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# Information Technology Accessibility, Utilization and Academic Staff Job Satisfaction at Covenant University, Nigeria.

**Christopher Nkiko**

Ag. University Librarian

Covenant University, Cannanland, Ota, Nigeria

Chrismoj3@yahoo.co.uk

&

**Dr. 'Niran Adetoro**

Department of Library and Information Science

Tai Solarin University of Education, Ijebu-Ode Nigeria

niranadetoro@yahoo.com

## Abstract

Job satisfaction may not necessarily be contingent upon availability, accessibility and utilization of facilities, especially technology. This is why this study investigated the relationship among information technology (IT) accessibility, utilization and job satisfaction by academic staff of Covenant University, Nigeria. Ex-post facto research design was adopted. Using the stratified proportionate random sampling technique, data were gathered from the academic staff in the three colleges and the University Library using a questionnaire tagged Information technology and job satisfaction questionnaire (ITJSQ) ( $\alpha=0.72$ ). 175 questionnaires were retrieved from the respondents out of 220 administered to a population of 300 respondents. This represents 58.3% response rate.

The study found that the IT resources with high accessibility levels were internet ( $x=3.62$ ;  $SD=1.13$ ) computers ( $x=3.61$ ;  $SD=0.92$ ) CD-ROM and Online databases ( $x=2.72$ ;  $SD=1.32$ ) printers ( $x=2.51$ ;  $SD=1.41$ ) audio-visuals ( $x=2.46$ ;  $SD=1.29$ ) and local area network ( $x=2.26$ ;  $SD=1.48$ ). It also revealed high IT utilization levels in internet ( $x=3.46$ ;  $SD=1.07$ ) computers ( $x=3.17$ ;  $SD=1.05$ ) photocopiers ( $x=2.63$ ;  $SD=1.07$ ) Online / CD-ROM databases ( $x=2.47$ ;  $SD=1.23$ ) audio-visuals ( $x=2.25$ ;  $SD=1.27$ ) and printers ( $x=2.19$ ;  $SD=1.43$ ). IT accessibility and utilization by the academic staff had no significant relationship with job satisfaction ( $r=-0.071$ ;  $p>0.05$ ) and ( $r=0.102$ ;  $P>0.05$ ) respectively. The study recommends improved access and use of IT resources, efficient feedback mechanism, promotion of academic culture and participatory management.

**Keywords:** Information Technology, Accessibility, Utilisation, Job Satisfaction, Covenant University.

**Word count:** 150

## Background of the Study

Management of organizations all over the world have come to the realisation that job dis-satisfaction among workers has contributed strongly to the problem of manpower recruitment and retention. Hence, the factors that influence job satisfaction in organizations have been identified and positively implemented to forestall turnover and ensure increased staff recruitment and retention rates.

Job satisfaction as an input necessary for attainment of organizational objectives have also become very topical in recent times. Job satisfaction which refers to the extent to which workers derive happiness on their job, can be summed up as all captive and positive aspects related to workers salary, physical conditions, the authority and relationship with co-workers (Kaya, 1995). It is pertinent to always consider job satisfaction from the point of view of all concerned stakeholders. In the opinion of Seashore (1974), quality of employment should be assessed from the value perspectives of the employer, society and the workers.

Information technology (IT) includes the use of computing, micro-electronics, telecommunication technology and how they are used to collect, store, process, retrieve and disseminate any form of information (Ekireghwo, 1998; Attawood and Attawood, 1989; Oketunji, 2000 and Marghatani, 1987). Indeed the impact of IT on work and workers has been revolutionary. Organizations introduce IT for many reasons. In many cases, they are used by managers to improve productivity, market products and for communication (Subair and Kgankenna, 2002). The convergence of information technology and communication technology has led to profound and continuous changes in organizations

(Shepherd, 2000).

According to Torkzadeh and Doll (1999), organizations spending millions of dollars on IT, face the critical issue of assessing the impact of technology on work and the justification of technology investment in terms of its impact on the individual, his or her work and attainment of organizational objectives. The good news is that, over time IT has improved work performance and productivity by extension (Lancaster and Sandore, 1997).

IT accessibility and its consequent utilization in academic institutions such as Covenant University portends well in that it holds out clear prospects for institutional management and staff productivity if continuously and appropriately deployed (Akinde and Adagunodo, 2001). The application of IT in academic institutions include its use as an administrative tool, a teaching and learning device, for skill development, for drafting and redrafting of materials, for materials production and presentation, expert tool and programming (Ekireghwo, 1998).

The reality in many African settings is that though IT is desirable and infectious, it may not necessarily ensure job satisfaction. This is because job satisfaction in many developing nations is tied down to economics, social and cultural conditions.

