

Analysing Acceptance of E-Learning among the Lecturers of the Federal University of Wukari using Unified Theory of Acceptance and Use of Technology

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Abstract: The study investigates the Federal University of Wukari lecturers' performance expectancy and effort expectancy influence in teaching using two constructs of UTAUT. Two research questions were raised and two hypotheses were formulated. A survey method was employed for the study. A mixed methods research approach involving concurrent quantitative and qualitative data collection techniques was utilised. Simple random sampling technique was used to select 233 lecturers. Data were obtained using a structured questionnaire and interview schedules. Instruments were validated by an expert of information science, and reliability was tested using Cronbach Alpha, on 25 lecturers from the Taraba State University, Jalingo with performance expectancy and effort expectancy having 0.861 and 0.864 coefficient respectively. Collected data from the questionnaire were analysed using frequency distribution and Pearson Product Moment correlation, while interview responses were transcribed and analysed thematically. Findings revealed that performance expectancy and effort expectancy positively influence the use of ICT for teaching among the lecturers. Based on the findings, recommendations were proffered.

Keywords: Performance Expectancy, Effort Expectancy, Information and Communication Technology, Teaching, Federal University Wukari, Nigeria

Introduction

The 21st century technologies - Information and Communication Technologies (ICT) - have ushered in unlimited opportunities for collaboration in teaching and learning extending learning beyond the text and beyond the classroom walls at some points. It ultimately exposes students and teachers to new online global communities. This in turn promotes a global awareness, which is an essential component to a 21st century education (Knowing Technologies, 2015; Lent, 2012). The impact of Information and Communication Technology (ICT) has been felt in almost all sectors that are particularly important in human development all over the world (Gatautis, 2008). Countries and regions such as Europe are regarded as the hallmark nations that spearheaded the use of ICT across the world (Jorgenson and Vu, 2016). These nations embraced the use of ICT before other developing regions such as Africa (Weber and Hamlaoui, 2018). For instance, Technological industries such as Apple, Microsoft and Google have their biggest markets and factories from the developed nations such as United States of America (Sun and Grimes, 2016). In the education sector of these advanced nations, the use of ICT is so germane that lectures are conducted online and students can attend classes anywhere, where they decide what to learn, where to learn and how to learn (Koller, 2015; Josie, Jihee, Sun, Yee and In, 2004; Howard, Schenk and Discenza, 2004; Collins and Halverson, 2018). In Africa, Kaliisa and Picard (2017) revealed in a comparative study that ICT have positively aided learning in higher institutions. Furthermore, the authors also stated that E-learning within higher education institutions in Africa has increased student and lecturer collaboration, increased students' zeal towards learning, participation and engagement, facilitative and authentic learning and reflective practice, as well as fostering learning communities.

On the contrary, Bon (2010) opined that ICT facilities are insufficient in Sub-Saharan Africa. The New Partnership for Africa's Development (NEPAD) UNESCO (2015) confirmed this assertion in a study that revealed that 55% of students participating in the first phase of the NEPAD e-schools initiative reported no experience with ICT devices especially computers. In addition, Chirambo (2018) revealed that skills development facilities and sustainable governance systems are lacking in Sub-Saharan Africa. However, South Africa has a moderate level of ICT usage in educational institution (Dlamini and Mbatha, 2018). It can be inferred that, the low usage of ICT resources in Sub-Saharan countries is due to the lack of ICT policy in educational institutions.

Over the years, Nigerians have been known to be a major patronize of ICT facilities from developed countries. According to Osang, Ngole and Tsuma (2013), approximately over 63.9% of Nigerians have access to at least one ICT device and many Nigerians use ICT as a means of communication, learning and teaching. However, this is yet to reflect in the education sector positively. This implies that ICT devices are underutilized especially for learning and teaching purposes. This research therefore, investigates the influence of technology on the advancement of teaching in the federal University Wukari Taraba State, in Nigeria. Research will establish the extent to which expectancies of performance and effort on the use of Information and Communication Technology will improve teaching and encourage lecturers of the Federal University Wukari. To this end, the study objective is to investigate how the constructs of Unified Theory of Acceptance and Use of Technology: Performance Expectancy, Effort Expectancy influence teaching among the lecturers. Based on the objective of the study, the following research questions and hypotheses were raised and formulated:

Research Questions

1. How do performance expectancy influence teaching among lecturers in the Federal University, Wukari?
2. How do effort expectancy influence teaching among lecturers in the Federal University, Wukari?

