

Students' Perception of the Usability of Federal University of Technology Minna e.portal As a Communication Platform.

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Abstract

The research was a study on student's perception of the usability of Federal University of Technology Minna e-portal as a communication platform. The objectives were to find out the frequency of use of FUT Minna e.portal among students, ascertain if the portal is user friendly, determine the level of students satisfaction with the use of the portal and to find out the key problems affecting the usability of the portal . Survey method was adopted while questionnaire was the research instrument. The population of the study was 19607 students. Krejcie and Morgan sample size determination was used to arrive at a sample size of 377. Data was analyzed using frequency table and percentages. Findings revealed that over 50% of students find the e-portal not user friendly. Students access the portal mainly for registrations, checking of results and payments of school fees. More so, students rarely access the portal for academic purposes . Further findings revealed that it takes more time carrying out a single task on the portal thereby consuming much data. Frequent change of password and difficult processes involved in retrieving same,. Thereby giving rise to students worry on their security and privacy. The study therefore recommends that the university's Information and Technology Service (ITS) should provide more reliable and stable student password, redesign the interface to be more usable and support services for students amongst others.

Keywords: *multimedia, human computer interaction, e.portal, web usability, user experience,*

Introduction

From far and wide people across the globe has benefited largely from innovations in technology in one way or the other, however these innovations have more to deliver than we think. For instance, it has transformed the media from what it used to be from analogue to multimedia. Another benefit of innovation in technology is the internet. According to Azman, Salman, Razak & Hussein (2014). It is reported that 39% of global population are hooked online.

Furthermore, it is almost impossible to talk about the internet without making mention of the usage of website which has come to play a central and obvious role in our lives, businesses and career. For instance, website is being adopted by various institutions all over the world and as such, the educational institution is not left out. It has embraced the use of websites for educational purposes knowing that knowledge is fast becoming a powerful engine in life.

Education is a major sector that has been digitally transformed. He further stated that almost all universities discharge their academic and administrative duties on web-portals. This implies that a portal is an important communication platform between universities and her publics. This was supported by Pierce (2005) & Hasan (2013) when they added that school e-portals helps students to perform various functions online.

In placing more emphasis, Andalib & Danaee (2013), stated that, e-portal is the first point of contact between universities and her publics thereby exhibiting the duty of a public relations officer on behalf of the institution and as a receptionist to her publics to know more about an institution. It is a primary user interface for resources, information or provision and promotional activities embedded on the Web. This claim is further buttressed by similar articles done by Straub & Watson (2001) & Jarvenpaa & Todd (1997). In addition, they stated that portals provide indispensable services their visitors. From literatures advanced so far, it indicates that e-portal is a key tool of communication in the educational circle. Thus, institutions of higher learning (Universities) are constantly venturing into new innovative ways of enhancing their educational outlook rapidly.

If this be the case, then there is need to make university e-portals which is a major communication platform between university and students or visitors user friendly in order to attract and keep users glued to the portal including students who are the major target audience of the university. Hence the need to examine the usability of university's portal and to find out if it has lived or living up to this expectation.

Statement of the problem

As a result of the trend in institutional e-portals, most academic institutions in Nigeria and all over the world have invested and are still investing substantially in web portal in order to take advantage of the possibilities that the technology offers in terms of communication to their students and publics. The widespread adoption of the e-portal technology by academic institutions has instigated research into the usability of web portals. This is due to the fact that most e-portal design and efforts are focused on technology and business objectives rather than user needs (effective interaction with the portal with little or no assistance).

Kuthous, Hashim, & Siarap (2014), categorically stated that, it is best that the creation of university portal should be carefully designed to ensure efficient (usability) strong and strengthens brand name of the Institution positively to the public. The advantage of adhering to this important factor is that, the use of the e-portal by universities will create huge shift in the educational service paradigm. However, it is not enough to think that simply owning an e-portal will make it prosper on the web therefore there is a great need for "usability". Indeed, the usability level determines if a user experiences satisfaction in communicating with the portal or not.

Usability assessment serves as feedback mechanism and can be used to enhance information systems to better meet users' needs. In addition, students should be able to find their required data efficiently according to their individual needs such that time is not wasted as students use it as they want. Thereby enhancing free flow of communication from the university to her target publics especially students of that particular institution.

