

ADAPTATION OF INFORMATION AND COMMUNICATIONS TECHNOLOGY IN EFFECTIVE ADMINISTRATION OF TERTIARY INSTITUTIONS FOR NATIONAL DEVELOPMENT IN SOKOTO STATE, NIGERIA

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ABSTRACT

The paper focused on the influence of Information and Communications Technology for effective administration of tertiary institutions in Sokoto state for national development of the education sector in Nigeria. Despite the power of computers to enhance and improve effective administration, improper implementation is a widespread issue beyond the reach of increased funding and technological advances with little evidence that administrators are properly integrating ICT into everyday work. Information and Communication Technology can contribute to universal access to work, equity in education, the effective delivery of quality information and more efficient management, governance and administration.

Three research questions and two hypotheses were stated and posed with 140 respondents, frequency, percentage and chi-square statistics were used in data analysis. The findings indicated that, there were no available ICT gadgets for effective administration in tertiary institutions in Sokoto State, there was significant influence of ICT on effective administration in tertiary institutions in Sokoto state and there was no significant influence of ICT application for effective administration of tertiary institutions on national development in Sokoto state were all rejected. Conclusion and recommendations were made to include, Training and retraining of administrators need to be introduced and strengthened especially in the area of ICT usage and application in the administration of tertiary education in Sokoto state.

Keywords: Information, Communication, Technology, Adoption, Administration and Sustainable National Development.

INTRODUCTION

Information and Communications Technology or (ICT) is extensional term for Information Technology (IT) that stresses the role of unified communication and the integration of telecommunications (telephones lines and wireless signals), computers as well as necessary enterprise software's, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information (Wikipedia, 2018). The term ICT is also used to refer to the convergence of audio-visual and telephone networks with computer networks through a single cabling or link system. There are large economic incentives (huge cost savings due to elimination of the telephone network) to merge the telephone network with the computer network system using a single unified system of cabling, signal distribution and management (Kingsleys, 2017).

Tertiary Education according to NPE (2014) is the education given after secondary education, in Universities, Colleges of Education, College of Health Sciences and Technology, and

Polytechnics including those institutions offering correspondence courses. On other hand, Administration refers to the procurement and arrangement of human, financial and material resources and programmes for the realization of aims and objectives. Robert, (2019) state that, sustainable administration is concerned with the activity through which employees are motivated and trained to effectively organize and arranged financial and material resources by the effort of the leadership of an institution or organization in order to achieve its objectives. Mishra, (2014) the essence of administration is to effectively enhance organizational goals. However, it is assumed here that an administrator is one who directs the activities of other persons and undertakes the responsibility for achieving certain objectives through these efforts.

An administrative technical skill implies to an understanding and proficiency in a specific kind of activity, particularly one involving methods, processes, procedures, or techniques. It involves specialized knowledge, analytical ability within that speciality, in the use of the tools and techniques of a specific discipline, (Robert, 2019). It is the skill required of the greatest number of people (Mishra, 2014). Most of our vocational and on the job training programs are largely concerned with developing this specialized technical skill with a particular reference to tertiary institutions administration in Sokoto State.

An administrative human skill is the executive's ability to work effectively as a group member and to build cooperative effort within the team he/she leads. This primarily is concerned with working with "things" (processes or physical objects) (Randstad, 2019). This skill is demonstrated in the way that individual perceives and recognizes the perceptions of his/her superiors, equals, and subordinates, and in the way he behaves subsequently (Robert, 2019). Person with highly developed human skill is aware of his/her own attitudes, assumptions, and beliefs about other individuals and groups; he is able to see the usefulness and limitations of these feelings. By accepting the existence of viewpoints, perceptions, and beliefs which are different from his/her own, he/she is skilled in understanding what others really mean by their words and behavior. However, such a person works to create an atmosphere of approval and security in which subordinates feel free to express themselves without fear of censure or ridicule, by encouraging them to participate in the planning and carrying out of those things which directly affect them. He/she is sufficiently sensitive to the needs and motivations of others in his/her organization so that he/she can judge the possible reactions to, and outcomes of, various courses of action he/she may undertake. Having this sensitivity, he/she is able and willing to act in a way which takes these perceptions by others into account (Mishra, 2014).

According to Robert, (2019), real skill in working with others must become a natural, continuous activity, since it involves sensitivity in decision making. Because everything has an effect on his associates, his true self will some time show. In addition, to be effective, he/she must be naturally developed and demonstrated in his/her action. It must become an integral part of his/her whole being (Randstad, 2019). Access, inclusion and quality are among the main challenges administrators of the tertiary institutions in Sokoto State can address.

