



INFORMATION MANAGEMENT STRATEGIES AND DECISION-MAKING PROCESS OF TERTIARY INSTITUTIONS IN RIVERS STATE

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Abstract

The study examined information management strategies and decision-making process of tertiary institutions in Rivers State. The study adopted the correlational research design. The population of the study comprised the three thousand and seven (3007) academic staff of four tertiary institutions in Rivers State. A sample of three hundred and forty-six (346) respondents were selected. A 25-item structured instrument titled "Information Management Strategies and Organizational Performance Questionnaire" (IMSOPQ) was used for the collection of data analyzed using univariate analysis. The study revealed that there is a significant linear relationship between digitized data capturing and decision-making process in the tertiary institutions also, there is significant linear relationship between database management system and decision-making process in the tertiary institutions. Others other hand, there is significant linear relationship between reporting and meeting and decision-making process in the tertiary institutions. The study recommended the continuous implementation of digitized data capturing in order for effective and timeliness of decision making in the organizations. Alongside, captains and chiefs of public sector organizations should turn to database management system to as a strategy to fully service the process of effective decision making in organizations.

Keyword: *Information management strategies, decision-making, tertiary institutions, Rivers State*

Introduction

The effective management of personnel and attainment of goals by organizations (both public and private) in the present times would heavily rests on having the right information. Against this backdrop, it could be deduced that the level of successes in decision-making by organizations would largely depend on how well the right information received is managed. Corroborating this view, Young-Harry, Oparanma and Ejo-Orusa (2018) asserted that information is most important resource in an organization since it is needed to solve problems and make decisions affecting both the present and the future engagement of personnel as well as performance of the business. Implicitly, this standpoint underlies why practitioners and researchers consider information as a vital resource for achieving organizational objectives.

BONWA, SANYIE MERCY
INFORMATION MANAGEMENT STRATEGIES AND DECISION-MAKING PROCESS...

Furthermore, organizations attaining the expected level of success would depend on the strategy, standard, approach and plan that is adopted to explore the information they receive or access. Hence, the quest towards formulating a modern, rational and strategic approach for processing the series of information likely to be integrated towards measuring and soaring up the performance of organizations is under the auspices of information management strategies. Hollander (2019) see information management strategy as the assemblage of intelligent, flexible, and smart techniques, approaches, and systems for the generation of content and data that could be used to successfully handle the complexities of tasks, activities and programmes in the present and future standpoint of any enterprise.

Certain good plans, standards or criteria could become performance indicators for any organization. In view of this, George and Desmidt (2016) reiterated that determining standards, plans and processes to be integrated in arriving at successful business decisions depends on the availability of relevant not intuitively but timely and procedurally instituted system and implementable strategy for managing information in organizations. On the other hand, Young-Harry et al. (2018) stated that management information system aids in describing the components and resources to be deplored for the proper functioning and monitoring the activities in an organization. This implies that a tertiary institution as a typical organization could leverage on information that it strategically explore in order to remain competitive and continuously expand its frontiers whilst delivering their mandates.

Devece, Palacios and Martinez-Simarro (2017) states that the value organizations place in managing information enables them to build or develop a robust digitized data capturing from the spectrum of its functional database management system committed in assessing and reporting or displaying the content, information and data that could assist in effective decision-making, customer satisfaction and competitiveness of organizations. In other words, there seems to be positive causal relationship between information management strategies and specifically the level of decision-making in an organization. This standpoint implies that the strategy an organization adopts in managing information could enhance its quick decision-making and competitiveness. Robertson (2015) views information management as the organizational, social, cultural and strategic factors that must be considered in order to be addressed and followed from the top level managers to the lower level employees.

