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An Investigation into the Factors Influencing the Acceptance and Use of ICT among the Academic Staff of Colleges of Education in Sokoto, Kebbi, and Zamfara States

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Abstract

The use of Information and communication technology (ICT) in education has grown in significance, but little is known about the factors that affect academic staff members' acceptance and use of ICT tools in their academic activities. This study aimed to fill this gap by examining the use of ICT among academic staff in three colleges of education in Sokoto, Kebbi, and Zamfara States of Nigeria, using the Unified Theory of Acceptance and Use of Technology (UTAUT) as a predictive framework. A qualitative approach was employed, and data were collected through a questionnaire survey of 386 participants and analyzed using Google Tools. The results indicated that effort expectancy and social influence were significant predictors of academic staff's intention to use ICT in education, while performance expectancy was not statistically significant. This study also revealed that limited access to resources and an insufficient power supply are among the major challenges facing the use of ICT in teaching and learning. Based on the findings, recommendations were made for colleges to provide ICT tools and encourage their use, as well as promote the adoption of e-learning platforms to enhance the teaching and learning process.

Subject Areas

Computing

Keywords

Technology, ICT, UTAUT, Colleges, Education, Teaching, Learning, Sokoto, Kebbi and Zamfara

1. Introduction

Education has seen so many changes over decades due to the existence of information and communication technology. Curriculum modification and the way knowledge is shared and delivered are among other changes in the educational sector supported by ICT. With the advent of ICT in education, the cost of education has been reduced through minimizing the traveling to seek for knowledge, time allocation, and introducing the sharing of online resources [1]. Information and Communication Technology (ICT) is a scientific, engineering, and technology discipline and management technique used in handling information. It is applied in cultural, economic, and educational matters. It has been part of our lives for the last few decades, affecting our society and individual lives [2]. The importance of ICT in education cannot be overstated; ICT in education has been a topic of debate among researchers regarding how it improved the teaching and learning process and facilitated efficient interaction [3]. Recently, the growth of ICT has transformed the entire educational system. Institutions of higher learning are adopting ICT as a major tool in communication, collaboration, curriculum development, tutoring, and library management. Furthermore, effective and efficient utilization of ICT tools can make classroom activities more interesting and dynamic and has the potential to motivate students towards learning [4]. Hence, it is widely accepted that with the use of ICT, teaching and learning of many of the courses in higher institutions can be done effectively because ICT has the potential to aid the students in gaining knowledge and skills through the use of the internet [5].

The essence of colleges of education in Nigeria is to produce professionally trained teachers for our primary, secondary, and vocational schools to meet the nation's requirements for technological takeoff, as stated in the National Policy on Education [6]. Colleges of education have been agents of the development of their communities and Nigeria at large through research that leads to the improvement of knowledge in different areas of human life. Looking at the mandates and essence of colleges of education in Nigeria, it is no doubt that ICT has a great role to play in attaining the mandates of colleges of education in Nigeria. For instance, Shehu Shagari College of Education, Sokoto, was established in 1970. The college was situated in the city of Sokoto, in the Sokoto state of Nigeria. It has since been developed into the standard for higher education, and the college has been producing a great number of graduates that have contributed in the educational development of our communities.

Furthermore, existing literature shows that we are in a new era in which people accept or reject digital technologies for some reasons; which include social influence, lack of institutionalization of the use of ICT, affordability, sustainability, phobia, and a lack of skills to adapt and use the technology. Of course, the advent of ICT has shifted the educational environment into a new paradigm, and both staff and students are using the resources in the teaching, management, and learning processes. The integration of ICT into colleges of education and the

subsequent realization of their effect will be subject to their acceptance by the colleges' lecturers and students [7]. Another research indicates that the factors that determine user acceptance and use of new technology such as ICT are the users' intentions [8]. Therefore, there is a need to examine the user acceptance theory, as there are many theories available concerning the user acceptance and use of ICT, and most of these theories focus on the user's intention to adopt and use ICT as a relevant conceptual framework.

1.1. Objective of the Study

The major objectives are to investigate the factors influence the acceptance and use of ICT among Academic staff in Colleges of education in Sokoto, Kebbi, and Zamfara States. The Specific Objectives are:

1) To find out the factors influencing the acceptance and use of ICT among academic staff of colleges of education in North West Nigeria.

