

# Utilization of Information and Communication Technology (ICT) Resources and Job Effectiveness among Library Staff in the University of Calabar and Cross River University of Technology, Nigeria

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## Abstract

This study investigated utilization of Information and Communication Technology (ICT) resources and job effectiveness among library staff in the University of Calabar and Cross River University of Technology, Nigeria. To achieve the purpose of this study, four hypotheses were formulated to guide the study. Ex-post facto research design was adopted for the study. A sample of two hundred and twenty five (225) respondents was randomly selected for the study. The selection was done through the stratified random sampling technique. The questionnaire was the main instruments used for data collection. The reliability estimate of the instruments was established through the test-retest reliability method. Pearson product moment correlation analysis was employed to test the hypotheses under study. Each hypothesis was tested at .05 level of significance. The results of the analysis revealed that, staff use of internet, use of e-mail, use of PowerPoint and use of computer significantly related with library staff job effectiveness. Based on the findings, it was recommended that library managers should organized workshop to educate library staff on the use of ICT

**Keywords:** Utilization, ICT Resource, Job Effectiveness, Library Staff, Nigeria Universities

## 1.1 INTRODUCTION

Library is public institution or an establishment charged with the care of collection of information resources and the staff has a duty of making them accessible to those who require them. Libraries provide resources for knowledge acquisition, recreation, personal interests and inter-personal relationships for all categories of users. In an academic library, attention is focused not only on students and researchers but also on the library staff who continue to strive to collect, store, organize and disseminate all forms of recorded knowledge in order to satisfy both present and future information needs of users. Library staff needs various kinds of information for their work for the purposes of impacting knowledge to the students and self-development. To achieve this, the right information must be utilized at the right time in its appropriate format. In each library there are facilities that can contribute in no small measure to work effectiveness of a librarian. Job effectiveness of a librarian could be seen through staff knowledge of subject matter, skill proficiency and resourcefulness. For a librarian to be effective the staff must have utilize necessary information materials and resources. They have to interact with tangible and intangible resources and institutions to ensure some levels of performance. Roberson (2005) defines a library as an institution that manages the intellectual products that individual can gain access to readily. Iyanda and Salawu (2006) on the other hand sees library as an instructional and self-development centre, which operate as an integral part of the entire school environment.

Popoola and Haliso (2009) define library information resources as those information bearing materials. That are in both printed and electronic formats. Such as textbooks, journals, indexes, abstracts, newspapers and magazines, reports, CD-ROM databases, internet/E-mail, video tapes/cassettes, diskettes magnetic disk, computers, micro forms These are the resources in the library make services possible. The electronic resources may require special equipment to operate needing expertise in ICT. Thus the functional inadequacies exhibited by library staff in the area of ICT use could limit their job effectiveness. Also, the inability of some library staff to persist when faced with ICT challenges may be attributed to low pattern of self-efficacy. This also suggests that such library staff is most likely to be less effective at their work and such could also limit their work productivity. Library staff knowledge of subject matter, skill proficiency and resourcefulness could be linked to job effectiveness. In other words, one of the requirements for job effectiveness could be improved knowledge of subject matter acquired through use of ICT resources and services. Variables and indicators of utilization of ICT could be used to assess the job effectiveness with which library staff perform their job functions, much in the same way as the quality of their research functions is usually assessed by the quality of research activities and publications?

## 1.2 STATEMENT OF THE PROBLEM

Information and Communications Technology (ICT) is becoming increasingly widespread, influencing many aspects of our social and work lives. ICT dexterities constitute a major part of educational programs In Nigeria , nearly all universities are equipped with the infrastructure to conduct ICT mediated teaching and learning. The main goals of the Federal Ministry of Education in implementing ICT in the education system is to position ICT as a teaching and learning tool, to increase the productivity, efficiency and effectiveness of the school system. To achieve these goals, it is important to ensure library staff and educators are able to integrate ICT into their work and to enable them to adapt their environment and adjust their instructional approaches . The successful implementation of educational technologies depends largely on the utilization of ICT resources which eventually determine the effectiveness of the staff .