One of the challenges in designing e-portals is ensuring that it is usable. However, it is not an easy task to accomplish as it sometimes can lead to frustration. There is a need to design usable educational e-portals, where students can participate in educational activities. It is not strange to note that students' visits the portal, but leave because they do not manage to find what they are searching for. This ought not to be. An informational web structure, proper page layout, easy navigation and accessibility features should be able to provide the comfort to students and make them feel pleasant when interacting with the portal. An important characteristic of any multimedia (e-portal) platform is interactivity and usability. Users should be able to access the portal with little or no assistance.

University on the other hand should be able to put up a platform that will attract and sustain its users while meeting their needs simultaneously. It is against this backdrop that the study seeks to examine student's perception of the usability factor in FUT Minna e-portal and to ascertain if it has lived or living up to expectation as a major communication platform between the university and students.

Objectives of the study

The objectives of the study are to:

1. Find out the frequency of use of FUT Minna e-portal amongst students.
2. Ascertain if the portal is user friendly.
3. Ascertain the level of student's satisfaction with the use of the portal.
4. Find out the key problems affecting the usability of FUT Minna e-portal.

Review of concepts

Imperative of websites as a communication platform in universities

Communication is actually a very complex subject, but simply put, it is the act of transferring information from one place, person, or group to another. However, in the advent of technology, communication can be referred to as the transferring of information from a technological platform in order to foster interaction between technology and its audience or users.

Recall that Andalib & Danaee (2013), as mentioned in the introduction of this study stated that, e-portal is the first line of interactions between the universities and the patrons which can be the students, staff or the public thereby playing the role of a public relation for the tertiary institution and the first point of contact to the web visitor either nationally or internationally to know more about an institution. It is a primary user interface for resources, information or provision and promotional activities embedded on the Web.

Through the university website as communication platform, time and money are saved. This is because it is much cheaper and quicker to transfer information around. It becomes faster and efficient for students for instance to contact the university for information, updates, registrations, payment of fees etc instead of travelling a long distance to the university in order to obtain certain information.

If the use of university website is very paramount, then there is need to pay attention to its use among users in order to generate more traffic and enhance the visibility of the institution to the world. It is also very important to make the portal more user friendly thereby aiding free flow of communication from management to users.

Concept of university web portal as communication platform

Worjtkowski & Major (2007), defined web portal as a collection of technologies that functions together as a presentation tool to securely display corporate data, add to information on the Internet, customize and simplify access to that information. According to him, university portal is designed to create room for more formal interactions and provide content and services that serves different stakeholders' needs including students, faculty, researchers and alumni. Prospective students can seek information about admission issues, current students can enquire about their results or register for new courses, staff can follow the university's latest news and alumni can seek announcements regarding job openings, official announcements, registrations, and many other processes. Sharma & Gupta (2005) and Abuhamdieh & Schwail (2007), in their article added that other capabilities of e-portals include unified login, personalization, document management, personal and group calendars, to do list and system security.

Conceptual clarification on Usability factor in web portal

Generally speaking, usability is a crucial part of the design process of an e-portal and should be able to meet users' needs. In the last few decades, there has been an increasing focus placed on web usability. It has been diversely defined by different scholars in the context of e. portal/website, and discussed in human-computer interaction (HCI) literatures.

According to Mentis & Turan (2012), usability often refers to how well users can use the functionality of the system. In order for educational institutions to interact with its stakeholders, a website can serve as a platform for providing information to a wide variety of users. This requires achieving high levels of usability.

Furthermore, Mirfa & Walayat (2012), viewed web usability as making the design simple enough so that customers, who by nature tend to be goal-driven should be able to achieve their aim whenever they visit the portal, they maintained that the web should be designed in such a way that it can help users' accomplish their task as quickly and painlessly as possible.

This point is further explained by Ahmet & Aykut (2012), that by addressing the critical usability elements of the design process, most specifically the site navigation architecture, and ensuring that it is intuitive and consistent with usability feedback received, users is easily able to move around the site and are better able to focus on the content. In addition to the existing literatures on web usability, Alsudani & Casey (2009), pointed out that the basic factor to consider when developing any software which includes websites should be, how usable is the website?