2) To determine how the use of ICT in teaching and learning improves the performance of the academic staff of the Colleges of Education in North West Nigeria.

1.2. Limitation of the Research Work

The study involves three colleges of education in Sokoto, Kebbi and Zamfara, the colleges are: Shehu Shagari college of education, Sokoto, Adamu Augi College of education, Argungu, Kebbi and Zamfara State College of education, Maru. The collected were collectively prepared and analyzed as single stream of data, this is because the nature of the funding and available resources are relatively the same for all the three selected colleges, thus the data analysis is compounded, therefore the result does not state the result of each sample college, rather a collective result for the three sample colleges of educations in the states.

1.3. Unified Theory of Acceptance and Use of Technology (UTAUT)

The unified theory of acceptance and use of technology (UTAUT), which is an extension of the technology acceptance theory model and is a new version of the previous model consisting of eight theories that were previously applied in social psychology analysis (Venkatesh and Davis, 2000) [9], provides organizations needing to measure the chance of success of the new technology with tools for measurements. However, this study adopted the first three constructs of the Unified Theory of Acceptance and Use of Technology (UTAUT), namely 1) performance expectancy, 2) effort expectancy, and 3) social influence, to evaluate the level of acceptance and use of ICT in educational settings in the region.

1.4. Performance Expectancy

Performance expectancy is defined as the perceived benefits that a user of a particular technology believes they will gain by using that technology in a specific area of human endeavor to improve the quality of services; it is also defined as

the degree to which staff or students believe that using technology will enable them to improve their academic performance [10]. Performance expectancy is one of the major factors in determining the user's behavioral intention to use new technology. Here, the user is strongly concerned about the benefits of the new technology as compared to the old system in relation to his organization. Likewise, in the studies of the user's behavioral intention to accept and use a new technology, the intention is determined by the user's anticipation that such technology would be to his advantage and will increase efficiency and performance [11]; the construct has received so much recognition from many researchers in different fields of study with respect to measurement of acceptance and use of new technologies that many of these researchers in their articles stated that "performance expectancy" is a central construct that determines implementation and ultimate usage of new technology [10].

1.5. Effort Expectancy

Another UTAUT construct is effort expectancy, which can be defined as how at ease and how an individual feels when using a specific technology; this involves how much strength of ease is there in using the new technology; it is based on the degree of easiness or difficulties that an individual decides whether the technology is feasible or not to use [12]. From the view of other researchers, effort expectancy is the degree of ease associated with the use of a system in terms of access and easiness to use; otherwise, other research noted that students' impressions of the use of technology are another strong factor that determines technology usage [10]. When considering how easy it is to get access to relevant information using computers or the internet for learning by students, it is fair to say this has a direct link to effort expectancy because the use of computers or the internet for learning is likely to be due to the fact that computers and the internet are flexible and easy to use in the context of information search. For that reason, if the academic staff found it very easy to access the required information for their academic activities, they might likely continue to adopt and use resources in their learning activities.

1.6. Social Influence

According to [13], social influence is the degree to which individuals place importance on others and credence that they should use the new technology. In this view, an individual's decision may be influenced by the opinion of others about the new technology or system at large. Various studies have shown that an individual's intention to accept and use a particular technology can be influenced by the opinion, perception, and view of others around him. In some cases, individuals are likely to comply with the expectations of other individuals; in view of this, the use of computers and the Internet among academic staff of tertiary institutions is tied to their colleagues' perceptions about the use of computers and the Internet. It is also recognized that subjective norm, voluntariness,

and image are the three interrelated social forces affecting an individual's decision to accept or reject a new system, as reflected by the Extended Technology Acceptance Model (TAM2) [10].

Subjective norm is a person's perception of what others around him and those important to him think he should or should not do [14]. While voluntariness is the degree to which an individual perceives acceptance and adoption decisions to be made voluntarily, that is, he or she was not coerced into accepting and using the technology. Lastly, Image is the degree to which the adoption of a particular technology is perceived to enhance one's status in one's social system [9]. Hence, any of the mentioned constructs is a potential factor impinging on an individual's decision-making, whether to accept or reject a new technology. Therefore, individual may be influenced to use computers and the Internet in their academic activities by the people around them, for instance, their tutors, colleagues, and family.

