

## **The Availability and Utilisation of Management Information System (MIS) Facilities in the South-West Nigerian Universities**

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**Abstract:** This study examined the availability and utilisation of Management Information System (MIS) facilities in the South-West Nigerian Universities. A descriptive survey design was used in the study. Data were collected from 600 subjects consisting of 400 academic staff holding administrative position and 200 senior administrative staff heading units. Data collected were analysed using frequency counts, percentages, standard deviation and t-test statistics. The three hypotheses generated were tested at 0.05 level of significance. The study revealed that most of the MIS facilities were available except for few, like fax and telex. Federal and State universities significantly differ in terms of availability and the utilisation of computer-based and non computer-based MIS facilities in favour of the Federal universities. It was recommended that the government and the university administrators should provide adequate MIS facilities in each university particularly fax and telex. State universities should be better funded and equipped with more MIS facilities while more emphasis should be placed on the utilisation of computer-based MIS facilities by the universities to enhance better management information systems.

**Key words:** Utilisation, MIS, universities, facilities, management, information

### **INTRODUCTION**

In the recent time, there has been tremendous increase in students' enrolment in Nigerian universities while many applicants are unable to secure admission into the universities. This has led to increase in the number of universities in Nigeria amidst limited resources. The expansion in students' enrolment has brought complexity to the management of the institutions. As a result, there is need for appropriate management information systems in an organisation like the university system. Managers and administrators are making conscious efforts to ensure that they obtain necessary and adequate information to guide their action. No wonder Rowley and Turner<sup>[1]</sup> saw this new and increasing demand of MIS as drawing its explanation, probably, from the growing recognition of information as a vital input to our rapidly changing and highly cost oriented society.

However, in the recent time, Nigerian universities have been facing a lot of problems such as enrolment explosion, shortage of staff, lack of research facilities, inadequate funding, ineffective management information systems among others. One solution to the problem is the establishment of an effective information system that

supply up-to-date information on which to base decisions aimed at solving these problems.

It was in recognition of this important role of information to the survival of the university system that the National Universities Commission (NUC) introduced the computerized Management Information System (MIS) to the Nigeria universities. The (MIS) idea was conceived during a conference jointly organised by NUC and the British Council in Kaduna, in 1987 in conjunction with Overseas Development Administration (ODA), the project officially took off in 1989, in four pilot universities, namely; Federal University of Technology, Minna, University of Ilorin, University of Lagos, and University of Nigeria, Nsukka<sup>[2]</sup>.

The ultimate aim of the Management Information System is to develop a viable system to maximise the effective use of modern data approach to university management practices. It is also aimed at assisting managers and indeed operating personnel, to produce timely and accurate information. The information produced is not only to decide present and future operations, but also to pin-point potential problems that need to be rectified. Consequently, the objective of NUC in embarking on the MIS project include the following;

To standardize the system of obtaining reports and statistical information from the various universities on;

- Students
- Staff
- Financial matters
- Library

To record such information on diskettes or tapes at the universities and send to NUC for budgeting, information storage, analysis and retrieval purposes;

- To ensure that such information are accurate and timely;
- To organise information for planning, budgeting and decision-making;
- To help the universities put in place effective management system and improve utilisation of resources<sup>[3]</sup>.

Various workshops and seminars have been organised for principal officers of the universities such as registrars, directors of physical planning, librarians, bursars-to train them on effective implementation and application of MIS. According to William, Teresa and Erich<sup>[4]</sup> the National Universities Commission is laying the foundation for the Nigerian Universities Network (NUNet), an electronic network that will eventually link federal, state and private universities, research and training centres and other subscribers and provide them with internet connectivity. NUNet is expected eventually to boost the quality and relevance of higher education teaching and research, as well as to facilitate the expansion of an aggressive new national distance education policy announced by the Minister of Education in June 2001.

The concern of this study however is to investigate the availability and the utilisation of the MIS facilities in the Federal and State universities. It appears that MIS facilities such as computer, telephone, intercom, telex, fax, e-mail, internet facilities, postal services and publications are not readily available in some South-West Nigerian Universities.

It also seems as if Federal universities are better funded and better equipped in terms of MIS facilities than the State universities. This may not be unconnected with the fact that Federal Government can afford to pump more money to these universities.

**Purpose of the study:** The purpose of this study was to find out the availability and the utilisation of MIS facilities in the South West Nigerian Universities. The study also

investigated whether Federal and State universities significantly differed in terms of the availability and the utilisation of MIS facilities.