Statement of Hypotheses

The following hypotheses will be tested at 0.05 level of Significance.

- H₀₁: Performance Expectancy (PE) has no significant influence on the Behavioural Intentions (BIs) to use ICT for teaching among lecturers in the Federal University, Wukari.
- H₀₂: Effort Expectancy (EE) has no significant influence on the Behavioural Intentions (BIs) to use ICT for teaching among lecturers in the Federal University, Wukari

Literature Review and Theoretical underpinning

In this section, a review of related literature is presented with the theory adapted to drive the study.

Concept of Teaching versus Learning

Teachers are usually not born but made. Good teachers nurture their knowledge and skills through dedication and deliberate efforts and the need to understand the teaching learning process is essential. This facilitates better appreciation of the teaching profession as well as the process of imparting knowledge unto students (Sequeira, 2012). The most important aspects of the educational process are the students and the content of what they learn. This leads us to consider what we mean by the concept of Learning. Learning is the process of acquiring new, or modifying existing knowledge, skill and values, which might be relatively permanent change, usually brought about intentionally. When we attend a seminar, read through book, we set out to learn. On the other hand, the concept of teaching is a set of activities carried out deliberately to provide education formally done by an authority. The role of teacher can be categorized into: Traditional Role - Teacher Centered and Modern Role - Student Centered. Traditionally the role of the teacher has been as a source of information, the teacher viewed as the fountain of knowledge. These students sit before the teacher who is disseminating information with the aid of a board, while the students listen passively (Sequeira, 2012). Things are changing very rapidly in the 21st century. The modern teacher is seen as a facilitator: who assists students to learn for themselves. All of the students might well be at the same place, different stages in their learning and in consequence, the learning is personalized to suit individual requirements. The teacher has a dual role, as a learner and an expert, as he guides (Sequeira, 2012).

One could deduced that ICT in teaching in our tertiary education is still underutilized and the vision us not yet realized, which is in line with the views of Fidel, Sanjay and Ricardo (2014) as reported that there is indication that ICT infrastructure is lacking in Nigerian Universities and the utilization is low. In recent time, a research proved that little or nothing has been done to improve ICT in teaching and learning in Nigerian Universities as there is still slow rate of ICT integration in the sector as reported by Yushau and Audu (2018).

ICT in Teaching in Nigerian Universities

Education delivery through the use ICT is progressively becoming relevant in Nigeria education systems, most especially the universities. The benefits of ICT in University are so germane; and this also define the status and rating of the institution. This assertion was supported by Egoeze, Misra, Akman and Colomo-Palacios (2014), where they reported the need for adequate ICT infrastructure/facility in higher education institutions which cannot be overemphasized. Unfortunately, again, there is overwhelming indication that ICT infrastructure is lacking in Nigeria Universities and the utilization is low despite the quantum benefits. The main ICT infrastructures and services utilized in Nigeria Universities were identified to include the computers, the internet, E-mail services, the World Wide Web, among others (Fidelis et. al, 2014). Amusa and Atinmo (2016), confirmed what Fidelis et. al (2014) outlined in their study which revealed that the level of availability of e-learning resources for the use of the law lecturers was very low as most of the major electronic information resources on law like LexisNexis and I-law are not readily available. This is pathetic because such acts negatively affect students' performance as it shows that the focus of the school is being shifted away from students as our sole target to be educated. Review of studies on Teaching and Learning using ICT facilities in Nigerian Universities from the period 2004 to 2018 also indicated that, even though some facilities are visible for teaching and learning in Universities, there is a slow rate of ICT integration in education (Yushau and Audu, 2018). There is therefore the need to investigate the intention to use technology for teaching among lectures, particularly the Federal University Wukari - a new university where such investigation was not yet perceptible. By so doing, will help improve the slow rate of ICT integration in Nigerian universities as was sadly stated by Yushau and Audu (2018).