Nigerian library staff have long realized the importance of ICTs, particularly the Internet for information access to improve their learning process. Studies indicated that researchers in the developed world use ICTs extensively to acquire, produce and disseminate information more than their counterparts in developing countries. . In the light of these therefore, the question arises, do library staff use of internet, e-mail, PowerPoint and computer relate to their job effectiveness

## 1.3 STATEMENT OF HYPOTHESES

The following hypotheses were formulated to guide the investigation of this study.

1. There is no significant relationship between library staff use of internet and their job effectiveness.
2. There is no significant relationship between library staff use of e-mail and their job effectiveness job effectiveness
3. There is no significant relationship between library staff use of PowerPoint and their job effectiveness job effectiveness
4. There is no significant relationship between library staff use of computer and their job effectiveness job effectiveness

## 1.4 RESEARCH METHODOLOGY

The research design that was adopted for this study is the ex-post facto design. This design is chosen on the premise that the manifestations of the variables under study had already taken place before the researcher embarked on the study. The research area for this study is Cross River State. The population of this research work consists of all the library staff in the University of Calabar (UNICAL) and Cross River University of Technology (CRUTECH). These libraries have a total number of two hundred and forty-one (241) library staff. The sampling technique adopted for this study is the stratified random sampling technique. The sample of this study is made up of two hundred and twenty-five (225) library staff randomly selected from two tertiary institutions. A breakdown of the figure shows that 40 staff were randomly selected from CRUTECH, while 185 from UNICAL respectively chosen for the study. The instrument that was used for this research was a 4-point Likert type scale questionnaire designed by the researchers. The validity and reliability of the instrument were properly ascertained.

## RESULTS AND FINDINGS

The main dependent variable of the study was library staff job effectiveness. The mean and standard deviation of the major variables of the study are calculated and presented as shown below. A total of two hundred and twenty-five (225) respondents were used for the study.

**TABLE 1**  
**General description of data**

| Variables         | N   | $\bar{X}$ | SD   |
|-------------------|-----|-----------|------|
| Use of internet   | 225 | 16.93     | 1.12 |
| Use of e-mail     | 225 | 16.06     | 1.88 |
| Use of PowerPoint | 225 | 17.47     | 2.20 |
| Use of computer   | 225 | 16.53     | 1.59 |
| Job effectiveness | 225 | 21.27     | 1.84 |

In this section, each of the study hypothesis is -stated in the null form. The result of data analysis carried out to test it is presented. Each hypothesis was tested at .05 level of significance.

### Hypothesis one

There is no significant relationship between Library staff use of internet and library staff job effectiveness.

The independent variables involve in this hypothesis is Library staff use of internet, while the

dependent variable is library staff job effectiveness. Pearson product correlation analysis was employed to test this hypothesis. The result of the analysis is presented in Table 2. The result in Table 2 reveals that the calculated r-value of 0.57 is higher than the critical r-value of .138 at .05 level of significance with 223 degrees of freedom. With this result the null hypothesis was rejected. This result therefore means that Library staff use of internet has a significant relationship with library staff job effectiveness.

TABLE 2  
 Pearson product moment correlation analysis of the relationship between Library staff use of internet and library staff job effectiveness (N=225)

| Variables                       | $\sum x$<br>$\sum y$ | $\sum x^2$<br>$\sum y^2$ | $\sum xy$ | r-value |
|---------------------------------|----------------------|--------------------------|-----------|---------|
| Library staff use of internet   | 3218                 | 6297                     | 74713     | 0.57*   |
| Library staff job effectiveness | 3092                 | 5463                     |           |         |

\*Significant at .05 level, critical r = .138, df = 223

### Hypothesis two

There is no significant relationship between Library staff use of e-mail and library staff job effectiveness.

