



Influence of Information Management on Decision-Making among University Managers in Southern Nigeria

PAULETTE EKEJIUBA, M.I. YAMAH
University of Benin, Benin City, Nigeria

Abstract. This study examined the influence of information management on the decision-making among university managers in Southern Nigeria. Four research questions were raised to guide the study. The population consisted of all the University managers in Southern Nigeria: Three hundred and twenty-five of the population was selected using multi-stage random sample technique. An instrument titled: “Information Management and Decision-making Practices” was used to collect data. Pilot study was used to validate the instrument while Pearson correlation (r) was used for the reliability of the instrument. Data collected was analysed using the descriptive Pearson (r) statistics. The findings showed that information was effectively managed which enhances effective decision-making among the university managers. The result again showed that there was significant relationship between information management and effective decision-making among university managers based on gender of the managers. Based on the findings of this study, it was recommended that broader awareness of information and practices may be valuable as the managers’ attempt to interpret behaviours in the fresh decision-making situations.

Keywords: Information Management, Decision-Making, Electronic, Physical.

1. Introduction

Information is a genuine component for managing the progress of any organization including education. University managers rely heavily on the information to make decision because they may not be sure of the alternative that best solves a problem. Wikipedia (2014) asserted that management of school information is a proves by which school managers plan, organize, coordinate and control the available information and formulated strategies for the attainment of the national educational goals. Information are specifically selected and prepared

for a particular problem. Most Nigerian universities tend to underpin information management in their decision-making process in the area of governance and management. This is achieved by continued and successful delivery of information to students, staff and external community so that all will comply with legislative requirements. The university requires strategic information management in order to meet these educational goals and objectives. Traditionally, information management system was simply a place where files, documents and images in a location were managed. The users find it difficult to quickly retrieve information in times of need. One has to manually search every folder one by one. It wastes time and cost intensive. In the contemporary society, there is modern information system that is very efficient and productive when compared to traditional ones. Instead of unwieldy paper files and delay access, the modern electronic information is computer-based files and have instant access to information/data.

Contemporary management of the university in developing world could be very complex and difficulty enterprise base on manager’s gender and university types. Such management is unduly made more complex if those who manage the university system have limited incorrect and untimely access to relevant information they directly need for making correct and sustainable decisions. Information (data) can be gotten virtually anywhere such as books, experts’ opinions, data base, library catalogue, internet and the like. These could be categorized under primary and secondary data. Some of the vital information needed in the universities are students’ admissions, behaviours and academic progress, finances, security, staff and the like. Nutt (2002) and Ekejiuba (2018) in their study discovered that, half of the decisions failed, either because they were not implemented or subsequently unrevealed. Information could be captured, managed, stored, preserved and delivered. Information management can be illustrated as shown in Fig. I

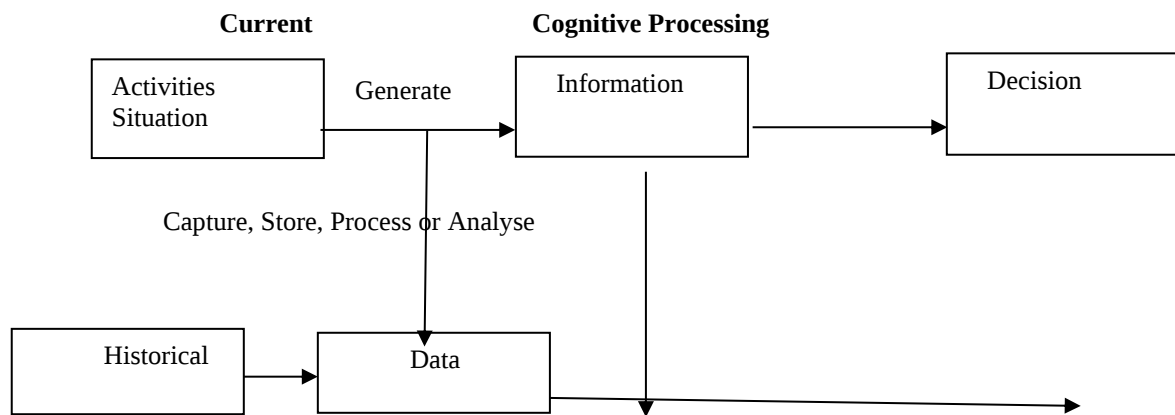


Fig. I: Formation of information and Data New, Communication and Monitoring System Warning.