**Computer-based MIS facilities:** Computer is an electronic device or machine that accepts data, processes it and gives output in form of meaningful information meant for consumption. It is also a device capable of accepting data automatically; apply a sequence of processes to the data and supply the result of these processes. It is an electronic data processing device. It is also the input-output automatic machine. It is a machine for information technology. Computer-based MIS facilities include: telephone, intercom, fax, telex, electronic mail, electronic data, Electronic Fund-Transfer at Point Of Sale (EFTPOS), and internet<sup>[5]</sup>.

**The non-computer based MIS facilities:** The non-computer based MIS are the systems other than the computers through which information are supplied to managers and other decision makers in order to run the day-to-day activities of an institution, establishment or organisation in order to achieve the set goals and objectives. The non-computer based MIS facilities include: postal services, administrative files, publications such as handbooks, bulletin or brochure<sup>[2]</sup>.

Computer-based MIS and non computer-based MIS facilities are useful in providing relevant and accurate information to enhance effective decision making towards the achievement of the organisational goal. Though MIS can exist with or without computers but in the presence of large data and for the information to be timely and accurate, the computer-based MIS facilities are necessary. Also to keep on line with the modern technology as directed by the National Universities Commission (NUC), both the computer based and non computer-based MIS facilities. It therefore becomes necessary for all these facilities to be made available in the universities to enhance effective running of the day-to-day activities and to be able to link with the NUC to obtain and supply necessary information when needed. They are also necessary to be able to the universities with one another as well as the outside world for information and interaction that will enhance development.

## **MATERIALS AND METHODS**

The descriptive research design of the survey type was used in the study. The population of the study consisted of all the public universities in South West Nigerian Universities. Stratified random sampling technique was used to select 4 universities, 2 state and 2

Table 1: Availability of MIS facilities in the south west Nigerian universities

S/N	MIS facilities Item	Available		Not available	
		N	(%)	N	(%)
a.	Computer based				
1.	Computers	503	91.6	46	8.4
2.	Telephone	336	61.2	213	38.8
3.	Intercom	320	58.8	229	41.7
4.	Telex	126	23.0	423	77.0
5.	Fax	113	20.6	436	79.4
6.	Internet				
	Facilities	401	73.0	148	27.0
b.	Non-computer based				
7.	Postal services	382	69.6	167	30.4
8.	Administrative files	446	84.9	83	15.1
9.	Publications—e.g. handbook, bulletin, brochure, e.t.c.	449	81.8	100	18.2
	Mean	432	78.7	117	21.3

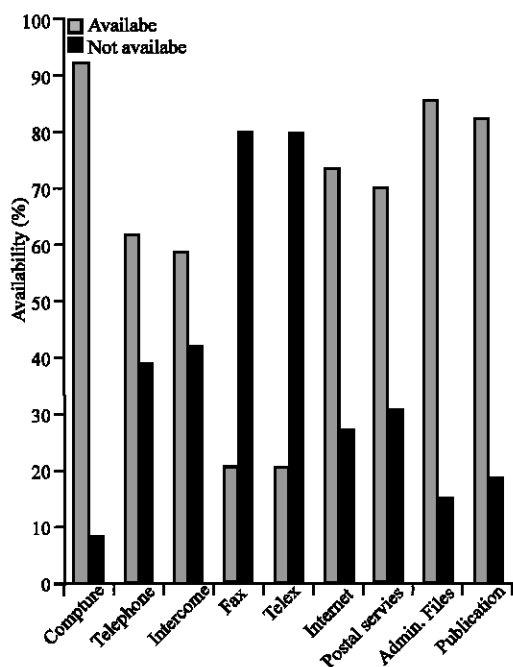


Fig. 1: Gives further illustration of the availability of MIS facilities in the South West Nigerian Universities

federal universities. Stratified random sampling technique was used to select 600 subjects consisting of 400 academic staff holding administrative positions and 200 senior administrative staff heading units.

A self designed questionnaire on availability and utilisation of MIS facilities was used to obtain information from the subject. Out of the 600 copies of questionnaire administered, 549 copies were properly filled and returned,

Table 2: T-test summary of availability of MIS facilities in the Federal and State Universities

Group	N	Mean	SD	df	t-cal	t-tab
Federal universities	271	17.02	2.15	547	8.33	1.96
State Universities	278	15.44	2.03			

p<0.05

Table 3: T-test summary of the utilisation of computer based MIS facilities in Federal and State Universities

Group	N	Mean	SD	df	t-cal	t-tab
Federal universities	271	5.66	0.68	547	12.071	1.96
State Universities	278	4.81	0.94			

p<0.05

Table 4: T-test summary of the utilisation of computer based MIS facilities in Federal and State Universities

Group	N	Mean	SD	df	t-cal
Federal	271	9.58	1.628	547	4.456
State	278	9.02	1.29		

p<0.05, t-table = 1.96

giving 91.5% rate of completion. The data collected were analysed using frequency counts, percentages scores, standard deviation and t-test statistics. The hypotheses formulated were tested at 0.05 level of significance Fig. 1.

