

**The Extent of Availability of Information and Communication Technology (ICT) Facilities  
and Administrative Effectiveness of Principals in Public Secondary Schools in Ikot Ekpene  
Education Zone, Akwa Ibom State**

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By

**AKANG, Ofonime Boniface**  
**Department of Educational Management**  
**Michael Okpara University of Agriculture Umudike**

&

**Prof. M. MODEBELU**  
**Department of Educational Management**  
**College of Education**  
**Michael Okpara University of Agriculture Umudike**

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**ABSTRACT**

*The study aimed at assessing the extent of availability of Information and Communication Technology facilities and administrative effectiveness of Principals in public secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State. One objective and research question was formulated to guide the study. Correlation research design was used for the study. The study was carried out in Ikot Ekpene Education Zone in Akwa Ibom State, which comprised of: Oruk Anam, Ikot Ekpene, Obot Akara, Ukanafun, Ikono, Etim Ekpo, Essien Udim, Ini and Abak Local government areas. The population for the study comprised all the 86 principals and 2008 teachers. Multi-stage sampling technique and systematic random sampling techniques were used to select a sample of 69 principals and 602 teachers which represented 80 percent of the principals and 30 percent of the teachers respectively. Two instruments: ICT Availability and Utilization Questionnaire (ICTAUQ) for principals and Principals Administrative Effectiveness Questionnaire (PAEQ) for teachers were developed and used by researcher for data collection. Mean and Standard Deviation were used to answer the research question. Based on the findings of the study, the researcher found out that ICT facilities such as desktop computer, laptops, printers, internet resources, video recorders, multi-media projectors, e-mail facilities, social networks (whatsapp, facebook, youtube etc.) electronic calculators, qualified ICT personnel and school website were available in public secondary schools in Ikot Ekpene Education Zone of Akwa Ibom State. Based on the findings discussed and conclusions reached, the following recommendations were made: There should be adequate provision of ICT equipment in schools. The government should provide adequate funds for schools to be better equipped of the ICT facilities that are not available such as camcorders, E-library, E-books and software packages.*

**Key Words: Availability of ICT, Administration, Administrative effectiveness**

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**Introduction**

In the current information age, Information and Communication Technology (ICT) has become an essential part of everyday life. This is due to the fact that using ICT in education has become one of the most effective factors in school improvement and for administrative purpose

(Tosun & Baris, 2011). Accordingly, its integration in education is inevitable and cannot be avoided. United Nation Development Programme (UNESCO, 2008) defines ICT as “Information handling tools – a very set of goods, applications and services that are used to produce, store, process, distribute and exchange information”. They include old ICTs of radio, television and telephone, and new ICTs of computers, satellite and wireless technology and internet. These different tools are now able to work together or combine to form a network. Information and communication technology (ICT) has far reaching effects in school administration. This is so because ICT helps the school administrators to provide fast, easy, accurate, timely and more convenient information and communication services to staff, students, parents, and community at large.

Considering the importance of ICT, the educational institutions are expected to play a crucial role as the engine for knowledge generation and learning environment. In this regard, information and communication technology (ICT) becomes the vital means of facilitating teaching and administrative tasks in schools. The Nigerian Educational Research and Development Council - NERDC (2012) pointed out that the quality in ICT education can be achieved where there is a proper utilization of ICT resources available. The term availability defines the degree to which resources are readily on hand for use on demand to perform a specified designated duty or required administrative function. At present, it would be difficult to say with certainty the extent of availability of ICT facilities in secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State. In this context, availability of ICT implies access to already existing ICT resources for use by intended users. The term extends to include quantity of the ICT resources obtainable and gotten for use. The ICT resources commonly in use include: computer, social media (Platform), internet, E-book, software packages, phone, iPad, E-mail, printer, electronic calculator and school website. It is assumed that ICT facilities must be available before being utilized.

### **Statement of Problem**

The unavailability of some ICT components such as hardware, software, data, information, procedure and people who use them in schools hampers principals’ use of ICTs. Lack of adequate search skills and access points in the schools were also reported as factors inhibiting the use of the internet by secondary school principals. The absence of ICT equipments such as desktop computers, laptop, servers, monitors, printers, audio, and visual in most Nigerian secondary schools leads some principals to resort to cyber cafes for internet access.

However, it has not been established whether ICT facilities are available in secondary schools in Ikot Ekpene Education Zone. It is also not established whether the principals have been utilizing the available ICT facilities to enhance administrative effectiveness in public secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State. This study is therefore designed to find out the relationship between information and communication technology (ICT), availability and utilization as correlates of principals’ administrative effectiveness in public secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State.