Information technology suffices as strategic managerial practice targeted at ensuring effective and efficient creation, storage, processing and distribution of information to support operations and other decision making activities in an organization (Srinivasu & Rao, 2016). Accordingly, using information technology tends to help organizations to create, organize, store, process and distribute general and specialized brand information to those who use them for the achievement of especially its goals of effective service delivery and strategic decision-making that culminates to productivity (Abanibe, 2016; Akpomi & Ordu, 2016). In this regard, Alhawamdeh and Alsmairat (2019) stated that successful strategic decision making enables an organization to maintain competitive position, align internal operations with external environment and survive threats and challenges in both local and global business world.

Moreover, the anticipatory expectation of business growth most often increases competition in terms of meeting the ever-changing demands and feedback from customers and staff. This according to George and Desmidt (2016), leaves investors and business executives

with the challenge of tactically managing the unpredictable sequence of information needed to help businesses understand the market dynamics, preempt spatial distribution, alongside intuitively and timely take vital and valuable business decisions that can improve performance. Iwayemi (2012) believes that the performance stems on achieving the goals that were given to you in convergence of enterprise orientations. In his opinion, performance is not a mere finding of an outcome but rather it is the result of a comparison between the outcome and the objective.

George and Desmidt (2016) suggested that meeting the organizational objectives is predicated on the extent of compliance with strategic planning and performance management which are considered as rational planning practices and processes that inject information into decisions that are made to achieve strategic-decision quality in the business. However, the non-significance of performance measurement supports previous pleas for more contingency-based planning research. Thus, Alhawamdeh and Alsmairat (2019) reiterated that organization's performance have been measured substantially based on their profit attainment. This is sequel to the fact that none of any organizations anticipates, wants or plans to have losses being marked for their business operations during the given accounting period. From the scholarly positions elucidated thus far, it could be deduced that how well an organization successfully achieves its objectives will greatly depend on how it strategically manages information and take decisions.

Statement of the Problem

Over the years, public sector encounters great challenges in its attempts to strengthen its service delivery goals. In Nigeria, public servants are in need of accurate and up-to-date information that can be readily accessible. Also, they need internal and external information to be made available for effective and strategic decision making, improve their service delivery, performance and productivity. Strategic-decision quality in the public sector stems on the extent of rational planning practices, procedures, processes, and systems that ought to be integrated in order to streamline contents, information, and data that would seriously impact organizational information processes. However, the absence of strategic information management system could affect the process and quality of decision-making in public institutions or organizations.

Also, it has been observed that most managers in the public sector find it difficult in learning to use the state-of-the-art facilities in carrying out their managerial tasks. As a result, information is not properly disseminated within and the organization. This leads to ineffectiveness, low productivity among others that could make an office manager failing to meet the expectation of high information expertise as they carry out their responsibilities. Unfortunately, in this current globalized 21st century many public office managers are still entangled with using manual systems now that most offices are using computerized information facilities. Hence, the consideration of the impact that non-utilization of information technology could have on office managers strategy, performance, decision-making and execution of duties underscores the relevance of this study that examined information management strategies and decision-making process of tertiary institutions in Rivers State.

Objectives of the Study

BONWA, SANYIE MERCY
INFORMATION MANAGEMENT STRATEGIES AND DECISION-MAKING PROCESS...

This study set to achieve the following specific objectives.

1. To investigate the relationship between digitized data capturing and decision-making process in the tertiary institutions in Rivers State.
2. To investigate the relationship between database management system and decision-making process in the tertiary institutions in Rivers State.
3. To investigate the relationship between reporting and meetings and decision-making process in the tertiary institutions in Rivers State.

Research Questions

The following research questions were answered in this study.

1. What is the relationship between digitized data capturing and decision-making process in the tertiary institutions in Rivers State?
2. What is the relationship between data management system and decision-making process in the tertiary institutions in Rivers State?
3. What is the relationship between reporting and meetings and decision-making process in the tertiary institutions in Rivers State?

Significance of the Study

The results of this study would be beneficial as it would help organizations adopt new information management strategies to improve decision-making as well as timely information dissemination that would greatly profit government and the society. Also, students and information managers would see the need to learn how to operate modern equipment and devices as well as evaluate information management strategies in all sectors and more importantly in public tertiary institutions in Rivers State. Finally, researchers would leverage on the scholarly positions, variables and findings in this study as motives to carry out further research.