Covenant University is reputed to be the foremost privately owned University in Nigeria. It currently runs sixteen (16) academic programmes in three colleges of Business and Social Sciences, Science and Technology and Human development. From inception the University did deployed IT in its operations especially with regards to its administration, teaching, learning and research activities. It is against this background that this study examines IT accessibility, utilization and job satisfaction among academic staff of Covenant University.

### Statement of the Problem

Job satisfaction in African settings is often times believed to be contingent upon economic, social and cultural conditions. Therefore, the provision of facilities which can bring about efficiency and effectiveness of work may not ensure job satisfaction. Observations have shown that accessibility and utilization of IT at Covenant University by its academic staff may not guarantee job satisfaction. Also, there are problem associated with access to IT and that levels of IT utilization by the academic staff may not be encouraging.

### Research Questions

The following research questions were raised for the study.

- i. What is the level of IT accessibility by academic staff at Covenant University?
- ii. What is the level of IT utilization by academic staff at Covenant University?

### Research Hypotheses

The underlisted hypotheses were formulated to guide the study. The hypotheses were tested at 0.05 level of significance.

1. Hoi: There is no significant relationship between IT accessibility and job satisfaction of academic staff of Covenant University.
2. Hoi: Utilization has no significant relationship with job satisfaction of academic staff at Covenant University.

### Literature Review

The introduction of IT in terms of its access and utilization in academic institutions such as Universities is essentially to improve productivity of academics and for institutional managers to take decisions and solve problems (Subair and Kgan Kenna, 2002). Kasongo (1993) viewed that IT is widely recognized as having the potential to narrow the digital divide and help developing countries to leapfrog development.

Very few organizations will survive without access to IT (Foster, 1993), Universities and other academic institutions all over the world have therefore realized the importance of access to and use of IT to work performance and invariably job satisfaction of staff. Although access to IT does not translate to its utilization; it is pertinent to state that the extent of IT functionality in an organization have correlation with its utilization (Chisenga, 2004). Job satisfaction and job performance are not entirely contingent upon the development of technology alone but on other organizational situations (Magara, 2002, Ajayi, 2002 and Okon, 2005).

IT utilization in academic institutions by academics is generally perceived as necessary input that can enhance their teaching and research functions, and by extension, their productivity. This position, with regards to other category of workers has been supported by studies such as Ajayi (2001), Ogunsola (2004) and Oduwole (2005). In academic institutions, IT are deployed and used in lecture halls, theatres, laboratories, libraries, workshops etc

(Ekireghwo, 1998). Rosenberg (1997) in his survey found that IT access and exploitation by African Universities for organizational effectiveness has become prevalent. He adds that indexing, abstracting and publication of locally produced researches and their digitization to facilitate IT access will go a long way in meeting academics and students research and learning needs.

Ever since the pioneering works (Hoppock, 1935) and (Houser, 1938), research and theory on the nature, causes and correlates of job satisfaction has blossomed. Job satisfaction as a concept has been variously defined by experts. But according to Ejiogu (1992) one common thing in these definitions is the recognition of the fact that an individual expression of job satisfaction is an emotional affective personal response as a result of his estimation of how the job confirms with his values.

Blau, (1999); Reiner and Zhao (1999) and Kose (1985) had reported the fact that demographic variables such as age, sex and educational status has positive relationship with job satisfaction. Studies on the correlates of academic staff job satisfaction which include Ajayi (1981), Akanbi (1981), Alao, (1996) and Adeniyi (2000) found that there was relationship between job satisfaction and job commitment of college teachers and university lecturers respectively.

A study on factors that impact on nurses job satisfaction (Ma, Samuels and Alexander, 2003) found that about two-thirds of nurses job satisfaction remained the same or lessened for two years; significant differences were found between job satisfaction and years of service, position and geographical area. Chen (2008) in his study reported that job characteristics influenced job satisfaction of information system personnel and that job satisfaction and job characteristic are positively related.

Mcmurtrey, Grover, Teng and Lightner (2002) surveyed the job satisfaction of IT workers in a Computer Aided Software Engineering (CASE) environment and found that in a CASE environment, personnel with predominantly technical career orientation had more job satisfaction than those with predominant managerial orientation. The study suggests that combating IT personnel shortage through task automation may also increase workers satisfaction and reduce turnover.

Kim (2002) found that managers' use of participatory management style and employee's

perception of participative strategic planning process are positively related to high levels of job satisfaction while Incqua, Schumacher and Li (1995), reported that intrinsic factors such as responsibility and the satisfaction for work itself arise from the human ability to personally advance and grow.

