Assessment of Internet Service Quality and Customers' Satisfaction in University of Ilorin, Ilorin, Nigeria

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Abstract
This study examined internet service quality and its effects on customers' satisfaction in University of Ilorin, Nigeria. The objective of this study was to find out the awareness, technical difficulty and perception of internet users in the university. Questionnaire was the major instrument used to gather relevant data. Data were collected from respondents from ten faculties, including 60 academic staff, 40 non-academic staff and 100 students making a total of 200. Four research questions were formulated for the study and percentage was used to analyze the data. The results from the research indicated that: 91.6% of the academic staff, 95% of non- academic staff and 75.5% of students testified to the fact that internet services were available in the university.53.3% of the academic staff, 60% on non-academic staff and 85.7% of students also stated that inadequate or insufficient bandwidth and poor electricity were part of the challenges that hinders the effective usage of internet. Based on the problems encountered, 58.3% of academic staff, 52.5% of non- academic staff and 65% of students were not satisfied with the internet service quality they enjoyed.65% of academic staff, 60% of non- academic staff and 50% of students reacted positively to the fact that the quality of its service delivery would be granted if improved.Based on the findings of the study, it was recommended amongst others, that the university should improve on the quality of their interaction with the customers to alleviate their apprehensions about more bandwidth, internet training and constant electricity. These will allow for satisfaction and retention of customers and optimize their limited resources.
Keywords: Assessment, Internet service quality, Customers' satisfaction

INTRODUCTION
Background of the Study
Information and Communication Technology (ICT) refers to technologies people use to share, distribute, and gather information and to communicate through computers and computer networks (ESCAP, 2000). Onasanya (2009) defines ICT as computer based tools used by people to work with the information and communication processing needs of an organization. It encompasses the computer hardware and software, the network and several other devices. ICTs can be described as a complex varied set of goods, applications and services used for producing, distributing, processing, transforming information- (including) telecoms, television and radio broadcasting, hardware and software, computer services and electronic media (Marcelle, 2000). ICTs represent a cluster of associated technologies defined by their functional usage in information access and communication, of which one embodiment is the Internet.

Hargittai (1999) defines the Internet technically and functionally as follows: the Internet is a worldwide network of computers, but sociologically it is also important to consider it as a network of people using computers that make vast amounts of information available. Ogunlade (2008) asserted that Information communication technology provides an avenue for people of the developing nations of the worlds to accelerate or increase their developmental growth. She also submits that a society that doesn't have adequate facilities for gathering information is living in ignorance. The internet is a network of the interlinked computer networking worldwide, which is accessible to the general public. These interconnected computers work by transmitting data through a special type of packet switching which is known as the internet protocol.

In the research carried out by Sunran (2008) on mobile internet service quality and customer satisfaction in Korean students attending universities in the republic, she found out that three attributes, ubiquity, reachability and instant connectivity were found to have effects on mobile internet service quality. Also Ogunlade and Olafare (2011) carried out a research on advantages of Internet and Intranet for knowledge creation among lecturers and students in university of Ilorin, they observed that in order for the effective utilization of internet, staff should have easy connection and the students should have access to internet service.

This study sought to assess the level of internet service quality and customer satisfaction based on awareness, technical difficulty and perception of both staff and students toward the use of internet in such areas as on- accessibility by students', lack of insufficient systems in the schools e-library, poor connectivity and lack or poor electricity supply etc.

Purpose of the Study

The main purpose of this study was to assess internet service quality and customers' satisfaction in University of Ilorin, Nigeria based on awareness, technical difficulty and perception. Specifically, the study sought to find out:

1. The availability of internet services in university of Ilorin.
2. Staff and Students' satisfaction with internet service quality on campus
3. The problems encountered in the use of internet by students and staff.
4. If there is any positive relationship between internet quality service and customers' satisfaction.

Research Questions

In order to evaluate internet service quality and customers' satisfaction, answers were sought to the following questions:

1. Are internet services available in university of Ilorin?
2. Are staff and students of the university satisfied with the quality of internet service they enjoy?
3. Are there problems encountered in the use of internet by students and staff?
4. Is there any positive relationship between internet quality service and customers' satisfaction?