2. Methodology

The purpose of this study is to investigate the relationships between the three variables of the Unified Theory of Acceptance of Technology (UTAUT), which include effort expectancy, performance expectancy, social influence, facilitating conditions, and behavioral intention to use ICT. Therefore, after careful consideration of the nature of the research, the research purpose is both explanatory and descriptive.

2.1. Research Approach

There are many approaches used for research: quantitative, qualitative, or mixed-method. Qualitative research can be viewed as a generic term that refers to a group of ways of collecting and exploring informational data. The main aim of qualitative research is to serve as an approach toward the understanding of some aspect of social life; it's generally characterized by its nature of generating data in the form of words rather than numbers for analysis. Moreover, by its nature, the approach can help in framing questions in a situation where the phenomena are very difficult to quantify [15]. Another study discovered that qualitative research can be viewed as an interpretative approach aimed at gaining insight into behaviors observed in a specific social phenomenon through the subjective experiences of the population [16]. Given the nature of this study, a qualitative approach is used to summarize the research output and provide any evidence for researchers interested in gaining a practical understanding of the acceptance and use of new technology in educational settings.

2.2. Sampling Techniques

Random sampling techniques were adopted in this research, in which every element of the population has equal chance of being selected in the study, a sample of 386 participants were selected among the academic staff of the colleges of

educations selected in the North western region of Nigeria). In this research, many studies related to sample sizing were compared with Slovin's formula to determine the sample size, the result of this comparison is within the range 360 - 390 samples in a population that reached up to 10,000.

Slovin's formula is used to calculate the sample size (n) given the population size (N) and a margin of error (e). It's a random sampling technique formula to estimate sampling size computed as follows

$$n = N/\left(1+Ne^2\right)$$

where:

n = no. of samples;

N = total population;

e = margin error (5%).

At 95% confidence level.

Therefore, based on this model, 386 samples are used as sample participants.

2.3. Research Questions

The research addresses two research questions.

1) What are the most influential factors influencing the acceptance and use of ICT among the academic staff of the colleges of education in North West Nigeria.

2) How does the use of ICT in teaching and learning affect the academic staff's teaching performance?

2.4. Research Hypotheses

Standing on the theoretical position that ICT improves learning and that there are factors influencing the use of ICT among the academic staff, the research asserts four null hypotheses:

H_{01}: There is no significant influence of performance expectations on the behavioral intentions of the academic staff of the colleges of education in North West Nigeria and the use of ICT.

H_{02}: There is no significant effect of social influence on the behavioral intentions of academic staff at COEs North West Nigeria and their use of ICT.

H_{03}: There is no significant effect of effort expectancy on the behavioral intentions of the academic staff of the colleges of education in the North West Nigeria and the use of ICT.

2.5. Method of Data Collection

There are many options are available for data collection; depending on the purpose of the study. Questionnaire is one of the instruments used for data collection in an experiment. In this research, questionnaire was used as the data collection instrument to collect the required data from the respondents, the questionnaire was aimed at eliciting relevant data concerning the application, acceptance and use of Computers/internet by the respondents. It is relatively simple

method of data collection, it also allows collection of massive, subjective and objective data in a short period of time, moreover; the instrument is widely used to obtain result that's statistically significantly, another research findings shows that, the instrument has potentials to provide easy access to target population and reduce turnaround time within which the instrument was deployed [17]. As such, Questionnaire was best suited for the second research question.

The instrument used in this research was validated, two types of validation were conducted, these are content validity and face validity, content validate aims to include all sections of the research in the questionnaire while the face validity was conducted in order to ensure the instrument used in this research measure what the research is intend to measure.

