

**The Usage of Information Communication Technology (ICT) by women in Tertiary
Institutions in Ekiti State, Nigera.**

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Abstract

Information Communication Technology is one of the key factors for sustainable development in the nation. Its use for effective management, teaching and learning in higher institution cannot be overemphasized. This paper investigated the use of ICT among women of tertiary institutions in Ekiti State. Three research questions and one hypothesis guided the study based on the knowledge, usage and challenges facing women in the use of ICT. The study was a descriptive research design of the survey type. The population comprised all the tertiary institutions in the state. A sample of one university, only existing polytechnic and college of education was purposively used for the study. A self designed and validated questionnaire was used for data collection. Data obtained were analysed using the simple percentage, mean and one way ANOVA. The Study revealed that the women have adequate knowledge of the ICT tools, the usage of ICT was low among women and a number of challenges such as domestic pressure, erratic power failure, unavailability of the necessary tools, lack of adequate training and others were faced by women. It was recommended that an effective and sustainable ICT policy and programmes that will enhance ICT usage by women should be put in place.

Introduction

Information and Communication Technology (ICT) has been found to be an indispensable instrument for the development of effective management, teaching, learning and research in the education system. The 21st Century has witnessed tremendous advances in technology which have led to far reaching development in the administrative and academic system by both men and women. Women appear to be under-represented in the ICT field. This is reflected in the lower number of women accessing and using ICT compared with men whereas ICTs are crucial to the networking of women's organizations. Huyer and Carr (2002) posited that women generally constitute less than half of internet users everywhere in the world and that the participation of women in the training and use of ICTs is currently very low.

ICT usage was measured in terms of variety of systems used, number of job tasks where computer technology is used, frequency of system usage and amount of time spent each time using a computer for job related work. Usage in this paper further refers to the ability to be able to access the information they want and need. It also refers to all the manifestations of communication technologies such as computers, videos and the associated hardware, networks and software that have the potentials to be employed for educational research purposes and administrative process among others.

It seems that most women in Nigeria especially those working in the tertiary institutions access to ICT only at work. Most ICT facilities appear not to be available or inadequate at home. They use ICT for routine office work, data entry programming, computation of result, processing of result, fees payment by students and others. Further observations revealed that few women are producers of information technology whether as internet content providers, programmers designers, investors or fixers of computers. Despite the importance and relevance of ICT to institutional growth and educational development, it seems that there is little or no usage of ICT at this level by women in the tertiary institution in the state. Most female lecturers seem not to have the necessary facilities, encounter poor

electric power supply on campus, incompetency on their part as a result of lack of training, among others which appear to inhibit the usage.

It seems women have little knowledge of the ICT tools, some are not able to access the internet on their own and sometimes they show no interest in learning how to use it. This view was shared by Okorie and Agabi (2005) who stressed that academic staff in universities have moderate knowledge in the use of computer and ICT and that there was low periodic training for the academic staff on the use of ICT. They were also of the view that there was low level of application of ICT in teaching but there was moderate application of ICT in research and publication. Zare-ee (2011) found that most users approached ICT's for accessing new thoughts and ideas and that their most frequently use of ICT facilities was the word processor and the e-mail. He further discovered that e-mail was the most frequently used form of ICT. Kitschner and Davis (2003) identified the following competencies required by lecturers in ICT application in education. These include; competence to make use of ICT, sufficient competence to make use of ICT's as mind tools, as a tool for teaching, mastering a range of assessment paradigms, and in understanding the policy dimensions of the use of ICT. Huyer and Carr (2002) stressed that women's effective access to (ICT) can help them to achieve increased participation in productivity. According to Robins (2002) the new ICT's can help women transcend obstacles of culture, education and poverty to take more equitable places in their countries economic and political sectors.

Bruce and Levin (2001) suggested that technology could be helpful in classroom settings by encouraging inquiry, helping communication, constructing teaching products and assisting students' self expression. Kim and Bonk (2006) emphasized that numerous ICT related educational tools and activities are created daily wanting to be put to educational uses. These can be promoted and put at the service of higher education, provided that policy makers, teachers and students show and develop the necessary understanding, willingness and preparation to use them.

To this end, the paper examined the usage of ICT by women in the tertiary institutions in Ekiti State Nigeria. The extent of their knowledge and practice as well as the challenges facing women in the use were investigated in the study.

Research Questions:-

The following research questions were raised for the study.

1. How knowledgeable are women in tertiary institutions in the use of ICT tools?
2. To what extent do women in tertiary institution use of ICT?
3. What are the challenges faced by women in the use of ICT.

Research Hypothesis:

The only hypothesis generated for this study is as stated below.