Source: Adapted from Liew, (2007). *Understanding data, information, knowledge and their inter-relationship*. *Journal of knowledge management practice* 8(2) June 2007, Retrieved from <http://www.tlainc.com/article134.htm>.

The diagram in Fig. I implies that relevant information is gathered, processed which in turn is related to other facts from where decision-making hinged. In Nigerian system of university education, data are kept in form of records, manually and electronically. Information serves as a reference point. University as a knowledge-based organization for excellence, needs accurate information to enable people create, analyse, publish and store data.

However, change in technology can contribute problems to school managers' efforts to manage data. Other problems are inadequate storage facilities, inadequate fund, absence of university record keeping centres, untrained/inexperience computer personnel, inadequate supply of computers and internet, insufficient space accommodation and diversity of the dimension of programmes. Most of these problems tended from either lack of information or poor capacity for information management. Nutt (2002) has established that there is a low level of management of information even though there is a high volume of information. If there is no adequate management of information, university education management will be crippled in its planning and decision-making process.

The Model Adapted for this Work was the Data-Driven Decision-Making Model Propounded by Light et al (2004) as in Fig 2.

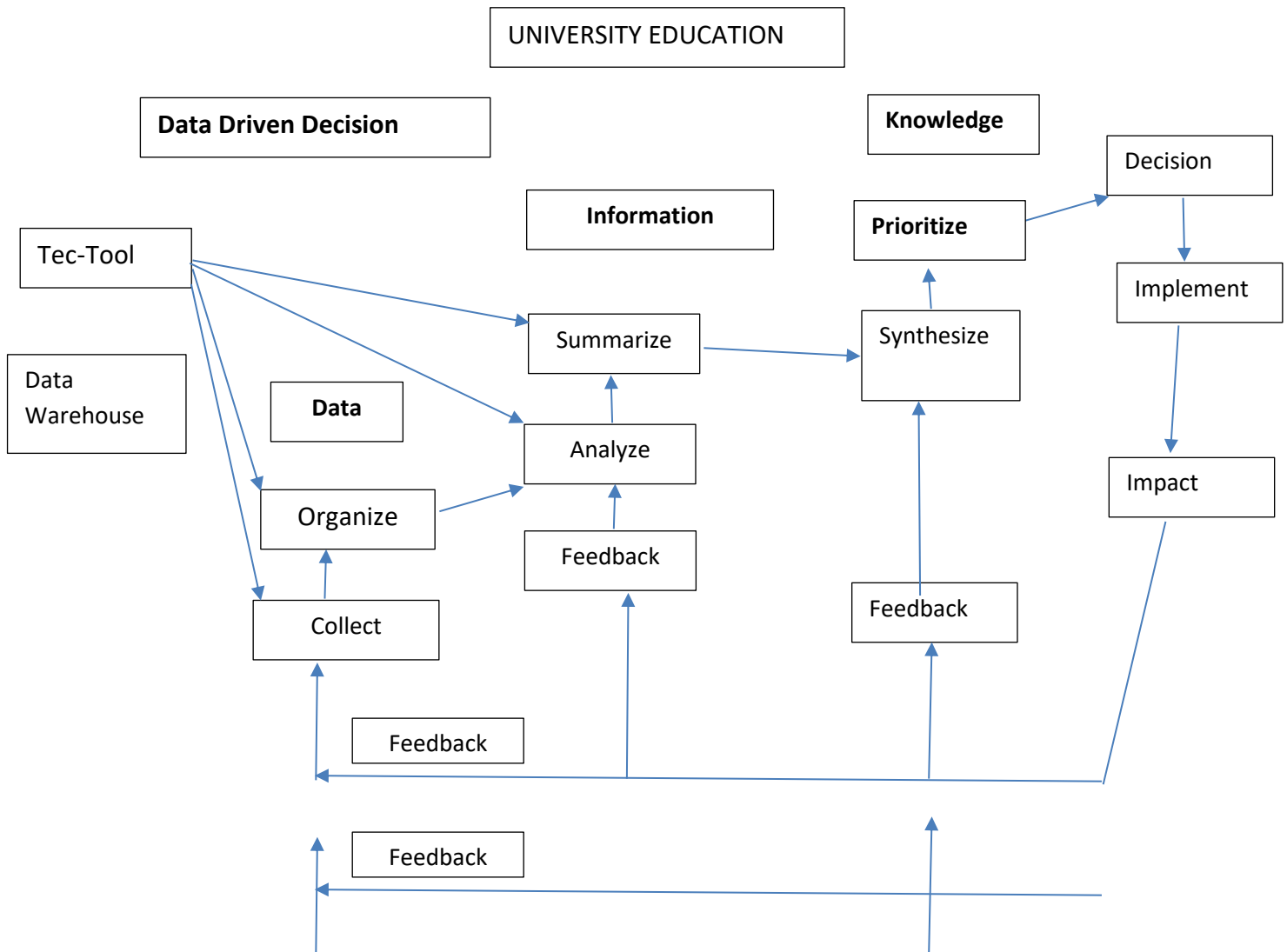


Figure 2: Model for Data-Driven Decision adapted from Mandinach, Honey and Light (2006)

According to these theorists, information and knowledge form a continuum in which data are transferred to information and to knowledge that can be applied to decisions and data management. According to them, information is data that is given meaning when connected to a context. The model further explains that the data to knowledge continuum is defined by the inclusion of certain cognitive skills or actions that are crucial to any decision-making process. This model is relevant to this work because it gives vibrant explanation of the process involved in taking informed decision with appropriate data. The decisions are implemented and the impact serves as inputs to the system. The skills at the information level are ‘analysed’ and ‘summarized’ while at knowledge level are ‘synthesized’ and ‘prioritized’ as seen in Fig. 2.

