Utilization of Internet Services for Distance-Learning Education in Nigeria Universities, It's Implications on Millennium Development Goals

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Abstract:
The purpose of this study is to investigate the problems militating against the utilization of the internet services for Distance Education in Nigerian Universities and their implications for the achievement of the millennium development goals. Universities of Abuja and Lagos, which were the first charge with making the achievement of the objectives a reality, were used for the study. Internet has been identified as the most sophisticated and effective technological media for meeting the needs of delivery Distance education (DE). Descriptive survey was adopted for the study. The population was made of, 7000 staff and students. A sample size of 940 respondents which constituted 10% of the population was randomly selected involving a table of random digits. The instrument for data collection was the University Distance Survey Questionnaire (UDEDSQ) developed by the researcher based on the purposes and literature of the study. The instrument was face validated by three experts and cronbach Apha was used to establish the internal reliability consistency, a grand mean of 0.91. Consistency, grand mean 0.91. One research question was used to guide the study, some findings and recommendations were made. It was found that utilizing the Internet for Distance Education in Nigeria is characterized with lots of problems ranging from profound computer illiteracy, shortage of technological personnel, constant power outage, inadequate telecommunications, infrastructure, equipment, among others.

Key words: Internet Services, Distance-Learning Education and Millennium Development Goals

1. Introduction

Education is recognized the world over as the most vital tool for development. Equal access to education and adequate educational opportunities should therefore, be the right of every Nigerian citizen. The formal system of education alone obviously, cannot provide every citizen's educational needs.

Consequently, the need for an educational alternative becomes imperative in Nigeria. The Federal Government of Nigeria against this background established Distance Education (DE) at the Universities of Lagos and Abuja. The main objective, among others, was to widen access to higher education for Nigerian workers who need various types of formal continuing education in order to function better in their jobs.

Distance Education is a mode of providing education on non-residential basis to learners who are home-based and in most cases, full-time workers (Mohammed, 2000). For the purpose of this study, distance education is used to qualify various forms of study at various levels where the learners are not in physical contact with their teachers. The effort to make DE an educational alternative in Nigeria has not gone beyond the development of print median, which are supported by audio and video tapes. These media have offered many advantages to the users, as they are non –threatening, easy to use and easily referenced. The sole use of the print media has a number of problems such as the absence of face-to-face interaction and immediate feedback, among others, which make learning more difficult. These limitations provided the need for non-print media like the television, radio, telephone, computer and the Internet among others.

The Internet is a network of networks. It consists of millions of network connections spanning the globe and which by means of client devices such as computers, fixed and mobile telephone sets, digital cameras, etc. The Internet provides worldwide access to resources and information in such a way that from the comfort of one's home, motorcycle, airplane one can visit any country and have access to the resources, information from universities, government organizations and libraries (real or virtual) (Ikekonwu, 2003).

Assessing the level of the utilization of Internet in DE programmes, Zulu (1994) reported that the problem of computers in Africa, centers on their under-utilization, lack of indigenous maintenance capacity etc. Aleobua(1999). Reported that inadequate telecommunication infrastructure, high Internet access charges, high cost of computers, telecommunication equipment, shortage of

skilled technological personnel are problems associated with utilization of Internet for DE. Other problems include constant power outage, high rate of computer illiteracy as reported by Oduaran (1998) and Ekwelem (2003) respectively.

2. Statement of Problem

The demand for computer literacy seems not to have been matched by the provision of facilities for its application as profound computer illiteracy is hunting many African nations, inadequate telecommunications infrastructure, high Internet access charges, high cost of computers and technological personnel are also Internet problems. Other problems include bureaucratic bottleneck of government high tariff, constant power outage, poor state of infrastructure and limited access to computers.

Considering that the Internet seems to be the most sophisticated and effective technological media for meeting the needs and the ever-demanding and increasing mode of delivery in distance education, it is, therefore, considered worthwhile to investigate the problems militating against the utilization of Internet for distance education in Nigeria.

