

Impact Evaluation of the Information Management on the Decision-Making Effectiveness of Administrators in the Nigerian Universities

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Abstract

Nigerian educational system is expanding at an unprecedented rate because it appears that the demand for appropriate, adequate and timely information for management decisions in educational institutions is challenging. Therefore, this study empirically evaluate the information management on the decision-making effectiveness of administrators in the Nigerian universities focusing on the extent to which information acquisition and information management capacity of administrators contributed to the effective decision-making in Nigerian Universities. The research design used for this study was a survey research design. This design enables only a sample population to be studied after which generalizations can be made for the whole population. The purposive sampling technique was used to select two universities in each of the six geopolitical zones of Nigeria. There were altogether 60 administrators in the 12 universities in the 6 geopolitical zones, that is, University of Nigeria Nsukka, University of Port Harcourt, University of Ibadan, University of Ilorin, ABU Zaria, Ebonyi State University, Delta State University and University of Lagos, Ogun State University, Kogi State University, Adamawa State University, Kaduna state University. Out of this targeted population, 24 (the first 2top administrators) were sampled using simple random method but 21 responded. Pearson correlation and regression is used to find the relationship of information acquisition and information management to administrators' decision-making effectiveness. The findings revealed that information acquisition and information management capacities whether taken separately or jointly make significant contributions to both effective and efficient administration in Nigerian Universities. Hence, the study recommended modernization of information systems in these institutions with a view of improving information acquisition and information management capacities of the administrators.

Keywords: decision-making effectiveness, information management capacity, information acquisition

Introduction

Adamali, Coffey & Safdar, Z (2013) affirm that Automated Accounting Information System (AAIS) provides a tool for finance department to enhance organizational effectiveness especially in this era of global technology advancement. The emerging oil price drop and global economic scenario is characterised by advancement in information technology, rapid changes in production processes, increased sophistry of the consumer, fierce market competition and unethical skimming activities of producers in the drive to survive the unpredictable. Complex business dynamics, has brought to the fore the crucial role of accounting information in economic and business discourse especially in relation to administrative effectiveness (Curtis, 2005). As we all know, accounting speaks the language of business as it records all transactions of an individual firm or other bodies that can be expressed in monetary terms. In Anaehobi, (2014), predicated on the going concept, accounting is the scheme and art of collecting, classifying, summarizing and communicating data of financial nature required to make economic decisions. This decision-making is the backbone of administrative functions. This is because decisions direct actions (Marvin cited in Igwe, 2014).

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Good and effective decisions can only be made when right information is made available at the right time to the right recipient. Johnson, Newell and Vergin (1972) stated that information for decision-making is dynamic; therefore, it needs to be constantly up-dated. Decision-making, itself, is a dynamic process (Harrison, 1995; Daft, 1983). Managers need continuous flow of information in order to make appropriate decisions. Decision-making efficiency of managers can therefore be greatly enhanced by the quality of information they are able to utilise in decision-making. To supply the appropriate information to the right person at the right time, Clare and Stuteley (1995), Hodge, Anthony and Gales (1996) all advocated that information is a resource that needs to be managed just like any other resource in the organization. Oyebade (1999) quoted McBride who stated that the problem confronting most organisations is the collection and storage of information. Structurally and complex management are the problems Nigerian educational institutions are faced with. Nwankwo (2013) stated that the modern educational systems, social and economic systems have become increasingly complex themselves. These complexities of educational systems and their institutions in developing countries and particularly in Nigeria tend to be characterized by such phenomena as: student population explosion, diversities in the dimensions of programmes and procedures, inadequacy of funds and other material resources even in the face of inflation, and conflicting models and policies adopted for implementation. The problems of paucity of information as well as poor capacity for information management are the core of the above bewildering list of complex variables.

