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INFORMATION AND COMMUNICATION TECHNOLOGY AND DECISION-MAKING IN SECONDARY SCHOOL ADMINISTRATION IN ILORIN SOUTH LOCAL GOVERNMENT AREA, KWARA STATE

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Abstract

This paper investigated the relationship between Information Communication and Technology (ICT) and decision-making in secondary schools in Ilorin South Local Government of Kwara State, Nigeria. The study was a descriptive survey. The study population comprised all the 17 secondary schools in Ilorin South Local Government of Kwara State. Out of this population, a sample of 10 secondary schools was taken and selected through random sampling technique. One hundred and fifty teachers representing 60% of the teachers' population were selected through stratified random sampling technique. Ten principals out of seventeen representing about 59% were also selected using stratified sampling technique. The instrument used to collect data for the study was a questionnaire while the data collected were analyzed using frequency counts, percentages, and Pearson Product Moment Correlation analysis was used to find if there is any significant relationship between ICT and Decision making. The findings indicate a significant relationship between the availability and use of ICT and effective decision-making in secondary schools. This implies that the

availability of Information Communication and Technology (ICT) the better the decision. This suggests that without ICT effective decision-making could be jeopardized. Based on the findings, it is therefore recommended that adequate provision of ICT facilities should be made to schools by the government, parents and philanthropists so as to enrich the quality of their decisions. There should also be the enlightenment of staff on the importance of ICT in decision-making in secondary schools.

Introduction

In recent times, the process of information gathering and communication has advanced greatly. (Ola, 2004; Ukwegbu, 2005). Never in human history has such a revolution been witnessed in which digital data has transformed the way we communicate in our homes, offices, market places, hospitals, churches, sports arena, legal environments and more importantly schools or educational concerns. ICT as a process which includes sequences of phases to treat and transform the data into information, which is useful for decision makers. Information and Communication Technology (ICT) may be viewed in different ways. Rodriguez and Wilson (2000) defined ICT as a set of activities which facilitate by electronic means the processing, transmission and display of information with a view of making decision. Ogunsola and Aboyade (2005) viewed ICT as a cluster of associated technologies defined by their functional usage in information access and communication of which one embodiment is the internet. Information and Communication Technology are computer based tools used by people to work with information and communication processing needs of an organization. It purview covers computer hardware, software, the network and other digital devices like video, audio, camera and so on which convert information (text, sound, motion etc) into digital form (Moursund and Bielefeldt, 1999). The role of information in decision-making cannot be over-emphasized. Effective decision making demands accurate, timely and relevant information. Where the relevant information required for planning are not available at the appropriate time, there is bound to be poor planning, decision making, poor priority of needs, defective programming or scheduling of activities. Sisodia (1992) advanced the notion of decision making as a total process involving discernible and separate activities. The first of such activities is information gathering, which is followed by education of alternative and finally a choice. The amount of information available to a decision making group affects the product of that group. Hence, an administrator must be concerned with facilitating the free flow of

information across the organization. This is essential for the success of the organization. The information available with the organization is the key to its success. To Ogunlana (2000), ICT is a transformational process that has changed the way we think, work and live. It can be used to connect other people (Ogunlana, 2000). The influence of ICT on the organizational structure, process and culture is to share, convert, accumulate, that influence the organizational structure, process and culture. Fundamental changes are required to improve decision making. Brynjolfsson (1997) stated that the nature of organizations, external communication and that decision-making is an organization. As such, decision establishing objectives, selection of alternative, and achieve a given objective, an essential element of decision success depends on systems emphasized that ICT is essential decision making. For instance, secondary school administration services, effective communication record system and many others. In the school system, ICT anymore.

Statement of the Problem

Presently, the world is in information and communication human endeavours. The world is being shielded from being able to use Computers and other ICT communication and decision

information upward, downward and laterally within the organization. To do this successfully, the decisions should be based on accurate information available with the operation of effective management information systems. To Ogunkola (2008) ICT "is an electronic based system of information transmission, reception, processing and retrieval, which has drastically changed the way we think, the way we live and the environment in which we live". It can be used to access global knowledge and communication with other people (Ogunkola, 2008). The utilization of ICT tools has an important influence on the organization and all of its elements including people, culture, structure, process and tasks (Leavitt & Pondy, 1964). ICT is an effective tool to share, convert, accumulate and establish knowledge management systems that influence the organizational management philosophy and the way organizational members are managed, also ICT is making possible fundamental changes and improvements in the way management work and improving decision making. Lengang et al, 2000; Raymond et al, 1995; Brynjolfsson, 1993; Rogers 1983; suggested that ICT application influence the nature of organizational structure, processes, procedures, internal and external communication process and organization size. Alabi (2000) stated that decision-making is an integral part of the management of any organization. As such, educational managers at all levels make decisions in establishing objectives. According to Nwachukwu (2006), decision is the selection of alternative course of action from available alternatives in order to achieve a given objective. Issa (2009) opined that decision-making is an essential elements in every organization to which the degree of organizational success depends on appropriate decision formulated. Also, Uwadia (2009) emphasized that ICT serves as a tool for increases productivity and effective decision making. For instance the knowledge of ICT can be explored by the secondary school administrators to ensure teachers effective delivery of services, effective communication, effective maintenance of sound students record system and maintaining academic planning record system among others. In the school system today, it seems impossible to ignore the place of ICT anymore.