A study on the relationship between job satisfaction and psychological burnout (Wolpin, Burke and Greenlass, 1991), revealed that negative work settings characterized by dissatisfaction were associated with greater work stressors which increased burnout and in turn resulted in decreased job satisfaction. Other studies with useful findings between job satisfaction and the world of work includes Igbaria and Guimaraes (1993) and Korunka and Vitouch (1999).

## **Methodology**

### **Research Design**

The research design adopted for this study is the ex-post facto type. This is because the manifestation of the independent variable had occurred; they are inherently not manipulate.

### **Population**

The target population are the lecturers in the University's sixteen academic programmes and the academic librarians in the University library. Academic records at Covenant University showed that there were three hundred academic staff at the time of the study.

### **Sample Procedure and sample Size**

The stratified proportionate random sampling technique was adopted. The population were stratified into the three colleges and the university library as follows:

- ◆ College of Business and Social Sciences
- ◆ College of Human Development
- ◆ College of Science and Technology
- ◆ University Library

From each of the above stratum, respondents were randomly selected based on simple ballot system. The selection cut across all the levels within the academic cadre i.e. From assistant lecturership to professorship. The researchers were able to administer a total of two hundred and twenty (220) questionnaire out of which 175 questionnaire were retrieved and used for the study. This represent 58.3% of the total population

### Instrument

The instrument used for the study was a self-constructed questionnaire tagged Information Technology and Job satisfaction Questionnaire (ITJSQ). The instrument had four sections A-D with 10 items. Section A focused on demographic information, section B was on IT resources accessibility; section C elicited responses on IT utilization and section D dealt with job satisfaction. Section B -D questions were structured on four point likert rating scale.

### Validity and Reliability

Validity of the instrument was determined through consultations with experts on IT; in information studies and psychology resulting in useful additions, corrections and suggestions. Reliability came through the pre-testing of the instrument in a pilot study. Using the cronbach alpha test, a reliability co-efficient of ( $\alpha = 0.73$ ) was obtained for the section on IT accessibility, ( $\alpha = 0.71$ ) for the section on IT utilization and ( $\alpha = 0.72$ ) for the section on Job satisfaction.

### Data Analysis

Data were analysed based on mean and standard deviation for the research questions and Pearson's product moment correlation test for the hypotheses

formulated for the study.

### Results

The result showed that 135 (77%) of the respondents were males and 40 (23%) were females. About 80% of the respondents are below the age of 45 years. This indicates the presence of a young and agile academic staff at Covenant University. The staff spread showed that 80% of them were lecturer grade I and below. This implies that the academics staff at Covenant University are bottom heavy. This is consistent with the age of the University. Only 52 (29%) of the staff possess Ph.D degrees.

### Research Question 1

What is the level of IT accessibility by academic staff of Covenant University?

The result showed that IT resources accessibility to the academic at Covenant University was high with regards to internet ( $x=3.62$ ;  $SD=0.92$ ) computers ( $x=3.61$ ;  $SD=0.92$ ) photocopiers ( $x=2.93$ ;  $SD=1.11$ ) CD-ROM/Online databases ( $x=2.72$ ;  $SD=1.32$ ) printers ( $x=2.51$ ;  $SD=1.41$ ) audio-visuals ( $x=2.46$ ;  $SD=1.29$ ) and local area network ( $x=2.26$ ;  $SD=1.48$ ). The less accessible IT resources are microfiche ( $x=1.31$ ;  $SD=1.15$ ) microfilm ( $x=1.37$ ;  $SD=1.23$ ) modem ( $x=1.47$ ;  $SD=1.28$ ) and Fax machine ( $x=1.72$ ;  $SD=1.27$ )

**Table 1: IT resources accessibility to academics of Covenant University.**

IT Resources	X mean	Standard Deviation
Internet	3.62	1.13
Computers	3.61	0.92
Photocopiers	2.98	1.11
Databases	2.72	1.32
Printers	2.51	1.41
Audio- visuals	2.46	1.29
Local area network	2.26	1.46
Fax machine	1.72	1.27
Modem	1.47	1.28
Microfilm	1.37	1.23
Microfiche	1.31	1.15

N=175

### Research Question 2

What is the level of IT utilization by academic staff at Covenant University?

The IT resources utilization by academics at Covenant University was high with regards to internet ( $x=3.46$ ;  $SD=1.03$ ), comput

( $x=3.17$ ;  $SI>=1.05$ ), photocopiers ( $x=2.63$ ;  $SD=1.07$ ), CD-ROM/Online databases ( $x=2.47$ ;  $SD=1.23$ ), audio-visuals ( $x=2.25$ ;  $SD=1.27$ ) and printers ( $x=2.19$ ;  $SD=1.43$ ). The less utilized IT resources were microfiche, microfilm, modem, fax machine and local area network. This result is consistent with that of level of accessibility.

