



# Influence of Availability of ICT on the Managerial Capacity of Principals of Senior Secondary Schools in Adamawa State, Nigeria

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**Abstract:** *The study was aimed at determining the Influence of availability of information and communication technology (ICT) on the managerial capacity of principals of Senior Secondary Schools in Adamawa State, Nigeria. One research question and one hypothesis guided the study. The study employed correlational and descriptive survey research designs using a checklist to collect its data. The population of the study was 1,625 comprises of principals, vice principal admin, vice principal academics, exam officers, and bursars of senior secondary schools while the sampled of the study was six hundred and fifty (650) drawn using purposive sampling technique to participate in this study. A checklist tagged “Checklist of Availability of ICT Facilities for Managerial Capacity in Senior Secondary Schools” was used for the collection of data. The data collected were analyzed using mean and standard deviation to answer the research question, multiple regression for testing hypothesis and percentages for the checklist. Based on the finding of this study, it was concluded that, the hypothesis tested was rejected because it was found to have significant mean influence on principals’ managerial capacity and therefore concluded that availability of ICT facilities have significant interactional mean influence relationship on principals’ managerial capacity in senior secondary schools. A recommendation was made; the government should increase funding for the entire educational sector with emphasis on ICT this will help improve the level availability of ICT facilities in the schools.*

**Keywords:** *Availability, Information and Communication Technology (ICT) and Managerial Capacity of Principals.*

## INTRODUCTION

Most administration and management tasks can be facilitated using ICT. Similarly, every organization requires a complete, comprehensive up-to-date information, which is created in the organization and passing it through (Mingaine, 2013). School as an educational organization, principal is the leader and the manager of a school, and the importance of strong leadership in effectively implementing ICT in education is evident from many of the country reports (Moseley and Higgins, 2011). Today’s rapid technological changing milieu requires the principal as a technology leader to become involved in discovering, evaluating, installing, and operating new technologies of all kinds (Moseley and Higgins, 2011).

In contemporary settings, only few sectors can thrive without the application of information communication and their associated technologies (ICTs) into their operations (Karsenti, 2014). Indeed, Obashoro (2011) asserts that ICT has become a potent force in transforming social, economic and political life globally. According to Kaku (2015), the emergence of this new global force has had serious implications as far as the nature and purpose of educational institutions are concerned. The incorporation of Information

Communication Technology (ICT) in school management has been promoted as a key step in bridging the digital divide (Howe, 2010). Information Communication Technology shows the way of distributing information in the school and is being used in management of school affairs to change education outcomes (Anao, 2013).

To keep track with events in the 21st century, it is essential that secondary school principals integrate ICT to bring about effective school management practices (Anao, 2013). The advances of the information age are helping to ensure that ICTs in education become an integrated part of the educational system. For example in Britain, Principals are faced with increasing pressure to applied ICT effectively in school management practices (British Educational Communications and Technology Agency, 2009). It is recommended that secondary school principals may use ICT to change and enhance some of their existing management practices by preparing for administrative and managerial subsystems of a computer assisted information system (Angie and Rita, 2013). Administrative subsystems include student, personnel, financial, timetable, test, resource and the general school administration. On the other hand management subsystems are capacity planning, educational planning, financial planning and school year application (Maki, 2008).

In most Nigeria schools, officials still go through the laborious exercise of manually registering students, maintaining records of pupil, performance, keeping inventory list of supplies, doing cost accounting, paying bills, printing reports and drawing architectural designs. The huge man-hour spend on these exercises can be drastically reduced with ICT to enhance overall management procedure. Thomas (2016) said that “Computers bring great speed and accuracy to each of these tasks, along with the convenience of storing large quantities of information on ‘small disks or tapes. Thus, this study sought to determine the influence of availability of information and communication technology (ICT) on the managerial capacity of principals of senior secondary schools in Adamawa state, Nigeria.

### **Statement of the Problem**

Availability and application of ICT in any field has the potentials of improving it standard from a lower level to a high level. In this case, application of ICT in the management of senior secondary schools is expected to improve the standards of the school from one level to the other. There are a number of schools that have embraced the use of ICT in administration, but still they never improve in their standards (academically and financially). These schools have been faced by various challenges such as mismanagement of financial resources, low academic performance of students of which have resulted due to poor school management strategies (Karsenti, 2014). The question that beckons for an answer is: has ICT been effectively used in the management of secondary schools? Based on this question, this study will determine the Influence of availability of information and communication technology (ICT) on the managerial capacity of principals of senior secondary schools in some selected Secondary Schools in Adamawa State.

### **Purpose of the Study**

The purpose of the study is to investigate the Influence of Availability of Information and Communication Technology (ICT) on the Managerial capacity of principals of Senior Secondary Schools in Adamawa state, Nigeria.