The educational system is expanding at an unprecedented rate because it appears that the demand for appropriate, adequate and timely information for management decisions in Nigerian educational institutions is challenging. As the system and its institutions expand, so do the problems of their planning, organisation, administration, monitoring and control. Correspondingly, there is the need for increased information acquisition and information management capacity among educational administrators, planners and policy makers (Nwankwo, 2013). Education is one of the key industries in which government invests her scarce resources. Educational institutions, therefore, are expected to justify the resources that government invests in them for the educational development of the society and the nation. The already scarce resources need to be judiciously utilised. The educational planners, administrators and policy makers need more than ever before accurate, up-to-date and timely information to make appropriate decisions. Right decisions give direction for a right course of action. Daft (1983) stated that when an organisation is designed to provide correct information to managers, decision processes work extremely well and tasks will be accomplished. However, when information is poorly designed, problem-solving and decision processes will be ineffective and managers may not understand why and this could create inefficiency in the administrative processes.

Statement of Problem

Poor accounting information jeopardizes administrative effectiveness, which makes managers malnourished administratively especially in Nigerian universities. The consequence of this has been the current distressed syndrome that Nigerian Universities are facing. There has been a lot of concern for Nigeria, and especially educational organizational in the country, to solve problems arising from inadequate storage, flow and use of information. The inadequate access to, or possession of, relevant information has negative impact on the effectiveness of administrators' decision-making process. Educational institutions experience administrative problems which are information related such as: inability to find information needed to take a decision or respond to inquiry, improperly registered students in school registers and records inaccurate demographic figures resulting in either lack of places/spaces for students or wastage of spaces/places available. Therefore, the main objective of this study is to examine the impact of the information management on the decision-making effectiveness of administrators in the Nigerian universities. Specifically, the study is set to ascertain the relationship between information acquisitions and the effectiveness of administrators' decision-making in Nigerian Universities. The following research questions were drawn to guide the study (1) what is the relationship between information acquisitions and the effectiveness of administrators' decision-making in Nigerian Universities.? (2) How does Information management capacity affect administrators' decision-making effectiveness in Nigerian Universities? Therefore, a test of the null hypotheses will permit an examination of the significant level of the expectations. HO1: There is no significant relationship between information acquisitions and the effectiveness of administrators' decision-making in Nigerian Universities. Ho2: Information management capacity does not impact on administrators' decision-making effectiveness in Nigerian Universities. The outline of the study is as follows: after the introduction, there is the literature review, which is also followed by the methodology of the study. The Analysis of data, conclusion and recommendations are presented in sections four and five respectively.

Literature Review

Most education management problems in Nigeria might be traced back to lack or poor management of information (Nwankwo 2013). A good management information system is, therefore, needed in all the educational institutions to handle more efficiently such administrative matters as providing government reports, justification and accountability, handling of increasing enrolment, students records and timely release of results (Longe & Agabi, 1990). Educational institutions today need to pay more attention to management of their data and information for efficiency and effectiveness. Information reduces uncertainties and facilitates decision-making (Tsui & Schreisheim, cited in Opeke, 1984). McLeod, Clare & Stately (1995) opined that information is one of the resources which a manager controls apart from human resources, materials, money and machines. Attama & Owalabi (2012) opined that huge amounts of data and information are possessed by educational institutions. Examples of such data and information available in educational institutions are: correspondences, accounting documents, personnel files, payroll, minutes of meetings, students' registration and examination records, inventory of facilities, budgetary information, list of courses offered, time-tables for lectures, and so forth. Attama & Owalabi (2012) affirmed that the common problems of management in institutions would be reduced by accurate and timely availability and use of the information.

Chiwetalu (2013) assert that the administrators seem to be overwhelmed with the rise of managerial/administrative workload due to rapid growth and expansion of the institutions in the institutions of higher learning in Nigeria. Igwe (2014) studied information management and decision-making in National Board for Technical Education (NBTE), Kaduna, and found out that NBTE was growing in complexity, with increasing number of personnel and programmes, and that the information management of NBTE was ineffective and inadequate due to lack of funds, modern facilities and information experts to manage information effectively. Igwe concluded that the poor/ineffective information management negatively affected decision-making, and that decisions were sometimes arbitrarily taken due to lack of appropriate or timely information. Most a times decisions that were made were sometimes changed when more accurate information was received, and that workers often flooded the offices to confirm decisions made. According to Ojebola and Fabunmi (1997), they established that there was a significant relationship between female administrator's information acquisition capacity and administrative efficiency. Recommendations were made that funds should be made available to improve information acquisition capacity of administrators through training and where necessary, there should be provision of computers and qualified personnel to handle the management of the information system of each department. Opatola (2012) also found out that information management capacity of the administrators in the Oyo State Ministry of Education, Ibadan, Nigeria, was low even though there was high level of information. The study concluded that there was need to improve information processing using modern techniques and technologies. Communication was also an aspect that was emphasized that needed to be improved in order to increase the information management capacity of the administrators.

