

Examining The Perception of Learners on the Efficiency of National Open University of Nigeria, University E-Learning platform Jigawa State, Nigeria.

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Abstract: There is a need of door learning due to the too much expensive for traveling from one location to another is becoming a challenges, when you're offering an online course you can continues your own schedules without hangings with too much stress around you. National Open University of Nigeria (NOUN) was established to offer an online education to learner's in an organizational setting. Whenever a new technology is deployed, it is necessary to evaluate its success, so as to understand if its' embraced by the users. In this context, this study aimed at Examine the perception of e-learners on the efficiency and reliability of the NOUN e-learning platform from the 'quality' point of view. A descriptive correlation and cross sectional research designs were used in this study. Data were collected from 60 respondents using a survey questionnaire. Findings of the study revealed that there is a moderately significant relationship between System Quality on Continual Usage Intention which indicates that the quality of the platform can affect students to continue to using the system. Also, the findings also indicate that, the e-learners are satisfied with the quality of the Course Content provided on the platform. Therefore, it is necessary for the developers to improve on the System Quality of the NOUN e-learning platform because the more the e-learners perceived the system to be of quality, the more they are likely to use.

KEYWORD: Noun, Examine, E-learning, E-learners, System Quality, Ease of Use,

INTRODUCTION

Online education system is increasing in the Africa and world at large, where by technology is improving. ELearning or virtual learning is education system that not required meeting face to face by using technology. Clark and Mayer (2011) define e-learning as instruction delivered by any technological method intended to promote learning. They is a problems in accessing the education vie the new technology introduced Information and communication tools that are used the users are not well familiar with impact these resources are having on education are rapidly creating new challenges for instructor and learners while learning. Teaching and learning in an e-learning environment happens differently than in the traditional classroom. There is need of e-learning to identify the challenges and consider best practice solutions to ensure instructor and learner success in this new learning environment. Therefore, there are threethings to consider in e-learning environment first is the instructor's, second, the student's and technology that are used.

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The challenges of the new technology is to know how to use the internet and the information technologies that are currently transforming education (Bernard, 2011; Hall, 2013). According to Warschauer (2003) the new methods of education by using technology is marked not only by physical access to computers and connectivity but also by access to the additional resources that allow people to use technology well” (p. 6). (Bernard, 2011) also added that due to the affordability of many information technologies today the current meaning of new technology is changing from having access but to knowing how to use the technologies. According to Rosenberg, Grad and Matear (2013) attitudes towards e-learning echoed by scholars and academics range from neutral to positive. Rhema and Miliszewska (2014); Smith and Hardaker (2010) reflected positive attitudes towards the impact of e-learning while Johnson (2005) stated that greater online teaching has negative impact on performance. Study conducted by Alharbi and Drew (2014) revealed that Perceived Usefulness is the most important factor for students while Perceived Ease of Use is the most important aspect of teachers.

Definition of Quality

Quality can simply be defined as the fitness for use for a specific data set. Data that is appropriate for use with one application may not be fit for use with another (Buckey, 2012).

System Quality

System quality is a measure of an IS from the technical and design perspectives. Thus, perceived system quality can be defined as the users’ evaluation of an IS from the technical and design perspectives. Perceived System Quality has been operationalized in many different ways in the IS literature.

Perceived Usefulness

Described as “the prospective user’s subjective probability that using a specific application system will increase his/her job performance within organizational content”.

Perceived Ease of Use:

Individual’s assessment that technology interaction will be relatively free of cognitive burden, i.e., Ease of Use reflects the facility with which the individual is able to interact with particular software (Fageeh, 2011).

Objectives of the Study

To examine the perception of users (e-learners) on the efficiency of eLearning technology and their certifications of the system quality and content quality.

System Quality, studies the success at technical level. It focuses on the desired characteristics of the information system itself which produces the information. Secondly, Information Quality concentrates on the information produced by the information system. Looking at the third and fourth dimensions respectively, Use and User Satisfaction are measure in other to analyze the interaction of the information products with its recipients. Individual Impact refers to the influence of information product on management decision and on organizational performance (Organizational Impact).

