of being a Manager. The quality of a manager's decision is important for two principal reasons. Firstly, the quality of a Manager's decisions directly affects his career opportunities, rewards and job satisfaction. Secondly, managerial decision contributes to the success or failure of an organization, (Cole, 2010).

It is against this backdrop that, Management Information System is considered as a veritable tool in addressing the issue of poor organizational decision making. Though, it is an established fact that, MIS may not always provide all the solutions to organization's poor decision making, but it sure goes a long way in addressing it as far as the success of every organization is tied to the quality of Information available to the decision makers in the organization, (Harvey, 2014).

Management information system as a system stores and retires information and data, processes them and presents them to management as information to be used in decision making. It must serve the basic functions of management which include planning, organizing, staffing, directing and controlling (Naranjo-Gil, 2014).

Since the development of management information system there have been numerous challenges; business computers were brought in to solve specifically technological or organizational problem and their use was perfectly accepted. It improves organization

functions and affects the basic structure and principle of the organization. As data manipulation and information are critical in the management of organization, computers play a key role in storing, retrieving and manipulating of data they are essential in operation of the organization (AlMaryani and Sadik, 2012).

Corporate operations and decision-making are widely based on information that has been provided or generated by individual and specific Information Technology systems. Such systems are used to collect, harvest, organize, and generate an output that would back up fast and sound business decision. Firms adopt new management techniques and systems with the purpose of enhancing the decision-making processes, improve results and minimize output costs (Henry and Mayle, 2013). Consequently, this is a way to enhance company operation effectiveness. Various management techniques and management accounting practices improve financial performance if firms follow specific strategic priorities (Chenhall and Langfield, 2018).

Furthermore, researchers assume that managers, as rational agents, are unlikely to adopt a management information system that does not improve their company's financial performance (Chenhall, 2018). Therefore, management information are used to considerably improve decision-making and, as a result, financial performance. Likewise, firms that rate their management information system high will conceivably adopt it to a much bigger extent, with the ultimate goal of maintaining and improving their overall financial performance. Despite the limitations, some empirical studies attempt to relate financial performance to management IS or new management techniques. The majority of them analyze the individual effect of a particular management method, although with a degree of divergence in results. In many companies, such management information systems have been implemented as a support in decision-making and a tool to attain high corporate performance. It is on this background that this study tends to investigate the effect of Management Information System on Managerial decision making.

### **Objectives of the Study**

The main objective of this study is to ascertain the effect of Management Information system on Managerial Decision Making in Nigeria Television Authority, Awka where as the specific objectives are

1. To identify factors that makes for effective Decision making in NTA, Awka.
2. To assess the effectiveness of the MIS used by NTA, Awka in Decision making.
3. To highlight the purpose of MIS in the management of NTA, Awka.
4. To examine the importance of MIS on Decision making and organizational productivity.

### **Conceptual Clarification**

#### **Management Information System**

A management information system (MIS) is a computer-based system that provides the information necessary to manage an organization effectively. An MIS should be designed to enhance communication among employees, provide an objective system for recording information and support the organization's strategic goals and direction (Al-Zhrani, 2010).

Modern organizations such as small business units in the private and especially in the public sector have become increasingly complex in management. The complexities of these organizations particularly in Nigeria as in other developing countries tend to be characterized by such phenomenon as overcrowded population, conflicting models, politics, theories etc. Ironically, there is an increasing demand by the public that these organizations should improve the qualities and quantities of their products, be it goods or services. The problem of paucity of information management is contained in the above list of complex variables. Most organizations in the public and private sectors are expanding and as they expand, grow or develop, so are the problems of their planning, controlling, etc. Correspondingly; there is the need for increased information management capacity (Award, 2008).

The essence of information management in the organization is to help solve the problem of institutional growth, development and productivity by making the best use of available resources in a changing and dynamic environment. Information is a vital tool for organizational management towards achieving meaningful set goals. The manager in a mix of various variables and complexes in decision making needs relevant information that increases his knowledge and reduces his uncertainty to achieve prompt and correct decisions for the intended purpose.

According to Davis (2004), managers and administrators must put in place methods of evaluating performance and results to determine if they are on track towards achieving set goals with regards to operational expectations. To achieve this objective, the organization has to determine the type of indicators and information regarding these indicators of performance. By applying what is sometimes referred to as the "exception principle" when a key indicator is not attained, the information system will flag this exception. The flow of information moves through various levels of the decision structure in an organization and at each decision

point, choice is made which moves the organization one notch towards the attainment of its objectives. If a wrong decision is taken, it results quite often in deviations from expected operation outcomes. It is therefore the duty of good information management to ensure that such deviations can be picked up quickly and dealt with before more damage is done. In this age of electronics and information technology (IT), some would equate information management with data processing using a computer. Whereas computer based information system is by far faster than manual ones and desirable if a manager can afford it, having a computer can easily become part of the problem of information management.