2.6. Data Analysis

Now that the research has considered the background of the study, related literature, and methodology for data collection, at this point, the data collected on the three constructs of the Unified Technology Acceptance and Use of Technology (UTAUT) and the use of ICTs by academic staff is now prepared and analyzed in view of answering the research questions. In order to determine the level of ICT usage and factors influencing the use of ICT among academic staff of selected colleges of education in the region, multiple linear regression analysis was performed to determine the correlation between the constructs (effort expectancy, performance expectancy, and social influence) and the behavioral intention to use ICT by academic staff of Shehu Shagari College of Education, Sokoto; AdamuAugi College of Education, Argungu; and Zamfara State College of Education, Maru. A multiple linear regression analysis model and descriptive statistics such as arithmetic means, standard deviations, frequencies, and percentages were used using the Statistical Package for the Social Sciences (SPSS), in the descriptive tables below, the five Likert scale were collapsed as Strongly Agree and Agree are collapsed to Agree, while Strongly Disagree and Disagree are collapsed to Disagree, the mean value in the descriptive tables below shows the degree of positivity, negativity or neutrality of the response to the corresponding question, 1 indicates a positive response, 2 neutral while above 2 indicate a negative response by the participants. The level of significance was fixed at 0.05 ($p = 0.05$). Multiple regression analysis was used to determine the statistical effects between the dependence and independence variables, and finally, ANOVA was used to determine the statistically significant effect between the research variables.

3. Results and Discussion

3.1. Results

The results and findings are shown and discuss in the following tables below.

From Table 1, the analysis shows that the majority of the respondents, 363 (94.0%), stated that ICT is useful for their course of study because it enables

Table 1. ICT and performance expectancy.

ICT and Performance Expectancy	A (%)	U (%)	D (%)	X
ICT is useful for the course assigned to me.	363 (94.0%)	23 (6.0%)	-	1.0596
Generally, ICT improves my performance in delivering lectures and other academic activities.	324 (83.9%)	39 (10.1%)	23 (6.0%)	1.2202

Note: A—Agree and Strongly Agree, U—Undecided, D—Disagree and Strongly Disagree, X—Mean.

them to accomplish a particular task on time. Moreover, 324 (83.9%) of the 386 respondents indicate that ICT improves their academic performance. In a broad sense, the majority of the academic staff believed that ICT plays a vital role in their academic performance and is useful in their course of study.

From the results in Table 2, 313 (81.1%) of the respondents believe that the people around them influence their behavior toward accepting and using ICTs in their academic activities, followed by 134 (34.7%) who believe that their lecturers influence them to use ICTs. Lastly, 321 (83.2%) of the participants who participated in this research did not agree that the college has been supporting them to use ICT in their academic activities.

As shown in Table 3, the majority of respondents, 271 (70.2%), stated that it will be simple for them to become skilled at using ICT in their academic activities, while 258 (66.8%) stated that the ICT tools are simple to use, and 256 (66.3%) stated that learning to operate the ICT tools is simple for them.

With the response by *the* academic staff on their intention to use ICT in their academic work, it is clear from the responses that they are willing to use ICT whenever it is required in their academic activities. This is in line with the frequency count of 364 (94.3%) who claim they plan to use ICT any time their academic activities need it, followed by 222 (57.5%) who said they intend to use ICT in their academic activities regularly. Finally, 173 (44.8%) students stated that they intended to use ICT at all times while at college (Table 4).

Regarding the benefits of the application of ICT in education, this section addresses the questions on the benefits of ICT in teaching and learning. All the participants (386, 100%) admitted that ICT improves efficiency and reduces errors. Furthermore, all the participants also affirmed that ICT removes geographical limitations to resources through the use of the internet and other resources. This was followed by 385 (99.7%) of the responses retrieved that affirm that ICT saves the time of academic staff. Finally, 308 people (79.7%) said that ICTs are easy to use (Table 5).

As to how ICT improves *academic staff* performance, a total of 371 (96.1%) of the responses revealed that they use ICT in order to get information from the internet and share that information with their colleagues easily, followed by 346 (89.6%) of the responses who use ICT to access materials that help them prepare

Table 2. ICT and social influence.

ICT and social influence	A (%)	U (%)	D (%)	X
My students motivate me to use ICT.	134 (34.7%)	74 (18.7%)	180 (46.6%)	2.1192
People around me influence me to use ICT.	313 (81.1%)	55 (14.2%)	18 (4.7%)	1.2358
The college has been supporting me in the use of ICT.	42 (10.9%)	23 (6.0%)	321 (83.2%)	2.7228

Note: A—Agree and Strongly Agree, U—Undecided, D—Disagree and Strongly Disagree, X—Mean.

Table 3. ICT and effort expectancy.

