

# MANAGEMENT INFORMATION SYSTEM: A VITAL TOOL FOR VALUE RE-ORIENTATION IN MANAGING EDUCATION SYSTEMS IN NIGERIA

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## Abstract

*The effectiveness and efficiency of Information Communication Technology (ICT) can never be overemphasized in educational management due to its importance in Management Information Systems which help in creating efficient administrative activities. It is on this premise that the paper is positioned to examine Management Information System (MIS) as a vital tool for value re-orientation in managing education systems in Nigeria. To achieve this, the concepts of Management Information Systems (MIS) and Information Communication Technology were delineated as well as the relationships that exist between the two concepts. The paper found that management reporting systems, process control, inventory control, etc are various forms of Management Information Systems that will encourage effectiveness and efficiency in managing educational systems in Nigeria. Based on this, the paper concludes that MIS is a vital tool for value re-orientation in educational management and administration. The paper therefore recommended that teachers and school management should be trained on usage of Management Information Systems.*

**Keywords:** Management Information Systems (MIS), Value, Re-orientation, Managing, Education Systems.

## Introduction

The evolution of Information and Communication Technology has revolutionized virtually every aspects of human endeavor: education system and the management of education system inclusive. Computers as one of ICT gadgets have the potential to make significant contribution to teaching and learning processes as well as the administration of school systems (Madiha, 2014). This shows that computer systems plays vital role in Management Information Systems (MIS). Management Information System is a system designed for the collection, integration, processing, maintenance and

dissemination of data and information to support managerial decision making, planning, policy analysis, monitoring and evaluation across all levels of education (Nganji Ozor, 2016). In their own views, Ogalo (2012) and Robah (2009) posited that MIS is concerned with processing data into reliable information and communicating same to various departments in an organization (school systems inclusive) for appropriate decision making. It can therefore be seen as a system of people, models, technology, methods, processes, procedures, rules and regulations that function together in order to provide integrated set of relevant and timely education data to academic planners, policy makers, decision makers and managers of educational system at all levels.

Through the centuries, one of the most important problems confronting educators is the problem of values, generally known as axiology (Amadioha, 2017). What is value? Value according to Bolarin (2005), is the worth, merit or esteem given to a person or an object or an idea. Values influence people's behavior and serve as a yardstick for evaluating the actions of other people in an organization. Education must be something worthwhile and being worthwhile has value implication. This implies that the process of policy and decision making, academic planning etc are core educational values that should be held in high esteem by school managers. It is on this premise that the paper is positioned to delineate Management Information Systems (MIS) as a vital tool for value re-orientation in managing education systems in Nigeria.

### **Conceptualization**

#### **Concept of Management Information Systems (MIS)**

Management Information System (MIS) has been conceptualized by various scholarly articles from different point of views. Among such is Wastson et al, (2007) that described Management Information System (MIS) as an organizational method of providing past, present and projected information related to internal operations and external intelligence. They posited further that it is a system that supports planning, control and operation function of an organization by furnishing uniform information in proper timeframe to assist organization's decision makers. To Telem (2009), Management Information System (MIS) in an educational system is a system designed to match structures, culture, management tasks, instructional process, and special needs of the school for smooth administrative operations. In same vein, O' Brien (2019) described Management Information System (MIS) as a

term ascribed to the act of integrating computer systems into data collection process towards the achievement of organizational aims and objectives. Furthermore, McLeod and George (2008) in their own words noted that Management Information System (MIS) is a software system which organizations utilize to generate information for effective implementation of organizational policies. This is why, Ndombi et al, (2014) stated that Management Information System (MIS) is basically concerned with processing data into information. In view of the foregoing, Management Information System (MIS) in a school setting refers to a system that uses required information by school management at every level in making operational tactical and strategic decision. It provides school administrators and teachers with adequate information for academic planning, curriculum implementation, and policy making and evaluation. It is an education database that aims at ensuring timely, accurate and appropriate utilization for effective and efficient management of education systems. Furthermore, going by the above definitions, it can be deduced that Management Information System (MIS) involves the use of technology mainly software applications of analysis tools to preserve and analyze data for valid information which is made available to policy makers, school administrators in order to improve management processes in education systems.