According to Opeke (1984) stated that some of the forecasts and projections on education in the country have fallen short of what actually persisted in the system. This was attributed mainly to lack of basic data and the inability of top management to discern the role of technological progress prevailing at the time. Management is (indeed) stifled in its decision-making without information (Opeke, 1984). Hence, the urgency for Nigeria to solve the problems arising from inadequate storage, flow and use of information is paramount. Nwankwo (2013) had observed that most of the persistent problems that bedevil Nigerian educational institutions arise from either lack of information or poor capacity for information management. This study, therefore, is aimed at addressing the issue of information management, specifically, in tertiary institutions. This would be a contribution to improved efficiency and effectiveness in administration in Nigerian Universities. Chang (2001) asserts that accounting information plays a significant role in enhancing organizational effectiveness in a global competitive environment. Doms, Jarmin and Klimek (2004) opined that financial statements still remain the most important source of externally feasible information on companies. In spite of their widespread use and continuing advance, there is this concern that accounting practice has not kept pace with rapid economic and high technology changes which invariably affects the value relevance of accounting information. The importance of Chang's assertion is reinforced by massive accounting fraud in developed countries especially United States of America (USA). According to Ijatuyi & Adebayo (2014), the rapid changing of business environment and reports by some researchers that value relevance of accounting information has declined is obvious.

However, a number of researchers claim that accounting information has not lost its value relevance. Borthick and Clark (1990) believe that accounting exists because it satisfies a need - primarily a need for information. In order to be relevant, accounting data must among others, be quick to respond to users' (particularly the investors) needs. Generally, investors are not in a situation to directly access the performance of companies in which they intend to invest. They usually depend on financial reports prepared by the management of such organizations. Financial report is one of the best sources of accounting information about a company. Financial reporting is an essential part of disclosure and helps investor to discover investment opportunities. The primary purpose of financial statements is to provide information concerning the financial situation of the company, its operational results, any changes of control in the company and cash flow.

Organizational Effectiveness

Organizational effectiveness was succinctly defined by Daft (1983) as "the degree to which an organization realized its goals". However, Mondy, (1990) defined it aptly as "the degree to which an organization produce the intended output" As Daft rightly argued. Organizations pursue multiple goals, and such goals must be achieved in the face of competition limited resources, and disagreement among interest groups. Oguntimehin (2001) submitted that organizational effectiveness is the ability to produce desire results.

Accounting Information System and Organizational Effectiveness

Ponemon and Nagida (1990) also assert that the main reason for which accounting information is generated is to facilitate decision making. However, for financial reporting to be effective, among other requirements, it is relevant, complete and reliable. These qualitative characteristics require that the information must not be unfair nor has predisposition of favouring one party over the others. Accounting information should give a decision maker the capacity to predict future actions. It should also increase the knowledge of the users to identify similarities and differences in two type of information (Bolon, (1998). Therefore, reliable accounting information can be described as an essential pre-requisite for stock market growth. Based on the "engine of economic growth" potential of the stock market, developed nations do not toy with their Stock Markets and relevance of financial reporting. Hunton, (2002) study, which investigated the relationship between automated accounting information system and organizational effectiveness; showed that there was strong relationship between accounting information system and organizational effectiveness, which means access to accounting information will lead to organizational effectiveness. In managing an organization and implementing an internal control system, the role of accounting information system (AIS) is crucial. Nkereuwem (2013) put it that An important question in the field of accounting and management decision-making concerns the fit of AIS with organizational requirements for information communication and control. Although the information generated from an accounting information system can be effective in decision-making process, purchase, installation and usage of such a system are beneficial when the benefits exceed its costs (Ogbomo, 2014). Huber (1990) agrees that automated accounting information system aids decision making for management of organisations. Benefits of accounting information system can be evaluated by its impacts on improvement of decision- making process, quality of accounting information, performance evaluation, internal controls and facilitating company's transactions. Regarding the above five characteristics, the effectiveness of AIS is highly important for all the firms.