Expected Effort in ICTs	A (%)	U (%)	D (%)	X
I know it will be easy for me to become skilled at using ICT.	271 (70.2%)	66 (17.1%)	49 (12.7%)	1.4249
I find the ICT tools easy to use.	258 (66.8%)	63 (16.3%)	65 (16.8%)	1.5000
Learning to operate the ICT tools is easy for me.	256 (66.3%)	68 (17.6%)	62 (16.1%)	1.4974

Note: A—Agree and Strongly Agree, U—Undecided, D—Disagree and Strongly Disagree, X—Mean.

Table 4. Behavioral intention to Use ICT.

Intention to Use ICT Behaviorally	A (%)	U (%)	D (%)	X
I intend to use ICT in my work regularly.	222 (57.5%)	103 (26.7%)	61 (15.8%)	1.5829
I would use ICT any time I was in college.	173 (44.8%)	101 (26.2%)	112 (29.0%)	1.8420
I plan to use ICT any time my academic activities need it.	364 (94.3%)	22 (5.7%)	-	1.0570

Note: A—Agree and Strongly Agree, U—Undecided, D—Disagree and Strongly Disagree, X—Mean.

Table 5. Benefits of using ICT in education.

Benefits of using ICT in education	A (%)	U (%)	D (%)	X
ICT can reduce errors.	386 (100%)	-	-	1.0000
ICT saves me time.	385 (99.7%)	-	1 (0.3%)	1.0052
ICT improves efficiency.	100 (100%)	-	-	1.0000
ICTs are user-friendly.	308 (79.7%)	41 (10.6%)	37 (9.6%)	1.2979
Removes geographical limitations to learning resources	386 (100%)	-	-	1.0000

Note: A—Agree and Strongly Agree, U—Undecided, D—Disagree and Strongly Disagree, X—Mean.

for tests and examinations. Furthermore, 325 (84.2%) use ICT to access a broad range of materials to help them in their learning activities (Table 6).

Despite the academic staff's willingness to use ICT in the teaching and learning process, there are still some challenges faced by the academic staff of the colleges of education. Table 7 is the result of the survey in relation to the challenges of the application and use of ICT among the academic staff in the selected colleges of education. According to the survey results, 385 respondents (99.7%) believe that insufficient ICT tools are one of the major challenges of ICT use among academic staff at the selected colleges of education. followed by 373 (96.6%) of the participants in the study who identified technophobia as one of the challenges of using ICT. In fact, limited and unreliable power supply is another major issue in Nigeria as a whole; 383 (99.2%) of participants agree that limited and unreliable power supply is one of the factors that prevent them from using ICT regularly in college and at home.

Table 6. Internet improves academic staff academic performance.

The Internet improves academic performance.	A (%)	U (%)	D (%)	X
The Internet allows me to collaborate with my peers.	334 (86.5%)	50 (13.0%)	2 (0.5%)	1.1399
The Internet allows me to access a broad range of materials to help me deliver lectures.	325 (84.2%)	42 (10.9%)	19 (4.9%)	1.2073
The Internet allows me to access materials that help me prepare lecture notes.	346 (89.6%)	23 (6.0%)	17 (4.4%)	1.1477
The Internet allows me to share information with my colleagues easily.	371 (96.1%)	14 (3.6%)	1 (0.3%)	1.0415

Note: A—Agree and Strongly Agree, U—Undecided, D—Disagree and Strongly Disagree, X—Mean.

Table 7. Challenges facing the use of ICT among the academic staff.

Challenges facing the use of ICT among the *academic staff*	A (%)	U (%)	D (%)	X
Inadequate ICT resources	385 (99.7%)	1 (0.3%)	-	1.0026
Poor ICT skills	383 (99.2%)	2 (0.5%)	1 (0.3%)	1.0104
Lack of technical support	384 (99.5%)	2 (0.5%)	-	1.0052
Limited and unreliable supply of electricity	383 (99.2%)	3 (0.8%)	-	1.0078
Limited access to the Internet	378 (97.9%)	5 (1.3%)	3 (0.8%)	1.0285
Technophobia	373 (96.6%)	5 (1.3%)	8 (2.1%)	1.0544

Note: A—Agree and Strongly Agree, U—Undecided, D—Disagree and Strongly Disagree, X—Mean.

The research hypotheses are tested for analysis at this point.

