

THE BEHAVIORAL INTENTION TO USE EDTECH IN TEACHING ACCOUNTING IN NIGERIA

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Abstract

The global pandemic of COVID-19 led to the lockdown of industries, government agencies and schools including Higher Education Institutions (HEIs). This development forced faculty members to adopt online tools for teaching and learning. Although the application of Education Technology (EdTech) has been acknowledged as part of the futuristic approach, its deployment in developing countries has remained doubtful, and its effectiveness and acceptability remained questionable. Therefore, the study aimed to examine the behavioural intention to use EdTech in teaching and learning accounting in Nigeria. Drawing on the Technology Acceptance Model (TAM), the study collected data from 153 faculty members through an online survey, to examine the relationship between three variables and the behavioural intention to use EdTech in teaching and learning accounting in Nigeria. The data were analyzed through descriptive and regression statistics. The result of the analysis revealed that all three variables – perceived ease of use, perceived usefulness and attitude towards the use of EdTech are positively related to behavioral intention to use EdTech in teaching and learning accounting. All were significant at .005 except perceived ease of use highlighting the perceived difficulties in using technology in teaching and learning. The research implications are also discussed.

Keywords: educational technology, accounting education, higher education, technology acceptance.

Introduction

Globally there is now a drive for the adoption of Information and Communication Technology (ICT) in virtually every aspect of human existence. The modern trend in the use of technology in performing tasks has taken a central focus in academic and professional discourse. Higher Education Institutions (HEIs) are also not left out in adopting technology for teaching and learning. This became necessary with the COVID-19 pandemic which led to the closure of

schools and the move to online teaching and learning (Adedoyin and Soykan 2020; Starkey et al. 2021). This has been associated with how students are taught and managed (Agudo-Peregrina, Hernández-García, and Pascual-Miguel 2014). In line with this, the drive for anywhere and anytime learning is becoming the choice of the day, leveraging the use of ICT. Although the application of ICT in teaching has been acknowledged as part of the futuristic approach, especially in the developed world, its deployment in developing countries has remained

doubtful, its effectiveness and acceptability questionable with a significant proportion of accounting faculty resisting its adoption (Watty, McKay, and Ngo 2016). This study aims to examine the behavioral intention to use EdTech in teaching and learning accounting in Nigeria. In achieving this objective, this paper is structured into Six (6) sections. The current section is followed by a literature review. Section three (3) is devoted to describing the methodology used in sourcing and analyzing the data for the study. Empirical analysis of the data is presented in section four (4) and the results are discussed in section five (5). These are summarized and concluded in section six (6).

Literature Review

Traditionally, students, in Nigeria, were taught using chalk, blackboards, and books and assessed using paper and pens. This approach is considered labour-intensive, lacks innovations, and discourages the learning process. Advancements in technology have changed the way courses are taught, performance is assessed, and skills are acquired. The growth in the application of ICT in teaching has been on the increase resulting in its adoption in different fields of study. (Watty et al., 2016) argued that the relevance of ICT in the 21st century has forced accounting faculties to embrace the opportunities provided by technology in teaching and learning practices. It is, therefore, practically impossible to impart accounting skills needed in modern business without the adoption of ICT in teaching, research, and learning. Innovations brought about by technology and used in higher education have been categorized into learning

management systems; assessment and evaluation; and presentation and learning resources (Watty et al., 2016). In addition, eLearning (Cross, 2004) virtual classroom and the use of social media (D'Aquila et al., 2019) are considered significant tools used in enhancing accounting education.

