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Utilization of Information and Communication Technologies among Undergraduates: A Case Study of the Faculty of Agriculture University of Calabar, Nigeria

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Abstract

The study identifies the reasons for utilization of information and communication technologies among undergraduates in the University of Calabar. Specifically, the study describes the demographic characteristics of respondents, identifies reasons for utilization of ICT tools in the study area and ascertains the problems faced by undergraduates in the Faculty of Agriculture, University of Calabar in the use of ICTs. Descriptive statistics such as frequency count, percentage, mean score and rank were used for data analysis in the study. The results of the demographic characteristics of the respondents showed that majority (19.9%) were in the department of Agricultural Extension and Rural Sociology. The results on the reason for utilizing ICT revealed that most respondents used ICT for e-mail services (19.20%), literature research (18.30%), paper presentation during seminars/conferences (16.70%) among many others. The study revealed that problems faced by respondents in the use of ICT were inadequate skills, lack of personal computer and cost of maintenance of the ICT tools. The study concluded that majority of the respondents were in the department of Agricultural Extension and Rural Sociology and that the respondents used ICTs for e-mail services and research literatures among very many others. The study therefore recommended that human capital development should be encouraged through continuous and effective training of the undergraduates on the use of ICT(s) in the Faculty of Agriculture, forest and Wildlife Resources Management, University of Calabar, Calabar.

Keywords: Utilization, information and communication Technology, undergraduates, Faculty of Agriculture and University of Calabar

Introduction

The idea of sharing knowledge and the capacity of using new sources for leaning are enhanced by using ICT(s) (Effiong and Asikong 2013). The role of ICT especially in educational sector has been linked to higher efficiency, higher productivity and higher educational outcome in terms of quality of cognitive (understanding, knowledge and comprehension). Psychomotor (skills), affective (behaviour), creative and innovative thinking developed (Adeosun, 2010). Lecturers and students have been challenged to seek better attitudes, knowledge and skills to improve competences through the use of ICT(s). The field of agricultural education in Nigeria has been greatly affected by ICT which has undoubtedly enhanced teaching, learning and research in the Faculties of Agriculture in Nigerian Universities (Effiong and Udo, 2015). An informed society requires a human workforce that can use information and communication technology tools to increase productivity, creativity, efficiency in service delivery and security of people/their properties and investments from the harsh realities of life in our 21st century society. Alibi. (2004) postulated that this paradigm shift from a primitive society to informed and digital society requires amongst others, people identifying dependable and reliable sources of information, effectively accessing these sources of information, synthesizing them and communicating these information to their colleagues and associates in order to improve standard of living and well-being. The movement of the world to the use of digital media and information has made the role of ICT in education to become more important in the 21st century and this has greatly imparted on the quality of interactions, communication as well as knowledge sharing and acquisition between students and lecturers in Nigerian universities (Yusuf, 2013).

David. (2005) suggested that students become more aware of how to learn when using ICT because they must interact with computer. It has enhanced the working relationship between students and lecturers in

the Faculty of Agriculture, Forestry and Wildlife Resources Management, University of Calabar, Nigeria .

Research Methodology

The study took place in the Faculty of Agriculture, University of Calabar, Calabar (Unical), Cross River State, Nigeria. UNICAL has Eleven Faculties and a student population of about 40,645 (UNICAL Bulletin, 2017**).** The population of the study included all final year undergraduates in the Departments of Agricultural Extension and. Rural Sociology, Animal Science, Crop Science, Agricultural Economics, Forestry and Wildlife Resources Management and Soil Science. Data were obtained from primary source using a structured questionnaire and secondary sources such as journals, books, newspapers and university bulletins. A sample size of 120-respondents was selected for the study. A multi-stage sampling technique were used to obtain data used for the study. Descriptive statistic such as frequency count, percentage, means score and ranks were used for the study.

Results and Discussion

Table 1, showed the result of the demographic characteristics of the respondents. The Table revealed that a relatively fair proportion of the final year students (19.9%) were from the department of Agricultural Extension and Rural Sociology. Also, majority of the students were females (60.00%). This indicates that most females are interested in the study of Agriculture, so long as it embraces e-learning facilities. Therefore, a greater assent should be given by government in developing ICT gender programmes that give recognition and understanding to male and female needs, interests, physical energies and that which provides a platform for social interaction, collaboration, synergy, co-operation and exchange of ideas and information between young people of similar age grades. This assertion corroborates with the finding of Beck, (2002) who reported that youths are in the forefront of any information revolution and that globalization is powered in part by tremendous breakthrough and advances in ICTs among males and females youth

The results also showed that majority of the respondents were off-campus students (84.20%). Also, (85.80%) were single implying that being single mean that they had less family responsibilities and hence could fully take advantage of any ICT tools/innovation introduced into the faculty and made available and accessible to them.