3. Purpose of the Study

The purpose of the study therefore, is to investigate the problems that militate against the utilization of the Internet for distance education in the Universities of Lagos and Abuja and implications for the achievement of the millennium development goals.

What are the problems associated with the utilization of the Internet for DE in the Universities of Abuja and Lagos?

4. Hypothesis

There is no significant difference in the mean ratings of the respondents of the Universities of Lagos and Abuja and Lagos on the problems associated with the utilization of the Internet for distance education.

5. Methodology

The study adopted a descriptive survey design and was carried out in the DE Centres of Universities of Lagos and Abuja. Theses universities were the first two charged with making the objectives of DE in Nigeria a reality. The population of the study comprised all 7000 staff and students of the Universities of Lagos and Abuja who were involved in the distance education degree programmes. A sample size 940 subjects were randomly selected involving table of random digits, which constituted 10% of the population. The instrument for data collection was the University Distance Education descriptive Survey Questionnaire (UDEDSQ) developed by the researcher based on the purpose of the study/ the UDEDSQ was to elicit information from the problems associated with the utilization of the Internet for DE in the Universities of Abuja and Lagos. The instrument was face validated by three experts, two in DE from the Universities of Abuja and Lagos and one in measurement and evaluation, University of Nigeria, Nsukka respectively. Ten copies of the instrument were administered to both staff and students who were not used for the study during one of their weekend lectures to measure the reliability of the instrument. Cronbach Apha was used to determine the reliability coefficient of the instrument. The Internal consistency estimated for the respondents yielded 0.8. Out of the 940 copies of the instruments distributed, 746 copies were recovered. 746 copies of the questionnaire were used. This constituted 79.36% of the total copies distributed. The data were analyzed using weighted mean and the hypothesis was tested using t-test 0.05 level of significance. The criterions mean 2.5. This implied that mean score 2.5, was regarded as important or acceptable, while any below 2.5 was considered unacceptable.

6. Results

Problems associated with Internet for DE	Students Mean (0)	Staff Mean (0)	Abuja Staff & Students Mean (0)	Lagos Staff & Students Mean (0)	Decision
a. Constant power outage	3.15	3.16	3.19	3.11	Agree
b. Limited access to computer creates barriers to effective utilization of Internet	2.88	2.90	2.91	2.84	Agree
c. High rate of computer illiteracy	3.04	3.08	3.10	2.96	Agree
d. Poor state of infrastructures	2.91	3.04	2.99	2.82	Agree
e. High cost of computer and telecommunication equipment	2.04	3.20	3.11	2.93	Agree
f. Lack of indigenous computer maintenance capacity	2.75	2.82	2.81	2.69	Agree
g. High cost of computer does not afford me the opportunity of having one	2.74	2.85	2.81	2.65	Agree
h. lack of skilled qualified personnel	2.87	2.80	2.84	2.61	Agree
i. Low speed of the computer	2.49	2.44	2.39	2.59	Disagree
j. Inadequate telecommunication infrastructure	2.87	2.88	2.92	2.80	Agree

	Students Mean (0)	Staff Mean (0)	Abuja Staff & Students Mean (0)	Lagos Staff & Students Mean (0)	Decision
k. High Internet access charges	2.75	2.70	2.70	2.79	Agree
l. Bureaucratic bottleneck of the government	2.52	2.5	2.44	2.62	agree
Overall	**2.84**	**2.86**	**2.85**	**2.78**	Agree

Table 1: Mean Rating on the Problems Associated with the Utilization of the Internet in two University