From the perspective of an academic e-portal, a usable portal will ensure that the functions provided by the university online can be utilized by the users. This is because most university e-portals use it as the medium for a faster dissemination of information and services. It is important that usability is one of the key concerns in the design. Without usability, an e-portal will not be the medium of choice for users' thus making the e-portal a waste.

This is in line with the research by Mckinney & Zahedi (2002), where they mentioned that an e-portal will be abandoned if the users have difficulty searching or retrieving their needed information, even if the e-portal provides the information necessary to complete the intended task. However, usability is not an easy element to be incorporated into e-portal design process. Mirfa & Walayat (2012), emphasized that usability is more like a balancing act. Insufficient functionality will make the application (e-portal) useless while the complexity and clutter make an interface difficult to use.

Furthermore, The International Standard Organization, (2001), noted that usability connotes understandability, learnability, operability and attractiveness and defined it as "the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use"

Bevan (2001), categorized the standards related to usability as follows:

- a. The use of the product (effectiveness, efficiency and satisfaction in a particular context of use).
- b. The user interface and interaction.
- c. The process used to develop the product.
- d. The capability of an organization to apply user-centered design.

Mentes & Turan (2012) and Shackel (1984), added that usability primarily focuses on making a system easy to learn and use. Studies show that redesigning user interface of a system based on the user testing is to iterate design and usability evaluation until a satisfactory solution is achieved. Hence, every university e-portal should provide good usability.

Factors to consider in measuring usability of e-portals

To simplify the notion of usability, Shackel's concept of usability was taken into consideration. He described usability as "a technology's capability to be used easily and effectively by the specified range of users, given specified training and user support, to fulfill the specified range of tasks, within the specified range of environmental scenarios". Usability typically refers to the elegance and clearness with which the user interface of a computer program or a website/e-portal is designed. He presented a model of product perception where product acceptance is the highest level of concept. System acceptability is determined by three factors, such as utility, usability and likeability.

Utility refers to a system whether it does what is needed functionally. Usability refers to ability of users to utilize the functionality in practice, while likeability refers to affective evaluations. Furthermore, utility, usability and likeability are balanced against the cost of the system, thus, acceptance of a system is the function of perceived utility, usability, likeability and costs. This concept explains that measuring usability is based on functional requirements on the following four scales:

- a. **Effectiveness:** this refers to the outcome of interactions, with regards to quickness and glitches. It deals with the speed with which tasks are being called out on website once users are accustomed to it.
- b. **Learnability:** this pertains to the association of effectiveness to teaching, and consistency of utilization. The ease with which users especially visitor on the web can manage to exercise all basic functionalities of the website design.

- c. **Flexibility:** refers to adaptation to tasks and/or environments, apart from the above mentioned; and
- d. **Attitude:** this refers to the acceptable levels of human costs in terms of tiredness, discomfort, frustration and personal effort.