According to the model, there is need to generate or collect reliable data and organize, thereafter analyse and summarize to give meaningful information. Furthermore, the information is synthesized and

prioritized to produce knowledge. The knowledge guides the University managers in making informed decisions about university education

The practice of educational management involves a wide range of decision-making processes. The more information, the better the decision made. Harry (2010) stated that information is the most essential ingredient for managing school effectiveness. Information according to Bourgon (2009) can be formally and informally obtained. It could be formally obtained when the manger assigned the responsibility of collecting and processing information to subordinates, set procedures, and specified the type of timing of information gathered by means of survey of the entire operation of a sample thereof would also falls into the category of a feedback. Informal aspect is when the managers collect the information by him/herself by asking questions, observing progress and calling for ad hoc committees.

Information management is useful only as long as it has relevance to decision making process in the educational system. In Nigerian universities, managers tend to be concerned about the alarming rate of misplacement or loss of vital records and the slow speed at which needed records are kept and retrieved from their storage, though these could be attributed to the type of the university or the gender of university managers. The Nigerian university system has been riddled by incessant strikes that sometimes lead to closure of schools, misappropriation of funds, wastage of resources, conflicts, insecurity, lack of cooperation between diverse units, low standard of education. Could it be that the information required by these decision makers for sound and sustainable decisions were not properly managed?

The following research questions guided the study:

- How effective are university managers in decision making in Nigeria universities?
- Is there a relationship between information management and effective decision-making among the university managers?
- Is there a relationship between information management and effective decision-making among the university managers based on the gender of the manager?
- Is there a relationship between information managements and effective decision-making process of university managers based on the index of type of the university?

1.1 Hypotheses

H₀₁ There is no significant relationship between information management and university managers' decision making.