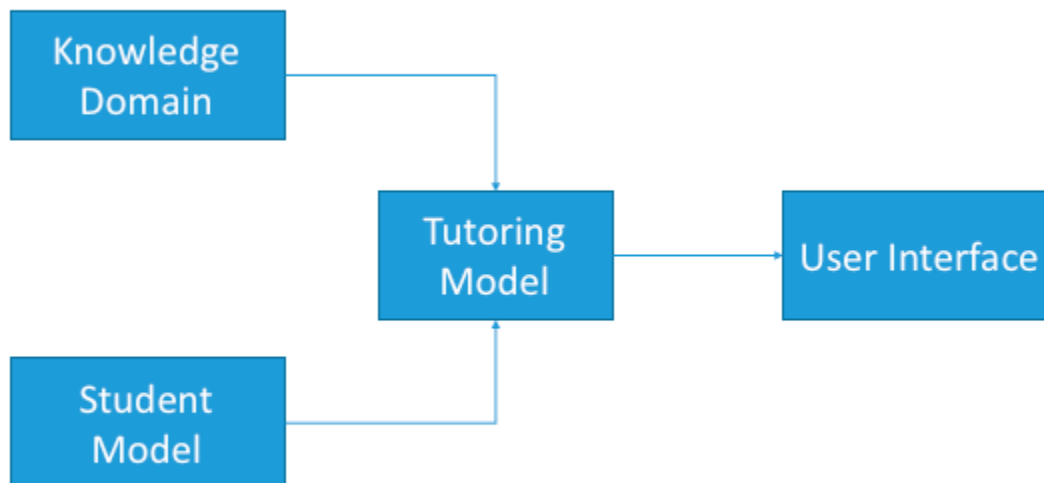


Figure 1: IS success modelSource: Jose Omedes (2016)

Nasser and Zaied (2012) generated a new model for evaluating information systems success (ISS) by applying the concepts of both Technology Accept Model (TAM) and DeLone and McLean updated the IS success model. In their model, they added the following dimensions: Management Support, Training and User Involvement. Management Support refers to the management approval and continues support not only during the IS project implementation but also throughout the operational phase of the system. Training is the level of training an organization's employees undergo with respect to information systems that will have a positive relationship implementation and lastly, User Involvement was defined as a matter of importance and personal relevance that Users attached to a given system. The finding of their study revealed that, Information Quality has a strong significant influence on IS success.