1. There is no significant difference in the use of ICT by women in the tertiary institutions in the state.

Methodology:

The descriptive research design of the survey type was employed in the study. The population of the study consisted of all the women (both academic and senior non-academic staff) in the tertiary

institutions in the state. A sample of one University and only one existing Polytechnic and the College of education was purposively used for the study. A self designed questionnaire titled “Women ICT Usage Questionnaire (WICTUQ)” was used for data collection. The face and content validity of the questionnaire was ascertained by experts in Tests and Measurement. A sample of 230 women were proportionately sampled from the institutions for the study based on the number of women in each institution. 100 women were sampled from the University, 50 from the Polytechnic and 80 from the College of Education making a total of 230 women. Data obtained were analysed using the simple percentage, and mean score for the research questions and One Way ANOVA for the research hypothesis: The result was ascertained at 0.05 level of significance.

Result:

Research Question 1:

How knowledgeable are women in tertiary institutions in the use of ICT tools?

Table 1: Frequency counts and percentage showing the Knowledge of ICT by women.

S/N	ITEMS	YES		NO	
		F	%	F	%
1	Do you know the various types of ICT tools	174	75.7	56	24.3
2	Do you know the components of each ICT tools	151	65.7	79	34.3
3	Do you know different internet provider e.g. google, yahoo. Etc	205	89.1	25	10.9
4	Do you know how to search for information on the internet?	208	90.4	22	9.6
5	Do you know how to use the GSM for other usage apart from phone call	212	92.2	18	7.8
6	Can you send or receive e-mails?	200	87.0	30	13.0
7	Are you familiar with various softwares on your computer	168	73.0	62	27.0
8	Can you install personal / corporate website?	76	33.0	154	67.0
9	Do you know the relevant website that can be used for office use, teaching and learning.	152	66.1	78	33.9
10	Can you use the computer for word processing	195	84.8	35	15.2
11	Do you know how to prepare and install power point	122	53.0	108	47.0
12	Do you know how to use power point for presentation of research papers at conferences, meetings or workshops etc.	138	60.0	92	40.0
	Total	167	72.5	63	27.5

Knowledge of ICT appeared to be relatively high among all the respondents. Table 1 above provides the comprehensive result. On the average, 72.5% of the respondents indicated that they knew what ICT is while 27.5 did not know much about ICT, 75.7% has a knowledge of what ICT tools are, 65.7% know the different ICT provider, 90.4% search for information on the internet on regular basis, 92.2% use GSM for other usage apart from phone calls 87.0% can send or receive e-mails, 73.0% are familiar with various softwares on the computer, 84.8% can use computer for word processing and 60.0% know how to use

power point presentation. The only area where their knowledge is shallow is in the area of installation of personal and / or corporate website with 33.0%.

Research Question 2:

To what extent do women in tertiary institutions use ICT?

Table2: Level of practice of ICT among women

Frequency	%	Valid P
Level of ICT use	Frequency	%
Low (10.00-16.00)	120	52.2
High (16.10-20.00)	110	47.8
Total	230	100.0

Mean = (10.0 ≤ 16.00= Low), X ≥ 16.10= High

The extent of practice of ICT among women in the tertiary institutions in Ekiti State is low. 52.2% indicated a low practice while only 47.8 indicated a high practice. The level of practice is determined by the mean score. This shows that the level of practice of ICT is low among women.

Research Question 3:

What are the challenges faced by women in tertiary institutions in the use of ICT

Table 3. Challenges of using ICT by Women

S/N	ITEMS	YES		NO	
		F	%	F	%
1	Domestic pressure reduces my chance of using ICT	123	53.5	107	46.5
2	Low level of interest reduces my effective use of ICT tools	83	36.1	147	63.9
3	Lack of adequate ICT facilities reduces my use of ICT	137	59.6	93	40.4
4	Job demands does not encourage my use of ICT	91	39.6	139	60.4
5	I do not have opportunity for attending training in ICT	113	49.1	117	50.9
6	Lack of personnel to give adequate training reduces my effective use of ICT	131	57.0	99	43.0
7	High cost of purchasing ICT tools reduces my chance of using the tools	118	51.3	112	48.7
8	Poor internet network is a threat to my using ICT	157	68.3	73	31.7
9	Erratic supply of electricity prevent my effective use of ICT tools in the office and classroom	154	67.0	76	33.0
10	Non availability of internet provider by the authority of the institution affect my usage of ICT tools	149	64.8	81	35.2
	Total	126	54.6	104	45.4

The result revealed that the challenges faced by women in the use of ICT include domestic pressure with 53.5%, Lack of adequate ICT facilities with 59.6%, lack of personnel to give adequate training with 57.0%, high cost of purchasing ICT tools with 51.3%, poor internet network with 68.3%, erratic power supply 67.0%, non-availability of internet provider 64.8%,. other factors that does not pose much challenge on the use of ICT include low level of interest with 63.9% job demand with 60.4% opportunity for attending training in ICT 50.9%. however all the items rated above 50% indicate that these items are positive and are obstacles that hinder the effective use of ICT by women in tertiary institutions.