E-learning

Electronic learning, often known as e-learning, is now successfully employed in many countries to train future professionals in higher education and corporate training as a result of technological innovation and the current status of education (Yanuschika, Pakhomovaa and Batbold, 2015; Herrera, 2017; Molotsi, 2020). Jay Cross coined the phrase "e-learning" in 1998 (Mohammed, 2020). One prominent way that technology is advancing education is through electronic learning or e-learning. Online learning is typically referred to as e-learning. To act as a platform for the growth of the knowledge-based society of the modern era, e-learning has developed into a new paradigm and contemporary philosophy in teaching. (Al-Dosari, 2011; Al Masri, & Rimawi, 2021). It is a method of employing technology to offer education where the teachers and the students don't meet in person but instead communicate and study through electronic means (Almahasees, Mohsen, & Amin, 2021). It is a virtual classroom or setting where e-learning courses are offered and students learn by interacting, exchanging messages, watching and debating presentations, and using educational materials (Annansingh, 2019). It is frequently referred to as distance education since it was initially designed as a support system for distance learning (Alves, Miranda, & Morais, 2017). It is built on

distant contact between teacher and student using information technology, in the words of (Saykili, 2019). It is an electronic approach that uses information technology, online resources, forums and web chats for student and instructor interaction, online learning videos, and computer assessment (Owusu-Ansah, Rodrigues, & Van der Walt, 2019).

The potential of e-learning has the prospect of changing people's knowledge, skills, and performance (Kattoua, Al-Lozi, & Alrowwad, 2016). There are advantages and benefits to e-learning adoption in education, particularly for higher educational institutions. It is regarded as one of the best teaching strategies. The advantages and benefits of integrating e-learning technology into higher educational institutions have been detailed in several studies (Arkorful, & Abaidoo, 2014; Alenezi, 2020; Abbad, 2021; Al Rawashdeh, et. al 2021). According to Alenezi (2020), e-learning may assess students or learners as they study while also enhancing their educational experiences through engagement that is appropriate for community education, cultural diversity, and globalization, as well as removing time and space barriers. Abbad (2021) asserts that e-learning allows for the quickest completion of objectives with the least amount of work. As they gain experience from multiple experts in diverse sectors of knowledge, both students and instructors will be able to attain and maintain improvement. The effects of e-learning on educational ethics cannot be over-emphasized according to Al Rawashdeh et al. (2021). This is because an e-learning setting is a suitable approach to provide

equal access to the information world regardless of the locations, ages, ethnic backgrounds, and races of the users.

However, studies have attempted to comprehend how university faculty members view e-learning and what influences such opinions (Seif, Taleebi, & Alipour, 2012; Akbarilakeh, Razzaghi, & Moghaddam, 2019; Alqahtani, & Rajkhan, 2020). Existing research suggested that a teacher's technical proficiency, awareness of the benefits of e-learning, and educational background, all had an impact on how faculty members perceived the technology (Muhammad, et. al. 2016; Mohammed, Kasim, & Shaharane, 2018). However, some studies argued that faculty members' acceptability of employing e-learning at higher education institutions is influenced by their age (Eltahir, Al-Qatawneh, Al-Ramahi, & Alsalhi, 2019; Taat & Francis, 2020).

Virtual Learning Environment

Due to recent technological advancements, higher education institutions can use various classroom setups with online content (Muthuprasad, Aiswarya, Aditya, & Girish, 2021). To engage students who are considered digital natives, teachers are required to use online technology in the classroom (Cakrawati, 2017). The phrase "online learning" was first used in 1995 when WebCT, the first Learning Management System (LMS), was created (Singh, & Thurman, 2019). The ability to use a computer connected to a network, which provides the possibility to learn from anywhere, anytime, in any rhythm, with any means, is shared by the majority of the terms (online learning, open learning, web-based learning, computer-mediated

