Advances in the Use of ICT and its Impact on Human Resources Development in Tertiary Institutions in Cross River State

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ABSTRACT

This study examined the level of the use of ICT in tertiary educational institutions in Cross River State and the effect it has on the development of human resources. The study observed that the pace of growth of digital data networks have been phenomenal. This development has been possible due to the educational transformation of the society. This has impacted on every aspect of human endeavour. The study employed a survey design using ex-post –facto and guided by 3 research hypothesis of 36- item questionnaire known as Advances in the use of ICT and impact on Human Resources development (AIIHRDG) was constructed to elicit information from respondents. Independent T-Test statistics was used to analyze the data generated in the study. The finding revealed a significant relationship between growth of ICT and development of human resources. Based on the findings conclusions was drawn and recommendations were made that the curriculum of tertiary institutions should be radically overhauled to make ICT focused. Tertiary institutions should be fully automated and functional.

Keywords: Information communication technology, tertiary institutions, human resources development, mobile phones, information

INTRODUCTION

Information is vital to the overall development of human resources. Information technology and human resources development share a common phenomenon. In a technical sense, according to Omekwu (2004) Information technology is the convergence of computer systems with telecommunications network to enable individuals acquire process, store, retrieve and transmit data and information. The tools and infrastructure varies to the effective usage and management of information fall within the domain of information technology.

The birth and growth of digital data network for voice and data, integrated digital services for voice, data, picture and information communication technology (ICT) have no doubt been phenomenal in Nigeria called the digital revolution.ICT has in fact transformed human resources development in the area of economic, social and educational facts of mans experience at individual, institutional national and international levels. There are presently according to Corbet and Williams (2002) about nine ICT for education initiatives by individuals at various stages of human development which is being carried out by education coordinating agencies of Government and the Ministry of education.

They include:

The Nigerian University Network (NUNET) project

The Polytechnic Network (POLYNET) project

The school Net project

The Nigerian Education, Academic and research network (NEARNET)

The teachers network (TEACHNET) project

National Virtual (Digital) Library (ministry of education) (NUC)

National Open University (NOUN)

National Virtual Library (Ministry of science and Technology NITDA)

National Information Communication and Education programmes of the presidency (NUC 2000)

Advances in the use of ICT have great potential for teaching, learning and research. They offer opportunity to achieve social and system functions of individuals and education. One sector of our national life that has embraced and is being influenced a great deal by the ICT revolution is the educational sector. This development should be expected since the educational sector normally set the pace for any form of innovation and change. The dynamics of Information Technology has created a complete new world of learning concepts such as web-school, web-teachers, online learning modules and covers has provided limitless opportunities for human resources skill acquisitions and development. Dada (2000) captures this scenario more computer – assisted learning for human resource development has become

the vogue while instructions in basic technology of face – to – face interaction has eliminated. Lectures are now conducted online than in lecture rooms. The emphasis is getting the students started at their own pace, a computer assisted learning programs.

The role of technology in teaching and learning according to contemporary education policy. Most experts in the field of education agree that when properly used, information and communication technology hold great promise to resources through teaching and learning.

Gambari and Chike (2007) stressed the importance of using the most appropriate ICT for a given environment rather than the focus of ICT and education efforts on computers especially which will not lead to enhancement of learning outcomes of human resources research evidences confirmed that Nigerian educational institutions have logged behind in development on this note, Jensen (1998) reports that despite increase in ICT usage over the past few year, the ratio of usage was 1: 5,000 people in spite of this observation, advances in information technology has made work stressful through computer based teleconferencing a simple teacher can teach over a thousand of student in various lecture theater simultaneously teachers and other personals in educational institutions can presently visit specialist web site on worldwide web (www). Yumba (1996) has indicated that the www is the latest search tool on the ICT and has become the most popular of locating and retrieving information for the development of human society.

In other words, information and communication technologies (ICTs) has offered innumerable benefit in a enhancing human resources development in quality and quantity of teaching and learning of all levels education, especially tertiary institutions global trends information and communication technology demonstrates that power of ICT can contribute tremendously to the development of human resources in all institution access to information and communication technology (ICT) has become a variable factor in the development of human resources in cross River state tertiary institutions which has made some advances in use of ICT in reforming resources in educational system as a developing and complex community there is still poor level of awareness of the importance of awareness of the ignorance of the decision on the parts of policy maker about the power of information network. These have impacted on the development of human society.

At this juncture, one is worried that since this educational institutions are still far from realizing the potentials of ICT and might not have made to promoting ICT adoption and usage for improvement of human resources development they will not contribute to the enhancement of educational system through the use of information technology.

RESEARCH HYPOTHESIS

1. There is no significant influence in the use of mobile phones in the development of human resources.
2. There is no significant influence in the use of interact on the development of human resources
3. There is no significant influence in the use of computers on the development of human resources.