Scope of the Study

The study was centered on information management strategies and decision-making process of tertiary institutions in Rivers State. The geographical scope covered some selected public tertiary institutions in Rivers State notably; Ignatius Ajuru University of Education Rumuolumeni, Captain Elechi Amadi Polytechnic Rumola, Rivers State University, Nkpolu Owororukwo, and Rivers State College of Health and Management Technology, Port Harcourt. The unit of analyses comprised academic staff in the selected public tertiary institutions. Furthermore, the independent variable (information management strategies) was dimensioned with digitized data capturing, database management system, and reporting/meeting while the dependent variable was decision-making process that were integrated in this study.

METHODOLOGY

Research Design: The research design adopted for this study is correlational research design. The correlational research establishes the relationship between two or more variables in order to find out the effect of the independent variable (i.e. information management strategies) on the dependent variable (i.e. decision-making process) that were considered in the interaction or association (Nwankwo, 2016).

Population of the Study: The population of the study comprised all academic staff of four public tertiary institutions in Rivers State namely; Ignatius Ajuru University of Education (IAUE), Captain Elechi Amadi Polytechnic (CEAP), Rivers State University (RSU), and Rivers State College of Health and Management Technology (RSCHMT). As at the time of the study the total population of academic staff in the four Rivers State government-owned tertiary institutions was three thousand and seven (3007) depicted in the table below.

Table 1: Showing population of academic staff in the five institutions.

| <i>N/S</i> | <i>Tertiary Institution</i> | <i>No. of Academic Staff</i> | <i>Percentage</i> |
|------------|---|------------------------------|-------------------|
| 1 | Ignatius Ajuru University of Education | 774 | 26 |
| 2 | Elechi Amadi Polytechnics | 592 | 20 |
| 3 | Rivers State University | 1089 | 36 |
| 4 | College of health and Management Technology | 552 | 18 |
| Total | | 3007 | 100 |

Source: Field Study, 2020.

Sample and Sampling Techniques: A sample of 346 respondents or academic staff participated in the study. The multistage sampling was in two phases. In the first phase, random sampling technique was used in the selection of four (4) out of the five (5) Rivers State government-owned tertiary institutions. This gave rise to the selection of Ignatius Ajuru University of Education (IAUE), Captain Elechi Amadi Polytechnic (CEAP), Rivers State University (RSU), and Rivers State College of Health and Management Technology (RSCHMT). Secondly, proportionate sampling technique was used in the selection of 90 academic staff from Ignatius Ajuru University of Education, 69 from Elechi Amadi Polytechnics, 125 from Rivers State University, and 62 from Rivers State College of Health and Management Technology. This constituted a total sample of 346 respondents in the study.

Instrumentation: The instrument for data collection was a 25-item self-structured researcher questionnaire titled "Information Management Strategies and Decision-making Process Inventory" (IMSDPI). The IMSDPI instrument was patterned after a four point rating scale of: "Very High Extent" (VHE, 4 Points), "High Extent" (HE, 3 Points), "Low Extent" (LE, 2 Points), and "Very Low Extent" (VLE, 1 Point). Furthermore, the IMSDPI instrument consisted of three sections, Section A elicited the demographic variables of the respondents, Section B contained 15 items used to elicit response on the variable of information management strategies, while Section C contained 10 items on the variable of decision-making process.

Validity of the Instrument: The face and content validity of the IMSDPI instrument was determined by two experts in the Department of Office and Information Management in Ignatius Ajuru University of Education. These validates were presented with the topic, objectives, research questions, and items for their comments, corrections, and suggestions that were incorporated to enhance the validity of the final copy of the IMSDPI instrument.