Table 1 reveals that constant power outage, limited access to computers create barriers to effective utilization of Internet, high rate of computer illiteracy, poor state of infrastructures, high cost of computer and telecommunication equipment, lack of indigenous computer maintenance capacity, and high cost of computers, do not afford one the opportunity of having one. Others are lack of qualified technicians to repair the computers, inadequate telecommunication infrastructure, high Internet access charges and bureaucratic bottleneck of government with mean scores of 3.15, 3.16, 3.19, 3.11, 2.88, 2.90, 2.91, 2.84, 3.04, 3.08, 3.10, 2.96, 2.91, 3.04, 2.99, 2.82, 3.04, 3.20, 3.11, 2.93, 2.75, 2.82, 2.81, 2.69, 2.75, 2.70, 2.76 and 2.52, 2.51, 2.44, 2.62 respectively. These are accepted as problems by respondents from Universities of Abuja and Lagos while low speed of the Computer as a problem by respondents from Universities of Abuja and Lagos with scores of 2.49, 2.44, 2.39, and 2.59 are not accepted as problems associated with the utilization of the Internet for DE programmes of the two universities.
The overall means of 2.86, 2.82, and 2.78 imply that the respondents accepted the above variables as problem associated with the utilization of Internet for DE.

7. Hypothesis
There is no significant difference in the mean rating of respondents of the Universities of Abuja and Lagos on the problems associated with the utilization of Internet for DE.

Problems	Universities	Number of Mean Respondents (0)		Standard Deviation SD	Degree of Freedom (DF)	Calculated f	Critical t at 0.05 level	Decision
a. Constant power outage	Uni Abuja Uni Lag	314 432	0.92 0.90	744	1.07	1.07	1.96	Accept NS
b. Limited access to computers create barriers to effective use of internet in DE	Uni Abuja Uni Lag	314 432	0.99 0.91	744	0.82	0.82	1.96	Accept NS
c. Low speed of Internet	Uni Abuja Uni Lag	314 432	0.79 1.89	744	4.83	4.83	1.96	Reject S
d. Poor state of infrastructures	Uni Abuja Uni Lag	314 432	0.88 0.86	744	1.50	1.50	1.96	Accept NS
e. High cost of computer and telecommunication equipment	Uni Abuja Uni Lag	314 432	0.99 0.86	744	40.18	40.18	1.96	Reject S.
f. Lack of indigenous computer maintenance capacity	Uni Abuja Uni Lag	314 432	1.01 0.89	744	16.43	16.43	1.96	Reject S
g. High cost of computers does not afford me the opportunity of having one	Uni Abuja Uni Lag	314 432	0.90 0.89	744	0.02	0.02	1.96	Accept NS
h. Lack of qualified technicians to repair the computer	Uni Abuja Uni Lag	314 432	0.78 0.86	744	18.39	18.39	1.96	Reject S

Problems	Universities	Number of Mean Respondents (0)	Standard Deviation SD	Degree of Freedom (DF)	Calculated f	Critical t at 0.05 level	Decision	Problems
i. High rate of computer illiteracy	Uni Abuja Uni Lag	314 432	0.76 2.32	744	1.48	1.48	1.96	Accept NS
j. Inadequate telecommunications infrastructure	Uni Abuja Uni Lag	314 432	0.78 0.86	744	13.70	13.70	1.96	Reject S.
k. High internet access charges	Uni Abuja Uni Lag	314 432	0.70 0.78	744	1.71	1.71	1.96	Accept NS
l. Bureaucratic bottleneck of government	Uni Abuja Uni Lag	314 432	0.87 0.89	744	0.39	0.39	1.96	Accept NS

Table 2: t-test Mean (0) Rating Respondents of Universities of Abuja and Lagos on Problems Associated with the Universities of Abuja and Lagos on problems Associated with the Utilization of Internet for DE Programmes

Data on Table 2 have shown that each of these items, constant power outage, limited access to computers create barriers to effective use of Internet in DE, poor state of infrastructures, high cost of computer does not afford me the opportunity of having one. Other barriers include high rate of computer illiteracy. Low speed of the computer, high Internet access charge and bureaucratic bottleneck of government have calculated values of t of 1.07, 0.82, 1.50, 0.02, 1.48, 1.71 and 0.39 respectively. Each of these values is less than the critical t-value of 1.96 at 0.05 level of significance and 744 df. This means that for each of these problems associated with the utilization of Internet for distance education in Nigeria, the null hypothesis of no significant difference between the mean ratings of respondents in Universities of Abuja and Lagos Centres was upheld. This means, that there is no significant difference between respondents in UniAbuja and UniLag in respect of items a,b,d,g,I and l.