Statement of the Problem

Presently, the world is experiencing change owing to advancement in information and communication technology (ICT) in various fields of human endeavours. The secondary school system as social institution cannot be shielded from being affected by the society within which they operate. Computers and other ICT facilities have become major tools of communication and decision-making among individuals, organizations,

governments, corporate bodies among others. The increase in school population, complex goals/objectives, resources and programmes within the school, call for a better use of information system technologies for decision-making process. Therefore, the problem of this study was to determine the influence of administrators' use of information and communication technology (ICT) on decision-making effectiveness in Ilorin South Local Government Area, Kwara State secondary schools.

Research Design

The descriptive survey method was considered as the appropriate design because the study is directed towards people, their opinions, attitude and behaviors. The area covered by the study is Ilorin South Local Government Area, Kwara State secondary schools.

Research Questions

The following research questions were formulated for the study:

1. How readily available are ICTs facilities in schools for the purpose of decision-making?
2. Do school administrators use ICT in decision-making?

Research Hypothesis

H₀₁: There is no significant relationship between school administrators' use of ICT and decision-making effectiveness in Ilorin South Local Government Secondary Schools.

Sample and Sampling Technique

The study population comprised all the 17 secondary schools in Ilorin South Local Government of Kwara State. Out of this population, a sample of 10 secondary schools was taken and selected through random sampling technique. Stratified random sampling technique was used to select 14 teachers from each of the sampled schools, making 150 respondents.

Research Instrument

Researcher-designed instrument known as Administrators' Use of ICT Questionnaire (AUIQ) and Administrators' Decision Making

Questionnaire (AUIQ) was used to collect data on the use of ICT in decision-making process. The instrument was pre-tested and found to be reliable. The results were as follows:

Strongly Agree	100%
Agree	100%
Disagree	100%
Strongly Disagree	100%

Validity and Reliability

In order to ensure the validity of the instrument, the instrument was presented to three experts who were acquainted with the study hypotheses. The results were determined from their responses. The corrections were made to the study. In order to ensure the reliability of the instrument, the instrument was used to collect data on the use of ICT in decision-making process. The results were as follows:

Procedure for Data Collection

The administration of the instrument was done by the researcher and the results were met with the principal of each of the schools. The instrument was given for completion and the results were retrieved. Data obtained were used for statistical analysis.

Methods of Data Analysis

Data collected were analysed using statistics of frequency, mean and standard deviation.

Questionnaire (ADMQ) were used for data collection for the study. The instruments were placed on the Likert 4 points rating scale of:

Strongly Agree	(SA)	-	4 points
Agree	(A)	-	3 points
Disagree	(D)	-	2 points
Strongly Disagree	(SD)	-	1 point

Validity and Reliability of Instrument

In order to ascertain the validity of the instruments, they were presented to three experts in the area of Information Technology. The experts were acquainted with the objectives, research questions and the null hypotheses. The research experts critically inspected every item and determined their suitability. This ensured the face validity of the instrument. The corrections were effected and the revised instruments were produced for the study. In order to ascertain the consistency of the instrument, test-re-test method was used to ascertain the reliability. The questionnaire was administered twice on the sample. The interval between the first and second administration was two weeks. A correlation of 0.84 was achieved which was considered high enough to justify the reliability of the questionnaire.

Procedure for Data Collection

The administration of the instruments to the respondents was done by the researcher and one research assistant. In each school, the researcher met with the principal for adequate introduction and permission to administer the instruments. Explanation was made on each section and sufficient time was given for completion of each questionnaire, after which they were retrieved. Data obtained were analysed using descriptive and inferential statistics.

Methods of Data Analysis

Data Collected from the study were analyzed using descriptive statistics of frequency counts and Simple Percentage.

Results:

Table 1: Demographic information of Respondents

Item	Factor	No	%
Sex Distribution	Sex		
	Male	45	30%
	Female	105	70%
Age	Age (Years)		
	21-30	14	9.4%
	31-40	56	37.4%
	41-50	52	34.6%
	50 and above	28	18.6%
Educational Qualification	NCE	60	40%
	B.A/B.Sc/B.Ed/HND	75	50%
	M.Sc/M.Ed	15	10%
Years of Experience	1-10	45	30%
	11-20	40	26.7%
	21-30	45	30%
	31 and above	20	13.3%

Source: Researchers' fieldwork (2012)

The demographic information of the participants is given in table 1 above. Figures from Table 1 shows that 9.4% of the respondents are between the ages of 21 and 30, while 37.4% falls between 31 and 40, 34.6% are between 41 and 50 while 18.6% are 50 years and above. It also showed that 70% of the respondents are female while 30% are male. 40% of the respondents are NCE holders, while 50% hold a first degree and 10% of the respondents are masters degree holder. 30% of the respondents have spent 1 to 10 and 13.3% of the respondents have spent 31 years above respectively in the teaching service. 26.7% of them have spent 11 to 20 years while 30% of them have spent 21 to 30 years in secondary schools as teachers.