H₀₂ There is no significant relationship between information management and effective decision-

making process of university managers based on the gender of the manager

H₀₃ There is no significant relationship between information management and effective decision-making process of university managers based on the index of type of the university.

2. Methodology

The researcher employed quantitative and qualitative methods, while employing a correlational research design. It is because the work seeks to determine if relationship exists between information management and effective decision-making. The population consists of fifteen (15) federal universities in southern Nigeria (5 specialized and 10 conventional universities).

Forty percent (40%) were selected from each stratum. Two (2) and four (4) universities were respectively selected from specialized and conventional universities respectively. A total of three hundred and twenty-five (325) respondents (i.e. Vice Chancellors, Deans, Heads of Departments and Directors) which constitutes 188 male and 137 female managers were selected as subject for the sample size. The instrument for data collection was questionnaire and interview. The instrument was validated through the experts in the field.

The reliability of the instrument was established by conducting a pre-test of the instrument.

The reliability of the instrument was established to be 0.74.

2.1 Method of Data Analysis

Data collected was analysed using descriptive statistics and Pearson (r) correlation co-efficient tool of analysis. Descriptive statistics was used to answer research question one while Pearson (r) correlation co-efficient was used to test hypothesis, I, and Fisher Z-test was used to test hypothesis 2. A significant level of 0.05 (2-tailed) was used to test the hypotheses.

3. Results

Research Question 1: How Effective Are Managers in Decision Making in Nigerian Universities?

Table I: Managers' decision making in Nigerian Universities

Indices of Decision Making	N	Scores	Calculated mean	Normative Means	Std. Deviation
Setting objectives	325	4528.46	14.02	10	4.51
Generating Alternative	325	44606.63	13.81	10	1.99
Performance Criteria/Implementation	325	4476.78	13.86	10	2.19
Monitoring Decision, Feedback/Utilization	325	4709.34	14.58	10	2.87
Decision Making	325	18175.21	56.27	50	6.73

Table I above, showed that the calculated mean of indices of decision making were as follows: setting objectives 14.02, generating alternatives 13.81, performance criteria/implementation 13.86 and monitoring decision/feedback 14.58 respectively. These figures are higher than the normative mean of 10. Thus, decision making by managers in Nigerian Universities are effective in all indices of decision making. Similarly, the calculated mean of decision making is 56.27 while the Normative Mean is 50. Since the calculated Mean is higher than the normative mean, decision making by the university managers is therefore effective.

H₀₁: There is no significant relationship between information management and effective decision-making practices among university managers.

Table 2: Pearson (r) Analysis of the Relationship Between Information Management and University Managers' Decision Making.

Variables	N	Pearson (r)	r ²	Sig.	Decision
Information Management	325	-067	0.0045	.226	No significant relationship
Total for Decision Making	325				

P<.5 (2 tailed)

Table 2 indicates that Pearson correlation r of -067 and was significant at .226. It showed that Pearson correlation r is -067 is a very weak and has a negative relationship. Similarly, significant level of .226 is more than .05 significant level. Consequently, there is no significant relationship between information management and effective decision-making practices among university managers. The null hypothesis is thus retained.

H₀₂ There is no significant relationship between information management and effective decision-making process of university managers based on the gender of the manager

Table 3: Person r Analysis of the Relationship between information Management and Decision Making by Gender of University Managers

Gender	N	Person r	Z-Score Observed	Z-Score Critical	Decision
Male	188	-.076	-7.02	±1.96	
Female	137	-.62			

Table 3 shows that the observed Z- score of -7.02 is greater than the critical Z-Score of ±1.96. Consequently, the hypothesis which states that there is no significant relationship between information management and effective decision-making process of university managers based on the gender of the manager is rejected.

H₀₂: There is no significant relationship between information management and effective decision-making process of university managers based on the index of type of the university.

Table 4: Pearson (r) Analysis of the Relationship Between Information Management and Effective Decision Making by University Type.

