

IMPACT OF EDUCATION MANAGEMENT INFORMATION SYSTEM (EMIS) ON COMMUNICATION OF UNIVERSITIES IN NORTH WEST ZONE, NIGERIA

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ABSTRACT

This study examined the Impact of Education Management Information System (EMIS) on communication of Universities in North West Zone, Nigeria. The design of the study was descriptive survey design. The population of this study involves: University Management, Lecturers, non-teaching staff and Students representatives in the federal Universities of the Northwest zone of Nigeria. The population of the study consists of 49 management staff, 6447 teaching staff, 12,344 non-teaching staff and 287 students' representatives. The sample size was 385 determined using The Research Advisors (2006) table for sample size determination. The study adopted multi-stage sampling techniques. The self-designed questionnaire titled "Questionnaire on the Perception of Stakeholders on Impact of Education Management Information System (EMIS) on the Management of Universities of Northwest Zone, Nigeria, was used for data collection. The instrument was duly validated by experts. The instrument was subjected to pilot testing and was certified as fit for the study. The One-way Analysis of variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance. The study found that Education Management Information System (EMIS) has impacted on effective communication in Universities of North West Zone, Nigeria. The study recommends the There is the need for information and communication that pertains staff and students in the universities to be communicated via Education Management Information System (EMIS).

Keywords: Impact, EMIS, Communication, Universities, Northwest Zone.

Introduction

Education is aimed at imparting knowledge and skill, and inculcating human values which help in personal and professional growth. It is the 'education' which constitutes an essential pre-requisite for achieving national goal of inclusive development and equitable justice to the society at large. This is in line with the perception of Thakral (2015) that, giving quality education is the priority of each and every nation in the world because the quality of education forms the basis of socio economic and personal growth, an indicator of national progress. Of late, there have been high expectations from Universities in terms of transparency and accountability to improve the quality of education. This demand has augmented the need for better management of in house activities of Universities.

The rapid global changes have brought about some fundamental changes in education. The present era where the world is considered a 'global village' has seen a great progress of knowledge leading to new and technological ways of educational management. It is evident according to Kankam (2013) that the emergence of information and technology-based society has brought a change of mind-set in learning and that new approaches to learning necessitate

new approaches to teaching which challenge the teacher's role as a facilitator for learning. The role of Education Management Information Systems (EMIS) in enhancing communication within universities has become increasingly significant in the contemporary educational landscape. In the context of the North West Zone of Nigeria, where universities face unique challenges related to infrastructure, resource allocation, and administrative efficiency, the implementation of EMIS presents a pivotal opportunity for improvement.

An EMIS is a comprehensive software solution designed to collect, store, process, and disseminate educational data for decision-making purposes (UNESCO, 2018). It encompasses various modules tailored to support different facets of university operations, including student information systems, human resource management, financial management, and academic records management. By centralizing data and facilitating real-time communication among stakeholders, EMIS aims to enhance transparency, accountability, and overall institutional efficiency (World Bank, 2020).

EMIS plays a crucial role in higher education by providing a centralized platform for managing academic and administrative information. These systems facilitate the efficient handling of student records, academic schedules, faculty data, financial information, and other critical components of university operations. By streamlining these processes, EMIS enhances the overall efficiency and effectiveness of university management (Mokhtar& Ismail, 2020). EMIS enables the centralized storage and retrieval of data, making it easier for university staff to access and share information. This centralized data management system ensures that all stakeholders have access to up-to-date information, thereby reducing the risk of communication errors and enhancing coordination among departments (Oluwaseun&Adekunle, 2021). EMIS provides platforms for communication between students, faculty, and administrative staff. Features such as email notifications, online portals, and discussion forums facilitate timely and effective communication. This improved communication infrastructure supports better student engagement and enhances the overall educational experience (Bello, 2018).

Universities in the North West Zone of Nigeria, like many in developing regions, encounter myriad challenges that impede effective communication. These challenges range from inadequate technological infrastructure and limited access to reliable internet services to bureaucratic inefficiencies and fragmented information systems (Yusuf &Onasanya, 2016). As such, the implementation of EMIS has been heralded as a transformative tool capable of addressing these issues by streamlining communication channels, enhancing data management, and fostering a more integrated and responsive educational environment.

The implementation of EMIS in universities can significantly improve communication across multiple dimensions. Firstly, it enhances administrative communication by providing a unified platform for information sharing and collaboration among faculty, staff, and administration (Khan, 2017). This ensures that critical information such as policy updates, academic schedules, and resource allocations are disseminated promptly and accurately. Secondly, EMIS improves student communication by offering accessible channels for students to interact with faculty, access academic records, and receive timely updates on their academic progress (Adeoye&Akanbi, 2021). Furthermore, it facilitates external communication by

enabling universities to efficiently manage interactions with regulatory bodies, funding agencies, and other external stakeholders (Ezeugbor&Nwafor, 2020).