## **Objectives of the Study**

The purpose of this study is to assess the extent of availability of information and communication technology (ICT) facilities and administrative effectiveness of principals in public secondary schools in ikot ekpene education zone, akwa ibom state

## **Research Question**

What are the ICT facilities available in public secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State?

## **Significance of the Study**

The findings of the study will provide information on the ICT facilities available in public secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State. The findings of the study will be beneficial to the State Ministry of Education in the sense that the ministry will be informed of the ICT facilities available in public secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State. The information would likely be used by the Ministry of Education to plan for the provision of ICT facilities in public secondary schools, or encourage effective use of the already existing ones. The Ministry could also use the information to develop policy to address the issue of availability or non- availability of ICT facilities in schools.

## **Literature Review**

### **Concept of Principals' Administrative Effectiveness**

Administration is the process of getting things done with and through people in order to achieve a definite purpose. It is a social process concerned with identifying, motivating, controlling and unifying formally and informally organized human and material resources within an integrated system designed specifically to accomplish pre-determined goals (Okorji and Unachukwu, 2014). According to Ezeugbor (2014) Administration is effective coordination of resources and peoples efforts for the achievement of organizational goals. Administration in every organization therefore stands as the process of mobilizing all factor resources for the achievement of goals and objectives. Administration is a key determinant for the realization of desired out comes and success in both public and private schools hence is seen as critical by all Stakeholders. Nkang (2012), opined that the principal is clothe with formal authority to influence actions, behaviours, believes and feelings of subordinates to evoke willingness to cooperate with him. Gray and Smith (2007) we're of the opinion that the twenty-first (21<sup>st</sup>) century principals are facing numerous challenges emanating from technology, and ICT are increasingly used and viewed as important in all spheres of operation including educational administration. Therefore, effective and dynamic school administration could be achieved through effective utilization of ICT by principals. This implies that the administrative effectiveness of the principal depends largely on the extent of use of ICT.

Principal's administrative effectiveness, in this context, refers to the quality of roles performed by the principals in a day-to-day running of the schools. With the use of ICT resources (smartphones, SMS, e-mail, computer, internet and social media platform), the principal can discharge his or her administrative roles effectively in the areas of e-attendance registration, regular communication with teachers, parents and students, store and retrieve

administrative records, dissemination of academic programme of activities, and solving school general problems. Iwiyi (2007) maintained that ICT resources such as computer and internet would help to diminish the work load of the administrator and his/her staff especially in keeping academic and administrative records of students, analyzing staff and students' attendance records, and publishing students' academic results. The effectiveness of the principal is measured through the way she handles these tasks. Ogbodo (2005) added that even the effectiveness of the teacher is measured by the effectiveness of the principal, adjudging from the ability or the extent to which the principal perform his expected roles. It is presumed that if principals of schools could make effective use of ICT in administrative process, regular communication with teachers and students on vital issues about the school, and access to administrative records would be easy. Evidence shows that principals' response positively in job satisfaction with using ICT such as hardware and software's to support their administration and management responsibilities (Selwood, 2004). The process of the utilization of ICT becomes imperative. In this study, Information and communication Technology (ICT) refers to tools, software and electronic facilities including computers and the internet that provide access to Information.

### **Availability of ICT Facilities and Principals' Administrative Effectiveness**

For administrative effectiveness to be attained in the management of secondary schools in this ICT era, the availability of basic ICT tools must be considered. ICT equipment revolves around the use of fax, multi-media, computers and satellite communication (Okon, 2008). Others include internet, artificial intelligence and electricity supply as well as telecommunication services. Supporting this idea, Akindolu (2001) observes that the greatest potential of ICT is that of economic and human development and without prejudice, its benefits are overwhelming. On account of unquantifiable benefits of ICT usage for administrative purposes, when adequate facilities are provided; these facilities provide access to information. The ICT resources also shape the way which administrators collaborate with each other. Although ICT use in secondary school administration appears to be a new concept and a complex change, Goshit (2006) advised that there is an urgent need to unpack the complexity of change to provide guidance for those who must deal with it. Also, Experts remarked that this is the "golden age" of school leadership change. Principals should re-examine their attitudes, perceptions, plans, and utilization of ICT in their daily administrative operations however challenging it might be. This is central to the success with which favoured solutions actually work in school. If the new technology is being embraced by student and teachers, including computers as educational tools; it is imperative that school administrators, as key educators, also embrace it for effective administration.