The expected flow of information in an organization is for information to flow within its informal environment, from the operation level to top management and back to serve in guiding decisions. This can be done manually but modern organizations have developed their management information system around computer hardware and software. In Nigeria, many organizations have made the mistake of buying computers before thinking of developing a management information system. Building an efficient process of managing information in an organization should however start with planning an efficient decision structure because an information system is not an end in itself. It is only the handmaiden of decision makers (Al-Zhrani, 2010).

### **Components of Management Information System (MIS)**

The above sub-heading is self-explanatory as the main components of the concept of MIS are basically management, information and system as discussed below.

According to Koontz, (2008), when an individual is charged with the responsibility of running the affairs of an organization and adopts a process for discharging such responsibility, this is known as management. Thus, there cannot be a manager without an organization, where organization is a generic term for manufacturing or commercial companies, big or small; federal, state, or local government ministries or parastatals, and financial institutions, and other public or private sector service agencies.

The first important point to make about this second element in management information System (MIS) is that it is not synonymous with data. Basically, information is to data, what a finished product is to the raw materials used in producing it. In other words, data are information in its raw, unprepared forms. Another important point to make about information is that it has become for management, a very valuable commodity. This is because exports in business management have come to agree that in today's business environment, where competition has become extremely keen, available and effective information can indeed become the critical factor which enables a business organization to have vital edge over its competitors. As a matter of fact, it is this high value attached to information that explains why modern businesses are very willing to invest to enhance their information sector in the same way as they invest in other major sectors of their business components (Osugwu, 2008).

The essential point being made here is that information has become such a vital resource for industry and business that modern managers are prepared to accord as much importance to it as they do to such other cardinal components of their organizations as raw materials, machines, physical facilities and people; i.e. man, machine, money, material (4M's). It is this act of viewing information as a resource that has influenced the shift away from such term as Management Information Systems (MIS) to a newer and more imposing term Information Resource Management (IRM), (Murdick, 2009).

In everyday life, the word 'system', has come to acquire so many connotations that it is loosely applied to almost every aspect of human existence. However, for the purpose of this study we shall content ourselves with two definitions of 'system', first, "System is a whole composed of parts in orderly arrangement according to some scheme or plan". Second, according to the Institute of Cost and Management Accountants, "System is a set of things connected, associated or interdependent so as to form a complex unity" (Uchekwa, 2013).

Two vital points emerge from the foregoing definitions. First, a system is a recognizable whole made up of component parts (usually known as sub-systems) which are interdependent and work together to achieve a common objective. Secondly, every system presupposes a plan, and therefore is futuristic in nature. It can also be inferred from what precedes, that a system which is made up of components (subsystems) may in turn be a component (sub-stem) of a larger system, thus working together with other sub-systems toward contributing in the most efficient manner to the achievement of a set objective.

The concept of sub-systems working in harmony towards the achievement of a common objective is known as synergism. Synergism connotes teamwork and presupposes that the operations within each subsystem are geared toward the fulfillment of a specific mandate/function in favour of the larger goal. The theory of synergism can therefore be stated as follows: the sum total performance of sub-systems, when achieved in harmony and simultaneously, is not equal but greater than the performance put together individually. In other word, 2 + 2 do not add up to 4 as would be the case in simple mathematical addition. Rather, they add up to 5, and the extra unit represents the difference between a system and a non-system.

There is a corollary to the synergism theory; information flow between sub-systems is vital for synergism to occur. Therefore, in a system, be it social, mechanical or business, the performance of the diverse sub-system cannot achieve coherence or optimization without the benefit of an integrated information flow (Rhodes, 2010).

### **Types of Management Information System**

There are four types of MIS that will be introduced in ascending order of sophistication.

#### **Transaction Processing Systems (TPS)**

These 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. Most managers use these systems to deal with tasks such as payroll, customer billing and payments to suppliers.

#### **Operations Information Systems (OIS)**

These 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. Most of these systems access data from a transaction processing system and organize it into a form usable by managers. Managers use operations information systems to obtain sales, inventory, accounting and other performance-related information.