RESEARCH DESIGN

The study employed a survey design using ex-post-facto design. The study was survey design using ex-post factor design. The study was survey design because a questionnaire was used to collect data from population of student or staff of public and private educational institution in the state.

The sample of study was 223 academic and non-academic staff working in this higher educational institution. Data were collected using a research constructed instrument known as advances in the use of ICT and impact on Human resources development questions (AIIHRDQ). It was made up of two sections – A and B section. A contained the demographic (personal) information expressed in sin (6) variables. Section B had 30 items, 10 of measured academic and non- academic staff and students in private educational institutions, 10 measured the staff and student level of use ICT in academic work while the remaining 10 measured their attitude to using ICT facilities in their daily academic work. All the items in this section were on a four-point liker format. Export in measurement and evaluation did the face validity, while they were reliability co-efficient of 0.70 to 0.91 was obtained for the instrument. The administration of the instrument was personally carried out, which ensured a 100% return rate.

RESULTS

Hypothesis one:

There is no significant influence in the level of usage of mobile phone in private and public tertiary institutions, independent t-test statistical techniques is used to compare the mean(s) scores of the two classes of tertiary institutions in the level of advances in the usage of mobile phone (ICT) facilities for academic work.

Table one

Independent t-test statistical analysis of the influence in the level of usage of mobile phone facilities in public and private tertiary institutions towards the development of human resources.

S/n	Variables	Categories	N	X	SD	T-values
1	Insufficient numbers of mobile phones for use	Public	122	20.71	3.54	4.31*
		Private	101	18.34	4.45	
2	Use of mobile phone by only school managers	Public	122	21.21	3.73	6.24*
		Private	101	18.03	3.81	
3	Mobile phones are not used frequently	Public	122	41.53	7.67	5.37*
		Private	101	36.95	7.84	

Significant at 0.05: of =221, critical t-value=1.968

The result of the analysis in table one above reveal that the calculated t-values are 431 insufficient numbers of mobile phone for use for effective human resources development in private and public institutions, 6.24 for usage of phone by only school administrators and 5.37 for not frequently using mobile phone for academic work towards developing human resources.

The critical t-value is 1.968 at 0.05 level of significance and 221 degrees of freedom since the calculated t-values are found to be greater than the critical value, the null hypothesis is rejected. With this result therefore, there is a significant influence in the use of mobile phone facilities by both private and public tertiary institutions towards development of the skills of workers in the school system.

Hypothesis two

There is no significant influence in the use of computer facilities for human research development.

Table two:

Independent t-test statistical analysis of the influence using internet for academic work in educational institutions for human resources development

S/N	VARIABLES	CATEGORIES	N	X	3D	t-VALUE
1.	Internet facilities available but not frequently used	public	122	11.03	2.76	6.44
		private	101	8.84	2.33	
2.	Poor level of awareness of internet facilities	public	122	11.78	2.66	6.43
		private	101	9.72	2.13	
3.	Overall effort in the use of internet facility	public	122	22.61	4.38	5.90
		private	101	18.89	4.91	

*Significance at 0.051 df = 221, critical t-value =1.968

The result of the analysis in this table indicates that the calculated t-values are 6.44 for availability of internet in the school but are not frequently put to use for human resources development in the public and private institutions, 6.43 for poor level of awareness to use of internet facilities and 5.90 in the overall usage of internet (ICT) facilities, while the critical t-values is 1.968 at 0.05 level of significance and 221 degree of freedom. Since the calculated t-values are found to be greater than the critical t-values, the null hypothesis is rejected while the alternative hypothesis is retained. With this result therefore, there is significant influence of the usage of internet facilities for the development of human resources in both public and private institutions

Hypothesis three:

There is no significant influence in the use of computer facilities for human resource development.

TABLE THREE

Independent t-test statistical analysis of the influence of the use of computer technology in private and public tertiary institutions for human resources development.

S/N	**VARIABLES**	**CATEGORIES**	**N**	**X**	**SD**	**t-VALUES**
1	Insufficient numbers of computer facilities	PUBLIC	122	21.72	3.61	4.10
		PRIVATE	101	19.26	5.01	
2	Lack of computer literacy among staff of the institutions	Public	122	11.49	2.92	3.41

		Private	101	10.40	1.89	
3.	Absence of property developed computer curricular for computer skills	Public	122	33.80	5.48	5.41
		Private	101	29.52	6.02	

*Significantly at 0.05, df =221, crit t-value = 1.968

The results of the analysis presented in the table above show that the calculated t-values are 4.10 for insufficient number of computer facilities teaching and learning, 3.14 for lack of computer literacy among staff of the colleges and 5.49 for overall effort in the use of computer for human resources development while the critical t-value is 1.968 at 0.05 level of significance and 221 degrees of freedom.