REVIEW OF RELATED LITERATURE
The Internet as an Overview in Educational System

According to Onasanya (2009), Information and communication technologies offer several opportunities in education. They can be used as a means of preparing the current generation of students for future workplace that is, providing tools for tomorrow's practices. Today's students live in a global knowledge- based age and they deserve teachers whose practice embraces the best that technology can bring to learning. Also, Ogunlade (2010), submitted that through the use of ICT, the lecturers' role are now changing, they surf the internet for various data that can be used to contract research that will improve the lot of higher education and other relevant areas such as, promoting better quality research, data processing, text searching for update and global link of research.

Wattal, Yili, Mandviwalla and Jain (2011), submitted that many technologies and service plans for Internet access allow customers to connect to the Internet. Consumer use first became popular through dial-up connections in the 20th century. By the 21st century, most products were marketed using the term broadband According to Hatem, (2011) Internet access has grown from 10 million in 1993 to almost 40 million in 1995 and 670 million in 2002. It is estimated that the Internet now has 1.97 billion users. Despite this tremendous growth, Internet access has not been distributed equally throughout the world.

According to McCollum (2011), whether someone has access to the Internet can depend greatly on financial status, geographical location as well as government policy. Access to computers is the most dominant factor in determining Internet access. The United States has invested billions of dollars in efforts to breach the digital divide and grant Internet access to more people in low-income areas of the United States. In 2009, The National Center for Education Statistics reported 93% of classroom computers had Internet access; and there was about one computer available per every five students. The Internet has proved to be a spawning ground for a large and growing number of e-businesses (including subsidiaries of traditional brick-and-mortar companies) that carry out most of their sales and services over the Internet. Many experts believe that the Internet will dramatically transform business as well as society. (Encyclopedia Britannica Library)

The gap between people with Internet access and those without it is one of the many aspects of digital divide. Digital divide refers to "the gap between people with effective access to information and communications technology (ICT), and those with very limited or no access to ICT". ICT consists of "televisions, telephones, videos and computers", (Wattal, Yili Mandviwalla, Jain, 2011).

The Benefits of Internet Usage in Education

According to Ogunlade and Olafare (2011), the internet is a global network of computers that connects independent networks containing information of any kind that can be assessed and retrieved by all users all over the world. Learning can be provided and teaching can be done through internet services like the electronic mail (email), telnet, File Transfer Protocol (FTP), Goptar, video conferences and the World Wide Web. Teachers have the chance to be able to teach at more than one place simultaneously. They may be in a small town but through the Internet, they can be linked to students in more populated areas. Also, the Internet enables administrators and teachers to spend less time on administration and recordkeeping thereby giving them more time to spend with their students.

Assessment of Internet Service Quality and Customers' Satisfaction Measurement

Assessment can be described according to Abiri (2007) as the process of passing judgment on the value or worth of an object, a person, an event, a thing or undertaking. Beyond this conception, however assessment is a goal-oriented component of all decision –making activities and it involves the collection of and analysis of relevant data so as to be able to make adjustment towards pre-determined goals. Thus, assessment of internet service quality theory and customers' satisfaction is a process of determining the extent to which the objectives based on the uses of internet are achieved. The effectiveness of assessment is the assurance that the quantitative value obtained from assessing the internet is accurate.

Quantitative value from the data gathered on the assessment can provide accurate measurement of a particular phenomenon being assessed. Service quality has been defined as a global judgment or attitude relating to the superiority of a given service (Parasuraman, Zeithami, & Berry, 1988 Zhilin, Robin, Peterson, & Shaohan 2003) submitted that in the recent years, a number of researchers have attempted to identify the global attributes that have contributed significantly to consumers' service quality assessment. Ogunlade (2008) also asserted that Information communication technology provides an avenue for people of the developing nations of the world to accelerate or increase their developmental growth. She also opined that a society that doesn't have adequate facilities for gathering information is living in ignorance.