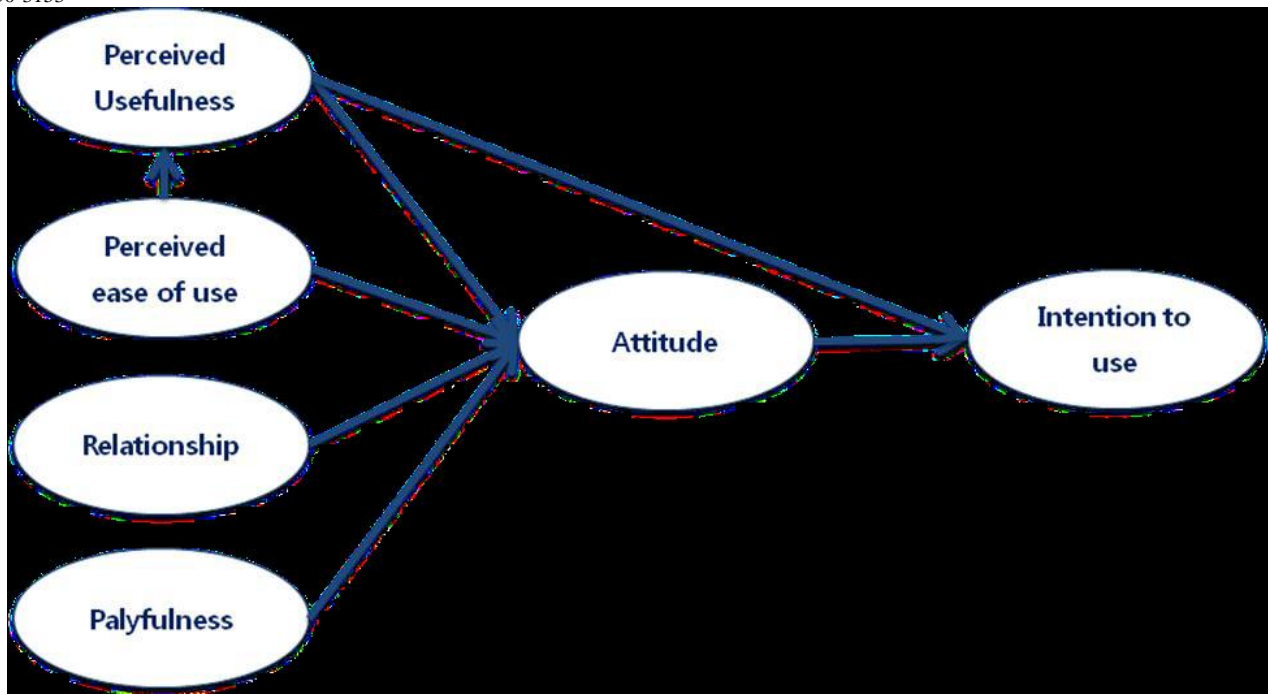


Figure 2: Technology Acceptance Model

Source: Nasser and Zaied (2012)

Acceptance of e-learning involves acceptance of technology, but differs in some key respects as the pedagogical aspects need to be considered. Studies of e-learning technology acceptance have considered Technology Acceptance Model (TAM) or Unified Theory of Acceptance and Use of Technology (UTAUT) and tested it on either teacher (Nanayakkar, 2007; Yuen & Ma, 2008). These studies provide evidence for centrality of attitudes in acceptance of e-learning. It is found that Perceived Ease of Use is the most important aspect for teachers, while Perceived Usefulness is the most important factor for students (Alharbi and Drew, 2014).

In this model, computer user is determined by behavioral intention that is formed by Perceive Usefulness and Attitude. Use of e-learning environment might be stimulated by two dimensions of motivators: extrinsic (Perceived Usefulness) and intrinsic (User Satisfaction). Perceived Usefulness is described as “the prospective user’s subjective probability that using a specific application system will increase his/her job performance within organizational content”. Perceived Ease of Use is an individual’s assessment that technology interaction will be relatively free of cognitive burden, i.e., Ease of Use reflects the facility with which the individual is able to interact with a particular software artifact (Fageeh, 2011). Studies on e-learners have revealed that Perceived Usefulness positively predicts students’ academic performance and satisfaction. So, Perceive Usefulness and Satisfaction constitute students’ perception.

The re-specified/extended (ISS) model proposes that Perceived Quality as operationalized by the four dimensions of information quality, system quality, service quality, instructor quality have significant association with Perceived Usefulness and User Satisfaction, which in turn have a positive relationship with Continual Usage Intention of e-learning management system. This study adapt and apply the Technology Acceptance Model (TAM) and the Re-Extended Information System Success Model (ISSM) to understand e-learners’ perception about NOUN E-learning system. Failing to meet students’ need may lead to low level of satisfaction and in turn low level of participation. This implies that, students’ perception is linked to improve academic performance as well as continued learning. Behavioral intention refers to the individual’s decision regarding future system use. Use behavior refers to the actual usage of the system.

Understanding why people use or discard computer systems/applications has become one of the most challenging issues in research on information systems. In literature, it is possible to identify various theories that attempt to predict the impact of technology on human behavior such as Unified Theory of Acceptance and Use of Technology (UTAUT), Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), and Information System Success Model (ISSM). However, this study will focus on Technology Acceptance Model (TAM) and Information System Success Model.

According to Ramayah and Lee (2012) and Lowga (2014), information system success model (ISSM) of Delone and McLean (2003, 2004) has received great attention in Information System (IS) literature and provides a theoretical basis for investigating student's attitudes and continual usage intention of web-based learning management system. Information system model and theories are commonly used in many studies that investigate determinants of the acceptance and usage of e-learning technologies. The first version of the Delone and McLean's (1992) model has six major constructs/dimension of IS success: System Quality, Information Quality, Use, User Satisfaction, Individual Impacts, and Organizational Impacts. Delone and McLean (2003, 2004) further extended the model to include Service Quality as the third quality factor, Intention to Use and Net benefits as new constructs/dimension.