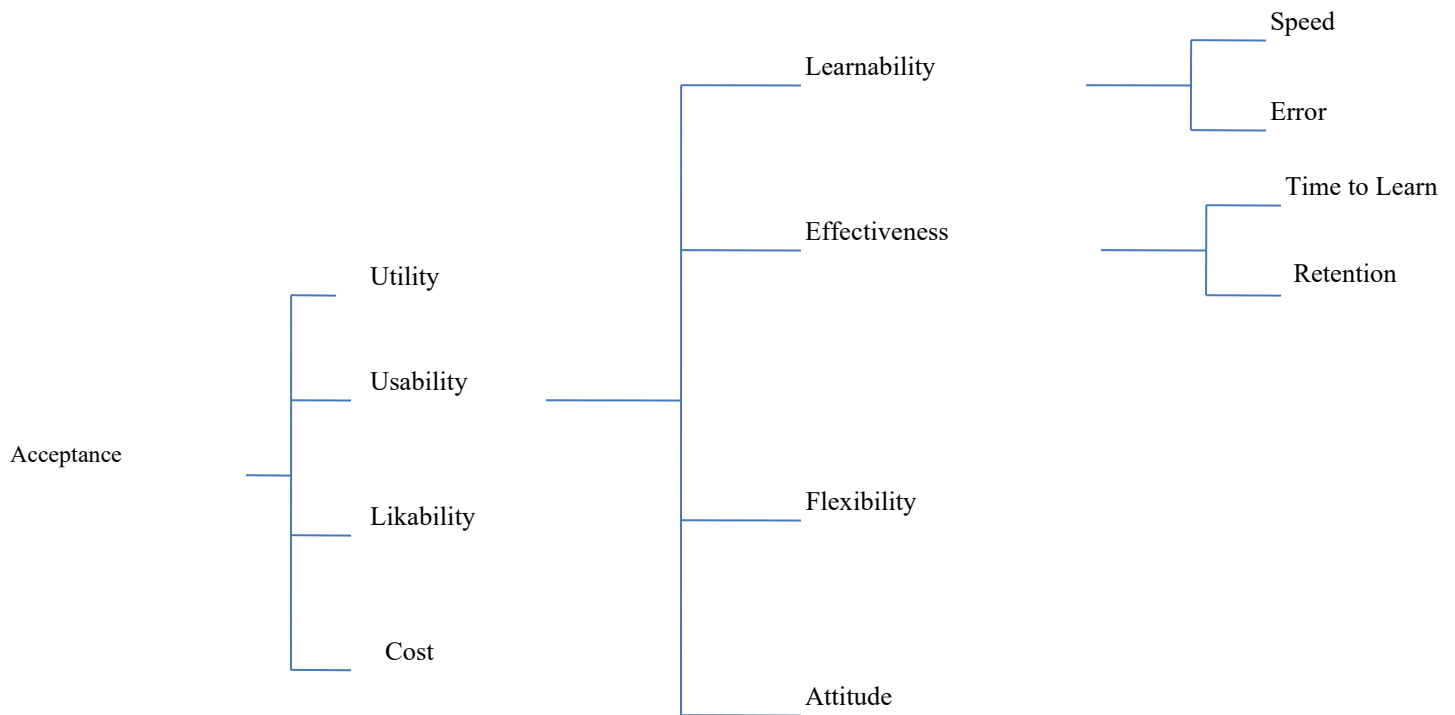


Figure 2: Usability concept of Shackel

Review of Empirical Studies

Omotunde, Babalola & Omotunde (2014), carried out a study on undergraduate students’ assessment of e-portals in selected private universities in South-West Nigeria., One of the objectives amongst others was to ascertain the ease of use of the selected university’s portal. The researchers adopted the survey method while self-structured questionnaire was the instrument used. Data were collected from Babcock University, Covenant University and Bowen University respectively.

Results showed that in terms of ease of use, more than half of the students revealed that their e-portal is complex to use, that navigation between web pages were difficult such that it requires technical assistance to use the e-portal. Further findings also revealed that low poor internet service is one of the challenges hindering undergraduates’ use of the university e-portals in South-West Nigeria amongst others. Both studies are similar in terms of subject matter and research method adopted but slightly differs in location where the study is being carried out and framework adopted.

In another study by Throwfeek & Salam (2014), they examined Students’ assessment on the usability of e.learning websites. The authors maintained their focus on web design as a measure for web usability. They argued that university websites should care about the design of the website and should develop usable websites to enable students’ access educational data easily.

Findings from the study revealed that experiences of students do not carry much connotation but that the usability attributes are vital for the natural and spontaneous interactions with e.learning websites. Both studies are similar in the survey methods adopted for the study. Both studies are concerned with the usability factor in e.portals but differ in theoretical approach. However, e.learning is outside the context of this study.

Furthermore, Olaleye, Sanusi, Ukpabi & Okunoye (2018), did an evaluation of Nigerian Universities websites quality. The crux of the research was anchored on the reason why one university website is better than the other in respect to quality and accessibility. The study evaluated 141 Universities in Nigeria across the 40 Federal, 39 State and 62 privately owned universities respectively.