H_{01}: There is no significant influence of performance expectations on the behavioral intention of the academic staff of the selected colleges of education to accept and use ICT.

H_{02}: Social influence has no significant influence on the behavioral intention of academic staff at the selected colleges of education to accept and use ICT.

H_{03}: There is no significant influence of effort expectancy on the behavioral intention of the academic staff of the selected colleges of education to accept and use ICT.

3.2. Relationships between the Research Variables

The study use scattered plot is used to display the values (relationships between the variables).

At a p-value of 0.05% and a 95% confidence level, Figure 1 shows that there is no statistical significance between the two variables, performance expectancy and behavioral intention of academic staff to use ICT tools, this is because the doted points are scattered far away from the line of equation in the graph, This may be because most of these academic staff do not use computers in the teaching process; therefore, they may not realize the potential of the application of computers in their academic activities. Therefore, the hypothesis H_{01} is hereby accepted.

Figure 2 shows that the relationship between social influence and behavioral intention to use ICT tools by academic staff of the selected colleges of education is statistically significant at (p 0.05) with a 95% confidence interval, this is because the dotted points scatted around the line of equation. Therefore, the hypothesis H_{02} is rejected.

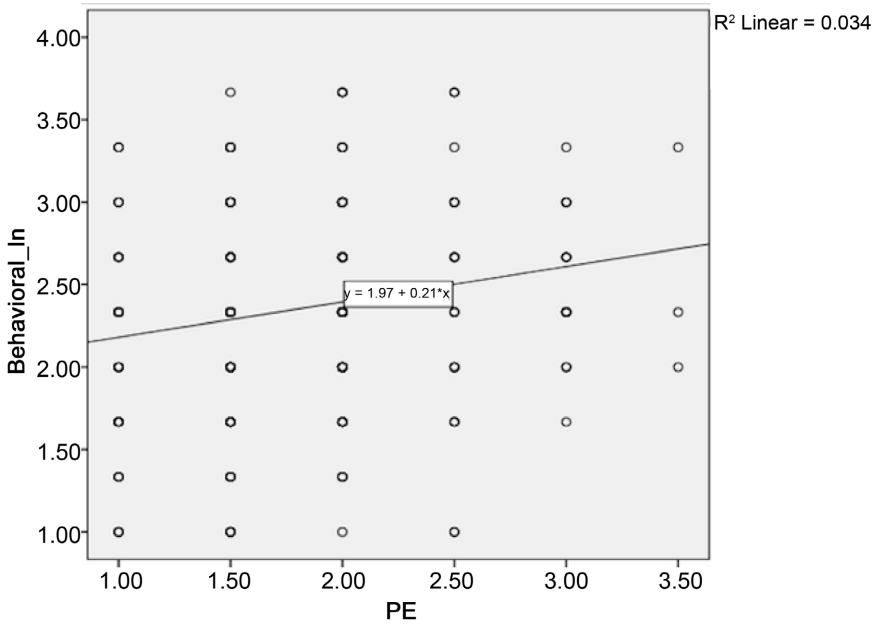

Figure 1. Behavioral intention vs performance expectancy.

