UNIVERSITY OF EDUCATION, WINNEBA

THE PERCEIVED SERVICE SATISFACTION OF ACCOUNTING STUDENTS IN UEW IN USING ONLINE LEARNING IN THE ERA OF COVID -19

ESTHER AYIBEM AKWOPEAH

MASTER OF BUSINESS ADMINISTRATION

2022

UNIVERSITY OF EDUCATION, WINNEBA

THE PERCEIVED SERVICE SATISFACTION OF ACCOUNTING
STUDENTS IN UEW IN USING ONLINE LEARNING IN THE ERA OF
COVID -19

ESTHER AYIBEM AKWOPEAH
(202150796)

A Dissertation in the Department of Accounting,
School of Business, submitted to the School of
Graduate Studies, in partial fulfilment of the
requirements for award of the degree of
Master of Business Administration
(Accounting)
in the University of Education, Winneba

DECEMBER, 2022

DECLARATION

Student's Declaration

I, **Esther Ayibem Akwopeah**, declare that this work except quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my original work, and it has not been submitted either in part or whole for another degree anywhere.

Signature: ……………………….

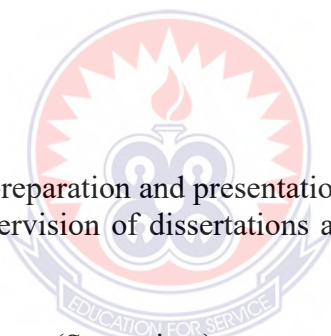Date: Wednesday, 27 March 2024

Supervisor's Declaration

I, hereby declare that the preparation and presentation of this work were supervised by the guidelines for the supervision of dissertations as laid down by the University of Education, Winneba.

     Dr. Joseph Ato Forson (Supervisor)

     Signature: ……………………..

     Date: Wednesday, 27 March 2024

DEDICATION

To my lovely daughters Odelia, Ajegewe and Wesoamo and the whole family with love.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

This mixed method study investigated the determinants of students' satisfaction with their online learning experience at the University of Education Winneba during the era of COVID-19 pandemic. The data was collected from 294 undergraduates enrolled in Business Administration with the concentration being in students in accounting. The results of the Structural Equation Modelling (SEM) revealed that the independent variables of the model, including: perceived learner motivation, perceived challenges of e-learning, and interaction significantly affected students' satisfaction with their new online learning experience. Out of the three constructs, perceived challenges of online learning have the strongest effect on students' satisfaction. Among the challenges faced by the online learner network problems were crucial followed by technical challenges which did not only affect student's motivation level but also affected the motivation in self-regulating their learning environments. The study has several implications for both creating and ensuring the long-term sustainability of productive and student-friendly online learning spaces in higher education.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

The concept of electronic learning hear after E-learning refers to the delivery of lessons, sharing of course contents and testing of knowledge through the internet by the help of information communications technology (ICT) tools (Hrastinski, 2008). The concept first emerged in the early 1924s when Sidney Pressey the "Automatic Teacher" an automated machine purposely to replace standardized testing. Since the introduction of the "Automatic Teacher", several similar systems including the "GLIDER" which was developed by B.F. Skinner in 1957, The "PLATO" by Don Bitzer of Illinois University in 1960, the "CMI" by Patrick Suppes of Stanford University in 1966, the APPANET, the Apple II personal computer, the EUN in 1983, and "CompuHigh", the first online school in 1994 Tamm (Lee, 2006).

Since the introduction of online learning, the concept has steadily become a mainstay in the educational landscape. The increasing popularity of E-learning has been pushed mainly by the increasing numbers of students in the public universities vis-à-vis the lack of adequate physical infrastructure on one hand and the improvement of Information Communications Technology (ICT) (especially the development of mobile devices to become multi-purpose and the improvement in internet connectivity (Favale, et al., 2020). The improvement in internet connectivity over the past two decades in "developed" countries has resulted in adoption and deployment of full online courses in those developed countries (Alshurat et al., 2020). The deployment of this E-learning system has enable students and lecturers to engage in teaching and learning without moving as well as encouraged free interactions among learners and learner (Alshurat et al., 2020., Karodia, 2019; Kaur, Shriram & Ravichandran, 2011).