Findings from the study revealed that many universities websites across the country are below average and needed urgent search engine, technology and social media optimization. Further findings revealed that trust and confidence to use a website is very important. Relevant bodies should endeavor to check the trustworthiness of Nigerian universities websites at random with Web of Trust (WOT) tool. It was also discovered that academic community rating of the university websites is rare in Nigeria. Only few universities had 'good' and 'excellent' rating for trustworthiness

Both studies differ in method. While the reviewed study adopted certain website quality features such as WebQual and SiteQual as its framework, this study adopted the Technology Acceptance Model (TAM) as its theoretical underpinning. Both studies share similar interest in terms of assessing certain qualities that makes up a good website, although the elements considered are different both are geared towards effectiveness and efficiency of portals.

Fadi (2012), conducted a study aimed at investigating users' perceptions towards website quality and to identify the effect on their intention to use e-government services in Jordan. The researcher used a non-probability sample method (convenient sampling design) to collect data for her study.

Results from the survey revealed that design and interactivity affects the intention to use, increases the level of users' engagement and subsequently increases the intention to use online services. Both works are similar in the method adopted but differ in theoretical framework. The reviewed study focused on users' perception towards website quality and its intention to use e.government services in Jordan while this study focused on students' perception of the usability of Federal University of Technology Minna e.portal.

Another study by Azman, Maslinda & Habee (2017), was undertaken to examine the importance of balancing usability and aesthetic elements in universities' website. The objective of the study was hinged on the vitality of a well-designed website in order to reflect the image of the universities, such that both usability and aesthetic elements of a website must be properly considered during the design process.

The study was conducted using the systematic literature review methodology (SLR) by Kitchenham (2004), which is a form of secondary study. The purpose of using SLR in the study was to gather the area of study regarding overall description of a quality website, web usability measurement, the importance of website aesthetics, web aesthetic measurements, to know whether there are researches regarding relationship between web usability and web aesthetics, and to gather the appropriate method to measure web usability based on the aesthetic design of the website.

Findings from the study showed that, there is a huge relationship between web usability and web aesthetics. Thus the study concluded that value should not be placed on web usability over web aesthetics. The studies differ in method and framework. Also the reviewed study focused on the relationship between web usability and aesthetic while this study is primarily concerned with usability element of Federal University of Technology Minna e-portal. The reviewed study wasn't hinged on any theoretical framework or empirical data to back up its findings; this is not the case with this study.

Theoretical Framework

Because of the usability focus and concern of this research, this study is anchored on Technology Adoption Model (TAM) propounded by Davis, Venkatesh, Morris & Davis (2003). The theory was used to explain user adoption of technology and how it is used in various environments. TAM is a model that shows how users accept and use technology. According to Karahanna, Straub & Norman (1999); Kuthous, Noor, Hashim & Siarap (2014) and Wixton & Todd (2005), the basis of this theory is built on the premises that when users are presented with a new technology, three major factors are considered as determinants of key predictors that influences users' decision on how to and when they use it. These are namely: perceived usefulness (PU), perceived ease of use (PEOU) and Attitude towards user (ATU).

- **Perceived Usefulness (PU)** is the degree to which a user believes that using a particular system would enhance his/her work or job performance. Davis, Venkatesh, Morris & Davis (2003) considered what the users perceive and how easy their work will be improved when a new technology is used. It is the subjective probability that there will be improvement in the way users carry out their work when using a particular technology.
- **Perceived Ease of Use (PEOU)** "is the degree to which a user believes that using a particular technology or system would be free of efforts". It considers how a user perceives a system to be better than its substitute. Davis, Venkatesh, Morris & Davis (2003).

- **Attitude Towards use (ATU):** is described ATU as “an individual's positive or negative feeling about performing the target behavior (e.g., using a system)”.

This theory agrees with the fact that when users are presented with a new technology, they do not just automatically accept and get carried away using it. A number of factors influence their decision on whether to accept it or not, as well as how and when they will use it. The model aims not only to explain key factors of user acceptance of ICTs but also to predict the relative importance of such factors Davis, Venkatesh, Morris & Davis (2003). Technology Acceptance Model explores that factors that affects behavioral intention to use, and that information or computer systems have a causal linkage with how easy they find the usability of that system.