In a study conducted by Onuma (2007) on the Utilization of Information and Communication Technology in Schools: Problems and Suggestions, Onuma lamented that although the Nigerian Government made efforts towards the provision of basic tools for teaching/learning (which is a part of a school administration) and application of ICT to schools, this effort was limited only to very few institutions. It was suggested, among other things, that the present curricular at various levels of education should be reviewed to reflect ICT application, communication and utilization skills. Schools should be provided with appropriate and adequate resources and educational facilities such as ICT to promote effective and efficient training. He went further to suggest that ICT installation and maintenance is cost intensive, therefore, government should vote special funds and invest honestly for successful utilization by all stakeholders in education. The researcher agreed with this position because administration of

secondary schools revolved around processing, storing, transmitting or communicating the right type of information from one end of the school to the other. Without the provision of this facilities/infrastructure, Nigerian secondary schools will not likely meet quantitative educational objectives.

Anietie and Ekpo (2003) in their own study on skill of efficient administrator point out that the main sources of administrators' dissatisfaction were inadequate school buildings and equipment. They suggested that basic facilities should be provided in institutions to make administration conducive. Recognizing the inadequate facilities in our institution of learning, Afahaene (2005) went ahead to suggest in his study on Organizational Management, that the provision of proper incentives such as good working conditions for teachers, teaching aids and materials which are applicable to ICT infrastructures will help to raise the falling standard of education. Edem (2006) points out that it is the duty of Ministry of Education to make equipment, though not specifically ICT equipment and materials available to schools. Their inadequacies constitute another source of frustration and disillusionment among administrators. In addition to the above postulation, Ajayu in Owolabi (2004) observes that a school without facilities place administrators in a difficult and frustrating position because it is just like asking them to make bricks without straw.

It has been observed that Information and communication technology (ICT) resources in Nigeria secondary schools have been grossly inadequate. Studies carried out on secondary school science teachers by Aladejama (2008) revealed that the schools lacked laptop, ICD projector, video recorder, talking book and floor robot. She said, 4.0% of sampled schools has an overhead projector, 4.0% has fixed line of internet access and that 5.6% of teachers had personal computers used for business and commercial purposes. She however submitted that classrooms are still very much traditional without much influence of ICT. Schools had been benefiting from series of ICT aids and initiatives. Universal Service Provision Fund (USPF) had really assisted in making provision for ICT resources in secondary schools. A total of 109 primary and secondary schools were selected as beneficiaries. The project was to equip the benefiting schools with (ICT) tools (Ndukwe, 2008).

The Federal Republic of Nigeria (FRN, 2004) places emphasis on the provision and utilization of information and communication technology (ICT) when it states that because of the prominent role of information and communication technology in advancement of knowledge and skills necessary for effective functioning in the modern world, there is an urgent need to integrate information and communication technology (ICT) into education in Nigeria. However, the utilization of ICT in secondary school is still at the initial stage. The school system still faces a lot of challenges as far as availability of infrastructure is concerned. Information and Communication Technology (ICT) plays an important role in enhancing the quality of education. Administration and management applications of ICT are currently popular in schools due to its capabilities in facilitating administration activities from data storage to knowledge management. ICT creates communication platform for education managers who may utilize the vast applications of computer mail merge tool, electronic mails (e-mails) and telecom modes such as GSM to communicate across ministries, extra-ministerial departments, boards, agencies or institutions. ICT has come to provide solutions to education, work place burden, stress and time wastage (Uko, 2013).

## **Methods**

### **Research Design**

Correlation research design was used for the study.

### **Area of the Study**

The study was carried out in Ikot Ekpene Education Zone, Akwa Ibom State. It is made up of Nine Local Government Areas namely: Oruk Anam, Ikot Ekpene, Obot Akara, Ukanafun, Ikono, Etim Ekpo, Essien Udim, Ini and Abak.

### **Population of the Study**

The population comprised all the 86 principals and 2008 teachers in public secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State, Nigeria (State Secondary Education Board, 2016).

### **Sample and Sampling Technique**

A sample of 69 principals and 602 teachers serving in public secondary schools in Ikot Ekpene Education Zone, Akwa Ibom State participated in the study. Multi-stage sampling technique was used to select sample. The sample represents 80 percent of the principal population in public secondary schools in Ikot Ekpene Education Zone. Thereafter, 30 percent of teachers in the selected 69 public secondary schools were proportionately selected using systematic random sampling technique.