RESEARCH METHODOLOGY

Research Design

This study employed a descriptive survey method. This method was used to allow the researchers a vivid description of the internet service quality and

customer s' satisfaction in University of Ilorin.

Sample and Sampling Technique

The population of this study cannot be fully covered, hence, the need for sample. Purposive sampling technique was used to collect data from a sample of 200 people from the population that use internet services in university of Ilorin. The researchers made efforts to approach the academic staff, non academic staff and students from   the faculties in the university for the purpose of obtaining prompt responses.

Research Instrument

A well structured researchers-designed questionnaire was used to collect data. The items in the questionnaire required yes or no response. The copies of the questionnaire were administered personally by the researchers. The questionnaire comprised 2 sections . Section A was for the respondents' bio-data under which gender, status, level, faculty and department of the respondents were categorized. Section B of the questionnaire dealt with the respondents' levels of internet facility they enjoyed based on awareness, technical difficulty and perception.

Procedure for data collection

Data was collected by direct administration. The instrument was administrated to respondents and retrieved immediately after the respondents had filled them.

Data Analysis Technique

Data collected for the study were analyzed using percentage.

DATA ANALYSIS AND RESULT

Data Analysis

The analysis of the data obtained in respect of research questions are presented as follow:

Research question 1.

 Is internet service available in university of Ilorin?

Table 1: Availability of internet service in university of Ilorin

S/No Question	Academic staff				Non-academic staff				Students			
	Yes	%	No	%	Yes	%	No	%	Yes	%	No	%
1. Internet service are available in University of Ilorin.	60	100	0	0	40	100	0	0	93	93	7	7
2. The internet service provider is available in my department.	50	83.3	10	16.7	36	90	4	10	8	58	42	42
Total	**110**	**91.6**	**10**	**8.4**	**76**	**95**	**4**	**5**	**151**	**75.5**	**49**	**24.5**

Table 1 revealed that an aggregate of 91.6% of academic staff were of the opinion that the internet service was available in the university and their department while 8.4% disagreed. Also, 95% of non-academic staff was of the opinion that internet service was available in the university while 5% disagreed. 75.5% indicated that internet service was available in the university and their departments while 24.5% disagreed.

Research question 2. Are there problems encountered in the use of internet by staff?

Table 2 : **Problems encountered in the use of internet (staff)**

S/No	Question	Academic staff				Non-academic staff			
		Yes	%	No	%	Yes	%	No	%
1.	The internet is easy to connect in University of Ilorin.	32	53.3	28	46.7	24	60	16	40
Total		**32**	**53.3**	**28**	**46.7**	**24**	**60**	**16**	**40**

The table shows that 53.3% of academic staff encountered problems in the use of internet while 46.7% disagreed. Also 60% of non-academic staffs agreed that they encountered problems while 40% did not.

Table 3: Problems encountered in the use of internet (students)

S/No	Question	Students			
		Yes	%	No	%
1.	Inadequate power supply hinders the effective use of internet	93	93	7	7
2.	There is always network traffic in the effective usage of the internet	86	86	14	14
3.	I have experienced difficulty logging into the internet.	78	78	22	22
Total		**257**	**85.7**	**43**	**14.3**

The table shows 85.7% of students encountered problems in the use of internet while 14.3% did not encounter problems.

Research question 3.

 Are staff and students of the university satisfied with the quality of internet service they enjoy?.

Table 4: Satisfaction of internet service quality.

S/No	Question	Academic staff				Non-academic staff				Students			
		Yes	%	No	%	Yes	%	No	%	Yes	%	No	%
1.	I am satisfied with internet service quality I enjoy.	25	41.7	35	58.3	19	47.5	21	52.5	35	35	65	65
Total		**25**	**41.7**	**35**	**58.3**	**19**	**47.5**	**21**	**52.5**	**35**	**35**	**65**	**65**

The table indicates that 41.7% of academic staffs were satisfied with the internet service quality while 58.3% were not satisfied. For the non-academic staffs, 47.5% were satisfied while 52.5% were not satisfied with the internet service quality they received. Also the table 3 shows that 35% of students were satisfied with the internet service quality while 65% were not satisfied with the service.