On the final note, Student-Teachers' Competence and Attitude towards Information and Communication Technology was investigated by Yusuf and Balogun (2011) findings revealed that majority of the student-teachers have positive attitude towards the use of ICT and they are competent in the use of few basic ICT tools. Four years later, in the year 2015, Investigation was carried out on Empirical modelling of ICT usage behaviour among business education teachers in tertiary colleges of a developing country by Isiyaku, Ayub and Abdulkadir (2015) to explaining the influence of perceived enjoyment and attitude towards ICTs behavioural intention and teachers' ICT usage behaviour. The study filled up the research gap that exist in technology acceptance behaviour among business education faculties across tertiary institutions in Nigeria. Four years later again in 2019, Yakubu and Dasuki studies the proposition of UTAUT in factors affecting the adoption of e-learning technologies among higher education students in Nigeria. The study determined that performance expectancy and effort expectancy were significant factors in influencing the behavioural

intention to use Canvas. The results from the data obtained support the UTAUT's ability to explain the factors responsible for the acceptance of educational technology in developing countries like Nigeria. Hence the need to investigate using UTAUT which has the ability to explain the factors responsible for the acceptance of ICT for teaching in the Federal University Wukari.

Unified Theory of Acceptance and Use of Technology and Teaching

Various studies were conducted to provide information on the acceptance, adoption and subsequently use of ICT in teaching among teachers in higher institutions using UTAUT model proposed by Venkatesh et. al (2003). The four constructs of UTAUT influencing acceptance and use of technology, but these might not always be the case due to circumstantial prevailing factors in some study areas. Attuquayefio and Addo (2014) reported that Effort Expectancy, Performance Expectancy and Social Influence positively influence Behavioural Intentions to use ICT for learning, while Facilitating Conditions and Behavioural Intention directly influence students' Use Behaviour of ICT for learning and research. Chumo and Kessio (2015) in support of Attuquayefio et. al (2014) declared in a similar study that Effort expectancy, Performance expectancy and social influence factors affect the student's behavioural intention, which ultimately affects adoption of web-based information system use.

In another report, Joel and Roope (2014) findings revealed that Performance expectancy, Effort expectancy, Social influence and Facilitating conditions had significant positive effects on students' mobile learning acceptance with performance expectancy being the strongest predictor. Most of the studies indicated that all the constructs have some degree of influence with one factor having the highest prevalence. These findings will enable those who are involved in the formulating and implementation of ICT in teaching and learning in schools to develop better services that are relevant and acceptable to learners and instructors in higher education based on those prevailing constructs with better and higher influence.

Chumo and Kessio (2015) categorically stated that these studies contribute to knowledge in field of technology adoption and indicated that the UTAUT models of technology acceptance is also applicable in higher educational schools. The research findings from such studies would be useful to institutions of higher learning, policy makers, students, lecturers, researchers in the field and other stakeholders. Many of these studies focused on students in a public institution and therefore the research findings cannot be generalized to all users. They advocated that further research should be conducted to cover other users such as teachers and in both public and private institutions.

It is becoming increasingly difficult to ignore the values of ICT in enhancing teaching and learning in higher education. There is a need to determine factors that contribute towards learners' acceptance of ICT in education in order to facilitate adoption and subsequently its usage in teaching. The empirical findings of such studies add substantially to our understanding on specific factors that affect intention to adopt and use ICT in higher education. These findings will help those who are involved in planning and developing ICT teaching and learning models for higher education.

Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT) was proposed by Venkatesh, Morris, Davis and Davis (2003), with four core determinants of intention and usage of a technology. The theory consists of four constructs; performance expectancy, effort expectancy, social influence and facilitating conditions. The purpose for using UTAUT is to determine user acceptance and usage behaviour on technology as depicted in Figure 1. From a theoretical perspective, UTAUT provides a refined view of how the determinants of intention and behaviour evolve over time, and it is important to emphasize that most of the key relationships in the model are moderated (Luhama, Bakkabulindi and Muyinda, 2017).