## RESULTS

Table 1 is a presentation of the availability of the required MIS facilities in the universities.

As shown in Table 1, over 60% of the respondents indicated that most of the facilities were available. These include computers, telephone, internet facilities, postal services, administrative files and publications. Other facilities, said to be available by over 50% of the respondents include intercom and e-mail services. Only fax and telex attracted low positive responses of 20.6% and 23% respectively in terms of availability. It therefore shows that most of the MIS facilities were available in the universities with the exception of fax and telex services that were not all that available.

**Hypothesis 1: There is no significant difference in the availability of MIS facilities between the federal and state universities:** Table 2 shows the difference in availability of MIS facilities in Federal and State Universities. The result obtained from the analysis reveals that the value of t-cal (8.83) is greater than t-table (1.96) at 0.05 level of significance. Therefore, the null hypothesis which states that there is no significant difference in the availability of MIS facilities between Federal and State Universities is rejected. This means that there is significant difference in the availability of MIS facilities between the Federal and State Universities.

**Hypothesis 2: There is no significant difference in the utilisation of computer based MIS facilities between the federal and state universities:** Analysis of Table 3 shows that there is significant difference in the utilisation of computer based MIS between Federal and State Universities ( $t_{\text{cal}} > t_{\text{tab}}$ ) i.e.,  $t_{\text{calculated}}$  is 12.071, which is greater than  $t_{\text{table}}$  which is 1.96 at 0.05 level of significance. The null hypothesis is therefore rejected. This means that there is significant difference in the use of computer based MIS between the Federal and State universities.

**Hypothesis 3: There is no significant difference in the utilisation of non-computer based MIS facilities between the federal and state universities:** Table 4 reveals that there exists a significant difference between federal and state universities in the use of non-computer based MIS since the value of  $t_{\text{test}}$  calculated (4.456) is greater than  $t_{\text{table}}$  (1.96) at 0.05 level of significance. Therefore, the null hypothesis is rejected. This means that there is significant difference in the utilisation of non computer-based MIS facilities.

## DISCUSSION

The analysis on the availability of MIS facilities in the universities revealed that most of the MIS facilities are available but there is general inadequacy in some of the items of the MIS facilities such as telex and fax. The inadequacy of some of the MIS facilities in the universities does not augur well for effective operation.

A retrospection at the conceptual framework as well as the literature<sup>[6-9]</sup> on this study revealed the importance of these facilities to the successful implementation of MIS in any organisation. Ekwere<sup>[9]</sup> opined that poor input in form of MIS equipment results into poor information output that cripples the process of development within the organisation. Therefore, when MIS facilities are inadequate one could imagine the host of problems that would attend MIS operation as well as the utilisation of such facilities.

The prime objective of MIS is to provide management with key information products to facilitate effective decisions in the activities of the universities. The inadequacy of some MIS facilities in the universities may not allow for effective MIS in the institutions.

The study revealed that there is difference in the availability of MIS facilities in Federal the State

Universities. The Federal Universities have the higher mean which means they are better equipped with MIS facilities than the State Universities. This might not be unconnected with the fact that Federal Universities are better funded than the State Universities<sup>[10]</sup>.

The study revealed that there is significant difference in the utilisation of computer-based MIS facilities between Federal and State universities in favour of the Federal universities. This may not be unconnected with the fact that Federal universities are better funded and better equipped in terms of MIS facilities than the State universities.

It was also found out that there is significant difference in the utilisation of non computer-based MIS facilities between Federal and State universities in favour of the Federal universities. One would have expected that State universities will use more of the non computer-based MIS facilities. This finding tends to suggest that Federal universities are yet to be adequately equipped with computer-based MIS facilities.

## CONCLUSION AND RECOMMENDATION

Most of the MIS facilities are available in the universities with the exception of fax and telex. The ownership of universities (Federal or State) makes a difference in the availability and utilisation of MIS facilities. It is therefore recommended that government and the university administrators should provide MIS facilities particularly fax and telex in the universities. Moreover, State universities should be more funded and equipped with more of MIS facilities so that they can compete favourably with the Federal universities in terms of availability and utilisation of MIS facilities. More emphasis should be placed on the utilisation of computer-based MIS facilities by the universities for better management information systems.

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