### **Instrumentation**

Two instruments were developed and used by researcher for data collection in this study. They are ICT Availability and Utilization Questionnaire (ICTAUQ) for principals and Principals Administrative Effectiveness Questionnaire (PAEQ) for teachers.

### **Validation of the Instrument**

The instrument (ICTAUQ and PAEQ) used for the research was made to pass through face and content validation using experts in test, measurement and evaluation.

### **Reliability of the Instrument**

The reliabilities of the instruments were established using Cronbach Alpha reliability method. Cronbach Alpha Reliability method is a statistical measure of internal consistency of an instrument. To do this, the researcher conducted a pilot study using 20 principals and 20 teachers in secondary schools which were not used for the study. The analysis produced 0.78 coefficient value.

### **Procedure for Data Collection**

The researcher with three briefed research assistants administered copies of the questionnaires (ICTAUQ and PAEQ) to all the sampled secondary school principals and teachers respectively in the study area.

## Method of Data Analysis

Mean and Standard Deviation were used to answer the research question.

## Results and Findings

**Research question:** What are the ICT facilities available in public secondary schools in Ikot Ekpene Education Zone of Akwa Ibom state?

**Table 1: Mean Responses on the Available ICT Facilities in Public Secondary Schools in Ikot Ekpene Education Zone of Akwa Ibom State**

S/N	ICT Resources available in schools	$\bar{x}$	SD	Remark
1	Desktop Computer	1.75	0.44	Available
2	Laptop	2.05	0.33	Available
3	iPad	1.16	0.36	Not Available
4	Printers	2.32	0.32	Available
5	Internet Resources	1.65	0.43	Available
6	Cable Satellite T.V	1.47	0.50	Not Available
7	Interactive Board	1.23	0.96	Not Available
8	Video-Recorder	1.62	0.49	Available
9	Camcorders	1.28	0.25	Not Available
10	Multimedia Projector	1.77	0.40	Available
11	E-mail facilities	1.56	0.49	Available
12	Social network (Whatsapp, Facebook, Youtube etc)	1.68	0.79	Available
13	Electronic calculators	1.60	0.29	Available
14	Software packages	1.38	0.59	Not Available
15	E-books	1.31	0.36	Not Available
16	Well-furnished ICT centre	1.44	0.50	Not Available
17	Qualified ICT personnel	1.69	0.36	Available
18	School Website	1.78	0.49	Available

The results in table 1 shows that the items 1,2,4,5,8,10,11,12,13,17and 18 have mean responses above the mean bench mark of 1.50 while other items (3,6,7,9,14,15 and 16) have the mean bench mark below the mean bench mark of 1.50. The result however implies that respondents agreed that available ICT resources include Desktop computers, laptop, Printers, Internet resources, Multimedia projectors, E- mail facilities, Social networks, Electronic calculators, qualified ICT personnel as well as School website. The table equally shows that the unavailable ICT facilities include iPad, Cable satellite TV, Interactive Board, Video-recorder, Camcorders, Software packages and E-Books.

## Discussion of Findings

### ICT Facilities Available in Public Secondary School

Findings revealed that the ICT facilities available in public secondary schools in Ikot Ekpene Educational Zone of Akwa Ibom State include desktop computer, laptops, printers, internet resources, video recorder, multimedia projector, e-mail facilities, social network

(Whatsapp, Facebook, Youtube, Twitter etc.), electronic calculator, qualified ICT personnel and school website. These ICT resources are available in public secondary schools in Ikot Ekpene Education Zone, though not in adequate quantity courtesy of the Akwa Ibom State government and the Parents Teachers Association. In this regard, Ede (2001) stated that no matter how many resources are available to education, they should be used best for educational development. The present findings, contradicted that of Onuma (2007) who found that the Nigerian Government made efforts towards the provision of basic ICT tools to schools, but the effort was limited only to very few institutions.

### **Conclusion**

Based on the findings of this study, it was concluded that the ICT facilities available in public secondary schools in Ikot Ekpene Education Zone of Akwa Ibom State were desktop computer, laptops, printers, internet resources, video recorders, multi-media projectors, e-mail facilities, social networks (whatsapp, facebook, youtube etc.) electronic calculators, qualified ICT personnel and school website.

### **Recommendations**

Based on the findings discussed and conclusions reached in this study, the following recommendations were made:

Adequate Provision of ICT Facilities: There should be adequate provision of ICT equipment in schools. The government should provide adequate funds for schools to be better equipped of the ICT facilities that are not available such as camcorders, E-library and E-books and software packages.

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