### **Forms of Management Information Systems**

There are various forms of Management Information System (MIS) which aimed at efficient ways of managing data at various sections of a school system. According to O' Brien and Marakas (2017), forms of Management Information System (MIS) include:

1. Management reporting system;
2. Process control system; and
3. Decision support system

### **Management Report System**

According to Ogalo (2012), Management Report System is a form of Management Information System (MIS) that utilizes intermediate managers (Head of Departments) to generate regular reports in order to compare present and past performance of organizational resources such as financial, human and material resources. Management Report System can therefore be seen as a database designed to report on organizational resources and operations at every

managerial level. Based on the foregoing, Management Report System can be sub-divided into:

1. Inventory Information Systems
2. Finance/Account Information Systems
3. Human Resources Information Systems

### **Inventory Information Systems**

The inventory information systems tracks all information that has to do with school inventory such as school record, theft, reading and writing materials, and other material resources found within the school system. This enables school managers and instructors (teachers) to note when a particular item is low and need re-stocking either in school library, store or other departments. Also, this information system helps to track the movement of school material resources from storehouse to various areas of the school where it is needed.

### **Finance/Accounts Information Systems**

Finance information system is responsible for tracking and managing educational institution's financial resources such as school fees, allocation from government, and school expenditure. According to Shim (2000), the fundamental task of accounting software is to automate the routine chore of entering and posting financial transactions. This information is organized in an electronic format in order to produce financial statements which can be assessed anytime to assist management decision making in the area of finance.

### **Human Resources Information Systems**

This form of information system involves the process of producing, organizing, storing and distributing the information of manpower in an organization. Nowadays, the majority of successful institutions are using human resources information system to support daily operations of human resources (Khanore et al, 2011). Human Resources Information system is usually responsible for recruiting, developing, motivating and maintaining organizational workforce. This implies that it helps in tracking and the management of teachers' and students' activities in a school system.

### **Process Control System**

A process control system enables educational institutions to understand the processes adopted by the school management. This control system constantly collects and programme data in order to generate regular reports on system performance. School managements usually assess the process control report to know how often, over the course of a set period of time that a particular event occur during teaching and learning process, or how often over that period of time the school heads deviated from core administrative functions.

### **Decision Support Systems**

A decision support system is computer based system intended for use by a particular school manager or usually a group of educational heads at any level of school management in order to make decision in the process of solving a particular problem in the school system. According to Asemi et al, (2011), Management Information System (IMS) is a kind of computerized organizational information system that helps managers in making decisions that involves modeling, formulation, calculation and comparing, in order to select the best option and predict scenarios. Corroborating the assertion above, Khanore et al, (2011) stated that decision support systems are specifically designed to help management of any organization in situations where there is uncertainty about the possible outcomes of those decisions. This implies that a decision support system is a computer based information system that assists school mangers in making series of complex and delicate decisions.

### **Importance of Management Information Systems**

Management Information Systems (MIS) plays important roles in the management of education systems. It brings about effectiveness and efficiency in data analysis and its application or usage for proper management of education systems. According to Shim (2000), the importance of Management Information Systems (MIS) include the following:

1. provision of information that helps in improving administrative efficiency and effectiveness;
2. assist school managers in setting new policies, review old ones based on evidence instead of self-perceptions;
3. provision of Educational information and students' outcomes to educational stakeholders such as parents, in order to make decision about educational choices and opportunities.

4. strengthening of management capacities in collecting, analyzing, storing data at all levels of education systems; and
5. provision of information to analyst in order to understand how educational inputs are transformed to educational outputs.