Research Hypothesis

There is no significant difference in the use of ICT by women in the tertiary institutions in the state.

Table 4: ANOVA showing ICT use by women in Ekiti State tertiary institutions.

Source	SS	df	ms	F-cal	F-tab
Between Group	44.059	2	22.030		
Within Group	5494.289	227	24.204	0.910	3.01
Total	5538.348	229			

$P > 0.05$

aware value, the hypothesis is not rejected. It implies that there is no significant difference in the use of ICT by women in the tertiary institutions in the state.

Discussion:

The study revealed that the knowledge of women in the use of ICT in the study area was relatively high. This could be because most women were aware of various ICT tools and familiar with their components. This finding supported the study of Kwapong (2009) who discovered that distance learning students from both deprived and endowed areas of Ghana have a fair idea of ICT and utilize it to some extent while Kamba (2009) in addition found out that awareness of e-learning among the Universities was very high. Similarly, Okorie and Agabi (2005) asserted that academic staff in Universities have moderate knowledge in the use of computer and ICT.

It was discovered in the study that the use of ICT was low. This indicates that even though they have the knowledge of what ICTs are they possibly have positive attitude and interest towards it but limited use is put into it. According to Huyer and Carr (2002) women's participation in the use of ICTs is currently very low and in developing countries it is much lower. They discovered further that most staff and students in the universities only use the internet for the sake of finding out related information for their research and not for the sake of real online learning, indicating that there is limit to the use of ICTs among them. Okorie and Agabi (2005) also revealed that there was low level of application of ICT in teaching but there was moderate application of ICT in research and publication. Atsumme, Raymond, Enoch, and Duhu (2012) discovered that lecturers may have idea of ICT but may not be effective in using them to facilitate teaching. They stressed that women generally constitute less than half of internet users almost everywhere in the world.

The study further revealed that domestic pressure, lack of adequate facilities, Lack of training, high cost of purchasing ICT tools, poor internet network, poor electric power supply, and non-availability of internet provider constitute challenges to the usage of ICT. This finding is supported by kwacha (2007) who discovered similar factors as obstacles to ICT usage. The problem of intermittent disruption of electricity supply found in this study seems to be a national problem and was found to be in agreement with the finding made by Zare-ee (2011) which indicated that the usage of the computer and other ICT tools has been handicapped by non-supply of electricity to many schools. The study of Huyer and Carr (2002) supported the result by identifying lack of dependable infrastructure such as reliable electricity and telephone lines, Lack of training due to cost, distance from home, and time and cultural inhibitions as basic challenges to ICT usage. Omoverere and Nwagwu (2000) revealed several factors responsible for

the Low visibility of Africa, on the web to support the finding in this study. Adeoye (2011) also identified the major challenges to the use of ICT among women as Digital divide, lack of technical know-how and awareness among others. In addition Huyer and Carr 2002 stressed that the low level of communications infrastructure in developing countries is an important barrier to the use of information technologies in much of the world.

The study also revealed that there is no difference in the use of ICT by women in the three tertiary institutions sampled. This could be as a result of the fact that institutions all over the world use ICT similarly for diverse purpose like communication, training, learning, research and others. Every tertiary institution now develop their own website and ensure that the ICT tools are available for use having realized the benefits of ICT for all round development of a nation. Although the result shows that the women have the knowledge of the ICTs, the non-reflection of the knowledge in the usage could be as a result of the similar challenges that women face in the various institutions. This implies that poor funding of the educational institutions by owners could have resulted into the poor state of ICT tools thereby giving room for limited usage. The study of Shahadat, Muhbub and Clement (2012) support this finding. They asserted that several higher educational institutions are finding it difficult to even implement basic ICT. This might have resulted to limited use of the tools as revealed by this study.

Conclusion and Recommendations:

The study revealed that women in tertiary institutions in Ekiti State have the knowledge of the ICT, but the usage was low compared with the adequate knowledge. Women are confronted with certain challenges that hinder the effective usage. The tertiary institutions are not different from one another in the way they use the ICT tools.

From the findings above, it is recommended that an enabling environment that will encourage the usage of ICT by women in the tertiary institutions should be created. Women should be encouraged to acquire more ICT skills and knowledge. ICT infrastructure should be provided to facilitate effective teaching and learning so as to meet up with the present educational challenges. Efforts should be made to reduce and suppress the factors that are militating against the usage of ICT in institutions. The authorities of each institution should provide ICT services at lower cost and ensure adequate funding. Moreover, an effective and sustainable ICT policy and programmes that will enhance ICT usage by women should be put in place.

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