#### **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 intelligent decisions. A DSS has three fundamental components:

1. Database management system (DBMS): Stores large amounts of data relevant to problems the DSS has been designed to tackle.
2. Model-based management system (MBMS): Transforms data from the DBMS into information that is useful in decision making.
3. Dialog generation and management system (DGMS): Provides a user-friendly interface between the system and the managers who do not have extensive computer training.
4. Expert Systems and Artificial Intelligence

These systems use human knowledge captured in a computer to solve problems that ordinarily need human expertise. Mimicking human expertise and intelligence requires that the computer (1) recognize, formulate and solve a problem; (2) explain solutions and (3) learn from experience. These systems explain the logic of their advice to the user; hence, in addition to solving problems they can also serve as a teacher. They use flexible thinking processes and can accommodate new knowledge (Ustudy.in, 2010).

### **Qualities of Good Management Information**

It is not every data item or piece of information that is important for decision making. For information to be useful for management purpose, it must possess some qualities, which will be mentioned later in this research. Good information is that which is used to create value. Experience and research show that good management information has numerous qualities which are relevant for its purpose, complete enough for solution to problems, sufficiently accurate for its purpose, communicated to the right person and that which contains the right level of details from a source in which a user has confidence communicated by appropriate channel of communication, communicated in time for its purpose and that which is understandable by the user. But Dickson (2005) enumerated the following points, which must be taken into consideration when providing a source of information in terms of its value.

**Accuracy:** - the degree of accuracy of information relates to its usage. There is no point in striving for great accuracy if this is of no consequence e.g. the marketing director is not interested in the value of sales accuracy to the last kobo. The nearest thousand naira will be enough, but the financial accountant however is concerned with accuracy to the exact kobo.

**Brevity:** - too much information can result in the overlooking of vital facts. Each recipient of information should therefore be provided only with his needs. This suggests that a larger amount of information should wherever possible be splinted into smaller pockets tailored to meet requirement of individual recipients.

**Timeliness and Up-to-date:-** information should be timely and up to date as is necessary for the use of it. Speed in generating information increases its cost and so it is unwise to prepare it unnecessarily quickly. On the other hand, if information arrives too late or is out of date, then it is entirely useless and so the time, efforts and cost are wasted. Timeliness implies that the information is delivered punctually after its preparation. Up to date means that it is accurate at a certain moment of time.

**Action:** - information calling for action must be directed to the person(s) who can initiate the appropriate action in relation to information at fingertip. It is important that it goes directly to that person and not via the chain of uninterested managers. Such communication chain tends to devalue the information by making it less timely and it erodes the time available for performing the necessary actions. The information should comprise sufficient facts and figures to enable effective and immediate action to be taken.

**Clarity:** - the value of a piece of information depends upon unusualness. Information reports should emphasize the usual as described in the principle of exception report which says reports are based upon the idea that no “any news is good news” in other words, if no decision or action is necessary then the situation goes unreported. It also implies to management by exception i.e. managers should direct attention to exceptional items and situations as the means of maintaining control.

**Confidence:** - the managers who are expected to use such information must trust information for management purposes. However, not all information is certain. Another issue is how much of uncertainty an analysis should be incorporated into reporting systems in order to make the information realistic. Some management information has to be certain, especially operating information that relates to production process.

**Cost:** - information should have some value otherwise it would not be worth the cost of collecting and filling it. The benefits obtainable from the information must also exceed the costs of acquiring it. Information, which is provided and not used, has no actual value. And as such any decision taking on the basis of such information received also has no actual value. It is only the action taken as a result of decision, which realizes actual value for an organization. The cost of collecting information bears no relationship to its value. An item of information which leads to an actual increase in profit of ₦2000 (Two thousand naira) is not worth having if it cost ₦2,100(Two thousand, one hundred naira) to collect. Also, like every other resource, information needs to be evaluated and quantified in terms of sourcing, generation, processing, cost and availability. The idea is to ensure that the cost of generating information for use by the organization is not greater than the value of information generated; the cost of information management is in consonance with the organization’s financial profile. For example, it is most certainly unwise for a company that makes a turnover of ₦2 million per annum to plan to spend ₦2.5 million on a management information system (Modum, 2010).

### **Benefits of a Good Management Information System**

The flow of information moves through various levels of the decision structures in an organization and at each decision point, a choice is made which moves the organization one notch towards the attainment of its objectives. If a wrong decision is taken, it results quite often in deviation from expected operational outcomes. It is the work of a good information management to ensure that such deviations can be picked up quickly and dealt with before damage is done (Rhodes, 2010). Benefits of a good management information system accrued from the proper use of information. These benefits as they are known are not easily quantifiable. These include the following:-

1. Ability to make quicker decisions
2. Ability to make better decisions
3. Ability to make accurate decisions
4. It assists in making better use of management time
5. It helps in improving control
6. It helps in improving delivery of services to customers.