Social Media in Teaching and Learning

The growth in the use of social media globally can never be over-emphasized. This is largely due to its benefits to the participants including higher education institutions. It is a computer-based technology used in the sharing of ideas, thoughts, and information through a virtual network. There are over 4.5 billion users of social media using different applications such as Facebook, Twitter, Instagram, YouTube, TikTok, and Whatsapp. Predominantly used by youths for social networking, social media has gained popularity in business, politics, and educational sectors. The rapid adoption of social media technologies has resulted in a fundamental shift in the way communication and collaborations take place among faculty members and students making it an important tool in teaching and learning. For example, (Chugh & Ruhi, 2017) have argued that Facebook usage has increased teacher-student and student-teacher interaction, and brought about improved performance and convenience in teaching and learning. Similarly, (D'Aquila et al., 2019) reported that the use of YouTube videos for the learning process has brought about improved performance. Indicating the relevance of social media in teaching and learning. In addition, (Elkaseh et al., 2016) argued that the younger generation in higher education prefers the use of new technologies such as social networking in teaching and learning. Despite the benefits derivable from the use of social media, the rate of adoption of social media in teaching and learning remains an issue of concern. Several studies have investigated the reason behind the intention of social media in teaching and

learning. Relying on the Technology Acceptance Model, (Teo, 2011) reported that perceived usefulness and ease of use, subjective norm, facilitating conditions and attitude were found to be influential factors in the use of technology in teaching and learning. Thereby emphasizing the positive intention to use social media in teaching and learning.

Virtual Classroom

Another important technological development in teaching and learning is the use of the virtual classroom. It is a technology that allows faculty members and students to communicate, interact, collaborate and share ideas with a key feature of overcoming the challenge of cost, distance, and timing. (Abari et al., 2021). It provides students the opportunity to access quality lectures over the internet using video and audio conferencing, interactive online whiteboard, and screen sharing. (Abari et al., 2021) argued that the adoption of eLearning in teaching and learning necessitated the use of a virtual classroom which was considered the most preferred eLearning tool during the COVID-19 pandemic. The benefits derivable from the virtual classroom include enhanced efficiency in knowledge due to access to global learning materials, reduced challenge of overcrowded classrooms, and afford students the convenience of staying in their comfort rooms to receive lecturers. In addition, (Aditya & Permadi, 2019) posit that the application of virtual classrooms improves the effectiveness of teaching and learning and reported that students indicated their willingness to accept the use of a virtual classroom. The foregoing indicates the benefits of using a virtual

learning, blended learning, and m-learning) (Affouneh, Salha, & Khlaif, 2020).

An online classroom is a digital tool that helps professors and students actively participate in learning (Dhawan, 2020). Apart from extending instruction and learning outside of the classroom, it also enables students to engage in broad inquiry about what they are learning. The goals of the lesson and the type of material being taught determine how effective teachers use digital technology (Dhawan, 2020). As a result, for teachers to properly use digital tools, they must take into account the size of the class they are teaching, the availability of the necessary equipment, and their technical expertise (Chowdhury, 2020).

Some of the most well-known online communication tools that could transform the course and direction of the entire educational system around the world include Google Classroom, Ted-Ed, Pronto, WizIQ, Feedback Fruits, Blackboard Learn, Udemy, and Start.me, Neo, Classtime, Classwize, Coursera, Bakpax, Skillshare, ClassDojo, Edmodo, Parlay, Docebo, WeVideo, Flipgrid, Codecademy, Gynzy, Adobe (Mishra, Gupta, & Shree, 2020).

Some teachers have tried to incorporate technology into the teaching and learning process in the classroom by using online learning platforms like Edmodo and Quipper (Huber, & Helm, 2020) furthermore, the free and user-friendly social learning platforms Edmodo and Quipper provide students with a variety of tools that enable them to communicate and work together with teachers and classmates as well as access teacher-provided courses

(Huber, & Helm, 2020). The instructor can assign a task, determine when it must be submitted, and keep track of the student's development (Huber, & Helm, 2020). Because they enable interactions between teachers and students even when they are not in the same room, online platforms encourage both inquiry-based learning and independent learning. In addition, internet platforms enable parents to keep track of their children's development (König, Jäger-Biela, & Glutsch, 2020).