Research question 4.

 Is there any positive relationship between internet service quality and customer satisfaction?

Table 4:Relationship between internet service quality and customer satisfaction.

S/No	Question	Academic staff				Non-academic staff				Students			
		Yes	%	No	%	Yes	%	No	%	Yes	%	No	%
1.	There is a positive relationship between internet service quality and customer satisfaction.	39	65	21	35	24	60	16	40	50	50	50	50
Total		**39**	**65**	**21**	**35**	**24**	**60**	**16**	**40**	**50**	**50**	**50**	**50**

From this table, it was revealed that 65% of academic staffs agreed that there was a positive relationship between internet service quality and customers' satisfaction while 35% disagreed with the statement. For non-academic staffs, 60% agreed with the statement while 40% disagreed. Also, 50% of the students agreed while 50% disagreed with the same statement, having an equal proportion.

Summary of Major Findings

        The findings obtained in this study are summarized as shown below. In finding out about the availability of internet service in the university 100% of academic staffs, 100% of non academic staffs and 93% of students agreed that internet service was available. Also, 83.3% of academic staff, 90% of non academic staff and 58% of students had internet services in their departments. The respondents that agreed with the statement had the higher percentage; this implied that of a truth the internet was available in the university.

        For the aspect of problem encountered in the usage of internet, 53.3% of academic staff, 60% of non academic staff faced more problems in connecting to the internet, meaning that more problems were encounter in the usage of internet.

        Moreover, it was observed that 93% of students agreed that inadequate power supply hindered the effective use of internet, 86% indicated that there was always network congestion in the effective use of internet, likewise 78% experienced difficulty logging into the internet server .

Furthermore, in finding out if staff and students were satisfied with the internet service they enjoyed, 58.3% of academic staff, 53% of non academic staff and 64.5% of students were not satisfied. These indicated that the quality of internet was not enjoyable as the result of the problems encountered such as poor electricity supply, bad connection and others.

Finally, in terms of the positive relationship between internet service quality and customers' satisfaction, 65% of academic staff, 60% of non academic staff and 50% of students had a high percentage. This is a pointer to the fact that for internet service to be more effective, there should be a positive relationship between internet service quality and customers' satisfaction.

CONCLUSION AND RECOMMENDATIONS
Conclusion

The conclusion that could be drawn from this study is that, both staff and students have hard about internet in the university but some did not have the access in their department. Staff found it difficult to connect to the internet while most students had no internet access at all.

It can be inferred from this study that perceived values and service quality are affecting the level of customers' satisfaction and in turn, customers' satisfaction affects customers' perception.

Academic status had no effect on the pattern of use of technology-based services. Generally both staff and students preferred to use innovative and technology-based delivery, which suggested that the school will enjoy good and healthy relationship with the customers given that the quality of its service delivery is guaranteed.

Recommendations

On the basis of the findings in this study ,the following recommendations were made.

1.   The university should capitalize on the spread of communication technology and the theory of innovations, like Technology Adoption Model, Diffusion of Innovation Theory. They should develop strategies to motivate non- users through awareness, education, extending personalized services, and demonstrating the functions of internet through seminars and workshops.

2.   Also the standard of internet service offered was very low. This should be improved upon through further increase in band width so as to enjoy the internet service.

3.   It is evident that convenience, efficient operation, security and privacy, reliability and responsiveness were not the only characteristics that influenced customers' satisfaction. The other factors that contribute to customers' satisfaction included trust, value, and image of the institution. University management should monitor the environment and identify the trends through intelligence. They need to constantly up-date and differentiate their internet service provider (ISP) to ensure continuous satisfaction and retention of customers, and optimize their limited resources.

4.   The number of computers in the e-library should be increased so as to minimize waiting time in the queue. This will improve the efficiency in the service delivery, hence, boosts customers' confidence for those without laptop.

5.   Government and education stakeholders should support on-line learning by creating a class web site for lecturers to ease communication with their students and also to reduce the work load of lecturers and administrators.

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