However, the same table shows that for low speed of computer, high cost of computer and telecommunication equipment, lack of indigenous computer maintenance capacity, lack of qualified technicians to repair the computer and inadequate telecommunication infrastructure, their respective calculated values of 4.83, 40.18, 16.43, 18.39 and 13.70 are more than their respective critical value of 1.96 at 0.05 significance level and 744 df. This reveals that their corresponding null hypothesis in respect of difference between the mean rating of respondents in UniAbuja and UniLag was rejected; indicating that for each of the problems associated with the utilization of Internet for DE in both Universities, there is a significant difference between the mean ratings of respondents across the two Universities.

8. Discussion

The result showed that the respondents accepted that all the items on the table were problems associated with the Internet for DE. These findings are true of Nigeria because the problems of computers in African countries centre on their under-utilization, lack of indigenous maintenance capacity, their being of exclusively foreign origin and shortage of power supply. The findings are in line with the observation of Aleobua (1999) that inadequate telecommunications infrastructure and perhaps more importantly, the associated regulatory environment that controls it, high Internet access charges, high cost of computers and telecommunication equipment and shortage of skilled technology personnel were among many constraints to the development of the Internet in developing countries. Supporting the finding still, Zulu (1994) was of the view that Internet is geared towards the revolutionalization and industrialization of education in Nigeria but is under-utilized due to the poor state of infrastructures and limited access to computers that created barriers to the effective use of the Internet in distance education in Nigeria.

The findings of the study showed that there was no significant difference between the respondents of the Universities of Lagos and Abuja on problems are constant power outage, limited access to computer, high rate of computer illiteracy, poor state of infrastructure, unaffordability of computer, owing to high cost, lack of qualified technicians, low speed of the Internet, inadequate telecommunication infrastructure and high Internet access charges. This is because the calculated value of t is lower than the critical t-value of 1.96 at 0.05 levels of significance and 744 degree of freedom. The finding is not unexpected because the above problems are prevalent in every State in Nigeria and actually reflect the sit5uation in the country. This is infrastructure and limited access to computer creates a barrier to effective use of Internet services in distance education. The finding is also consistent with Aleobua (1999) who identified inadequate telecommunications infrastructure, high Internet access charges and shortage of skilled technology personnel as problems associated with Internet utilization.

The finding further indicated that there was significant difference between the respondents across the two Universities in relation to high cost of computer and telecommunications equipment, lack of indigenous computer maintenance and bureaucratic bottleneck of government. The findings are true because the universities are in different locations and one may be equipped than the other depending on a lot of variables for a example, leadership, management, funds e.t.c. The findings are in consonance with Aleobua (1999) and Ekwelem (2003) who were of the opinion that high cost of computer and telecommunication equipment, lack of

indigenous computer maintenance and bureaucratic bottleneck of government constituted barriers to the utilization of Internet for DE, apparently because of some of the reasons or more given earlier.

9. Implication and Recommendations

A critical look at the Millennium Development Goals (MDGs) indicates that education is vital in the attainment of the Millennium development goals. Considering the importance of education in the attainment of the nine MDGs, every government must see the education of her citizens as a priority. Distance Education (DE) as part of education is saddled with the responsibility of widening access to education or providing education for all through the use of Information and Communication Technology (ICT). However, if DE is faced with the identified problems and efforts are not made towards addressing them, the implications are that the MDGs will not be achieved within the internationally agreed time frame of 2015.

The application of ICT in development, which is recognized in goal eight of the MDGs, will not be attained or realized. Government and Universities running DE programmes should sponsor the training of adequate and qualified indigenous personnel and these personnel should from time to time be constantly retrained to keep abreast with technological development. Government should institute legal and regulatory policies that will make these facilities accessible to the participants. Furthermore, donor agencies should assist Universities running DE programmes.

The universities running DE programmes should source for funds internally to provide alternative sources of power supply regularly in case of power outage. Government should reduce or remove completely most of the bottlenecks and policies which render computer and its accessories expensive.

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