Another free tool that helps students and teachers communicate, collaborate, organize, and generate assignments is Google Classroom. It makes learning paperless. However, only users with Google Apps for Education can access Google Classroom as a digital tool. It is a free collaborative set of tools. These tools include web tools like Google Docs, Google Drive, Gmail, and more. Access to these web tools is available to all users with a Google account. Any grading level (basic, post-basic, and tertiary) can use Google Classroom; however, it relies on the teachers' and students' proficiency (Iliyasu et. Al., 2020). Thus, Google Classroom is a digital tool that enables students to participate in classes online (Iliyasu et. Al., 2020). The Google Classroom App or a web browser can be used by teachers to post resources for their students, make announcements, and create assignments and quizzes that students can complete, submit, and save online. Digital tools, which include desktop computers, notebook computers, tablets, and smartphones, emphasize students continuing their educational pursuits (Angie & Amber, 2018).

classroom in teaching and learning. It is therefore important to know the extent of the acceptability of this technology among faculties in enhancing accounting education.

Theoretical Background and Research Hypothesis

This study used the Technology Acceptance Model (Davis 1989) to explain the use of EdTech in understanding the behavioral intention in teaching and learning in Nigeria. This is informed by the wide use of the Model among researchers in technology acceptance and adoption behaviours (Marangunić and Granić 2014; Salas 2016). It was successfully applied in social media, virtual learning, mobile library, and learning technologies (Sprenger & Schwaninger, 2021). Specifically, Agudo-Peregrina et al., (2014) and Mohammadi, (2015) used it to explain the behavioral intention to accept eLearning in higher education. Similarly, Elkaseh et al., (2016) adopted it to study the perceived ease of use and usefulness of social media in higher education. In addition, Sprenger and Schwaninger (2021) studied the acceptance of four learning technologies among university students. Thus, indicating the relevance of the theory in explaining the use of modern technology in teaching and learning accounting in Nigeria.

The behavioural and attitudinal intention to use technology in higher education is predicted by the belief and perception of ease of use and usefulness in achieving a desired result which in turn influences the intention to use technology in improving accounting education (Abari et al., 2021; Agudo-Peregrina et al., 2014; Masayekhi & Mohammadi, 2014; Mohammadi, 2015). In

other words, TAM is postulated on perceived ease of use, perceived usefulness, attitude towards use, and intention to use (Zaineldeen et al. 2020). Studies have been conducted to examine the effects of perceived ease of use and usefulness on user intention to use technology (D'Aquila et al., 2019; Elkaseh et al., 2016; Legris et al., 2003). The construct of perceived ease of use has been described as the degree to which an individual believes that using technology would be a free effort (Mohammadi, 2015) and that the technology would contribute to improving performance (Agudo-Peregrina et al., 2014). It is argued that the greater the perceived ease of use, the greater the likelihood of accepting and adopting a particular technology in higher education and the more positive intention to use it (Mohammadi, 2015). To avoid underutilization of a particular technology, (Kim, Mirusmonov, & Lee, 2010) argued that the technology must be easy to use. In the context of HEI, perceived ease of use is seen as the degree to which faculty members believe that technology will be easy to use and have a positive influence on their task of teaching and learning and will contribute to improving their jobs. Subsequently, we hypothesized that:

H1 *Perceived ease of use of technology will have a positive effect on the intention to use EdTech in teaching and learning accounting in Nigeria.*

Another variable in TAM is the perceived usefulness of the technology and key determinants of intention to use technology (Kim et al., 2010; Mohammadi, 2015). In the educational context, Agudo-Peregrina et al., (2014) see it as the extent to which

individuals believe that technology will improve the teaching and learning process. Individuals adopt technology that is more innovative and user-friendly (Mohammadi, 2015). Studies have investigated and reported a positive effect of perceived usefulness on user intention (Aditya & Permadi, 2019; D’Aquila et al., 2019; Elkaseh et al., 2016). We, therefore, hypothesized that:

H2 *Perceived usefulness positively affects intention to use EdTech in teaching and learning accounting in Nigeria*

In addition to perceived ease of use and perceived usefulness, attitude towards the use of technology and the behavioural intention to use technology are the other constructs used in the TAM and were found to predict behavioural intention to use technology (Teo, 2011). Attitude towards

technology is viewed as positive feelings about technology while behavioural intention is the willingness to use a given technology in enhancing accounting education. Behavioural intention is a determinant that captures how people are willing to use a particular technology (Ajzen, 1991). We, therefore, hypothesized that

H3 *Attitude towards use positively influences behavioural intention to use EdTech in teaching and learning accounting in Nigeria.*

Over the years several attempts were made to configure the model but the basics of the theory remain unchanged and are considered an acceptable way to evaluate modern technology usage (Watty et al., 2016). Based on the model, we, therefore, present our research framework in Figure 1.