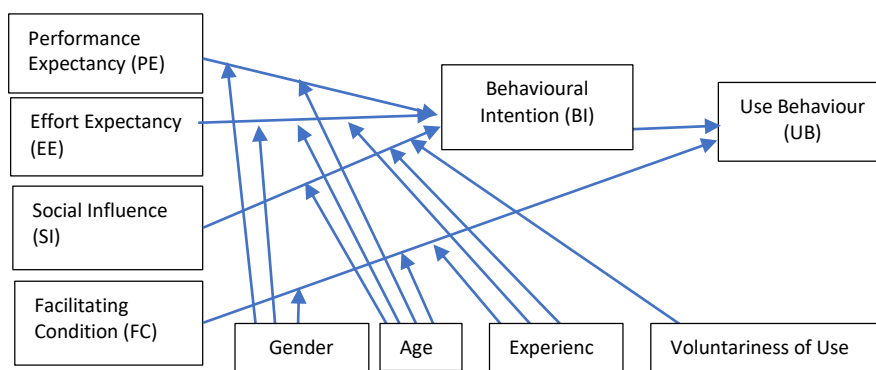


Figure 1: Unified Theory of Acceptance and Use of Technology (UTAUT)
(Source: Luhama, et al., 2017; pp 30)

For the purpose of this study, the moderating variables namely Gender, Age, Experience and Voluntariness of use has been excluded. Consequently, the study adopts PE and EE for the research (Figure 2).

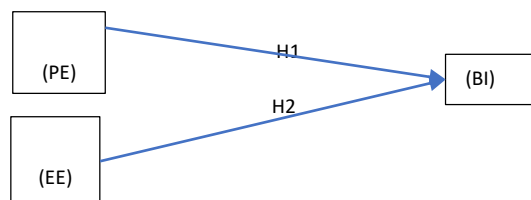


Figure 2: Unified Theory of Acceptance and Use of Technology (UTAUT) Adopted for the Study

Performance Expectancy

Performance expectancy is the degree in which an individual is said to believe that using a given technology will improve the user's ability to perform his or her duties better. This will predict behavioural intention to use the technology, ICT.

Effort Expectancy

Effort expectancy is seen as the degree of ease accompanying the use of a given technology. Research has indicated positive influence of effort expectancy in predicting a user's intention to use a technology (Venkatesh et al 2003).

The purpose for adopting UTAUT model is to enable the researcher determine the strength of the predictor; performance expectancy (PE) and effort expectancy (EE), on lecturers' intention to accept and use ICT for teaching. According to Venkatesh et al (2003); Bagozzi, (2007) as cited by Luhama et al (2017), UTAUT model can explain technology acceptance behaviour of lecturers in a given Institution of learning. The explanatory power of UTAUT is higher as it was developed using the content of about eight (8) other models (Luhama et al 2017; Yogesh, Nripendra, Anand, Marc and Michael, 2017).

Methodology

This study adopted descriptive survey design. Survey was adopted due to the following advantages among others: flexible nature of surveys can be used alongside other methods such as interview. The research location was the Federal University, Wukari, which is located in the southern part of Taraba State, Nigeria. The population comprised the lecturers of the University, from which a sample of 233 was selected to participate in the study. Data was collected with a structured questionnaire and interview schedule between the months of March and May, 2021. The questionnaire was subdivided into Part A which collected demographics data and Part B which collected data on how Performance Expectancy and Effort Expectancy influence teaching among lecturers of the university. Instrument was validated by an expert and reliability test was conducted using Cronbach's Alpha test of reliability. The Cronbach Alpha coefficient of Performance Expectancy and Effort Expectancy were 0.861 and 0.864 respectively.

In all, two hundred and thirty-three respondents were involved in the study out of which 174 (74.7%) of the respondents were males, while 34 (14.6%) were females. Also, 41 (17.6%) of them were between age range of 20 – 30 years, 98 (42.1%) were between 31 – 40 years, 54 (23.2%) were between 41 – 50 years, 20 (8.6%) were between 51 – 60 years, while 1 (0.4%) was between 60 years and above. On their academic status, 6 (2.6%) were professors, 20 (8.6%) were associate professors, 25 (10.7%) were senior lecturers, 38 (16.3%) were lecturer I, 45 (19.3%) were lecturer II, while 87 (37.3%) were assistant lecturers. Likewise, 50 (21.5%) of this group of respondents were in faculty of Agriculture and Life Science, 100 (42.3%) were in Humanities and Management, while 83 (35.6%) were in Pure and Applied Science.

Collected quantitative data were analysed using frequency and percentage distribution and Pearson Product Moment correlation. The hypotheses were tested at 0.05 level of significance. Interview data were analyzed using thematically with the aid of NVivo version 12.

Results

In this section, the results were presented followed by a discussion of the findings.