### **Attitudes of Management to Information Generation and Uses**

In everyday management practice, as it is found in most giant and multi-product companies, there are common misconceptions of management information by many managers, executive directors or general administrators. For instance, information systems are generally believed to be natural. Most managers and administrators assume that computer based information systems are objective and natural means of gathering and producing data. Uma, (2010) argues, “Indeed information system encompasses the people who use them and are used by them than their optimism, their fears, their biases, their structures and their antagonisms. In other words, the computer information is “tailored” information since the computer like any other mechanical gadget does only that which it is structured to do. The computer in spite of its copious memory has no mind.

Secondly, there is the general perception that information is always better. For instance, most executive directors and managers rush to establish management information system (MIS) with the believe that every manager and administrative inefficiency and ineffectiveness are the outcome of lack of large volume of information.

However, it should be noted that an overabundance of irrelevant information causes more harm than good to the management. The logic of this argument goes back to the question of the quality of the management, which is a predicator of the type of information needed and the system of information required in producing it. It therefore means that computer based M.I.S is not a panacea to all management decisions.

### **Problems with MIS**

No matter who develops the MIS, there are three problems that management must deal with. The first has to do with confidentiality and the need to safeguard data and information from unauthorized eyes. Some data should be restricted to locked files reports for in-house use only.

Data on current and future operations in NTA, Awka could damage its service delivery if it were to fall into the hands of the wrong people.

A second problem has to do with the quality of information generated. MIS specialists often feel that unless they are creative in adding to their outputs, they may not be able to justify their positions or to add to their numbers. Care must be taken to consolidate information management where possible and to monitor constantly the efficiency of the MIS output. The burdens for such vigilance fall on the MIS director and the recipients of the Management Information System (MIS) output.

Third, when Management Information System (MIS) is introduced, the persons designed to serve will be asked to do something differently, just as they receive from an MIS, they will be asked to give. Some data may be needed from their operations, as their roles may change so that they can supply the information. Preparation of the personnel will minimize this problem (Anderson, 2009).

An MIS in NTA, Awka is something that is needed for their operations. The cost will be outweighed by the benefit in the long run if the system is well thought out. The work breakdown structure (WBS) is a step-by-step top to bottom decomposition of the project in such a way that the top description encapsulates the entire project while each subsequent step describes a part of the earlier one (Rhodes, 2010).

### **Concept of Decision Making**

Individuals at all levels and in all areas of organizations make decisions. That is, they make choices from two or more alternatives. For instance, top-level managers make decisions about their organization's goals, where to locate service facilities, and what service to offer. Middle- and low-level managers make decisions about weekly or monthly services schedules, problems that arise, pay rises, and disciplining employees. But making decisions is not something that only managers do. All organizational members make decisions that affect their jobs and the organization they work for (Kumar, 2006).

Although decision making is typically described as "choosing among alternatives", that view is too simplistic. Why? Because decision making is a comprehensive process, not just a simple act of choosing among alternative. But making a good decision and avoiding a horrible one is not a chance act. It's a skill one that can be learned, honed, and perfected. Mastering the art of critical decision making is the key to improving your life at home, at work, or in your community. When you understand the necessary components of a smart decision, you can examine mistakes you might have made in the past and sidestep potential mistakes in the future. And when you know the underlying psychological, social, and emotional components that influence decision making whether they are your own decisions or the decisions of others you can make sounder choices that produce better results (Ustudy.in, 2010).

### **Three Levels of Decision Making**

The heart of this accessible study is a thorough examination of decision making at three key levels:

The individual level: Studying how individuals make decisions reveals a wealth of insights into how and why they make particular choices. Most individuals do not examine every possible alternative but instead draw on experience and rules of thumb. Most of us, it turns out, are susceptible to what psychologists call cognitive biases: decision traps that can cause us to make certain systematic mistakes when making choices. You also learn how intuition, surprisingly, is more than just a gut instinct and represents instead a powerful pattern recognition capability.

The group level: Because you don't always make choices on your own, it's important to understand decision making at the level of group or team. Here, you try to answer the question of whether groups are "smarter" and more capable of making critical decisions than individuals. The lectures show you problems that typically arise in group decision-making scenarios, including groupthink (the notorious tendency for groups to be pressured into conforming to a particular view) and a lack of synergy between team members. You also learn how groups can overcome these and other problems to make better decisions.

The organizational level: Studying decision making on the organizational level requires you to grasp how the structure, systems, and culture of a particular organization shape the behavior of its individual teams and members. Professor Roberto shows you how history's wrong decisions usually cannot be attributed to one wrong decision or poor leader. He also demonstrates how some organizations have encouraged and reliably performed vigilant decision making in the face of risky scenarios (Uma, 2010).