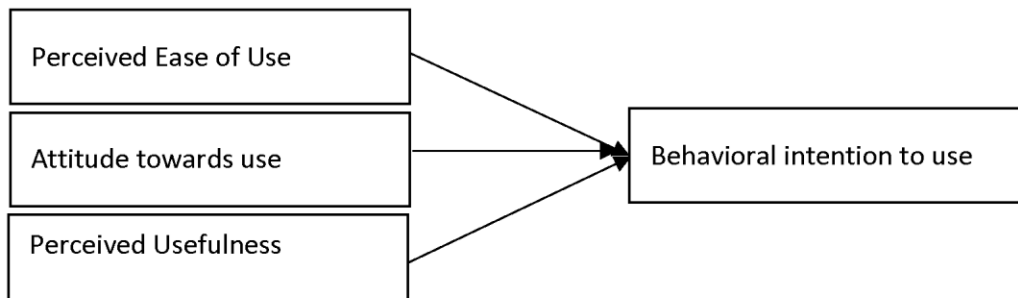


Figure 1 Research framework

Methodology

This study adopts a quantitative research approach using a survey research design (Creswell, 2011). This is one of the most used research designs in a no-experimental design and is considered most appropriate

for testing theory (Elkaseh et al., 2016). We adopt an online survey approach to elicit data from faculty members in higher education institutions in Nigeria. Previous studies have also used a survey approach in examining the intention to use technology

in teaching and learning (Kim et al., 2010; Watty et al., 2016).

Instrument of Data Collection

We used a self-report questionnaire through an online medium (Google Forms) to collect data on respondents' demographic information in addition to responses on perceived ease of use, perceived usefulness, and intention to use modern technology in teaching and learning accounting. The responses were rated on a five-point Likert scale with a range from 1 – strongly agreed to 5 – strongly disagree. The questionnaire was adopted from previous studies (Kim et al., 2010; Teo, 2011) and adapted to the context of teaching and learning in accounting education.

Population and Sample

The population for this study comprises all faculty members in Higher Education Institutions in Nigeria engaged in teaching and learning. They include academic staff in universities, polytechnics, and colleges. There are currently 49 federal universities, 57 state universities and 111 private universities in Nigeria (NUC, 2022). Similarly, there are 37 federal polytechnics, 57 state polytechnics and 71 private polytechnics (NBTE, 2022). Using an online survey, via Google form, data was collected across the tertiary institutions in Nigeria. The sample is the academics

engaged in teaching and learning accounting programmes in Nigerian tertiary institutions. A total of 153 responses were collected over three (3) months – September to November 2022.

Method of Data Analysis

The study adopted a descriptive and regression analysis to examine the behavioral intention to use EdTech in teaching and learning accounting in Nigeria. The descriptive analysis was conducted to describe the research respondents and the constructs. We further conducted a regression analysis to examine the relationships between the study's variables. The goal is to see what explains the behavioral intention to use EdTech in teaching and learning.

Results

The respondents for this study comprise 130 males, representing 85% and 23 females that constitute 15% of faculty members who filed the online survey. Similarly, more than 50% of the respondents have a \PhD as their highest qualification, 82% have experience of more than five years and 67% teach in federal universities in Nigeria. In addition, 16% are professors, 26% are senior lecturers and the remaining are in the lecturer category. This descriptive statistic is shown in Table 2.