Frequency Distribution of Influence of Performance Expectancy on Teaching

The different responses in regard to how performance expectancy influence teaching among the lecturers in the Federal University, Wukari, are presented in Table 1.

Table 1: How Performance Expectancy Influence Teaching

Performance Expectancy	Strongly Agree (%)	Agree (%)	Undecided (%)	Disagree (%)	Strongly Disagree (%)	Mean	Std. Dev.
I would find e-learning resources useful in teaching	122 (53.5)	98 (43.0)	5 (2.2)	2 (.9)	1 (.4)	4.48	.633
Using e-learning will enable me to accomplish teaching activities more quickly	104 (45.8)	113 (49.3)	2 (.9)	6 (2.6)	2 (.9)	4.37	.719
Using e-learning will improve my teaching	106	103	7	3	3	4.38	.738

	(47.7)	(46.4)	(3.2)	(1.4)	(1.4)		
use of e-learning will allow me to have access to more information about my courses	121 (53.1)	95 (41.7)	8 (3.5)	2 (.9)	2 (.9)	4.45	.691
Behavioural Intention							
I intend to use e-learning applications in the future	106 (47.3)	96 (42.9)	12 (5.4)	5 (2.2)	5 (2.2)	4.31	.852
I predict I would use e-learning applications in the future	101 (45.1)	95 (42.4)	20 (8.9)	5 (2.2)	3 (1.3)	4.28	.822
I plan to use e-learning applications in the future	90 (39.8)	121 (53.5)	10 (4.4)	4 (1.8)	1 (.4)	4.31	.680

From Table 1, 220 (96.5%) of the respondents agreed that they would find e-learning resources useful in teaching, 5 (2.2%) were undecided, while 3 (1.1%) disagreed. Also, 216 (94.8%) of the respondents agreed that the use of e-learning will allow them to have access to more information about their courses, 8 (3.5%) were undecided, while 4 (1.8%) disagreed. Furthermore, 217 (95.1%) agreed that using e-learning will enable me to accomplish teaching activities more quickly, 2 (.9%) were undecided, while 8 (3.5%) disagreed. These results show that majority of the respondents agreed that performance expectancy of ICT infrastructures influence teaching in the Federal University, Wukari. The outcome above suggested that performance expectancy influence the behavioural intention to use ICT for teaching, as indicated by their responses.

Probing further, responses from the interview session also show how performance expectancy influence teaching. The thematic analysis and responses for each of the nodes are presented below in Figure 3. which presents the word cloud that identifies the themes from participants' responses. When participants were asked if the use of ICT have any benefit to their teaching profession, the themes identified are; "yes", "teaching easier", "work easy", "online lectures" among other.

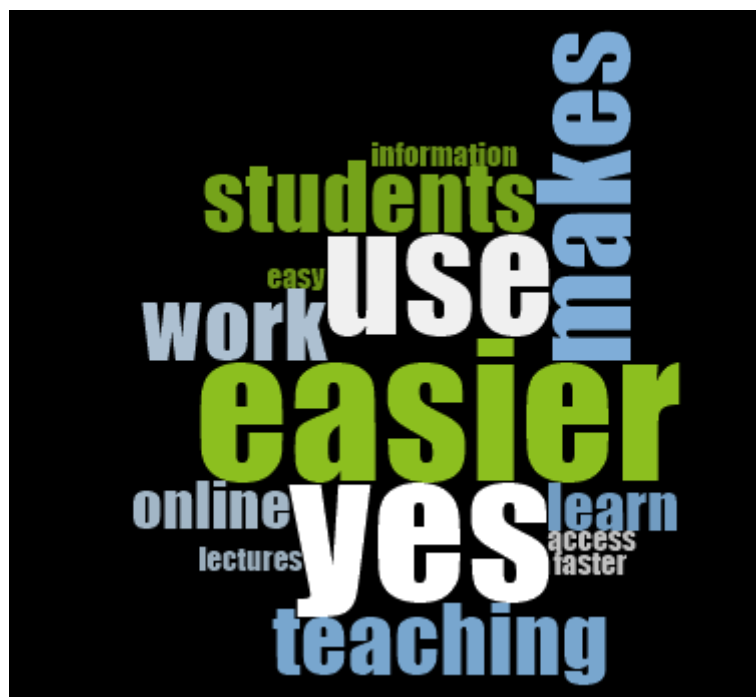


Figure 3: Word Cloud on Performance Expectancy on the Use of ICT for Teaching

The result in figure 3. shows that many of the participants agreed that performance expectancy of the use of ICT influences their teaching. Many of the participants believe that it makes them achieve the goals of teaching easily. Below is one of the responses given by the respondents when asked if the use of ICT have any benefit to their teaching profession:

“Sure, it is far better to use them than using the traditional way of teaching. Like in programming, we make it more practical and as you run some codes, you learn more than just writing codes on board, we use systems to actualised the goal.”
(Male/Lecturer I/Pure and Applied Science)

The word cloud analysis is in line with the assertion laid earlier that performance expectancy influence the behavioural intention to use ICT for teaching, as indicated by the word cloud as stated in figure 3.

Frequency Distribution of Influence of Effort Expectancy on Teaching

The different responses in regards how effort expectancy influence teaching among lecturers in the Federal University, Wukari are presented in Table 2.

Table 2: How Effort Expectancy Influence Teaching

Effort Expectancy	Strongly Agree (%)	Agree (%)	Undecided (%)	Disagree (%)	Strongly Disagree (%)	Mean	Std. Dev.
My interaction with e-learning applications would be clear and understandable	73 (32.0)	136 (59.6)	9 (3.9)	7 (3.1)	3 (1.3)	4.18	.756
It would be easy for me to become skillful at using e-learning resources	77 (33.9)	127 (55.9)	12 (5.3)	9 (4.0)	2 (.9)	4.18	.775
I would find e-learning resources easy to use	66 (29.1)	129 (56.8)	16 (7.0)	13 (5.7)	3 (1.3)	4.07	.841
Learning to operate e-learning applications is going to be easy for me	81 (36.5)	114 (51.4)	15 (6.8)	9 (4.1)	3 (1.4)	4.18	.830
Behavioural Intention							
I intend to use e-learning applications in the future	106 (47.3)	96 (42.9)	12 (5.4)	5 (2.2)	5 (2.2)	4.31	.852
I predict I would use e-learning applications in the future	101 (45.1)	95 (42.4)	20 (8.9)	5 (2.2)	3 (1.3)	4.28	.822
I plan to use e-learning applications in the future	90 (39.8)	121 (53.5)	10 (4.4)	4 (1.8)	1 (.4)	4.31	.680

Results in Table 2 revealed that, 209 (91.6%) of the respondents agreed that their interaction with e-learning applications would be clear and understandable, 9 (3.9%) were undecided, while 10 (4.4%) disagreed. Also, 204 (89.8%) of the respondents agreed that it would be easy for them to become skillful at using e-learning resources, 12 (5.3%) were undecided, while 11 (4.9%) disagreed. These results show that majority of the respondents agreed that effort expectancy of ICT infrastructures influence teaching in Federal University, Wukari. The outcome suggested that effort expectancy influence the behavioural intention to use ICT for teaching, as indicated by respondents.

To further ascertain the results of performance expectancy and effort expectancy, hypothesis were formulated based on that research questions and was subjected to test the influence performance expectancy and effort expectancy on behavioural intention to use ICT in teaching. The results should either concretize our earlier stands on the research questions above or otherwise.

Test of Hypotheses

In this section, the results of the test of hypotheses are presented.

Hypothesis 1:

H₀₁: Performance Expectancy (PE) has no significant influence on the Behavioural Intentions (BI) to use ICT for teaching among lecturers in the Federal University, Wukari.

To test for this hypothesis, Pearson's correlation analysis was performed on performance expectancy (PE) and behavioural intentions (BI) to use ICT for teaching. Table 3 presents the results obtained from the analysis.

Table 3: Relationship between Performance Expectancy (PE) and Behavioural Intentions (BI) to use ICT for Teaching

Variables	Performance Expectancy (PE)	
Behavioural Intentions (BI) to use ICT for Teaching	Pearson Correlation	.529
	Sig. (2-tailed)	.000
	N	233

From the Table 3, the sig. (2-tailed) value arrived at when performance expectancy was correlated with behavioural intentions to use ICT for teaching is .000. This indicates that there is a significant positive relationship between performance expectancy and behavioural intentions to use ICT for teaching among lecturers in the Federal University, Wukari, where ($r = .529$, $p < .05$). Therefore, the null hypothesis is rejected. This result implies that as performance expectancy increases, the behavioural intentions to use ICT for teaching among lecturers also increase.