Research Question 1: How readily available are ICTs facilities in schools for the purpose of decision-making.

The analysis as it applies to the above research question is as shown on table 2 below:

Table 2: Availability of ICT Facilities in Schools

S/N	STATEMENTS	YES	%	NO	%
1.	There are enough computers in my school	60	40	90	60
2.	My school has educational software for decision-making	62	41	88	59
3.	Our computers are connected to the internet	26	17	124	83

The result in table 2 above on the availability of ICT facilities for decision-making shows that 60(40%) of the respondents indicated that there are enough computers in their school while 90(60%) of the respondents indicated that there are no enough computers in their school.. 62(41%) of the respondents indicates that their school have educational software for decision-making while 88(59%) of the respondents indicates that they do not have educational software in their school. 26(17%) of the respondents indicates that their computers are connected to the internet while 124(83%) of the respondents indicates that their computers are not connected to the internet.

Research Question 2: Do school administrators use ICT in decision-making?

The analysis as it applies to the above research question is as shown on table 3 below:

Table 3: School administrators' use of ICT in decision-making

S/N	STATEMENTS	YES	%	NO	%
1.	The use of computer aids decision-making in school	85	57%	65	43%
2.	The use of computer aids decision making on staff	75	50%	75	50%
3.	Computers are used to keep record of students.	105	70%	45	30%

The result in table 3 above on school administrators use of ICT in decision-making shows that 85(57%) of the respondents indicates that the use of computer aids decision-making in their school while 65(43%) of the respondents indicates that the use of computer does not aid decision-making in their school. 75(50%) of the respondents says yes to the second item in the research question while 75(50%) of the respondents says no. 105(70%) of the respondents says yes to the third item in the research question while 45(30%) of the respondents says no.

Hypothesis testing

Table 4: Test of relationship between ICT and effective decision-making

Variable	N	$\bar{X}$	SD	Df	Cal r-value	Critical value	Decision
ICT	150	7.47	3.25	148	.315	.196	Rejected
Effective decision-making	150	6.83	3.01				

Table 4 above shows that the calculated r-value of .315 is greater than the critical t-value of .198 at 0.05 level of significance for 148 degrees of freedom. Hence, the null hypothesis which states that there is no significant relationship between ICT and decision-making effectiveness is rejected. This means that there is a significant relationship between ICT and decision-making effectiveness in Ilorin South Local Government Area Secondary Schools in Kwara State.

Discussion

The foregoing analysis shows that there was a low level of availability of Information Communication and Technology (ICT) facilities in Ilorin South Local Government Secondary Schools. This finding was consistent with the findings made in earlier studies by (Sambo 1992; Omirin, 2007). The finding was however in disagreement with those of Kolawole, (1997) and Mohammed, (2006) who found that ICT facilities were not available in Nigerian secondary schools. The findings also indicate a significant relationship between the use of ICT and decision-making effectiveness in secondary schools. This implies that more the availability and use of Information Communication and Technology (ICT) the better the effectiveness of decision. This suggests that without ICT effective decision-making could be jeopardized. This finding agreed with those of Lucey, (1995) which enumerated the importance of ICT in decision-making. The finding indicating a significant relationship between the utilization of information communication and technology (ICT) facilities and effective management of universities suggests that the more the utilization of information communication and technology (ICT) facilities in the universities, the better the effective management of the universities.

This finding agreed with those of Kolade, Oje & Omodara (2007) which reported a considerable influence of ICT on the effective management of organizations.

Conclusion and Recommendations

Based on the findings of the study, it was concluded that the availability and use of ICT is necessary for effective decision-making. The secondary school principals as well as the other member of staff needs ICT in order to enhance the quality of decisions they make.

It is therefore recommended based on the findings of this study that adequate provision of ICT facilities should be made into schools by the government. Again, parents and philanthropists should assist educational institutions by

donating computers and internet services to them so as to enrich the quality of their decisions. The educational institutions should make adequate use of the facilities for effective result. Constant power supply should be made available to schools so that administrators would be able to make use of ICT for decision making purposes. Various computer packages needed for effective decision-making should be provided in secondary schools. Also, workshops on the use of ICT should be organized from time to time by the governments and NGOs or Non Governmental Organizations for school administrators and teachers who are not yet ICT literate. Lastly, skilled manpower should be employed to teach those administrators and teachers who are still illiterate in the use of ICT facilities for decision-making.

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