**Table 2: IT resources utilization by academics of Covenant University**

IT Resources	Xmean	Standard Deviation
Internet	3.46	1.03
Computers	3.17	1.05
Photocopiers	2.63	1.07
Databases	2.47	1.23
Printers	2.25	1.27
Audio-visuals	2.19	1.43
Local area network	1.82	1.24
Fax machine	1.21	0.92
Modem	1.13	1.09
Microfilm	0.75	0.78
Microfiche	0.56	0.72

**Hypothesis 1**

There is no significant relationship between IT accessibility and job satisfaction of academic staff at Covenant University.

The study found that IT accessibility has no significant relationship with academic staff job satisfaction at Covenant University. The study

showed a correlation co-efficient value  $r=-0.071$ ;  $p>0.05$ . This means there is no significant relationship between IT accessibility and job satisfaction of academics at Covenant University. The hypothesis is therefore accepted.

**Table 3. Relationship between IT accessibility and job satisfaction of academic staff at Covenant University.**

Variable	N	Mean (x)	Std. Deviation	R	Sig. Value	Remark
IT accessibility	175	25.9886	7.4917	-0.071	0.349	$p>0.05$
Job satisfaction	175	61.5029	14.1754			

Significant at 0.05 level  
Decision: not significant

**Hypothesis 2**

IT utilization has no significant relationship with job satisfaction of academic staff at Covenant University.

This analysis revealed no significant relationship between IT utilization and job satisfaction of

academic staff at Covenant University. The study showed a correlation coefficient value  $r=0.102$ ;  $p>0.05$ . This also indicates that the hypothesis was accepted.

**Table 4 - Relationships between IT utilization and job satisfaction of academic staff at Covenant University**

Variable	N	Mean (x)	Std. Deviation	r	Sig. Value	Remark
IT accessibility	175,	23.7086	6.1905	0.102	0.179	p>0.05
Job satisfaction	175	61.5029	14.1754			

Significant at 0.05 level

Decision: not significant

### Discussion of findings

The study found that academic staff at Covenant University had high level of access to internet, computers, photocopiers, CD-ROM and Online databases, printers audio-visuals and local area network. While accessibility to fax machines, modem and microforms were discovered to be less. This is an indication that the University had invested appreciably on IT for its staff though there is always room for improvement in terms of access to more IT facilities. This result corroborates the finding of this study on the utilization of IT resources which showed that staff highly utilized computers, internet, photocopiers, CD-ROM and Online databases, audio-visual and printers.

The University needs to ensure that its staff use its local area network. The less utilization and accessibility to some IT resources may be due to their non-functioning or unavailability. This finding is consistent with McMurtrey, Grover, Teng and Lightner (2002). This result also suggests that level of IT access would correspond with level of its utilization.

The study also showed that IT accessibility had no relationship with job satisfaction of academic staff at Covenant University. It also revealed that IT utilization also had no relationship with job satisfaction of the academic staff. The import of these findings is that access and utilization of IT by the academic staff did not translate to their job satisfaction. That access and use of job related facilities and technology is not a guarantee of workers job satisfaction. These results is in consonance with the findings of Korunka and Vitouch (1999) and Liacqua, Schumacher and Li (1995) who reported that job satisfaction in higher education arise from intrinsic factors such as responsibility, human ability, personal growth and advancement. However, this result contrasted with (McMurtrey et al, 2002) which revealed that task automation helped increase work

satisfaction, thereby increasing turnover.

### Conclusion

This study has shown that academic staff at Covenant University have access to and actually utilize a wide range of IT resources. The level of institutional investment on IT in covenant University is appreciable but there is room for improvement since respondents level of access and utilization of some IT resources are inadequate. Accessibility and utilization of IT according to this study has no positive relationship with job satisfaction of academic staff at Covenant University. The correlates of job satisfaction this study has revealed, goes beyond access and use of IT resources.

### Recommendations

Sequel to the findings of this study the following recommendations are made:

- Accessibility and utilization of IT at Covenant University should be improved upon through the provision of under-utilized, less-accessed or unavailable IT resources as revealed in the study.
- The University management should consider periodic training of academic staff on the use and application of IT resources in order to increase level of utilization.
- The University management could promote job satisfaction of its academic staff through the deployment of modern IT resources in lecturers' offices and at lecture rooms to ensure efficiency.
- Personal ownership of IT resources should be promoted through an institutional support mechanism that will improve accessibility and utilization.

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