The implementation of the Online learning has offered schools the ability to accommodate larger groups of students whiles making teaching and learning more self-directed (Gelles et al., 2020).

Moreover, Mahzan and Lymer (2014), about 40 percent of students who sat for WASSCE in Ghana obtained admission into one of the public universities in the country. This has resulted in an exponential increase in student numbers in these public universities (Lyner, 2014). This increase in student numbers has come with its own challenges including overcrowding in lecture halls and inadequate accommodation, increased pressure on schools' facilities etc. The inadequate infrastructure to accommodate these students in the universities has resulted in many students to seek residential accommodation outside campus. This has exposed students to many socio-economic problems such as threat of theft and physical hazards to property etc. (Addai, 2015).

In addition to this lack of infrastructure, the increased student numbers had resulted in high student-lecturer ratio especially in "famous" programs like Business Administration, Nursing, and Psychology (Addai, 2015). It is of these that Ben-Glover (2021), advocates for educational institutions to move from the traditional methods of teaching (face-to-face) to modern methods of teaching.

Yakubu and Dasuki (2018) posit that universities have in an attempt to surmount the above challenges have moved towards the use of online learning. For instance, many universities have as a measure to counter the infrastructural problem and thus make tertiary education accessible by the introduction of Distance Education, Sandwich programs and online learning programs (Alshurafat et al., 2020).

Despite the gradual move towards E-learning, many facilitators and learners have been reluctant in catching up with the rest of the world by migrating to E-learning. However, the advent of the COVID-19 pandemic has forced the issue. In Ghana, the advent of the COVID-19 pandemic resulted in the banning of all public gatherings and consequently the closure of all schools including public universities. This thus left E- learning as the only possible way forward for most educational institutions. Most public universities in Ghana resulted in the use of online learning as the mode of engaging the students (Anneke, 2019).

The introduction of E-learning in the public universities came with its own challenges. Indeed, there is significant research on the challenges faced by public universities in the implementation of the E- learning (Curtis, 2017). Favale et al (2020) posit that the Internet is key to online learning and collaboration. However, this is not very reliable in most places thus making online learning challenging. Another key challenge identified is the difficulty in teaching practical coursed via E-learning. As rightly noted by Burford and Gregory (2012), courses which involve practical works with high cost of tools are almost impossible to teach using online mode. Alshurafat et al., (2020) also notes the difficulty of using online learning for experimental courses.

The shift to E- learning by educational institutions in response to the COVID-19 pandemic has been received with mixed feelings by both facilitators and learners. While some lament over network issues, cost of data, lack of efficient communication between facilitators and learners amongst other things, some stakeholders were comfortable with the online learning and regard it as a way of reducing tuition cost

and enhancing faculty productivity without compromising academic integrity (Bacow, Bowen, Guthrie, Lack & Lon, 2012a).

As a mechanism to understand and maximize the benefits of E- learning, researchers have dedicated considerable time and effort to investigate various aspects associated with E- learning. However, most of these researches have focused on the challenges and factors that hinder the adoption and use of online learning systems without focusing on any circumstances that might affect their adoption and use Davies and Graff (2005). It is in view of the above that the current study seeks to diversify our knowledge by using accounting students of University of Education, Winneba as the sample population to investigate the perceived service quality and satisfaction of students in public universities in use of online learning pedagogies. The study uses accounting students of University of Education, Winneba as the sample population.

1.1 Statement of the Problem

As stated above, prior research on E- learning has mainly focused on the challenges and factors that hinder the adoption and use of online learning systems without focusing on any circumstances that might affect their adoption and use Duncan and McNamara (2012). As rightly stated by Gelles et al. (2020), the focus on ordinary factors that prevent the full implementation of online learning without discussing the main issues will mean online learning will continue to be an issue. Bacow, Bowen, Guthrie, Lack and Lon (2012b) notes that factors such as poor internet connectivity and lack of effective communication between facilitators and learners as problems associated with online learning are just temporary problems which are self-adjusting with time. This was buttressed by Anneke (2019) who stated that changing from tradition way of teaching to the use of technology in teaching and learning must