Since the calculated t-values are found to be greater than the critical t-values the null hypothesis is rejected while the alternate hypothesis is retained. With this result therefore, there is a significant influence in the usage of computer facilities in both public and private Universities to develop human resources.

DISCUSSION

Results in table one was significant. That is the use of ICT facilities like mobile phone influences significantly the activities of the University system particularly in the development of human resources. These results imply that information and the technologies like mobile phone when available and properly used have become critical factor of production, decision making growth and development of human resources. These result imply that information and the techniques like mobile phone when available and properly used have become critical factor of production, decision making growth and development of human resources using of these ICT facility has far-reaching implications in the realization of the social functions of education. These functions according to Omekwu (2001) deal with the development of people for working life and caring for the youth by promoting group relations amongst them.

The communication aspect in the use of mobile phone has gained more significance in the educational institutions so that it is now more appropriate to use technology to emphasize the current trend in developing manpower for the sustenance of tertiary educational institutions in Cross River State.

This finding is supported by Yusuf and Onasanya (2004) who maintained that the use of ICT facilities such as Mobile phones has contributed immensely to the growth of human resources in the educational sector in fact, ICTs have become a natural part of man's and institutional daily life, thus their use in education by staff and students has ensured that they participate fully in the life of the contemporary fully in the life of the accomplish their everyday task.

The result of table two was also significant. Breakdown of the result revealed that the mean performance of the institution was 6 .44 when ICT internet facilities are available and put in use. But when not frequently used the mean dropped to 6.43 while the overall effort in the usage of internet for human resources development stood at only 5.90 in both private and public educational institutions indicating that the use of internet for studies is very negligible.

Research evidences conducted by Jensen (1998) on "information technology potentials for education" affirmed that Nigeria in general and Cross river in particular: tertiary institution have lagged behind in exploiting internet potentials for manpower development. His report further confirmed that despite increase in internet usage over the past ten years, the ratio of usage was 1:500 people internet readiness of educational institutions in the state is even more distressing. A study of Ademowo and Adekigbe (1999) reveal that only one public and one private tertiary institution out of five educational institutions have internet connectivity. Even in the same institution, only a few staff has access to the basic electronic mail facility available either in the University management office, the library or in the MIS unit. It is therefore difficult for educational institutions in the state to carry out research without access to internet based resources. Internet based learning/research environments assists the learner or researcher to acquire skills in specific desired disciplines as well as provide information on relevant job opportunities (Yumba, 1998:12).

Results in the table show the position of tertiary institutions in the use of computer facilities and the impact on the development of human resources. The result was significant since the calculated t-values were found to be greater than the critical value. This further

revealed that the use of computer has influence on the growth of both the structure of tertiary institutions and the staff.

In line with the analysis, Gambari and Chike (2007) maintained that computer should be used as tools for effective teaching and learning, research and information services at all levels of education for the growth of human resources. From the results on the table 3, a mean of 21.72 and 19.26 indicates insufficient numbers of computer facilities while a mean 11.49 and 10.40 revealed lack of computer literacy among staff of tertiary institutions. Availability and use of computer tools have made the work of educational institutions and the staff a lot easier, faster and less stressful. This observation is supported by Yumba (1996) who stated that through computer based teleconferencing, education institutions and staff can cover thousand students in various lecture theatres simultaneously. Lectures may be conducted on line than in lecture rooms. The emphasis would be providing opportunities for self development skill acquisition, creativity and effective communication skills.

Conclusion

Advances in the use of information and technology facilities have provided effective support systems in the development of human resources in our tertiary institutions. This has impacted fundamentally on student's research, conferences and publishing. This has also no doubt assisted learners to acquire skills in specific disciplines. In spite of this progress, it is however disturbing to note that the level of use of ICT in the state educational system is still very low which has been attributed to low level of awareness, lack of digital literacy and insufficiency of internet, computer and other infrastructures. It is a firm belief that the development of human resources cannot be realistic unless ICT initiative and usage by tertiary education system is packaged, networked and properly marketed if not, the objective of effectively developing human resources may not be fully realized.

RECOMMENDATIONS

Based on the conclusion, the following recommendations are made;

1. Presently, there is need for the curricula of our tertiary education system to be radically overhauled to make ICT focused and friendly by providing necessary infrastructure for its success. This is essential if the system is to develop and produce human resources.
2. Tertiary educational institutions should be fully automated and functional so as to be part of cyber space in human development.
3. Computer-based resource centers and internet literacy are essential for all cadres of Nigerian educators if human resources development is to be relevant in the society.
4. Educational planners and policy makers should accord ICT a priority of place in the nation's annual budget.

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