Wikipedia (2018) confirmed that despite the power of computers to enhance and reform teaching and learning practices, improper implementation is a widespread issue beyond the reach of increased funding and technological advances with little evidence that administrators are properly integrating ICT into everyday work. While mobile phone and internet use are increasing much more rapidly in Africa (Nigeria and Sokoto State inclusive) than in other developing countries, the progress is still slow compared to the rest of the developed world.

Additionally, there is gender, social, and geo-political barriers to administrative access in the area due to political employers.

Administration department is the backbone of an organization. Educational administrators strive to research, develop, implement and advance policies, programs and reforms within educational institutions. To (Mishra, (2014) and Robert, (2019). Educational administrators might work at the local, national or international level to advance or improve education. As an educational administrator, you could work within educational institutions, government agencies, and private or not-for-profit organizations (Jumare, 2015; Randstad, 2019).

Kashyap (2017) stated that administrators within schools or districts are commonly involved not only in educational administration but also educational planning. Educational administrators has to explore the best possible means of making the greatest use of available resources leading to the maximum realization of the educational aims and objectives, both individual and social, (Manga, 2015; Randstad, 2019). Jumare (2015) educational administration may be defined as a systematic design of action for the realization of educational aims and objectives for individual and social development through maximum utilization of available resources. In practical perspective, educational administration can be defined as a process utilized by an administrator while performing the role of a leader, decision-maker, and change agent, Wikipedia (2018). Simply speaking administration means to think before acting, and to act according to facts, not conjectures or speculations.

The word development is a polysemous in nature. This buttress the fact, that different people in different discipline have different connotation to the word development. Development generically refers to an institutional change which is accompanied by increase in welfare, and fall in cost of living, (Akarowhe, 2017). In other words, it is a reduction in unemployment, inequality and poverty for a given nation. It can also be seen, as the later stage of growth Robert, (2019). It is a term commonly associated with the third world countries/Least Develops Countries (LDC). Development is a term used to appreciate the need for institutional change from the primitive society to a more advance society in the less develop, least develop and even developing countries of the world, (Dias and Posel, 2017).

An effective administrator is an asset to an organization. He/she is the link between an organization's various departments and ensures the smooth flow of information from one part to the other. However, without an effective administration, an organization would not run professionally and smoothly. Mishra, (2014), an effective administrator should have the ability:

- To understand general concepts of Administration
- To enhance the office staff's ability to manage and organize office effectively and professionally
- Develop an appropriate office management strategy
- Develop an appropriate assets management strategy
- Able to develop administrative procedures
- Able to plan and control administrative budget (2014, p.)

Robert, (2019) said that, the duty of an administrator depends on the company that the administrator works for. The main job responsibility of an administrator is to ensure the efficient performance of all departments in an organization. They act as a connecting link between the senior management and the employees. They provide motivation to the work force and make them realize the goals of the organization. However, office administration is one

of the key elements associated with a high level of workplace productivity and efficiency. It is very difficult to run an organization without a good administrator. It is the administrator, who makes the rules and regulations. But without the presence of an administrator an organization can never work in a sound way. All the tasks and all the departments are related to the administration.

According to Mishra, (2014) in Dias and Posel, (2017) Significance of Educational Administration on Sustainable National development:

1. To make every programme of an educational institution or organisation grand success.
2. Educational Administration is essential for the best utilization of available resources.
3. Educational Administrator checks wastage and failure and contributes to the smoothness, ease and efficiency of the administrative process in the field of education.
4. Through proper Administration, education can be the best means by which society will preserve and develop its future value system, way of life of an individual, knowledge, skills and applications, and culture of the country.
5. Through proper Administration, the means and ends of the society can be properly interacted through educational system. It implies that the educational system utilizes a large proportion of the country's educated talents and a major part of public expenditure.
6. It is essential to maintain, sustain and enhance the thinking process of an individual, institution or organisation.
7. Effective Administration bring total development of a nation in time, in which educational development is one among its various aspects.
8. Effective Administration reflect the modern developments like explosion of knowledge, advancement of science and technology, development of research and innovation while reformulating the aims and objectives of education in the light of the particular situation a country is facing.
9. Effective Administration explores and provides the best possible means of making the wide use of available resources leading to maximum realization of the educational goals.

Administrative professionals can be found in a variety of business settings, but are employed for office-related tasks. For the most part, they are required to ensure that all clerical work and customer handling is performed to the highest standards of professionalism. They are also usually the first point of contact between clients and businesses, so must be flawless and effective communicators.

It is important to tailor a Curriculum Vitae and covering letter to meet the specific needs of the position itself, rather than providing a general, well-rounded approach. However, the administration employers typically seek that an administrator is required to have proven written and oral communication skills. Robert, (2019) said because, it is not only that they will be the first point of contact between the business and the general public, but also required to carry out clerical tasks that involve exceptional levels of written communication in their various tertiary institutions. Spelling, grammar, and sentence structure will need to be polished to the highest standards when it comes to administration. Mishra, (2014), said that, administrative staffs also need to show their ability to manage business correspondence. Filing, sorting, and general organisation skills are essential for an administrator in these tertiary institutions. In addition to this, administrative staffs will also need the ability to organise their own

professional priorities on the fly, too. No two days are the same in an administrative setting and will require staff to carry out different tasks at different times.