Numerous studies on e-learning have attempted to make modification to the Delone and McLean (2003, 2004) model. For example, Ramayah and Lee (2012) conducted a study base on the extended model of Delone and McLeans (200,2004) IS Success model to examine the role of quality (service quality, information quality and system quality) in influencing use satisfaction and continuing usage of an e-learning system. The result of their study shows that information quality, system quality and service quality were positively related to user satisfaction. In addition, the result also shows that satisfaction, system quality and service quality were positively related to continuance intention.

Also, various studies have been carried out using Technology Acceptance model to describe and measure users' technology acceptance. For example, Suorsa and Eskilsson (2014) uses technology acceptance model (TAM) proposed by Davis (1989) to conduct a study on students' perception and use of learning management system (LMS). Their findings reveal that students' perception of LMS is affected by a number of factors related to social influences, perceived easiness to use and perceived usefulness.

Conceptual Framework of the Study

This study deployed an integrated conceptual framework for Examine e-learners' perception on the efficiency and reliability of NOUN E-learning system based mainly on the Technology Acceptance Model (TAM) and Information System Success Model (ISSM). The main aim of this study is to analyze e-learners' perception on the efficiency and reliability of NOUN E-learning system with selected constructs such as System Quality, Course Content Quality, Perceived Usefulness, Perceived Ease of Use and Continual Usage Intention. It has been suggested that despite the multidimensional and contingent nature of IS success, an attempt should be made to reduce significantly the number of measures used to measure IS success, so that research results can be compared and findings validated (Ramayah and Lee, 2012)