Reliability of the Instrument: The reliability of the IMSDPI instrument was determined using the Cronbach Alpha statistical method. In doing this 50 copies of the IMSDPI instrument was administered to academic staff in the two Federal tertiary institutions in Rivers State via: 25 from University of Port Harcourt Choba, and 25 from Federal College of Education Technical

BONWA, SANYIE MERCY
INFORMATION MANAGEMENT STRATEGIES AND DECISION-MAKING PROCESS...

Omoku (which was not used for the study). Then 50 copies of the IMSDPI instrument were administered to the respondents and upon completion was retrieved, coded and analyzed using the Cronbach Alpha (r_a) method to obtain a reliability coefficient of 0.824. This obtained reliability coefficient necessitated that use of the IMSDPI instrument for actual administration.

Administration of the Instrument: The face-to-face direct delivery method was used to administer copies of the IMSDPI instrument directly to the respondents by the researcher and two research assistants. Out of 346 copies to the IMSDPI instrument that was administered to the respondents only 321 (representing approximately 93% return rate) were validly retrieved and used for data analysis.

Method of Data Analysis: Collected data was scored, coded and analyzed using distributive statistics and Univariate Analysis with a criterion mean cutoff of 2.5, as the point of decision.

Results

Research Question One: What is the relationship between digitized data capturing and decision-making process in the tertiary institutions?

Table 1: Univariate Analysis on the relationship between digitized data capturing (DIDACA) and decision-making process (DEMKPRO) in the tertiary institutions

| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness | |
|--------------------|-----------|-----------|-----------|-----------|----------------|-----------|------------|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error |
| DIDACA | 278 | 1.000 | 5.000 | 3.83864 | .32420 | -.723 | .146 |
| DEMKPRO | 278 | 1.021 | 5.000 | 3.76162 | .76009 | -.822 | .146 |
| Valid N (listwise) | 278 | | | | | | |

DIDACA (Digitized Data Capturing) DEMKPRO (Decision-making Process)

The result in Table 1 revealed a mean response of 3.83864 for digitized data capturing which is above the criterion mean of 3.0 indicating that large percentage of the respondents agreed to the items. Decision-making process produced a mean of 3.76162, which is above the criterion mean of 2.5 indicating that large percentage of the respondents agreed to the items. On the hand standard deviation for the digitized data capturing 0.32420 and decision-making process 0.76009, indicating that there was homogeneity or unity of response from the respondents. Thus, digitized data capturing has highly related with decision-making process in tertiary institutions in Rivers State.

Research Question Two: What is the relationship between database management system and decision-making process in the tertiary institutions?

Table 2: Univariate Analysis on the relationship between database management system (DAMASY) and decision-making process (DEMKPRO) in the tertiary institutions

| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness | |
|---------|-----------|-----------|-----------|-----------|----------------|-----------|------------|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error |
| DAMASY | 278 | 1.000 | 5.000 | 2.32014 | .57686 | -.765 | .146 |
| DEMKPRO | 278 | 1.021 | 5.000 | 3.76162 | .76009 | -.822 | .146 |

Valid N 278
(listwise)

DAMASY (Database Management System) DEMKPRO (Decision-making Process)

The result in Table 2 revealed a mean response of 2.32014 for database management system which is below the criterion mean of 3.0 indicating that large percentage of the respondents agreed to the items. Decision-making process produced a mean of 3.76162, which is above the criterion mean of 2.5 indicating that large percentage of the respondents agreed to the items. On the hand standard deviation for the database management system 0.57686 and decision-making process 0.76009, indicating that there was homogeneity or unity of response from the respondents. Thus, database management system has moderately related with decision-making process in tertiary institutions in Rivers State.

Research Question Three: What is the relationship between reporting and meetings and decision-making process in the tertiary institutions?