Duties of Accounting Information System

The main function of Accounting Information System (AIS) according to Nworgu (2010) is to assign quantitative value of the past, present and future economics events. AIS through its computerised accounting system produce the financial statements namely income statements, balance sheets and cash flow statement. The system will process the data and transform them into accounting information during input, processing and output stages that will be used by a wide variety of users such as internal and external users (Wilkinson, 2000). Okon& Basse (2012) confirmed that an effective Accounting Information System (AIS) performs several key functions throughout three stages. These several key functions include data collection, data maintenance, data Accounting Information Systems (AIS) and Knowledge Management; data control (including security) and information generation.

Empirical Studies

Most of the empirical studies on information management have been carried out in business organisations and some in Research and Development settings. A few that have been carried out in education have been done either in Federal or State Ministries of Education or other educational organisations and not tertiary institutions.

The studies that have been carried out in such educational organisations generally agree that there is the need to improve information management and also make use of modern facilities in order to provide appropriate information for decision-making. For example, Igwe (2014), Opeke (1984) and Adelaja (cited in Opeke 1984) all attributed problems in decision-making to lack of appropriate information. Erwat and Fabunmi (2014) investigated the extent to which information acquisition and management capacity correlated with administrators' decision-making effectiveness in tertiary institutions in Southwestern Nigeria. The results of their study revealed significant relationship between information acquisition and administrators' decision making effectiveness.

Research Methodology

The research design used for this study was a survey research design. This design enables only a sample population to be studied after which generalizations can be made for the whole population. The purposive sampling technique was used to select two universities in each of the six geopolitical zones of Nigeria. Two (2) administrators were drawn in each University using simple random method. They were altogether 24 administrators in the 12 universities drawn from 6 geopolitical zones, that is, University of Nigeria Nsukka, University of Port Harcourt, University of Ibadan, University of Ilorin, ABU Zaria, Ebonyi State University, Delta State University and University of Lagos, Ogun State University, Kogi State University, Adamawa State University, Kaduna state University. Out of this targeted population, 21 responded. The questionnaires were mailed to the administrators' using their e-mail addresses. Data were analyzed using descriptive statistics while research hypotheses were tested using Pearson correlation and regression statistical tools.

Data Analysis

Table 1: Descriptive Statistics

| Variable | N | Mean | Std.deviation |
|-------------------------------------|----|------------|---------------|
| Decision-making effectiveness | 21 | 403777.61 | 571056.28 |
| Information Management& Acquisition | 21 | 1359586.67 | 2785681.92 |

Table 1 shows the mean and standard deviation of Information Management& Acquisition and decision-making effectiveness in the Nigerian Universities. The mean of decision-making effectiveness and Information Management& Acquisition are 403777.61 and 1359586.67 respectively, while standard deviations are 571056.28 and 2785681.92.

Table 2: The correlation between Information Management & Acquisition and Decision-making Effectiveness

| Variable | | Decision-making effectiveness | Information Management& Acquisition |
|-------------------------------------|---------------------|-------------------------------|-------------------------------------|
| Decision-making effectiveness | Pearson correlation | 1 | 0.736** |
| | Sig.(2-tailed) | | 0.000 |
| | N | 21 | 21 |
| Information Management& Acquisition | Pearson correlation | 0.736** | 1 |
| | Sig.(2-tailed) | 0.000 | |
| | N | 21 | 21 |

**Correlation is significant at the 0.01 level (2-tailed)

Table 2 explains the correlation between the variables and show that information management& acquisition and decision-making effectiveness have significant correlation of 0.736. The figure demonstrates that both Information Management& Acquisition and decision-making effectiveness are positively correlated with each other.