Results of the reasons for utilizing ICT by respondents, Table 2, revealed that majority of the respondents used ICT tools for E-mail services (19.20%), literature search during assignments, seminars and projects writing (18.30%), paper presentations (16.70), web browsing and social media networking (15.80%)**.** The data in Table 2 also showed that 6.70 % used the ICT for project report writing, the respondents also claimed that 7.50% of the undergraduate students used ICT in distant learning activities. This result reaffirms the findings of (Thanuskodi, 2013) who reported that most students in tuticorin district in India used the internet for literature search, E-mail, paper presentation and web browsing. Also, most students in the Faculty of Agriculture use internet services for assignments, term papers and project writing. Table 3 is the results of the problems faced by respondents in the use of **ICT** tools, it revealed that poor electricity supply, cost of ICT tools, lack of personal computer, lack of campus computer network, inadequate ICT skills, frequent changes in ICT and high cost of installation and maintenance of ICT tools were the major problems militating against the use of ICT tools in the study area.

While distance from the nearest ICT facilities, lack of time and restriction of ICT usage as well as insecurity of personal information (.698, .672, .596, and .910 factors 4 and 6 respectively), were the least problems faced by respondents in the use of ICT in the study area. Also, majority .869 under factor 5 claimed that frequent electricity interruption was the major problem confronting them in the use of ICT. Others were high cost of access to ICTs (.720 factor 3), high cost of maintenance .646 factor 2, lack of campus computer network .592 factor 1, inadequate number of ICT tools .817 factor 3, frequent change in ICT . 602, long queues at the cyber café .301 factor 1 and lack of interest .502 factor 1. This result corroborates with the findings of Munyua, (2000) who claimed that the growth and full utilization of

ICT tools on campuses of Nigerian universities have been greatly hindered by the epileptic power supply in the school system.

Table 1: Distribution of respondents according to demographic characteristics in the Faculty.

S/N	VARIABLES	FREQUENCY	PERCENTAGE (%)
1.	**Sex:**		
	Male	48	40.0
	Female	72	60.0
	Total	**120**	**100**
2.	**Marital status:**		
	Single	103	85.8
	Married	17	14.2
	Total	**120**	**100**
3	**Age**		
	12 – 20	16	13.3
	21 – 25	62	51.7
	26 – 30	39	32.5
	Above 30	3	2.5
	Total	**120**	**100**
4.	**Departments**		
	Agric Extension	24	19.9
	Agric Economics	17	14.2
	Soil Science	18	15.0
	Animal Science	23	19.2
	Crop Science	17	14.2
	FWRM	21	17.5
	Total	**120**	**100**

Source: field survey, (2017)

Table 2: Reasons for ICT use among the undergraduates

S/N	Reasons	Frequency	Percentage

1	project writing	8	6.7
2	Distant learning	9	7.5
3	Literature search	22	18.3
4	e-mail	23	19.2
5	Presenting paper	20	16.7
6	Web browsing	19	15.8
7	Social network	19	15.8
	Total	120	100

Source: Field survey, (2017)

Table 3: Principal Components analysis of major dimensions of problems affecting use of ICTs among undergraduate of agriculture

S/N	Indicators	Fac_1	Fac_2	Fac_3	Fac_4	Fac_5	Fac_6
1.	Frequent electricity interruption	.110	-.002	.115	.007	.869	.026
2.	High cost of access	-.150	0.74	.720	-.247	.136	.261
3.	Lack of personal computer	.661	-.013	-.015	-.229	.272	-.006
4	High cost of maintenance	.215	.646	.343	.044	.077	-.215
5.	Lack of campus computer network	.592	-.387	.175	-.108	.342	.022
6.	Distance from the nearest ICT facility	.310	.248	.046	-.698	.232	.017
7.	Restriction in usage	.390	.389	.060	.596	-.017	.271
8.	Insecurity of personal information	.073	-.015	-.012	.028	.014	.910
9.	Inadequate number of ICT tools	-.050	.064	.817	.016	.101	-.205
10	Inadequate number of ICT personnel	.181	.177	.627	.347	-.140	0.38
11	Lack of time	-.092	.268	.034	.672	.379	-.010
12.	Inadequate ICT skills	.819	.051	-.105	.162	-0.013	.049
13	Frequent change in ICT	.602	.265	.020	-.112	-.327	.049
14	Long ques at the cyber café	.301	.217	0.11	.214	.001	.010
15	Cost of moderm	.204	.602	.312	.601	.018	.119
16	Lack of interest	.502	.301	.319	.016	.314	.082
17	Lack of internet facilities	0.81	.230	.116	.318	.090	.033

Source: Field Survey, 2017.

Extraction method: Principal component analysis, rotation method: Varimax with Kaiser normalization, a rotation converged in 10 iterations. Indicators with loading values .3 and above were considered to constitute a problem to ICT usage.

Conclusion

Based on the findings of this study, the study concluded that majority of the respondents were females, single and aged between 21 – 25 years. Also, the study concluded that students of the Faculty of Agriculture Forestry and Wildlife Resources Management University of Calabar used ICT(s) for e-mails, literature search and paper presentations among very many others.

Recommendations

Male students should be encouraged to take up E-agriculture as a profitable profession.

1. That the National Universities Commission (NUC) should pay greater attention to agricultural Information with the aimed of transforming the Agricultural sector from subsistence farming into commercial farming through the use of ICT tools in Faculties of Agriculture, such ICT(s) include radio, television, projector/computers and print media in the promotion of E-agriculture, E-learning, E-environment, E-marketing and E-communication, hence making the Agricultural sector more attractive and prestigious as a profession for the youth to aspire to study.
2. That the University Management Authority should pay great attention to social infrastructural amenities in the institution, especially in the area of electricity supplyand skills development.

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