Matching this side by side, this theory is relevant to this research because it agrees with the fact that students of Federal University of Technology Minna will develop a positive intention of using the e-portal if they find it easy to use. This implies that, similarly users’ positive attitude toward a specific technology leads them to developing an intention to use the technology

Research Methodology

The research design employed in this study was survey and questionnaire was the research instrument. The scope of study was limited to students of Federal University of Technology Minna, Niger State Nigeria. Therefore population for the study comprises of nineteen thousand six hundred and seven (19,607) graduate and undergraduate students of the Federal University of Technology Minna as at the 2017/2018 academic session. This information was obtained from the Information Technology Service division of the Federal University of Technology, Minna, Niger State. The Non-probability sampling technique was used, but in the case of this study, the strata are the 8 schools or faculties in FUT Minna. The sample size was 377, this was drawn using Krejcie and Morgan (1970), table of finite sample size determination, which establishes sample size at ninety five percent confidence level for research activities.

The researcher used the stratified random sampling technique was adopted for this study, while quantitative method of data analysis was used to analyze the data collected. A 12 item questionnaire was administered on respondents to generate relevant data for the study. The questionnaire was analyzed using cross tabulation with frequency tables and simple percentages. The format Mae the presentation clearer and the calculation of percentage scores much more feasible The analysis of the result is presented below.

Data Presentation

Table 1: Distribution of the total number of registered students for the 2017/2018 academic session with respect to faculty, gender and level

SCHOOLS	GENDER	100	200	300	400	500	600	700		TOTAL
SAAT	FEMALE	242	287	208	195	206	55	5	1198	2531
	MALE	255	304	275	195	212	71	21	1333	
SEET	FEMALE	363	90	66	71	50	9	0	649	4224
	MALE	932	742	632	716	422	120	9	3575	
SEMT	FEMALE	1	65	52	66	60	7	0	251	938
	MALE	4	184	137	160	169	27	5	687	
SET	FEMALE	114	111	120	107	151	26	1	634	3606
	MALE	589	642	548	548	442	135	29	2972	
SICT	FEMALE	20	58	46	53	49	2	0	228	1177
	MALE	138	319	138	167	158	25	4	949	
SLS	FEMALE	240	267	174	163	130	10	3	988	1800
	MALE	176	207	163	130	122	25	5	812	
SPS	FEMALE	150	186	109	109	138	12	3	707	3529
	MALE	729	731	443	425	391	82	19	2822	
STE	FEMALE	60	62	103	91	129	14	2	461	1802
	MALE	201	270	203	327	260	67	12	1341	
TOTAL		4212	4526	3452	3507	3089	687	118	Grand Total	19607

Table 1: Distribution of the total number of registered students for the 2017/2018 academic session with respect to gender and level

The study used these schools as groups from which the sample was drawn. The calculated percentage of each school determined the number of samples distributed to each school. Simple percentage was used to ensure that the ratio of population between schools is maintained. Samples drawn from each school amounted to the total sample size when summed up.

Table 2: Sample size distribution across each school/faculty

SCHOOLS	Population	Sample Size	Percentage %
School of Agriculture & Agricultural Technology (SAAT)	2531	49	12.9
School of Engineering & Engineering Technology (SEET)	4224	81	21.8
School of Entrepreneur & Management Technology (SEMT)	938	18	4.8

School of Environmental Technology (SET)	3606	69	18.4
School of Information & Communication Technology (SICT)	1177	23	6.1
School of Life Sciences (SLS)	1800	34	9.1
School of Physical Sciences (SPS)	3529	68	18
School of Technical Education (STE)	1802	35	9.2
TOTAL	19,607	100	377

Table 2: same size distribution across each school

According to Krejcie & Morgan (1970), when a population of study is above 15,000 and less than or equal to 20,000, the sample size of the population to be used would be 377. A close look at the information above shows that the population of this study is 19607 students, which is above 15,000 and less than 20,000. Therefore, the sample size for this study is 377 students.

Table 3: Frequency of use of Futminna e-portal amongst students.

How often do you access the e-portal	How can you rate your frequency of use of the e-portal			Assuming some activities do not require to be done on the e-portal, would you still use it?				
Response	Frequency	Percentage%	Response	Frequency	Percentage%	Response	Frequency	Percentage%
Daily	19	5.0	Excellent	26	7	Yes	286	71
Weekly	57	15.12	Good	68	18	No	109	29
Fortnightly	83	22.02	Undecided	15	4			
During reg, Payments and Checking of Results.	214	56.7	Average	204	54			
Others	04	1.06	Poor	64	17			
Total	377	100	Total	377	100	Total	377	100

Table 3: Frequency of use of university's' portal amongst students.