Table 1
Descriptive data

	Frequency	%
Gender		
Male	130	85
Female	23	15
Qualification		
Ph.D.	77	50.3
M.Sc.	76	49.7
Academic Position/Rank		
Professor/Chief Lecturer	25	16
Senior Lecturer	40	26
Lecturers	88	58
Institutional Affiliation		
Federal institutions	102	67
State institutions	51	33
Teaching Experience		
< 5 years	28	18
5-10 years	58	38
> 10 years	67	44

Regression Analysis

A reliability test was conducted to determine the consistency of the items in the questionnaire. The result of the analysis shows that the overall value of Cronbach's alpha is .953 which is considered strong (Mohd et al., 2017).

Table 2
Reliability Test

Variable	Cronbach Alpha
Perception of ease of use	.910
Perception of usefulness	.794
Attitude towards use	.797
Intention to use	.819

Upon the determination of the reliability of the data, a regression analysis was conducted to test the relationship between the variables of the study. Table 4 shows

the multiple regression results between the perception of ease of use, perception of usefulness and attitude towards the use of EdTech in teaching and learning accounting

and the behavioral intention to use EdTech in teaching and learning accounting programmes in Nigeria. The results show that perception of usefulness and attitude towards the use of technology in teaching and learning accounting programmes have a significant and positive relationship with behavioral intention to use technology in teaching and learning accounting

programmes in Nigeria at the .001 level. Thus, the respondents believe that the perceived usefulness of technology in teaching and learning and attitude towards the use of technology strongly influence the behavioral intention to use technology in teaching and learning accounting programmes in Nigeria.

Table 3 Multiple regression results

	R2	β	p
Outcome: Intention			
Predictors:	.615		
Perception of ease of use		.076	.197
Perception of usefulness		.354	.000
Attitude towards use		.423	.000

*p <.001

Discussion

The drive for the adoption of ICT in performing tasks, including teaching and learning, has gained significant attention from stakeholders. Previous studies have examined the factors affecting the behavioural intention to use educational technologies with a variety of reasons for the adoption or otherwise (Adedoyin & Soykan, 2020; Teo et al., 2003; Watty et al., 2016). A number of these studies use TAM to measure behavioural intention (Teo, 2011; Watty et al., 2016). Accordingly, the current study adopted a similar approach by replicating these studies in different contexts. The intention of technology has been viewed from two perspectives (Legris, Ingham, and Collerette 2003). The first is the perceived importance of the technology in performing a given task, such as teaching and learning and the second is the perception of ease of performing the task

and operating the chosen technology (Davis 1989). The purpose of this study was to examine the relationship between the perceived ease of use, the perceived usefulness, and the behavioral intention to use EdTech in teaching and learning accounting in Nigeria. This was made possible through two hypotheses developed to achieve the objective. Our analysis reveals that perception of usefulness and attitude towards use are positively and significantly related to the use of EdTech in teaching and learning. However, the perception of ease of use was positive but insignificant in explaining the relationship. This might be connected to the perception of the difficulty encountered in operating the technologies and other associated factors.

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Conclusion And Recommendation

The objective of this study was to test the relationship between perceived ease of use, perception of the usefulness of technology in teaching and learning in accounting programmes, the attitude of faculty members towards the use of technology in teaching and learning accounting programmes and their behavioral intention to use technology in teaching and learning accounting program in Nigeria. This was built on the Technology Acceptance Model (TAM) developed by Davis, (1989). Therefore, this study tested, using regression analysis, the three factors that may influence the behavioral intention to use technology in teaching and learning

accounting programmes in Nigeria. The implication of this study is that there is an understanding that EdTech is important in teaching and learning accounting in Nigeria. Thus, suggesting that efforts must be geared towards its adoption by providing such technologies to the HEIs. In other words, a deliberate investment in technology is needed to boost the current capacity of the faculty members to use. The fear of the perceived difficulty can be minimized through training, creation of awareness and support. The limitation of this study lies in the choice of respondents—faculty members. Future studies may consider students' views, education administrators and IT experts.

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