Independent Variables

Dependent Variable

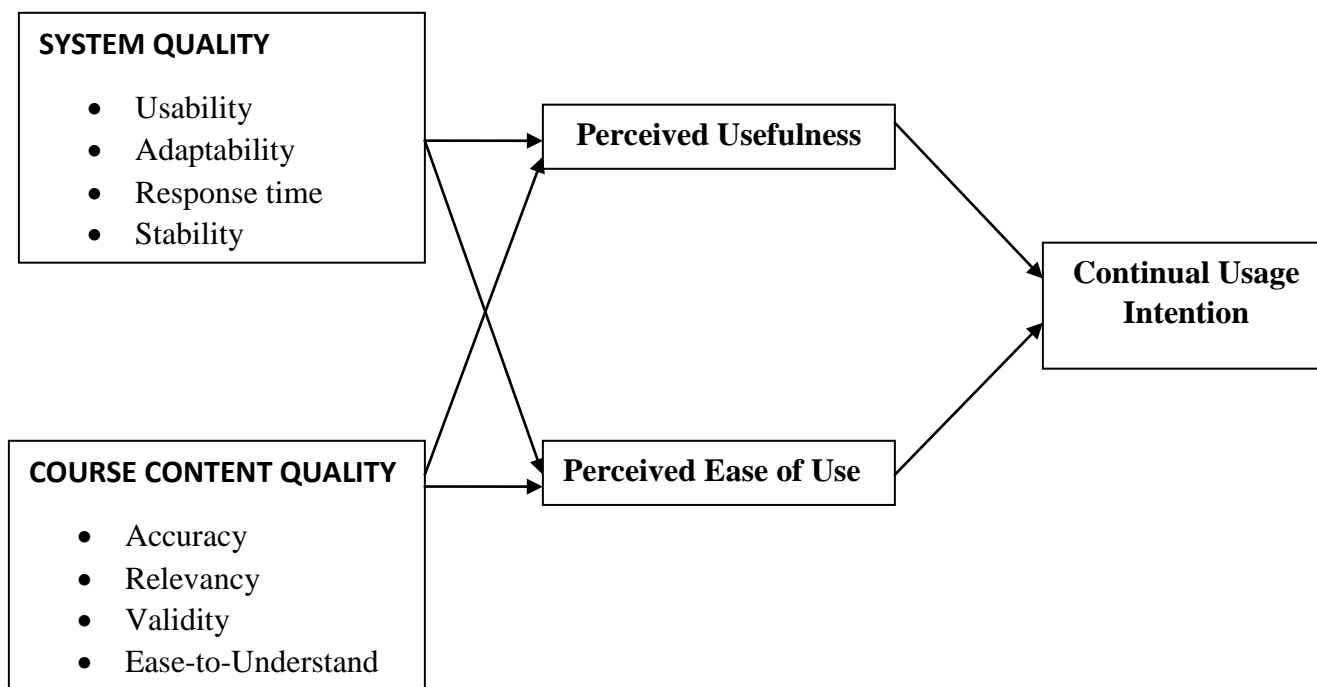


Figure 4: Conceptual Framework of the Study

Source: Researcher.

Adaptability of software system or software architecture: Is a qualitative property of its maintainability and an ability of its components to adapt their functionality, even at runtime, to behavioral and structural changes that occur either internally or externally in their operating environment and in requirement of stakeholders’ objectives (Tarvainen, 2008). In this study adaptability refers to the ability of an e-learning system to accommodate changing requirements of the e-learners when need arise.

Usability is the ease of use of any system. In particular, the usability in e-learning system is the presentation of information and choices in a clear and concise way, a lack of ambiguity and the placement of important items in appropriate areas. Another big concern for usability is that the website is appropriate for all ages and genders (Nielsen, 2003). In this context, usability is the ease of use of the e-learning system by the learners.

Course Content Quality

In this study course content quality refers to the quality of course content delivered through the course management system (Lwoga, 2014). Research demonstrates that course content quality has significant positive effects on user satisfaction of e-learning systems. Thus, the quality of course contents may be important reason for students to perceive the usefulness of e-learning systems and to have higher levels of satisfaction with using e-learning systems. Course content Quality (CCQ) in e-learning systems is the most important quality dimension of e-learning system (Suliman and Faryadi, 2013). Klobas and McGill (2012) added that course content quality is the “suitability of information” for the users’ purpose.

Accuracy is the closeness of results of observations to the true values or values accepted as being true. This implies that observations of most spatial phenomena are usually only considered to estimates of the true value. The difference between observed and true (or

accepted as being true) values indicates the accuracy of the observations (Buckey, 2012). In this study, accuracy is the extent to which the course content of the NOUN e-learning platform is free from error.

Content validity reveals whether an instrument truly reflects the "universe" of items in the subject that the instrument claims to measure (Saleh and Lamkin, 2008). In this context, course content validity is measure of how current is the content of the course material of the NOUN e-learning platform, is it up-to-date and comprehensive.

Ease-to-understand is the simplicity of the course content in terms of understanding by learners (Bourne and Moore, 2003). In this study, ease-to-understand refers to how the course content is clarified for easy understanding of the learners.

METHODOLOGY

Research Design

The researcher in this study used descriptive design to examine the perception of users on the efficiency of Use of NOUN e-learning system.

Also, descriptive correlation was used to determine the relationship between System Quality, Course Content Quality, Perceived Usefulness and Perceived Ease of Use on Continual Usage Intention.

Target Population

The target population of this study are the 100 students, both certificate, undergraduate and post graduate who are currently been enrolled and are been offered courses on the e-learning platform.

Sample Size

The sample size of the study is 60 respondents. The sample size was computed using Slovene's formula.