The table above is a proof to verify that the level of student's use of the portal is average

Table 4: User friendliness of the Futminna e-portal

Is the University's e-portal user friendly?	If No, what are your reasons?				
Responses	Frequency	percentage%	Responses	Frequency	%

Yes	259	68.7	Frequent change of passwords	126	33.42
No	118	31.3	Long and stressful process of password retrieval	27	7.16
			Network unavailability/inaccessibility issue/service efficiency	10	2.65
			wastes time to load thereby leading to it been slow in carrying out task	27	7.16
			Poor navigation	37	9.81
			Poor and unattractive user interface	29	7.7
			Selection of specific browser to operate on (not workable with all kinds of browser)	21	5.77
			Logging in problem	74	19.63
			Too many un-functional contents are packed up on the e-portal	26	6.9
Total	377	100	Total	377	100

Table 4: User friendliness of the Futminna e-portal

From the data above, it is obvious that students do not find the technology (e-portal) user friendly because of the factors stated in the table above; hence it affects their use of the e-portal which is reflected in their frequency of use as revealed in Table 3

Table 5: Level of students' satisfaction with the use of the e-portal

Are you satisfied with the use of the e-portal			How do you rate your level of satisfaction		
User satisfaction	Frequency	percentage%	Response	Frequency	Percentage%
Yes	118	51.3	Very satisfied	8	4
No	259	48.7	Satisfied	61	16
			Undecided	98	26
			Strongly Dissatisfied	10429	
			Dissatisfied	10927	
Total	377	100	Total	377	100

Table 5: level of students' satisfaction with the use of the e-portal

The information above clearly shows the level of students' dissatisfaction with the portal.

Table 6: Major challenges affecting the usability of the Futminna e-portal

Challenges affecting the usability of Futminna e-portal	Frequency	Percentage%
Frequent change of passwords students' password and difficult password retrieval process	221	58.62
Slow and poor accessibility of the e-portal / logging in error leading to service time out response.	87	23.08
Level of data consumption is high	34	9.02
Difficult navigation	30	7.96
No challenge encountered	5	1.32
Total	377	100

Table 6: challenges affecting the usability of the e-portal

Discussion of Findings

With respect to the first objective of this study, findings revealed that the rate of frequency of use of the portal is average. It is obvious from the findings that students hardly visit the university's portal except for registrations, payments and checking of result purpose. One can conclude from the data that if activities such as registrations, payments and checking of results were not compulsorily done via the e-portal, majority of the students in Fut Minna wouldn't have accessed the e-portal.

Furthermore, result from research question two which sought to know if the FUT Minna e-portal is user friendly revealed that majority of the respondents expressed their dissatisfaction as regards the user unfriendliness of the university e-portal. They raised issues such as: frequent change of students' password and ID, difficult processes involved in password retrieval, poor and unattractive interface design, they also expressed dissatisfaction of the e-portal as not workable on every browsers thus, it selects specific browser that it operates on (specifically the FUT Minna portal work more on Chrome and Firefox browsers only), network unavailability/inaccessibility amongst other issues are factors hindering the user friendliness of the university e-portal.

The reasons for user unfriendliness of the portal as revealed by findings is in line with the research by Mckinney, Yoon & Zahedi (2002), where they mentioned that an e-portal will be abandoned if the users has difficulty searching or retrieving their needed information, even if the e-portal provides the information necessary to complete the intended task

In addition, result from the findings is also in line with the theoretical framework adopted in this study which is Technology Adoption Model (TAM) propounded by Davis, Venkatesh, Morris & Davis (2003). The theory agrees with the fact that when users are presented with a new technology, they do not just automatically accept and get carried away using it. A number of factors influence their decision on whether to accept it, how and when they will use it (e-portal).

It is obvious from these findings, that students do not find the technology (e-portal) user friendly because of the factors earlier stated hence it affects their use of the e-portal which is reflected in their frequency of use of the FUT Minna e-portal as revealed in data on table 1.