University Type	N	Pearson (r)	Z – Score observed	Z- Score Critical	Decision
Conventional	233	-.046	0.5	±1.96	No Significant relationship
Specialized	92	-.112			
Total	325				

Table 4 shows that of both conventional Pearson (r) of -046 and specialized -112 type of university were weak in strength. The Pearson (r) for the two (2) groups was transposed to Z scores using Fisher Z statistic for testing the hypothesis. The result indicated a non-significant relationship since the critical Z-Score of ±1.96 is greater than the observed Z-Score of 0.5. The hypothesis is thus retained.

4. Findings

Finding in Table I shows that decision by managers in Nigerian universities are effective in all indices of decision-making. The finding of Harry (2010) supported this finding. He asserted that effective decision-making is not a matter of decision-making quality but for effective implementation. Besides setting goals by experts for plans, decision makers make priorities, interpret facts and act upon

objective situations. University-based decision-making is a concept based on the fundamentals principle that individuals who are affected by the decision, possess expertise respectively, the decision, responsible for implementing the decision and should be involved in making the decision.

Again, finding in Fig. 2 indicates that there is no significant relationship between information management and effective decision-making practices among university managers. The findings is contrary to the investigation carried out by Ewart and Fabunmi (2006) which revealed that, the extent to which information acquisition and management capacity correlated with managers' decisions significantly related. On the other hand, Papoola and Oluwole (2007) are in agreement with the findings of this study. They noted that Nigerian universities are often concerned about the alarming rate of misplacement or loss of vital records and the slow speed at which needed records are retrieved from the storage. These implied that decision making may be flawed, resources may be wasted, poor services may characterize the system and policy may be "satisfying" rather than optimizing.

The finding in Table 3 shows that there is a significant relationship between information management and effective decision-making process of university managers based on the gender of the manager. This implies that gender is an important aspect of information management and effective decision-making practices among university managers.

Several researchers such as Ekejiuba & Agwubuike (2022) have shown managers tend to have characteristics typically associated with men, however the actual qualities according to Ekejiuba and Ofoegbu (2012) successful managers possess are a combination of masculine (forcefulness, self-confidence, task oriented and initiative) and feminine (concern for people, feelings and relationship). The implication of this finding is that women who aspire for management position in the university must overcome all the traits that exclude them effective information manager that encourage adequate decision making without any stereotype attached.

Table 4 indicates that there is no significant difference in the correlation coefficients of conventional and specialized universities. The finding was in line with Ali (2006) who stated that there is uniformity in the generation of students' information. Thus, he asserted the launching of management information systems to both conventional and specialized universities which aimed at improving the decision-making practices of university managers. The computerization of both

students and personnel information has made it possible for university educational Agencies to access information online for both conventional and specialized Federal Universities. The timely access to information on all federal universities have enhanced prompt decisions on retirement date and age, stoppage of salaries, promotions, staff and students' demographic information and the like, irrespective of the university type.

5. Conclusion

Decision-making practices are effective among university managers. There is evidence of no significant relationship between information management and effective decision-making practices among university managers. Gender of University managers affects their information management on decision making practices. Nevertheless, type of university does not determine significant relationship between information and decision-making practice among university managers. Adequate training of school managers on information management and how to implement relevant information on their day to day running of the school in terms of decision making are needed.

6. Implication of Findings for Managers' Practices.

It is important for the managers to interpret the timely decision-making to avert imminent challenges permanently. The world through information technology is tending towards a global village, this possesses a great challenge to the decision-making practices of the managers. University managers should therefore be equipped in their decision-making practices to be a part of the global village which could be determined by the amount of information at their disposals for utilization in their daily decision-making practices.

7. Recommendations

University managers should gather enough information relating to an issue requiring effective decision making. In decision making practices of university managers, a search for the alternative that best solves a problem situation rather than the choice of available alternative that minimally solves the problems situation must be practiced. There is a need to conduct more studies in other related areas especially in the private universities of Nigeria and based on location, experience and qualification of school managers.

8. Contribution to knowledge

This project has contributed to knowledge in the following areas of information: on provision of the

information management strategies and decision-making practices among university managers and how to search for the most appropriate alternative that best solves the university problems

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