Sampling Technique

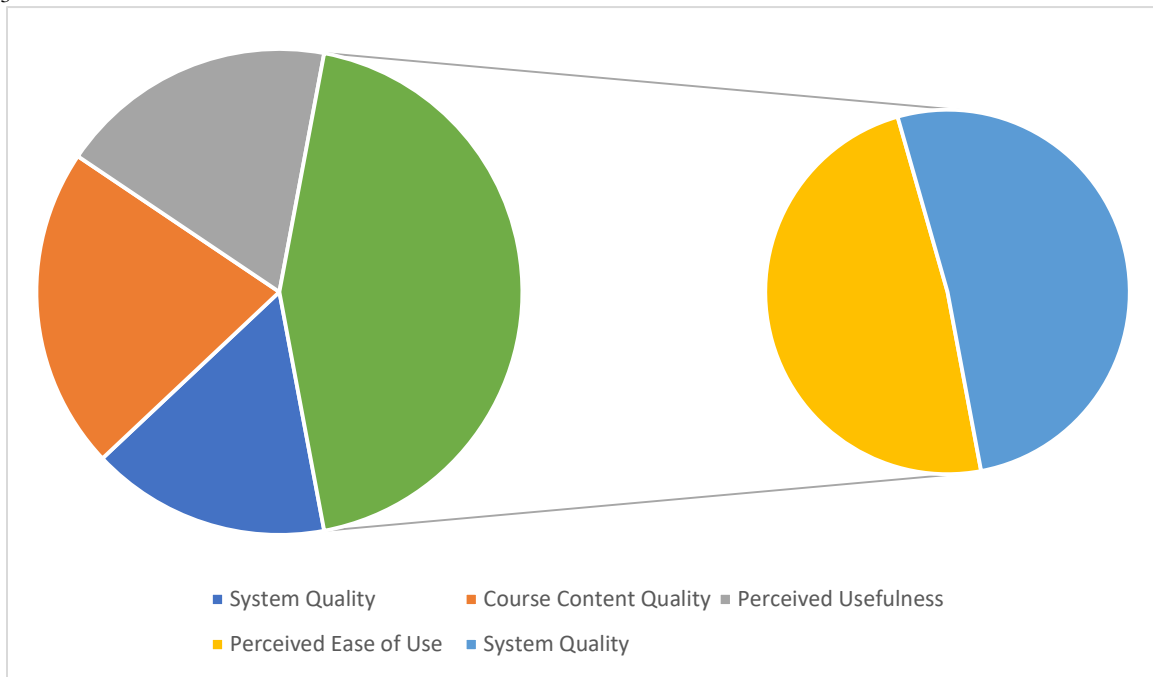
The researcher used purposive sampling technique to select the respondent the sampling was random sampling amongst the target population which gives every members equal chance to participate in the study.

Data Collection Instrument

The data collection instrument for this study is interview which was formulated from the conceptual framework of this study.

Content Validity:

The content validity of the instrument was measured based on each construct in the interview. The content validity index for System Quality, Course Content Quality, Perceived Usefulness, Perceived Ease of Use and Continual Usage Intention are: 0.642, 0.864, 0.746, 0.862 and 0.851 respectively.



Reliability:

The researcher in this study used test re-test method and cronbach's alpha reliability on each construct to ensure the consistency of each item of a construct in the instrument. The following cronbach's alpha: 0.564, 0.773, 0.886, 0.742 and 0.809 were obtained for System Quality, Course Content Quality, Perceived Usefulness, Perceived Ease of Use and Continual Usage Intention. However, the value for System Quality which is 0.564 was used by the research because (Pereira, 2016) stated that, if items of a construct are less than 10, then, the required cronbach's alpha value should be > 0.5 .

Data Analysis

The researcher uses frequencies and percentages to analyze the characteristics/profile of the study participants using statistical package for social science (SPSS IBM V.16.0).

Mean and standard deviation were used to examine the perception of users (e-learners) on the Perceived Usefulness and Perceived Ease of Use of the NOUN e-learning system.

Pearson's linear correlation coefficient (PLCC) was used in this study to examine the relationship between Perceived Usefulness and Perceived Ease of Use on Continual Usage Intention.

Also, Pearson's linear correlation coefficient (PLCC) was used in this study to examine the relationship between System Quality, Course Content Quality, Perceived Usefulness and Perceived Ease of Use on Continual Usage Intention.

DISCUSSION AND FINDINGS

Finding revealed that, the perception of users (e-learners) on Perceived Usefulness and Perceived Ease of Use is very good with an average mean and standard deviation (Mean = 2.8337, Std = 4.34298), (Mean = 2.6630, Std = 3.04082) and learners Perceptions (Mean = 3.4513, Std = 5.23161) respectively.

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This shows that, e-learners/users believed that the NOUN e-learning platform needs to be improved for their academic activities. This finding corresponds with the finding of Suorsa and Ekilsson (2014) which revealed that students' perception and use of learning management system depends on social influence perceived easiness to use and perceived usefulness. It also tally with the finding of Eke (2015) and Lee-post (2009) which stated that students recognize that e-learning has become essential for their success.