Another objective of the study was to ascertain students' satisfaction with the use of the FUT Minna e-portal. From the responses gathered, majority opined that they are not satisfied.. This can be attributed to the same reasons behind user unfriendliness as shown in Table 2. From the findings so far, even though the number of students that visits the e-portal is very high, this particular finding revealed that they are not equally satisfied with the use of the portal. Their patronage is as a result of necessity

Going by this, the theoretical framework for this study play a very vital role because they are not comfortable with the ease of use of the technology (e-portal).which signifies that they are not satisfied with the use of the e-portal. Similarly, the International Standard Organization, (2001), noted that usability connotes understandability, learnability, operability and attractiveness and defined it as "the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use

Going by these standards, it is imperative that further research be conducted to verify these key ingredients as pointed out by the ISO if they were actually considered in the design of the university's portal. If these key ingredients are present, then the position of students in terms of satisfaction in the use of the portal is false, otherwise, there may be need to redesign the portal to capture these specification in other to best satisfy the needs of users.

A close look at Table 3, revealed the key problems affecting the usability of the universitys' e-portal. From the response, one major problem identified by 221 respondents representing (59.62%) which is a vast majority of the sampled population is the issue of frequent change of user's password and the difficult process involved to retrieval of the password. Reponses from students revealed their grievances with the Information Technology Services (ITS) for frequent change of student's password which is supposed to be confidential to students.

On the other hand, one of the positions of this study in respect to the password issues raised by students is that frequent change of passwords is one of the security measures in securing personal details and hackers as far as internet is concerned, therefore, it might not really be a deficiency on the part of FUT Minna. However, there is need to balance between security issues and unsatisfactory use of the portal.

Other challenges include: having to click too many links to access one's profile, service time out response issue, unorganised user interface, network unavailability issues, too many contents being packed up on the e-portal, logging in error, difficult password retrieval process and also the portal selects specific browsers to work with amongst other challenges.

It is also important to point out that during the researcher's one on one contact and interaction with respondents it was glaring that a little more than half of the 377 students are not aware that the university has a help desk that can address some of the challenges they encounter while accessing the e-portal, some are aware of the help desk service. Only 60 respondents representing 15.9% that are aware of the help desk service have actually used it at some point in the past and they attested that the service is generally good as they were more positive than negative feedbacks while a larger range of 317 respondents representing 84.1% have not at any point used the services of the help desk.

Conclusion and Recommendations

The research work focused on students' perception of the usability of FUT Minna portal.The objectives of the study amongst others were to find out the frequency of use of FUT Minna e-portal amongst students, ascertain if the portal is user friendly, find out the level of student's satisfaction with the use of the portal and to unravel the key problems affecting the usability of the FUT Minna e-portal. The findings showed that the frequency of use of the portal among students is on the average and that the portal is not user friendly, further findings revealed that students

are dissatisfied with the use of the portal as a result of challenges ranging from frequent change of password and the long process of retrieving same, complex interface, server time out issue among others

1. Based on the findings, therefore, the paper recommends that: Ease of use should be made more effective and efficient (user friendly mechanism should be more considered) such as: navigation through and around the e-portal should be made easy and exciting to the users this will attract more users to the portal. This will be achieved through redesigning of the e-portal. Furthermore, redundant contents (repeated contents) such as staff, students, alumni, parents, publications and latest links located on the top (header) and bottom (footer) making the interface look clumsy and monotonous should be eliminated, regular maintenance should be done to improve the server time out issue and efforts should be made to solve the error logging in problem, and other problems associated with passwords.
 2. The e-portal should be workable on every browser. An upgrade should be made on the portal such that it will be accessed on any kind of browser; the portal should be more mobile friendly as more students make use of their phones than laptops in order to access the e-portal. Also, the portal should be able to work with little network strength.
 3. Updates of information should be uploaded on the e-portal regularly.
 4. The issue of unsatisfactory use and security issues relating to the website should be considered university should take note of what Mirfa & Walayat, emphasized that usability is more like a balancing act. Insufficient functionality will make the application (e-portal) useless while the complexity and clutter make an interface difficult to use.

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