General office procedures are necessary for administrative staff, but many positions will require administrative personnel to be familiar with bookkeeping example for institutions and departmental libraries. There are several different computer applications that can be used to manage financial transactions, including Quicken, Excel, and Turbo Tax. This sort of knowledge can either be demonstrated through previous experience or through acquired qualifications from leading providers, Randstad, (2019). Robert, (2019) opened that; ICT is essential tool for administrative staff in today's era, so as to have the ability to type. Many positions don't denote a specific speed, but general opinion believes this to be around 50 words per minute (wpm) with 100% accuracy – slightly above the global average of 39 wpm. There is no prescribed method of typing, but those who need to increase their speed may find touch-typing through the “home row” method to be appropriate for their needs, as it is the most widely taught method of typing and is available in different software tutorials.

Administrative staff may be called upon to do some light to moderate lifting, so should not see this as an opportunity to avoid laborious tasks. Fortunately, this is rather limited to tasks such as bringing reams of paper to a copy machine or printer. Having excellent customer service and an orientation towards such traits is necessary for success as an administrative worker. As candidates will be customer facing many times, they will need to carry themselves with both professionalism and have a pleasant demeanour. Administrative workers will need to have special talents in research and data analysis in order to compile reports and harvest research material for other workers within their institutions or department. According to Robert, (2019) this needs to be accompanied by exceptional levels of attention to detail, so as to be acquiring the right types of materials for their co-workers.

OBJECTIVES

The main objective of this study is to investigate how effective administration of Tertiary Institutions can be achieved through the adoption of information and communication technology for sustainable national development.

Specifically, to find out:

1. Availability of ICT gadget in Tertiary Institutions in Sokoto State.
2. Influence of ICT on effective Administration of Tertiary Institutions in Sokoto state
3. Influence of ICT application on Effective Administration of Tertiary Institutions for National development in Sokoto state.

RESEARCH QUESTIONS

To guide the study the following research questions were raised;

- Is there available ICT gadget in Tertiary Institutions in Sokoto State?
- What is influence of ICT on Effective Administration in Tertiary Institutions for National Development in Sokoto state?
- What in the Influence of ICT application on Effective Administration of Tertiary Institutions for National development in Sokoto state?

HYPOTHESIS

To guide the study the following hypotheses were posed;

- There is no significant influence of ICT on Effective Administration in Tertiary Institutions for National Development in Sokoto state.

- There is no significant influence of ICT application on Effective Administration in Tertiary Institutions for National Development in Sokoto state.

METHODOLOGY

The study covers all the tertiary institution in Sokoto State. Sokoto State has three geopolitical zones in which all the tertiary institutions were located within the Central political zone and made it compulsory for the researcher to use only the central zone while conducting the study. The respondent of the study were specifically delimited to the head of organizations and Deans/Director. The study employed a descriptive correlation research design. 140 participants were selected as the samples for the study by using random sampling. A researchers designed questionnaire titled: ICT and Effective Administration in Tertiary Institutions for National Development (ICTTEAND) were used in collecting data for this study. The validity was obtained after a series of corrections by expert in research and statistics of the department of education, Usmanu Danfodiyo University Sokoto, and adjudged the instrument to have content validity and reliability was obtained using test re-test method that yielded 0.80 indexes. Pearson product moment correlation coefficient was used in analysing the data collected in this study.

Null Hypothesis

HO₁: There is no significant influence of ICT on effective administration in Tertiary Institutions in Sokoto state.

Table 1: Influence of ICT on Effective Administration in Tertiary Institutions in Sokoto state

Variables	N	Mean	Std. Deviation	chi-Cal	p-Value	Decision
ICT Influence	140	33.04	11.32	.238	.000	H ₀ Rejected
Effective administration	140	85.12	9.71			

From the table above, showing the result of the influence of ICT on effective administration in Tertiary Institutions in Sokoto state, chi-square = .238, p = .000. This indicates a significant influence of ICT on effective administration in Tertiary Institutions in Sokoto state, because the p-value is less than the chi-Cal at .05 level of significance at df 118 since “N” is 140. Therefore, the Null hypothesis which states that there is no significant influence of ICT on effective administration in Tertiary Institutions in Sokoto state was rejected.

HO₂: There is no significant influence of ICT application on effective administration in Tertiary Institutions for National development in Sokoto State.