Learners perception on Perceived Usefulness and Perceived Ease of use			
	Mean	Std. Dv.	Examining
Perceived Usefulness	2.8337	4.34298	Good
Perceived Ease of Use	2.6630	3.04082	Good
Learners Perception	3.4513	5.23161	Very Good

The study found that there is a high positive relationship between Perceived Usefulness and Continual Usage Intention with ($r = 0.8^{**}$, $sig = 0.1$). It also shows a low positive relationship between Perceived Ease of Use and Continual Usage Intention with ($r = 0.3^{**}$) and ($sig = 0.1$).

This indicates that, students' perception on Continual Usage Intention is strongly related with Perceived Usefulness. It also shows a moderate significant relationship between Perceived Ease of Use on Continual Usage Intention. This implies that users (e-learners) finds NOUN e-learning platform to be useful to them, so they are willing to continue with the e-learning courses. This has corresponded with the findings (Chris Curran September 2004) which revealed that, Perceived Usefulness is a critical factor that influences students' satisfaction with the e-learning system. They findings also tally with Eke (2015) which revealed that, the best sub set predictor that can be used in modeling a student intention to adopt e-learning includes: attitudes toward e-learning, usefulness of e-learning, ease of use of e-learning, pressure to use e-learning and available resources to use e-learning.

The key factors that determine the Continual Usage Intention of the e-learners are: Course Content Quality. This shows the need to improve on System Quality which in turn will also improve on Perceived Ease of Use of the NOUN e-learning platform. This is the same finding of (Raafat George Saadé and Dennis KiraConcordia University, John Molson School of Business, Montréal, Qc, Canada 2009) which shows that students perceived the relationship of ease use and usefulness as key factors for adapting e-learning, which perceive ease of use will have a positive effect on perceived usefulness. Also, finding of Mbabazi and Ali (2016) indicates that users show positive attitudes towards the use of the e-learning system.

Results of this study show that e-learning is an effective tool in education. Somehow, it has positive effect on the learning process of student. It can actually provide additional and updated knowledge that may not be gained in a classroom-based instruction. The impact of e-learning may be extended to other sectors like in social work. E-learning offers potential benefits for social workers (www.elfs.org.uk). It offers flexibility since anytime and anywhere it can easily be accessed. It also widens accessibility to learning opportunities through access. Information literacy like related facts on social work, writing and presentation skills can be gained. It also brings an improved motivation and engagement through the new things to be learned. Though e-learning, social workers can easily assess, monitor and record their learning progress.

CONCLUSION

The results of this study is encouraging the university to modified they technology to be easy use out of campus and to modified the system to be used with mobile phone and provide hope for the future on technology acceptance and use amongst these youth because majority of the respondents are bachelor students who are mostly age of 25 and below. Most of them are from school of business, Law and art, which is not a technology field, however, they seem to appreciate and enjoy the application of e-learning and educational technology.

The e-learners are very convenient with using the university computer laboratories, their personal PC and mobile phones to access the e-learning platform.

The e-learners believed and understand that the NOUN e-learning platform is very useful for them and it will improve their academic activities as such, they have the intention to continue to NOUN e-learning platform and prefer to use it for all their courses. However, they don't find it easy to use.

RECOMMENDATION

There is need for the management to create awareness about its e-learning system in various departments so as to have a balance of enrollment form various schools and colleges of the institution. And the result show that, the first year students need more awareness, this study shows high turnout and enthusiasm from the students on e-learning.

There is also a need to improve the condition and functionalities of the computers in the university computer labs because finding of the study revealed that the students find it more comfortable to access the platform through the university computer labs.

E-learners are willing to continue to use the NOUN e-learning system for the rest of their courses because they believed that the e-learning system will improve their learning activities. However, they don't find it very easy to use the platform, therefore, there is need to improve the system quality because Perceived Ease of Use is likely have positive or negative effect on their Continual Usage Intention.

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- Author: Jose Omedes** <https://www.iadlearning.com/adaptive-e-learning/>