### **Challenges of Management Information Systems**

There are myriads of challenges in the use of Management Information Systems (MIS). These challenges if well addressed can enhance the utilization of Management Information Systems (MIS) in school management. To Yee (2000), Carney (2004) and Kirkman (2000), some of these challenges include:

1. some school managers are not trained to use Management Information Systems (MIS);
2. lack of technical support;
3. lack of staff confidence and motivation;
4. lack of data analysis skills among school administrators;
5. inadequate power supply to schools; and
6. inability of some schools to implement stated activities and programmes of Management Information Systems (MIS) as planned

### **Value Re-orientation in Managing Educational Systems**

Value orientation simply implies the principles of rights and wrongs that are accepted by individuals or social groups (Word Net, 2012). Value orientation can therefore be seen as a high moral intelligence and entrenchment of core values for the development and posterity of an organization (Denen, 2020). To Asobien (2012), it is a transformation of a fundamental shift in deep orientation of an individual, organization or a society such that the world is perceived in possible new ways and actions that were impossible before the transformation. This implies that value orientation is a positive change of moral character through the renewal of human innermost nature.

According to Denen (2020), re-orientation means the act of changing, adjusting, aligning or re-aligning ideas or concepts in a new or different direction. Value re-orientation in education systems can therefore be conceptualized as the act of deliberately attempting to change the direction in which attitudes and beliefs in education sector are currently oriented or the act of adjusting or aligning behaviors, attitudes and beliefs of school managers in a new direction within the discourse of contemporary Nigeria education systems (Osisioma, 2012). Buttressing this, Okafor (2014) articulated value re-

orientation as a shift away from negative attitudes such as corruption, embezzlement, dishonesty and general indiscipline to the direction of virtues of honesty, patriotism, hard work and adoption of general positive values. This is why Njoku (2011) sees value re-orientation as inculcating good values that can rescue Nigeria out of her educational predicaments and refocus the nation towards higher academic greatness.

A closer view of the foregoing would make one to agree that Nigerian education system would be positively and rapidly transformed if school mangers embraces good moral values that have the ability to re-orientate their attitudes and behaviors in order to bring sustainable and significant reduction in corruption, absenteeism, theft, examination malpractice and other other negative attitudes within the school system.

### **Implications of Management Information Systems for Value Re-orientation in the Management of Education Systems in Nigeria**

The ultimate goal of Management Information Systems (MIS) is to encourage and facilitate the making of quality decisions and adequate orientation of school mangers about what is valuable within the school system. Management Information Systems (MIS) makes value re-orientation programmes to be properly executed, owing to the fact that Management Information Systems (MIS) provides valid information about all school resources for administrative utilization. Also, Management Information Systems (MIS) re-awakens school mangers consciousness on what constitute educational core values. This implies that with the help of Management Information Systems (MIS), educational core values will be organized and regularly monitored in order to achieve educational goals. Therefore, it should be noted that without Management Information Systems (MIS) at the disposal of school mangers/administrators, the main purpose of a school system will be defeated. This implies that if Management Information Systems (MIS) is not properly utilized, value system in education sector will continue to decay.

### **Conclusion**

It is worthy to note that Management Information Systems (MIS) contributes immensely towards promoting and strengthening value system in the management of education. it is therefore an indispensable tool for school managers/administrators to achieve value re-orientation for effective and efficient management of Nigeria education systems.

### **Suggestions**

Based on the conclusion made above, the paper therefore made the following suggestions:

1. Teachers and school managers should be properly trained on the usage of Management Information Systems (MIS)
2. Government and school owners should ensure adequate power supply to schools to facilitate effective usage of ICT gadgets for Management Information Systems (MIS)
3. Government and school owners should endeavor to provide adequate computers and its accessories for effective and efficient utilization of Management Information Systems (MIS)
4. Technical and support teams should be constituted in schools at all levels to help in the analysis of information provided by Management Information Systems (MIS)
5. Monitoring and evaluation teams should be constituted by Ministries of Education to monitor and evaluate the implementation of Management Information Systems (MIS) in schools.

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