Despite its potential benefits, the adoption of EMIS in the North West Zone of Nigeria is not without challenges. These include the high cost of implementation, resistance to change from staff accustomed to traditional systems, and the need for continuous training and capacity building (Oye et al., 2012). Additionally, issues related to data security and privacy must be meticulously addressed to ensure the integrity and confidentiality of sensitive information (Adebayo & Adesope, 2015). The adoption of EMIS holds considerable promise for improving communication within universities in the North West Zone of Nigeria. While challenges exist, the potential benefits in terms of enhanced administrative efficiency, better student engagement, and streamlined external interactions make it a worthy investment.

Research Objective

- i. To determine the impact of Education Management Information System (EMIS) on Communication in Universities of North West Zone, Nigeria;

Research Question

- i. To what extent does Education Management Information System (EMIS) impacted on Communication in Universities of North West Zone, Nigeria?

Research Hypothesis

- Ho₁ There is no significant difference in the opinions of respondents on impact of Education Management Information System (EMIS) on Communication in Universities of North West Zone, Nigeria.

Method

The researchers adopted survey research for the study. The main idea for justifying the use of the design is that the design is used in behavioral and social science researches to gather factual information with regard to a particular population (Yabo, 2007). The research design therefore afford the researcher an opportunity to investigate various issues with regards to perceptions of stakeholders on the use of Management Information System (EMIS) on Management of federal universities of northwest Zone, Nigeria.

The population of this study involves: University Management, Lecturers, non-teaching staff and Students representatives in the federal Universities of the Northwest zone of Nigeria. Thus the overall population of the study consists of 49 management staff, 6,447 teaching staff, 12,344 non-teaching staff and 287 students' representatives. The sample size of the respondent was determined by the procedure recommended by the research advisors (2006) that a sample size of 385 is enough for the total population of 19127 respondents at 95% confidence level and margin error of 5%. The researchers adopted multi-stage sampling techniques (Convenience sampling and purposive sampling techniques). Convenience sampling technique was used in selecting the number of Federal Universities, while purposive sampling technique was used in selecting the respondents in each federal university. Equal number of respondents was selected from each of the Federal university.

A closed ended self-designed questionnaire titled “Questionnaire on the Perception of Stakeholders on Impact of Education Management Information System (EMIS) on the Management of Universities of Northwest Zone, Nigeria, was used as data collection instrument. The researcher used the 5- point Likert’s scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD) Undecided (U). The responses were coded as follows: Strongly Agreed=5, Agreed=4, Disagreed=3, Strongly Disagreed =2 Undecided=1. The validity of the instrument was determined by given the instrument to experts in educational administration and planning and expert in English Language to check its validity. The items were structured in line with the hypotheses and whether they elicit the required information. Kerlinger and Gay (1976) both hold the view that, validation of the content of research instrument by experts is an important acceptable technique.

The instrument was subjected to pilot testing to determine its reliability i.e. to confirm whether the instrument was able to measure what it is meant to measure as recommended by Kerlinger and Howard (2000) and Berg and Gall (1971). The data to be collected was subjected to statistical analysis through the use of Cronbach alpha. The study used means and standard deviations to answer the research questions and the decision mean of 3.0 was used to determine acceptance or rejection of the item statement as structured in the instrument. Inferential statistics i.e. one-way Analysis of variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance.

Results

Research Question One: How does Education Management Information System (EMIS) impact on Communication in Universities of North West Zone, Nigeria?

The specific objective in research question 1 seeks to determine how Education Management Information System (EMIS) impact on Communication in Universities of North West Zone, Nigeria. Items 27-36 in section ‘D’ of the instrument was used to answer research question using frequency counts, means and standard deviations as presented in Table 1.