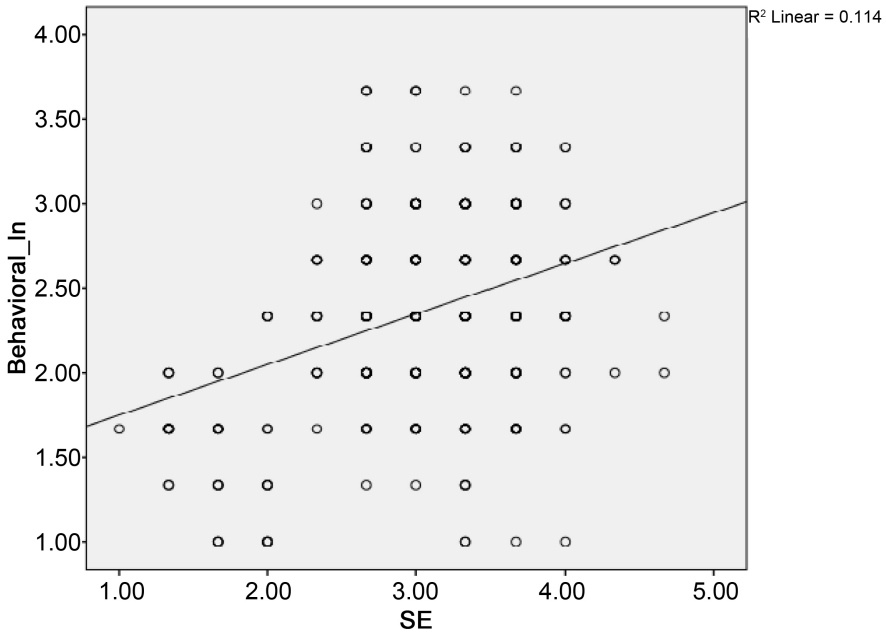

Figure 2. Behavioural intention vs social influence.

Figure 3 shows that the relationship between the effort expectancy and behavioral intention to use ICT tools by academic staff of the selected colleges of education is statistically significant at (p 0.05) with a 95% confidence interval, this is because the dotted points scatted around the line of equation. Hence, hypothesis H_{03} is hereby rejected.

3.3. The Model Summary

Table 8 is the model summary that shows the strength of the relationship between the model and the dependent variables used in the study.

In the model summary, the analysis shows that the joint contribution of the three constructs of the Unified Theory of Acceptance and Use of Technology as independent variables (Effort Expectancy, Performance Expectancy, and Social Expectancy) to the predictions of the dependent variable, academic staff behavioral intention to use ICT tools, has a coefficient of multiple correlation (R = 0.444 and R2 = 0.197). This indicates that, when taking the percentage of R2, 19.7% of the variance of the dependent variable behavioral intention can be explained by the three predictor variables (independent variables) effort expectancy, performance expectancy, and social expectancy. This implies that the joint contribution of the independent variables to the dependent variable was significant; it is also indicating that some of the variables that are not integrated here in the model may have accounted for the remaining variance.

The ANOVA was used to determine if categories within the moderator variables (effort expectancy, performance expectancy, and social expectancy) had a significant effect upon the determinants (behavioral intention). The ANOVA table tells us if the model is significant or not. Looking at the outcomes in the

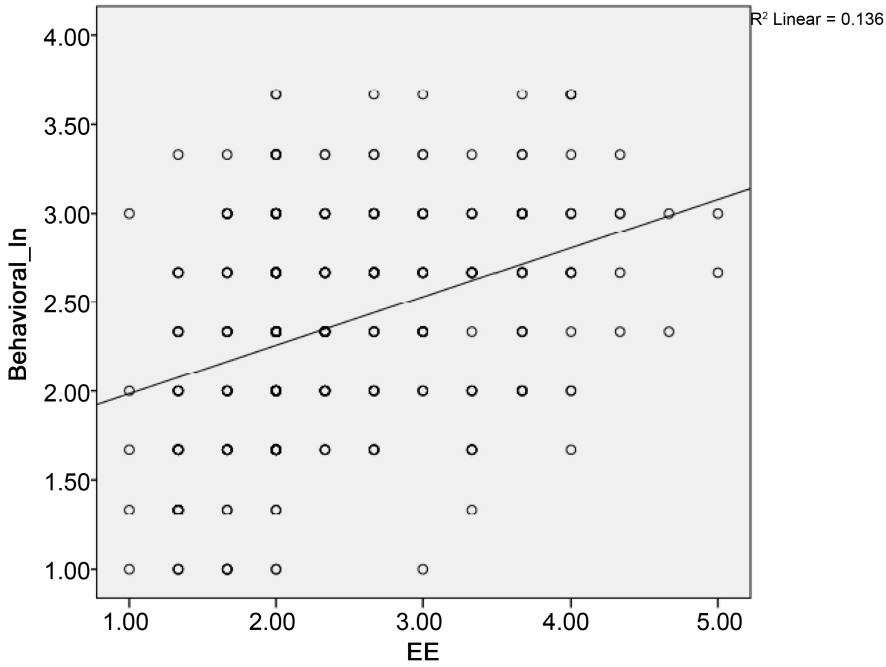

Figure 3. Behavioural intention vs effort expectancy.

Table 8. Model summary.