### Types of Decision-Making

There are four major types of decision-making style that a leader adopts to get the group goals accomplished. According to Business Jargons (2016), these are:

**Collective Decision Making:** Under this leadership style, all the group members take the decision collectively, and the responsibility of such decision rests with the entire group. This type of style is advantageous only when the clear lines of authority and responsibility are defined among the group members.

**Democratic or Participative Decision Making:** Here, the leader collects all the ideas and opinions from the group members and then takes the final decision by himself. Once the leader has taken the decision, he communicates the same to his subordinates and tries to resolve the objections if any.

**Autocratic Participative Decision Making:** Under this leadership style, the authority of final decision making rests with the leader alone, who makes decisions on the basis of the solutions obtained through the discussions with group members. Here, the leader collects all the ideas and opinions from the group members and then arrive at a final conclusion. The difference between the democratic and autocratic decision making is that in the latter the decision making is fast since it is goal-directed whereas the democratic style is people-oriented and hence the decision making is slow. Thus, the results are obtained faster in the case of the autocratic participative decision making.

**Consensus Decision Making:** Under this style, the leader gives up his responsibility to take decisions on the group members and arrive at the final conclusion through a majority of the group.

Generally, the group members are involved in setting goals, problem-solving, and team building. But the authority of final decision-making rests with the leader himself (Business Jargons, 2016).

### Decision Making and Management Information System

It is inherent to state that decision making is an integral part of any organization. This is because the majority of operations in an organization revolve around decisions made by the management and other key stakeholders in the organization. And in order for decision to be made adequately, it is vital for there to be a good information system since decisions are based on information available. In relation to this, (Jahangir, 2005) states that based on the significant role that information plays in choice of decision to be made, organizations must ensure that they have a good management information system. As a notable general observation, a good MIS ensures good decision making just in the same way bad MIS propel the making of bad decisions. Ustudy.in (2010) supports the above observation by saying that "The quality of managerial decision-making depends directly on the quality of available information" and the managers should therefore cultivate an environment that encourages the growth and viable sprouting of quality information. Essentially, before deciding on which MIS strategy to use, it is vital to ensure that the choice made is fully compatible with your current system. This will not only help in avoiding erratic choices but it will also save the time and money that would have been otherwise wasted by that person (Rhodes, 2010). In addition to that, it is noteworthy for the MIS strategy or tool used to be in line with the decisions that are to be made. In other words, there should be a connecting point between the decisions to be made and the MIS to be used by individual or organization (Jarboe, 2005).

As a key consideration, management information system is a highly complex and delicate arena that calls for a lot of caution to be taken by its managers. It is for this reason that it is recommendable for organization to ensure that they carefully select the individuals who are placed to control the system. The more caution and professional a person is, the better the person gets an assurance of positive prospects of MIS with regards to decision making and other related areas of business (Lingham, 2015).

## The Effect of Management Information System on Managerial Decision Making

Essentially, without the established systems of getting information in MIS, it would be extremely difficult for organizations to make their decisions. This is because they would be forced to making baseless decision due to the lack of confirmed information. Moreover, MIS normally lays a firm foundation for the establishment of concrete decisions through its systematic tools, timely information and adequate managerial policies and regulations. Furthermore, management information systems' statutes regarding organizations act as guidelines to organization's management when making critical decisions about their organizations. As a result, managers and key decision makers are bridled from overstepping their boundaries or exceeding their organization mandate. This is crucial as it helps in keeping organizations checked and balanced thus ensuring that only proven decisions are considered while the untried ones are thwarted. More importantly, the capacity to guide decision making facilitates progress and improvement of the operations in an organization (Lingham, 2015). In addition, most MIS programs are endowed with the capacity to give real-time updates of the occurrences in a system. These immediate updates help managers to take necessary action as soon as is deemed appropriate especially during the discovery and management of crises. This augments progress and improvement in organization operations through timely decision making. This is important for public organizations in the modern-day generation where any slight lapse in decision making can lead to very huge losses (Allen, 2010). Still, Management information systems are very elemental in improving organization securities. For example, in many instances, most management information systems can be easily programmed by the owner to conduct certain actions at certain times. In effect, managers can program the system to perform certain routine checks which can help in improving efficiency of an organization through easy discovery of bugs or problems. Furthermore, the programmability of most MIS saves a lot of priceless time and resources for the organization. In other words, through programmability, managers can program the systems to automatically discover certain deficiencies and even solve them. Consequently, the manager or system operator can use the time and resources he/she would have used in monitoring or fixing problems for other key uses. By routinely programming a management information system, the organization is bound to make positive progress since time and resources can be easily channeled into rightful business paths (Allen, 2010). As a fundamental point, a good number of MIS used today can perform multiple tasks all at the same time. This potential to multi task increases efficiency in the organization since several business operations can be conducted simultaneously. With special regards to decision making, the capacity to multi task ensures that decisions are made speedily when compared to those systems which can only handle one task at a time. Closely related to the above point, Jahangir, (2005) says that some MIS allow multiple users to access the same content all at the same time without any discrepancies. This potential boosts accountability from the business operators since multiple people can access a particular content and verify whether they are consistent or not. As a matter of fact, most organizations tend to suffer due to poor accountability from those charged with the mandate to manage certain details. This safeguarding action of some MIS is what macroeconomists refer to as the "gate-keeping" role of MIS in decision making and overall well- being of the organization. Again, MIS is renowned for vesting its operations on systematic methods of operations.