Table 1: Opinions of Respondents on the Impact of Education Management Information System (EMIS) Impact on Communication in Universities of North West Zone, Nigeria

S/N	Items	SA	A	UD	D	SD	MEAN	STD
1	Education management information system (EMIS) facilitates communication processes.	49	51	87	75	94	3.83	1.45
2	Data/information can be analyzed, produced and sent through the use of EMIS.	89	136	40	76	16	3.30	1.38
3	EMIS provides relevant and timely data/information needed for communication.	37	150	100	53	16	3.08	1.17
4	EMIS collect, store and analyze data/information in different aspects of education useful for communication.	85	48	40	140	43	3.50	1.21
5	EMIS help in distributing data/information to appropriate	196	22	31	75	32	2.83	1.07

	universities, faculties and departments for onward use.								
6	EMIS keeps data/information for future communication reference.	18	72	158	46	62	3.74	1.47	
7	EMIS ease data/information flow for education purposes	96	106	53	83	16	2.91	1.37	
8	EMIS can be used to identify and determine communication channel	65	100	77	67	47	3.37	.99	
9	Mails communicated through EMIS can be access easily.	11	61	49	100	35	3.55	1.18	
10	Correspondences can be easily tracked, stored, and refer back when needs arises.	205	25	32	61	33	2.42	1.01	
Aggregate Mean							3.25		
Decision mean=3.00									

Table 1 shows the opinions of respondents on the impact of Education Management Information System (EMIS) on Communication in Universities of North West Zone, Nigeria. The aggregate mean of 3.25 is higher than the decision mean of 3.000 implying that the Education Management Information System (EMIS) has impacted on Communication in Universities of North West Zone, Nigeria is high and positive.

Hypothesis Testing

Null Hypothesis One: There is no significant difference in the opinions of respondents on impact of Education Management Information System (EMIS) on Communication in Universities of North West Zone, Nigeria;

Presented in Table 2 is a summary of ANOVA on the opinions of respondents on impact of Education Management Information System (EMIS) on Communication in Universities of North West Zone, Nigeria. Responses from items 27-36 in section 'D' of the questionnaire were used as basis for testing null hypothesis 2.

Table 2: Summary of One Way Analysis of Variance on the Impact of Education Management Information System (EMIS) on Communication in Universities of North West Zone, Nigeria

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	0.411	2	0.206	0.963	0.683
Within Groups	46.119	353	0.214		
Total	46.531	355			

(F-critical=3.00, $p > 0.05$)

The respondents did not differ significantly in their opinions regarding the impact of Education Management Information System (EMIS) on Communication in Universities of North West Zone, Nigeria. This is because the observed F-value of 0.963 obtained at $df = 2, 353$ was found to be less than the critical value of 3.00 and p-value of 0.683 was found to be greater than the 0.05 alpha level of significance ($p > 0.05$). The observed difference above was not significant. Therefore, the null hypothesis which stated that there is no significant

difference in the opinions of respondents on impact of Education Management Information System (EMIS) on Communication in Universities of North West Zone, Nigeria is retained.

Discussions of Findings

The result of ANOVA shows significant difference in the opinions of management staff, academic and non-academic staff, students' representatives and NUC officials on the impact of Education Management Information System (EMIS) on Planning in Universities of North West Zone, Nigeria. It indicated that the respondents did not differ significantly in their opinions regarding the impact of Education Management Information System (EMIS) on Planning in Universities of North West Zone, Nigeria. The result of ANOVA did not reveal significant difference in the opinions of respondents on impact of Education Management Information System (EMIS) on Decision-making in Universities of North West Zone, Nigeria; According to Moorty (2019), MIS is a decision-making instrument used by top management comprising of a set of controls. MIS provides administrators and managers with the information required to manage schools and organizations efficiently and effectively. MIS are being used by school administrators and managers to support a range of administrative activities such as financial management, staff allocation, timetable, attendance monitoring, clocking in and out, reporting, assessment records and resources. EMIS has managed to ease the task of administrators, teachers, staff and others through a multi-function platform (Syifa, 2019). Also according to the author, the school system management also manage school's interaction with the pupils and parents. This makes the communication between the three parties effective. For effective administration of the school, Education Management Information Systems (EMIS) becomes imperative. EMIS is a web which provides information to key stakeholders in the education sector, helping them with important data needed to improve education at all levels. Administrators within the education sector will settle comfortably on the platform with its simple, easy-to-understand interface and features that adequately equips them for precise human and resource planning, school mapping and important analytics for quality decision making. Gehlawat (2014) is of the view that EMIS provides information to manage the institution efficiently and effectively. They provide an objective system for recording and aggregating information and supports the institution's strategic goals and direction. Since EMIS supplies the decision makers with facts, it supports and enhances the overall decision making process of the school.

Conclusion

From the analysis of the data collected for the study, the researchers would want to conclude that Education Management Information System (EMIS) has impacted on Communication in Universities of North West Zone, Nigeria.

Recommendations

There is the need for information and communication that pertains staff and students in the universities to be communicated via Education Management Information System (EMIS). This is expected to promote timely, undiluted and up-to-date information to all intending recipients in Universities of North West Zone, Nigeria;

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