Hypothesis 2:

H₀₂: Effort Expectancy (EE) has no significant influence on the Behavioural Intentions (BIs) to use ICT for teaching among lecturers in the Federal University, Wukari

To test for this hypothesis, Pearson's correlation analysis was performed on effort expectancy (EE) and behavioural intentions (BI) to use ICT for teaching. Table 5. presents the results obtained from the analysis.

Table 4: Relationship between Effort Expectancy (EE) and Behavioural Intentions (BI) to use ICT for Teaching

Variables	Effort Expectancy (EE)	
Behavioural Intentions (BI) to use ICT for Teaching	Pearson Correlation	.571
	Sig. (2-tailed)	.000
	N	233

From Table 4, the sig. (2-tailed) value arrived at when effort expectancy was correlated with behavioural intentions to use ICT for teaching is .000. This indicates that there is a significant positive relationship between effort expectancy and behavioural intentions to use ICT for teaching among lecturers in the Federal University, Wukari, where ($r = .571, p < .05$). Therefore, the null hypothesis is rejected. This result implies that as effort expectancy goes up the behavioural intentions to use ICT for teaching among lecturers in the Federal University, Wukari, also increase.

Discussion Of Findings

In this section, the findings are discussed in line with the research questions and hypotheses.

How Performance Expectancy Influence Teaching among Lecturers in the Federal University, Wukari:

The findings of this study revealed a positive influence of performance expectancy on teaching among lecturers in the Federal University, Wukari. This is seen from the high percentage of responses of the participants who finds e-learning resources useful in teaching; that the use of e-learning will allow them to have access to more information about their courses; and that using e-learning will enable me to accomplish teaching activities more quickly. Corroborating findings from the interview shows a positive influence of performance expectancy on teaching. This is revealed from the themes captured on Figure 3. These results show that majority of the respondents agreed that performance expectancy of ICT infrastructures influence teaching in the Federal University, Wukari. This study applied the UTAUT model to investigate Performance Expectancy in predicting the university lecturers' Behavioural Intention to use ICT in teaching. This is so vital as all works of life is leaning toward the use of ICT and this area is actually understudied in the North Eastern Nigeria (Yushau and Audu, 2018). A survey of teachers' intentions to incorporate ICT for educational purposes is key, with the sustainable development goal in mind. When lecturers perceive that ICT is of great value, there is every tendency for them to use it to disseminate knowledge to their students.

The study therefore revealed that, there is a significant positive relationship between performance expectancy and behavioural intentions to use ICT for teaching among lecturers in the Federal University, Wukari, based on the research question and the hypothesis on performance expectancy. This result implies that as performance expectancy increases, the behavioural intentions to use ICT for teaching among lecturers also increase. This is in tune with the findings of Fatima and Ibrahim (2021) that revealed recently that performance expectancy has positive influence on behavioural intention to use Learning Management System (LMS) in the Ahmadu Bello University Distance Learning Centre.

On the contrary, the study to investigate the Challenges and Instructors' Intention to Adopt and Use Open Educational Resources in Higher Education in Tanzania found out that performance expectancy did not have significant effect on instructors (Mtebe, and Raisamo, 2014).

Effort Expectancy Influence Teaching among Lecturers in the Federal University, Wukari:

The findings of this study revealed a positive influence of effort expectancy on teaching among lecturers in the Federal University, Wukari. This is seen from the high percentage of responses of the participants who finds interaction with e-learning applications would be clear and understandable, it would be easy for them to become skillful at using e-learning resources, they would find e-learning resources easy to use and learning to operate e-learning applications is going to be easy for them. Effort Expectancy in predicting the university lecturers' Behavioural Intention to use ICT in teaching is so vital that all the works of life are leaning toward the use of ICT; and this area is actually understudied in North Eastern Nigeria (Yushau and Audu, 2018). The survey of teachers' intentions to incorporate ICT for educational purposes is also key, with a focus on sustainable development goal. When lecturers perceive that ICT is of enormous value, there is every possibility for them to use it to pass knowledge to their students. The study therefore revealed that, there is a significant positive relationship between effort expectancy and behavioural intentions to use ICT for teaching among lecturers in the Federal University, Wukari, based on the research question and the hypothesis on effort expectancy. This result also implies that as effort expectancy increases, the behavioural intentions to use ICT for teaching among lecturers also increase. This view supports the expression of Kaliisa and Picard (2017) who revealed in their comparative studies that ICT facilities and devices have positively aided learning in higher institutions. Their findings show that e-learning within higher education institutions in Africa has increased lecturer collaboration, participation and engagement, which fosters learning among their students.