Table 3: Univariate Analysis on the relationship between reporting and meetings (REPMET) and decision-making process (DEMKPRO) in the tertiary institutions

| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness | |
|-----------------------|-----------|-----------|-----------|-----------|-------------------|-----------|------------|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error |
| REPMET | 278 | 1.002 | 5.030 | 3.83561 | .51412 | -.479 | .146 |
| DEMKPRO | 278 | 1.021 | 5.000 | 3.76162 | .76009 | -.822 | .146 |
| Valid N (listwise) | 278 | | | | | | |

PEPMET (Reporting and Meetings) DEMKPRO (Decision-making Process)

Table 3 revealed a mean response of 3.83561 for reporting and meetings which is above the criterion mean of 2.5 indicating that large percentage of the respondents agreed to the items. Decision-making process produced a mean of 3.76162, which is above the criterion mean of 3.0 indicating that large percentage of the respondents agreed to the items. On the hand standard deviation for the reporting and meetings 0.51412 and decision-making process 0.76009, indicating that there was homogeneity or unity of response from the respondents. Thus, reporting and meetings have highly related with decision-making process in tertiary institutions in Rivers State.

Discussion of Findings

The result in Table 1 revealed that the mean value of digitized data capturing is 3.83864, which is above the criterion mean of 2.5. Meanwhile, the mean value for decision-making process is 3.76162 is above criterion mean. Thus, digitized data capturing has highly related with decision-making process. These findings corroborate with Whitley, Chaffey and White (2018) that digitized data capturing influences decision making process, productivity and profitability. Meadow and Yuan (2017) propose that information is a source of knowledge. Information is something that changes the state of its recipient or more specifically, the knowledge state. A slight variation to say that information is what determines decisions or allows a choice to be made. Making a decision represent a change of state (from undecided to decided) on the part of the decision maker.

BONWA, SANYIE MERCY
INFORMATION MANAGEMENT STRATEGIES AND DECISION-MAKING PROCESS...

The result in Table 2 revealed that the mean value of database management system is 2.32014, which is below the criterion mean of 2.5. Meanwhile, the mean value for decision-making process is 3.76162 is above criterion mean. Thus, database management system has lowly related with decision-making process. These findings were in agreement with Iwayerri (2013) that provided a comprehensive analysis of the dismal performance of public enterprises especially before the introduction of Structural Adjustment Programme (SAP) in Nigeria without integrating strategic information management in their decision-making process. This dismal performance reflects public enterprises failure to meet public aspirations in terms of the quantum of output as well as the quality of services, generation of any reasonable rates of return to investment capital expenditure, and the provision of adequate and reliable services.

The result in Table 3 revealed that the mean value of reporting and meetings is 3.83561, which is above the criterion mean of 2.5. Meanwhile, the mean value for decision-making process is 3.76162 is above criterion mean. Thus, reporting and meetings have highly related with decision-making process. These findings were in agreement with Jarvenpaa, Jacqueline and Staples (2016) conducted a study on the use of collaborative electronic media for information sharing. The findings of the study revealed the availability of modern office technological gadgets in especially in public business organizations and the utilization of those technology gadgets by office managers' cause increase in decision making is tertiary institutions.

Conclusion

The study concludes that the interactions between the dimensions of information management strategies (such as digitized data capturing, database management system and reporting and meetings) and decision-making process in public tertiary institutions in Rivers State established that; there is a significant linear relationship between digitized data capturing and decision-making process in the tertiary institutions also, there is significant linear relationship between database management system and decision-making process in the tertiary institutions. While there is significant linear relationship between reporting and meetings and decision-making process in the tertiary institutions. Hence, information management strategies would enhance decision-making process in public tertiary institutions in Rivers State.

Recommendations

Based on the results of findings, the following are recommendations for future implementation.

1. There should be continuous implementation of digitized data capturing in order for effective and timeliness of decision making in the organizations.
2. Captains and chiefs of public sector organizations should turn to database management system to as a strategy to fully service the process of effective decision making in organizations.
3. Information management strategies should be maintained through the utilization of reporting for organizational performance.

Contribution to Knowledge

1. The study has proved that information management strategies would enable public tertiary institutions in Rivers State to deplore and utilize digitized data capturing, database

management system and reporting and meetings to enhance their decision-making process that would culminate to their competitiveness and performance.

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