Table 2: Influence of ICT Application on Effective Administration in Tertiary Institutions for National Development

Variables	N	Mean	Std. Deviation	chi-Cal	p-Value	Decision
ICT App	140	53.04	9.32	.438	.000	H ₀ Rejected
National. Devt.	140	95.12	12.71			

From the result of table above showing influence of ICT application in effective administration on National Development in Sokoto State, chi-square = .438, $p = .000$. This indicates a significant influence of ICT application effective administration in Tertiary Institutions on national development in Sokoto State, because the p-value is less than the chi-Cal at .05 level of significance. Therefore, H02 There is no significant influence of ICT application in educational administration for national development in Sokoto State was rejected.

DISCUSSION

The study investigated the influence of information and communications technology on effective administration in Tertiary Institutions for national development of the tertiary education sector in Sokoto State, Nigeria. Findings revealed that forty two (52) respondents amounting to thirty five point eight (45.8%) agreed with the statements and seventy seven (88) respondents amounting to sixty four point two (64.2%) percent disagreed with the statements based on the availability of ICT gadget in administration in tertiary institutions in Sokoto State, this also confirmed that there is no available of ICT gadget for effective administration in tertiary institutions in Sokoto State.

This finding agrees with other existing findings, for example; Akarowhe (2017) opined that, Information and Communication Technology can contribute to universal access to education, equity in education, the delivery of quality learning and teaching, teachers' professional development and more efficient education management, governance and administration. Inclusion and quality are among the main challenges they can address.

On the hypothesis one which state that; there is no significant influence of ICT on effective administration in tertiary institutions for national development in Sokoto state, From the analysis on the influence of ICT on effective educational administration in Sokoto state, chi-square = .238, $p = .000$. This indicates a significant influence of ICT on effective administration in tertiary institutions in Sokoto state for national development, because the p-value is less than the chi-Cal at .05 level of significance. Therefore, H01 which states that there is no significant influence of ICT on effective administration in tertiary institutions in Sokoto state was rejected. This finding agrees with other existing findings, for example; Kingsleys (2017) is of the view that administration means to selects among alternatives explores routes before travel begins and identifies possible or probable outcomes or action before the executive and his organisation committed to any."While Wikipedia (2018) define ICT as the term that covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form, e.g. personal computers, digital television, email, robots.

On the hypothesis two which state that; from the analysis on the influence of ICT application in effective administration in tertiary institutions on Sustainable development in Sokoto state, chi-square = .438, $p = .000$. This indicates a significant influence of ICT application in effective administration in tertiary institutions on Sustainable development in Sokoto state, because the p-value is less than the chi-Cal at .05 level of significance. Therefore, H02 There is no significant influence of ICT application in effective administration in Tertiary Institutions on Sustainable development in Sokoto state was rejected. This finding agrees with other existing findings, for example; Kashyap (2017) stated that administrators within organizations or districts are commonly involved in planning. The complexities of the present scientifically developed and technologically advanced society have given special position to the need for tertiary

administration. Tertiary institutions administrators has to explore the best possible means of making the greatest use of available resources leading to the maximum realization of the educational aims and objectives, both individual and social.

CONCLUSION

Conclusion drawn from this study indicated that, Informational communication technology (ICT) is a tool of global educational development. The use of information communication technology in the third world countries has witness a number of pitfalls, despite relevant educational stakeholders' effort to savage the situation. Some of the possible solution insight as exaggerated by the researcher will serve as benchmark for ICT to be fully optimized in the educational system of these third world countries, for it to yield its lantern benefit, which is a pivotal for manpower and national development. This also confirmed that there is no available of ICT gadget in effective administration in tertiary institutions in Sokoto State, there is also significant influence of ICT on effective administration in tertiary institutions in Sokoto state and finally concluded that, there is significant influence of ICT application in effective administration in tertiary institutions on national development in Sokoto state. The purpose of this article has been to show that effective administration in tertiary institutions in Sokoto State depends on three basic personal skills, which have been called technical, human, and conceptual. The administrator needs sufficient technical skill to accomplish the mechanics of the particular job for which he is responsible, sufficient human skill in working with others to be an effective group member and to be able to build cooperative effort within the team he leads, sufficient conceptual skill to recognize the interrelationships of the various factors involved in his situation, which will lead him to take that action which is likely to achieve the maximum good for the total organizations.

RECOMMENDATION

Based on the findings of this study the following recommendations were made,

1. There is need for the provision of basic and applied ICT equipment and gadget to departments and units in Tertiary Institutions in Sokoto state.
2. Training and retraining of educational administrators need to be improved and strengthen especially on the area of ICT usage and application in the administration of tertiary education in Sokoto state.
3. For sustainable development in education, Government as well as non-governmental agencies should come up with modalities in training and funding educational units, sections and departmental staffs with ICT gadgets and equipment.
4. Educational administrators of tertiary institutions in the Sokoto state should be partnered with ICT units for the training on the modern techniques of planning using ICT gadget and equipment.

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