The study of Asanka, Junainah, Ali and Ferdous (2018) laid its weight on these findings as they established that effort expectancy predicts behavioural intention to use Virtual Learning Environment (VLE) Technology. However, the study by Fatima and Ibrahim (2021) revealed on the contrary that effort expectancy has negative influence on behavioural intention to use Learning Management System (LMS) in the Ahmadu Bello University Distance Learning Centre. This is the reason why we do not generalise any findings, but research what is obtainable in a given geographical location. If we had generalised, then we would not have found out that effort expectancy in the Federal University Wukari is on the contrary compared to what is obtainable in the Ahmadu Bello University Distance Learning Centre as far as effort expectancy is concerned, even though the performance expectancy in the federal University Wukari and in the Ahmadu Bello University Distant learning were in consonant with each other.

We think this is not by chance, since teaching using ICT depends largely on the lecturer's acceptance to use a technology. Like an English phrase that said, 'You can lead a horse to water, but you cannot make it drink', people, like horses, will only do what they have a mind to do. Thus, when a lecturer believes that the use of ICT to carry out the most fundamental activities he or she was called to offer, and with passion, the technology is a readily available aid to achieve goals. In related to education, they have now seen the usefulness of the tools and are willing to use them for teaching purposes. Since performance expectancy and effort expectancy has positive influence on them to deliver, we are of the opinion that enabling environments should be put in place for the results revealed in the research to be tangible among the lecturers and to the benefit of the students which are our main focus. We therefore settled that teaching in this university is being facilitated by these two factors and if utilized appropriately, will facilitate teaching and learning, support a variety of instructional delivery: sharing of resources among lecturers and then students, collaborative learning will also be invoked. Students also gain transferable skills as a result of collaborative team work during grouped work such as assignment and corporate learning thereby improving the standard of education in Nigeria that is in a decline, and also taking advantages of wealth of knowledge that is far away from us, but by this is brought right on our desktop by the use of ICT.

Conclusion

The importance and the need for ICT in today's academic world cannot be undermined. Not only has ICT reshaped the learning and teaching process of our society, it has also dictated the future of our knowledge world, hence the quest for major institutions of learning, across the globe, to join this course so as not to be left out. This study therefore concludes that the Federal University, Wukari, is one of the institutions that understands this new trend and so the need to established through empirical studies that performance expectancy and effort expectancy, two constructs from UTAUT are factors that influence the behavioural intention to use of ICT for teaching among lecturers. Finally, this study revealed that there was positive significant relationship between performance expectancy, effort expectancy and behavioural intention use of ICT in teaching by lecturers. This is because the benefits that lecturers hope to derive from the use of ICT will motivate them to use them for academic activities, particularly teaching. The lecturers will not want to waste their time on any activity that will not add value to academy. Therefore, performance expectancy and effort expectancy are strong determinant of use of ICT in teaching at the Federal University, Wukari. Based on the foregoing, the government, management of the university, and other stakeholders should ensure policies are formulated and followed, enabling ICT environment is provided, improved and user-friendly ICT tools are provided to encourage more use of ICT facilities in teaching.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. The University management should come up with a more robust ICT policy that will fully adopt and integrate ICT into teaching processes so as to improve efficiency, effectiveness, reduced stress, and more user friendly and flexible services of teaching among others.
2. Government and the university management should inject more funds to support advance training on ICT use for lecturers.

Contributions to Knowledge

This study has been able to contribute to existing body of knowledge in the area of ICT use by providing empirical evidence that performance expectancy influence teaching in the Federal University, Wukari. The study also showed that Effort Expectancy also influences the use of ICT for teaching in the Federal University, Wukari. Lastly, the study can be used for further related studies by researchers, thereby adding to the body of literature.

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