Table 3: Regression Results

| Model | R | R ² | Adjusted R ² | Std.Error of the estimate | Change Statistic | | | | | |
|-------|----------|----------------|-------------------------|---------------------------|-----------------------|----------|-----|-----|--------------|---------------|
| | | | | | R ² change | F change | df1 | Df2 | Sig.F change | Durbin-Watson |
| 1 | 0.736(a) | 0.541 | 0.517 | 396768.134 | 0.541 | 22.430 | 1 | 19 | 0.000 | 1.745 |

Dependent Variable: Decision-Making Effectiveness

Table 3 Regression results show that the value of R² is 0.541, which shows that model is good and fit and in this case, tells that 54% of variation is dependent variable which is explained by independent variables. The value of Durbin Watson is 1.745 which illustrate that there is no past error in the data. The Study supports the hypothesis as the regression analysis shows that information management capacity impacted on the effectiveness of administrators' decision-making in Nigerian Universities.

Table 4: Summary

| Model | Predictors | Unstandardised coefficients | | Standardized coefficients | T | Sig |
|-------|--------------------------------------|-----------------------------|-----------|---------------------------|-------|-------|
| | | B | Std.Error | Beta | | |
| 1 | (Constant) | 198703.347 | 96805.972 | | 2.053 | 0.054 |
| | Information Management & Acquisition | 0.151 | 0.032 | 0.736 | 4.736 | 0.000 |

Predictors (constant), Information Management & Acquisition; Dependent Variable: Decision-Making Effectiveness

The regression in table 4 shows the linearity between the dependent and independent variables. The t-figure 4.736 shows that there is significant relationship between information acquisitions and the effectiveness of administrators' decision-making in Nigerian Universities. The beta value gives the input of each of the independent variable. The beta figure is 0.736, which points out that information management capacity has strong correlation with the effectiveness of administrators' decision-making in Nigerian Universities. Information acquisitions influence the effectiveness of administrators' decision-making in Nigerian Universities.

Discussion

Earlier researches by various authors establish the fact that information acquisition and information management have positive significant correlation with decision-making of managers/administrators. These findings of hypotheses one and two as shown the regression analysis imply that information management determine or influence significantly decision-making of managers/administrators. These findings corroborate with those by other researchers such as Hammer, cited in Aiyepku (1978), Gauzach and Schul (1995), Larson et.al (1998) and Winquist and Larson (1998). Hammer, cited in Aiyepku (1978) found out that for final decisions, as more information was provided to decision-makers, accuracy of performance increased. Horowitz et. Al (1995) and Dennis (1996) found out that poor processing ability resulted in inefficiency and poor decision-making. O'Reilly (1980) stated that there has to be a match between information processing requirements of a task and information capacity of the unit or organization. Hutchinson and Reynolds (1990) went further to advocate that what is needed in this technological age are "hybrid managers". These are managers that have varied skills and abilities such as communication skills, information management skills and computer literacy skills. This will enable them to cope with the volume of information handling and interpretation required these days. It is evident that information acquisition and information management are two important variables that determine efficiency and effectiveness of administrators' decision-making in organizations. Decision-making is the backbone of administrative functions because according to Marvin cited in Igwe (1995) decisions direct actions.

Conclusion and Recommendations

The study concluded that information acquisition and information management capacity made significant relative and composite contributions to decision-making effectiveness of administrators in Nigerian Universities. These findings imply that these independent variables influenced the decision-making effectiveness of administrators.

Recommendations

The researcher made the following recommendations:

- i. Nigerian Universities should pay attention to these information variables in order to have more efficient and effective decision-making and administration.
- ii. Nigerian Universities should install functioning telephone system and modern information technologies to improve their communication system.
- iii. Nigerian Universities should also modernize their information storage and processing by computerizing the MIS.
- iv. Nigerian Universities should also allocate more funds in their budgets for improvement of their MIS from time to time.

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