Model Summary				
Model	R	R Square	Adjusted R Square	Estimation Standard Error
1	0.444a	0.197	0.191	0.52448

a. Predictors: (constant), effort expectancy, performance expectancy, and social expectancy

ANAVA table *i.e.* the sign value which is 0.000, the result reveals that the model is statistically significant at p = 0.05. The result also reveals that the significant value in the table above is far less than the P value at p = 0.05 (**Table 9**).

Hence, the analysis of variance also reveals that the effect of the independent variables on the dependent variable is significant, $F(3, 382) = 31.254$, $p < 0.05$

Looking at the correlation coefficient **Table 10**, the construct of "performance expectancy" at p 0.05 is not statistically significant in influencing the academic staff behavioral intention (BI) to accept and use ICT tools. This is because the significant value (sig.) of the variable "performance expectancy" in the table is greater than the P-value (0.218 > 0.05), which indicates there is no significant correlation between the variables, while the other two factors, "social influence" (SI) and "effort expectancy" (EE), are significantly influencing the academic staff behavioral intention (BI) to accept and use ICT tools in the learning process at P 0.05.

The result of the analysis shows that the significance of the joint contribution was tested at p = 0.05, and the result indicates that the analysis of variance for

Table 9. ANOVA table.

ANOVA						
Model		Sum of squares	df	Mean Square	F	Sig.
1	Regression	25.791	3	8.597	31.254	0.000b
	Residual	105.078	382	0.275		
	Total	130.870	385			

a. Dependent variable: behavioral intention; b. Predictors: (constant), effort expectancy, performance expectancy, and social expectancy.

Table 10. Correlation coefficient.

Correlation Coefficient								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% confidence interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.080	0.150		7.203	0.000	0.785	1.375
	PE	0.069	0.056	0.059	1.235	0.218	−0.041	0.179
	SE	0.214	0.043	0.241	4.947	0.000	0.129	0.298
	EE	0.211	0.036	0.285	5.839	0.000	0.140	0.282

a. Dependent Variable: Behavioral Intention.

Table 11. Summary of analysis.

	HYPOTHESIS	Multiple regression: analysis
H_{01}	There is no significant influence of performance expectations on the behavioral intentions of the *respondents* or their use of ICT.	ACCEPTED
H_{02}	Social influence has a significant impact on respondents' behavioral intentions and use of ICT.	REJECTED
H_{03}	There is a significant influence of effort expectations on the behavioral intentions of the *respondents and their* use of ICT.	REJECTED

regression resulted in an F-ration of 31.254 at a p = 0.05 significant level.

3.4. Summary of the Analysis of Hypothesiss

In summary, all the variables are tested using multiple regression analysis; the research asserts three null research hypotheses; one of the hypotheses was accepted, while the other two were rejected, as shown in Table 11 above.

4. Conclusion

The qualitative result of this research has been compiled into observations that allow decision-making. First of all, the research was able to analyze the existing educational setting in the selected colleges of education and find the problems attached to the system. The research was able to show that most of the academic staff has similar problems in terms of ICT usage, except for the staff from the department of computer science. The result of the correlation shows that the factors most influential are effort expectancy and social influence, as they have the same significant level in the correlation coefficient table generated using SPSS. When the three constructs are considered separately, only two of them (effort expectancy and social influence) are significantly correlated with the academic staff's behavioral intention to use ICT. This indicates that one of the constructs (performance expectancy) did not influence the participants' intentions to accept and use ICT tools. Hence, the use of ICT improves both staff and student performance by reducing errors, saving their time, improving efficiency, and removing geographical limitations.

5. Recommendations

It is clear from the responses of the respondents that the extent of acceptance and use of ICT depends on many factors, including social influence, access to resources, effort expectancy, and technical support, among others. The research is hereby proposing a new system that integrates the use of ICT tools across the departments in the college; therefore, the research recommends the following:

1) The management should provide the departments with an ICT laboratory; this will enable both staff and students to have access to those resources at the departmental level, just as in the departments of computer science.

2) Colleges should encourage online assignment submission and the use of online resources rather than the traditional method of assignment submission.

3) The management should make it mandatory for staff and students to use ICT tools where applicable.

4) The college should set up a unit for ICT support for both staff and students.

5) The use of e-books in conjunction with conventional libraries is recommended; therefore, colleges should invest in e-book systems.

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Conflicts of Interest

The authors declare no conflicts of interest.

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