Crucially, this ensures that decisions made in a business are orderly and well planned which in effect, encourages objectivity during decision-making. As a result, businesses and decision- making are improved through its systematic and orderly formula of operating (James, 2007). Therefore, the process of decision-making in any organization is an inherently vital aspect not just for organizations but also for individuals who greatly rely on these decisions for their survival in the highly competitive arena of entrepreneurship (Al-Zhrani, 2010).

Lucey (2005) stressed, "An MIS system therefore provides specific information for management needs and requirement at various functions and level.

The information got can be used as follows:

- ii. Problem solving
- iii. Improving the quality of decisions
- iv. Planning
- v. Communicating information
- vi. Improving the efficiency of operations and minimizing duplication of efforts.
- vii. Controlling of activities.

According to Anderson (2009), the objective of management information system in an organization include the following

- i. Provision of information to all level of management at the most appropriate time.
- ii. An acceptable level of accuracy of information and at and economic cost, which would enable the management make timely and effective decision.



The above objective can be achieved more easily where computer technology has been adequately applied; such technology includes the availability of a reliable database of management which can be accessed from computer terminal which also services all the relevant sources of information and the information most adequately.

Drucker (2004) comments that “over the next twenty years, the emphases in management will shift to better understanding of quick decision making “that reflects a growing need to formalize the process as a fundamental and necessary part of management and of the information system design. And because information is the essential ingredient of management and decision making, the aspect of the organization described by the information flow process is a growing concern. The ultimate purpose of MIS is to make decision at all levels of operation based upon the information flow.

Walter J. Kenevan description is corroborated by Koontz (2008) when he stated that, if an organization is not structured to scan the external environment for treats and opportunities, it would be impossible to capture the relevant data and transform them to programmatic information, which would be meaningful to policy makers in the organization.

### **Effectiveness of the MIS used by NTA, Awka in Decision Making**

Decision Support System (DSS) is the type of MIS used by NTA, Awka; it is an interactive computer system that can be used by managers without help from computer specialists.

A decision support system gathers and analyzes data, synthesizing it to produce comprehensive information reports. In this way, as an informational application, a DSS differs from an ordinary operations application, whose function is just to collect data (Davis, 2004).

The DSS can either be completely computerized or powered by humans. In some cases, it may combine both. The ideal systems analyze information and actually make decisions for the user. At the very least, they allow human users to make more informed decisions at a quicker pace.

The DSS can be employed by operations management and other planning departments in an organization to compile information and data and to synthesize it into actionable intelligence. In fact, these systems are primarily used by mid- to upper-level management (Investopedia, 2020).

For example, a DSS may be used to project a company's revenue over the upcoming six months based on new assumptions about product sales. Due to a large number of factors that surround projected revenue figures, this is not a straightforward calculation that can be done manually. However, a DSS can integrate all the multiple variables and generate an outcome and alternate outcomes, all based on the company's past product sales data and current variables.

The primary purpose of using a DSS is to present information in an easy-to-understand way. A DSS system is beneficial because it can be programmed to generate many types of reports, all based on user specifications. For example, the DSS can generate information and output its information graphically, as in a bar chart that represents projected revenue or as a written report.

As technology continues to advance, data analysis is no longer limited to large, bulky mainframe computers. Since a DSS is essentially an application, it can be loaded on most computer systems, whether on desktops or laptops. Certain DSS applications are also available through mobile devices (Investopedia, 2020).

The flexibility of the DSS is extremely beneficial for managers. This gives them the opportunity to be well-informed at all times, providing the ability to make the best decisions for their company and customers on the go or even on the spot.

A DSS provides managers with the necessary information to make intelligent decisions. A DSS has three fundamental components:

1. Database management system (DBMS): Stores large amounts of data relevant to problems the DSS has been designed to tackle.
2. Model-based management system (MBMS): Transforms data from the DBMS into information that is useful in decision making.
3. Dialog generation and management system (DGMS): Provides a user-friendly interface between the system and the managers who do not have extensive computer training.