The specific objective of the study is to determine the influence of:

1. Availability of ICT facilities in Senior Secondary Schools in Adamawa State, Nigeria.

### **Research Question**

The research question was raised to guide the study;

1. What is the level of availability of ICT facilities in Senior Secondary Schools in Adamawa State, Nigeria?

### Hypothesis

The research hypothesis was formulated and tested at 0.05 level of significance:

1. The level of availability of ICT facilities has no significant mean influence on principal’s managerial capacity in Senior Secondary Schools in Adamawa state, Nigeria.

### Methodology

The study employed correlational and descriptive survey research designs using a checklist to collect its data. The population of the study was 1,625 comprises of principals, vice principal admin, vice principal academics, exam officers, and bursars of senior secondary schools while the sampled of the study was six hundred and fifty (650) drawn using purposive sampling technique to participate in this study. A checklist tagged “Checklist of Availability of ICT Facilities for Managerial Capacity in Senior Secondary Schools” was used for the collection of data. The data collected were analyzed using mean and standard deviation to answer the research question, multiple regression for testing hypothesis and percentages for the checklist.

### Findings

**Research question 1:** What is the level of availability of ICT facilities in Senior Secondary Schools in Adamawa State, Nigeria?

**Table 1:** Percentage of the level of availability of ICT facilities in Senior Secondary School in Adamawa State, Nigeria.

| S/N | Items                           | Available | Percentage (%) | Not Available | Percentage (%) | Remark |
|-----|---------------------------------|-----------|----------------|---------------|----------------|--------|
| 1   | Computer                        | 225       | 35             | 417           | 65             | NA     |
| 2   | Cyber cafe (Internet)           | 175       | 27             | 467           | 73             | NA     |
| 3   | Printer                         | 292       | 46             | 350           | 54             | NA     |
| 4   | Scanner                         | 160       | 25             | 482           | 75             | NA     |
| 5   | Photocopier                     | 70        | 11             | 572           | 89             | NA     |
| 6   | Projector                       | 0         | 0              | 642           | 100            | NA     |
|     | <b>Overall total percentage</b> |           | <b>24</b>      |               | <b>76</b>      |        |

Key: NA=Not Available

Table 1 shows the available ICT facilities in the sampled schools as observed through the checklist instrument. Analysis of the checklist reveal in the table above the percentage of items **available** as follows: computers 35%, cyber café 27% printer 46%, scanner 25%, photocopier 11%, projector 0%. Items with **not available** are computers 65%, cyber café 73% printer 54%, scanner 75%, photocopier 89%, and projector 100%.

In general ICT facilities in senior secondary schools are few with an overall mean percentage of 24%. i.e. this mean only few schools have ICT facilities. In conclusion most of the ICT facilities required for management purpose in most of the sampled schools are not available with an overall percentage mean of 76%.

### Hypothesis

**H<sub>01</sub>:** Availability of ICT facilities has no significant mean influence on principals’ managerial capacity in Senior Secondary Schools in Adamawa State, Nigeria.

**Table 2:** Summary of ANOVA of Availability of ICT Facilities and Principals’ Managerial Capacity.

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.               |
|-------|------------|----------------|-----|-------------|--------|--------------------|
| 1     | Regression | 21.816         | 1   | 21.816      | 16.140 | 0.000 <sup>a</sup> |
|       | Residual   | 865.037        | 640 | 1.352       |        |                    |
|       | Total      | 886.853        | 641 |             |        |                    |

a. Predictors: (Constant), Availability of ICT Facilities

b. Dependent Variable: Principal's Managerial Capacity

Table 2 shows linear regression analysis was conducted to test whether availability of ICT facilities has significant mean influence on principal managerial capacity. The results show that the availability of ICT facilities has significant mean influence on principals’ managerial capacity,  $F_{1, 640} = 16.140$ ,  $p = 0.000$ . Therefore, the null hypothesis was rejected since the  $p$  – value (0.000) is less than 0.05 level of significant.

**Table 3:** Model Summary of the Influence of Availability of ICT Facilities on Principals’ Managerial Capacity

| Model | R                  | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1     | 0.157 <sup>a</sup> | 0.25     | 0.23              | 1.16259                    |

a. Predictors: (Constant), Principals’ Planning Efficiency

The result in table 3 shows a model summary which shows how the independent variable influences the variance in the dependent variable. The result shows that the predictor (availability of ICT facilities) influenced 25% of the variance in principals’ managerial capacity.

### Conclusion

Based on the finding of this study, it was concluded that, the hypothesis tested was rejected because they was found to have significant mean influence on principals’ managerial capacity and therefore concluded that availability of ICT facilities have significant interactional mean influence relationship on principals’ managerial capacity in senior secondary schools.

### Recommendation

Based on the finding of this study, a recommendation was made;

The government should increase funding for the entire educational sector with emphasis on ICT this will help improve the level availability of ICT facilities in the schools.

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