The independent variables involve in this hypothesis is Library staff use of e-mail, while the dependent variable is library staff job effectiveness. Pearson product correlation analysis was employed to test this hypothesis. The result of the analysis is presented in Table 3. The result in Table 3 reveals that the calculated r-value of 0.47 is higher than the critical r-value of .138 at .05 level of significance with 223 degrees of freedom. With this result the null hypothesis was rejected. This result therefore means that reading and library staff use of e-mail has a significant relationship with library staff job effectiveness.

### Hypothesis three

There is no significant relationship between Library staff use of PowerPoint and library staff job effectiveness.

The independent variables involve in this hypothesis is Library staff use of PowerPoint; while the dependent variable is library staff job effectiveness. Pearson product correlation analysis was employed to test this hypothesis. The result of the analysis is presented in Table 4.

TABLE 4  
 Pearson product moment correlation analysis of the relationship between Library staff use of e-mail and library staff job effectiveness (N=225)

| Variables                       | $\sum x$<br>$\sum y$ | $\sum x^2$<br>$\sum y^2$ | $\sum xy$ | r-value |
|---------------------------------|----------------------|--------------------------|-----------|---------|
| Library staff use of e-mail     | 3376                 | 6375                     | 73926     | 0.47*   |
| Library staff job effectiveness | 3092                 | 5463                     |           |         |

\*Significant at .05 level, critical r = .138, df = 223

TABLE 5  
 Pearson product moment correlation analysis of the relationship Library staff use of PowerPoint and library staff job effectiveness (N=225)

| Variables                       | $\sum x$<br>$\sum y$ | $\sum x^2$<br>$\sum y^2$ | $\sum xy$ | r-value |
|---------------------------------|----------------------|--------------------------|-----------|---------|
| Library staff use of PowerPoint | 3176                 | 6154                     | 74647     | 0.59*   |
| Library staff job effectiveness | 3092                 | 5463                     |           |         |

\*Significant at .05 level, critical r = .138, df = 223

The result in Table 5 reveals that the calculated r-value of 0.59 is higher than the critical r-value of .138 at .05 level of significance with 223 degrees of freedom. With this result the null hypothesis was rejected. This result therefore means that Library staff use of PowerPoint has a significant relationship with library staff job effectiveness.

### Hypothesis four

There is no significant relationship between Library staff use of computer and library staff job effectiveness.

The independent variable in this hypothesis is Library staff use of computer; while the dependent variable is library staff job effectiveness. Pearson product moment correlation analysis was employed to test this hypothesis. The result of the analysis is presented in Table 6. The result in Table 6 reveals that the calculated r-value of 0.51 is higher than the critical r-value of .138 at .05 level of significance with 223 degrees of freedom. With this result the null hypothesis was rejected. This result implies that Library staff use of computer has a significant relationship with library staff job effectiveness.

TABLE 6  
 Pearson product moment correlation analysis of the relationship between Library staff use of computer and library staff job effectiveness (N=225)

| Variables                       | $\sum x$ | $\sum x^2$ | $\sum y$ | $\sum y^2$ | $\sum xy$ | r-value |
|---------------------------------|----------|------------|----------|------------|-----------|---------|
| Library staff use of computer   | 3262     | 6344       |          |            |           |         |
| Library staff job effectiveness |          |            | 3092     | 5463       | 73135     | 0.51*   |

\*Significant at .05 level, critical r = .138, df = 223

### Conclusion

Based on the results of the study the following conclusions were reached.

1. Library staff use of internet significantly relate to library staff job effectiveness.
2. Library staff use of e-mail significantly relate to library staff job effectiveness.
3. Library staff use of PowerPoint significantly relate to library staff job effectiveness.
4. Library staff use of computer significantly relate to library staff job effectiveness.

### Recommendations

Based on the findings of the study the following recommendations were made.

1. ICT Programmes should be introduced in all the tertiary institutions in the state.
2. Government should organized workshop to educate library staff on the use of ICT.
3. Library staff should be encouraged to develop positive attitude towards the use of ICT in teaching.
4. Government should established and properly fund well equipped ICT training centers in the state which library staff especially can be formerly trained at the highly subsidized cost.

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