### **Purpose of Management Information System in NTA, Awka.**

Because information originate from many sources in an organization, important information often is not found until after it needs to be used in the control process. With the assistance of computers and management information system, information are arranged so as to measure performance against standards and necessary corrections are made which in turn assist in making forecasts about future information through the use of MIS (Management Information System).

Consider a commercial bank, such as First Bank Nigeria PLC, operating at its normal level. One of its many branches filled with bank managers, another filled with employees and customers, over ₦10 million changing ownership every day. Transactions are opened, deposits are made, money withdrawn, loans are processed. One can imagine what will happen if all these transactions were handled manually with each bank official and employee acting independently without any central control or organization, the same applies to NTA, Awka. No doubt, the bank will soon cease to be a viable institution in today's competitive environment of the financial industry.

The bank's operation would be virtually closed without management information system. Without MIS, planning and controlling are impossible in a large organization. It would not be possible for a bank to keep records of about thousands of accounts on daily basis or update information quickly on such accounts. Such information is required to determine if control standards are being met or if any deviation need to be corrected. It would also be impossible to control Cash Reserve Levels required by Central Bank Regulation (Aluko, 2006).

### **Importance of Management Information System on Decision Making and Organizational Productivity**

Management Information System is an integrated system of man, machine and procedures formally or informally developed for the purpose of collecting and processing data to supply information for planning, decision making and controlling activities of an organization. Thus, management information system is a sub-system of the total organization system; it runs through and links all the organizational decision systems, information centers and operating units and also provides the organization with necessary interface with its environment. Since the main objective of management information system is the supply of valuable information for decision making. The importance of it to NTA, Awka can be reviewed from the following points.

**Data Processing Function:** - A data processing management information system is organized to collect and process raw data into a valuable manner. It may be manual or computerized system. Computer and Electronic data processing system however, has the advantage of being capable of producing information much more accurately, speedily and cheaply. Facilities in the database where raw data can be stored and selectively processed into form required enable management to obtain information tailored to suit their needs.

**Decision Making Function:** - Decision making is one of the most significant and important activities in business. Hence organizations device vast resources of time and money to the process. Management information system can help to monitor any disturbances in a system; management system constitutes an efficient tool to management by supplying information for search, for analysis, evaluation and the choice and implementation process of decision making.

**Planning Function:** - This function involves the establishment of the organizational goals, the identification of problems and resources, constraints and the establishment of strategies to help achieve the set objectives. Information is required to identify as many alternative goals as possible to appreciate the relationship between alternatives. Information is also required to reveal the adequately of otherwise of resources and the effectiveness of all available strategies. Planning in a rigorous way requires a planning model. Information is therefore required to specify clearly all of these and to supply such information is the function of management information system.

**Control Function:** - while planning function help to achieve established goals, it requires standard information about the capacity and probable performance of the system to be controlled. To measure performance against standards, feedback information is required to correct deviations and to generate and evaluate alternative inputs that could be employed to correct the system. In conclusion, control is required to determine standards of performance and for measuring input of the process.

### **Findings**

From the findings, it was revealed that-

- a) NTA, Awka uses Decision Support System in its Decision Making. What this implies is that, the Management takes all the decisions pertaining to the organization as the DSS provides Managers with the necessary information required to make intelligent decisions.
- b) It was also found out that NTA, Awka rely heavily on computer based information and does not explore other avenues for information generation.

- c) It was also found out that, the Decision Support System used by NTA, Awka centralizes Decision Making, making it difficult for staff contribution.
- d) It was also found out that, there is no participative decision making system, that is, the staff at all level are not carried along in the decision making.
- e) It was also found out that, the Decision Support System used by NTA, Awka has impacted greatly in improving the productivity of NTA, Awka.
- f) A good number of the staff is not trained in IT.
- g) Information generated is not properly analyzed due to the centralized decision making style in NTA, Awka.

### Conclusion

The dynamic nature of MIS makes it difficult for some organizations to keep up with the principles, strategies, propositions or even ideas. Different situations call for different decision to be made. This poses challenges to MIS. The institutionalization, programming, monitoring and evaluating MIS requires a lot of expertise- something which numerous organizations lack. This is because, the running of MIS programs tends to be relatively costly for some organization especially small ones who are not well endowed financially.

MIS is more of a science-oriented field while business is art-oriented. Consequently, finding a middle ground where the two can be linked is quite challenging to some organizations. Again, most organizations do not have a well-defined decision making system. So even with the right MIS tools, very little can be achieved in terms of improving decision- making. Based on these limitations- plus other underlying issues that arise from the main discussion, the following recommendations were made.

### Recommendations

Any organization that still operates on non-computerized system is likely to fail. Organizations that base their decision making on a sound MIS are always proactive and ahead in the turbulent and dynamic business world.

1. Managers and business owners should find a way of tailoring information in a way that it fits various decision making processes in variant business.
2. The management should encourage the effectuation of a mutually interdependent and balanced MIS where worker and automated systems are handled with due respect.
3. Business entities should find a way of including teaching about new MIS in order to reduce the trend of business being left behind on new inceptions.
4. A well-defined decision making system should be fledged in businesses so as to provide a viable working environment for MIS. A good place to start here would be the inception of a centralized place where all decision in businesses is channeled through.
5. Business manager must ensure that they employ (or alternatively outsource) professional personnel who are able to ardently run both MIS and the decision making process.
6. The staff should undergo a comprehensive IT training especially at lower/ junior level since they do not have prior knowledge of IT.
7. MIS design and implementation is capital and labor intensive, proper funding is essential as the maintenance and staff training is important
8. Information generated should be properly analyzed before a decision is taken, as wrong information can be disastrous to the organization.

It is inherent to note that, in spite of the fact that this research is expressively analytical, more research needs to be carried out in order to bring more information into public knowhow.

### References

- Allen R.G. (2010) *MIS concept and Design*, Englewood Prentice- Hill Inc.
- AlMaryani G. and Sadik E. (2012) *Top Management Organization and Control*, Standard University Press.
- Aluko, M. (2006). The Impact Of Culture On Organizational Performance In Selected Textile Firms In Nigeria. *Global Journal of Social Sciences*. 4. 10.4314/gjss.v4i1.22779.
- Al-Zhrani, S. (2010). Management Information Systems Role in Decision Making During
- Anderson, R.G (2009) *Data Processing and Management Information System*.
- Award, E.M (2008) *Management Information System: Concept Structure Applications*.
- Business Jargons (2016). *What is Participative Decision Making? Definition and meaning*. Retrieved 6 December 2020, from <https://businessjargons.com/participative-decision-making.html>

- Chenhall J. and Langfield S. (2018) *Essentials of Management Information System, Organization and Technology*, 2nd Edition, Practice Hall International Ltd, London.
- Cole, G.A (2010) *Management Theory and Practice*. London, ELBS/DP Publications.
- Davis, G. B. (2004), *Management Information System: Conceptual Foundation*,
- Dickson, J.C (2005) *The Management Information of System*: Singapore, Division of research, Graduate School of Business Administration, Harvard
- Drucker, D.R (2004) *Management Tablets, Responsibilities and Practices, Revised*. New York, Evans Ltd.
- Harvey, J.C., (2014) *Management Strategy and Tactics*, New York.
- Henry, R.H & Mayle, G.A (2013) *Office Information System Management Issue*
- Investopedia (2020). *Inside Decision Support Systems—DSS*. Retrieved 6 December 2020, from <https://www.investopedia.com/terms/d/decision-support-system.asp>
- Jahangir, K. (2005). Improving Organizational Best Practice with Information System.
- James, H (2007) *Management Information System: A User's Research Design in Occupational Education. Module 7 – Chi Square*.
- Jarboe, K.P (2005). *Reporting Intangibles: A Hard Look at Improving Business Information*
- Koontz H. and Cyril O, (2008). *Principles of Management: An Analysis of Managerial Functions*, 4th Ed., McGraw-Hill, New York.
- Kumar, P.K (2006). *Information System- Decision Making, Knowledge Management Review*. McGraw Hill Book Co. New York.
- Laudon, K.C (2016) *Essentials of Management Information*, McGraw Hill Book Co. New York.
- Lingham, L. (2015). *Managing a Business/ Management Information System*. All Experts. Ltd.
- Modum, U. (2010). *Management Information System Analysis and Design*, Enugu: Fourth Dimension.
- Naranjo-Gil .A (2014). *Essentials of Information System*: Philadelphia, Mitchell Publishing
- Osuagwu, L (2008) *Business Policy And Strategy*, El-Demak Publishers, Enugu.
- Rhodes, J. (2010). *The Role of Management Information System in Decision, Making*. eHow. Retrieved February 26 from [www.dawodu.com/ifedi1.htm](http://www.dawodu.com/ifedi1.htm).
- Uchekwa, .I. (2013) *Management Theory and Organizational Analysis: A Contingency Theory Approach*, Enugu: Obio Nigeria Enterprises.
- Uma, E (2010) *Information Management for Decision Making in Management in Nigeria*. University.
- Ustudy.in (2010). *MIS and Decision Making, Structure and Development*. International Students Edition, Retrieved January 30, 2020. [www.ustudy.in](http://www.ustudy.in)