receive a mix reaction before it can be successful. Due to this Alshurafat et al., (2020) conducted a research on the significant factors in the use of online learning systems during the COVID 19 pandemic. One of the major challenges of online learning is lack of effective communication between instructors and students, which was identified by Barnard-Brak, Paton and Lan (2010) in their research on the effect of online learning on communication between instructors and students. Despite these challenges, Litherland, Carmichael and Martínez-García (2013) have identified numerous advantages of online learning for higher educational institutions. Among these advantages are the flexibility of online learning when it comes to time and place of learning thus allowing students the luxury of choosing the place and time that suits him/her.

Lee (2006), supporting this assertion states that the adoption of e-learning provides the institutions as well as their students or learners with much flexibility of time and place of delivery. E-learning opened vast avenues of knowledge base and lots of learning materials in the students and facilitators own environment through the ease of access to quality information. Adding to this Lin (2011) posit that online learning ensures better quality of instruction and increase ease technology usage thereby improving the overall learning outcomes. Also, online learning encourages the use of forums for group discussions and interactions among students. This point was supported by (Curtis, 2017). Chugh (2010, p 58) stated, "E-learning is a situated activity that occurs in various settings and, if implemented appropriately, can provide an ideal environment facilitating social interaction whilst also providing academic, social, and psychological benefits" There is also free opinion expressing in online class since tension for fear of suggestions being rejected is eliminated. Students are not under any pressure to answer any questions.

Online learning eases communication and also improves the relationships that sustain learning. This was supported by Delen and Liew (2016) online learning makes available extra prospects for interactivity between students and teachers during content delivery. Traveling expenses, accommodation fees and other expenses connected with relocating to school is eliminated thereby making online learning cost effective.

Despite the huge benefits of online learning, there is little literature on the extraordinary factors that hinder the full realization of the vital importance of online learning. There also appears to be lack of literature on the quality of services students in higher educational institutions expect in online learning pedagogies and whether they are satisfied with the services delivered through the online education.

Also, many scholars have come out with so many theories of learning (face-to-face) examples are: the behaviourist theory of learning, the cognitivist theory of learning, constructivism, social constructivism, experiential learning, multiple intelligence, and situated learning theory and others but since the inception of online learning around the 1960s little has been done with regards to the theoretical frameworks backing online learning (Ashurafat et al.,). This paucity of information exist despite the fact that there is significant evidence pointing at quality of service, which is grounded on the quality of interactions between facilitators and students, quality of networking among students and the quality of technologies and other resources used by students in online classes as one of the measures of success in online learning. It is against this backdrop that this study seeks to critically examine (accounting) students' perceived service quality and their satisfaction in online learning taking into consideration the effects of social capital theory and technology acceptance in their learning.

6

1.2 Purpose of the Study

In Ghana online education is progressing rapidly within this current generation and this makes online learning one of the most frequent discussed subjects in education. Coupled with Covid 19 pandemic, some Ghanaian students across all levels of education have experienced online learning. Some Ghanaian students were also exposed to some best courses from schools around the globe where they are able to complete various courses and obtain various degrees without having to move out of the country. A number of renowned media houses such as Joyprime (Joylearning), local radio stations (learning programs) etc also offered online learning to learners from kindergarten all the way to senior high school. Universities in Ghana were also engaged in full online learning and the researcher saw the need to investigate the experiences of UEW accounting students in using the online learning. The purpose of the study was to explore the perceived service quality and satisfaction of accounting students in public universities in using online learning pedagogies in the Central region of Ghana from the perspectives of accounting students in UEW. The study looked into the expected quality of education accounting students seek from online learning. The study also dug into the effects of technology acceptance in connection with online learning among accounting students in UEW. The study also focused on how the quality of education of accounting students was affected by the quality of interactions between lecturers and students and the quality of networking among students using online learning using social capital theory.

1.3 Research Objectives

The specific objectives of the study are as follows:

1. To explain the effects of learner self-motivation in participating in online learning on their satisfaction.

2. To find the relationship between interaction and satisfaction in online learning.

3. To explain the effects of online learning challenges on learner's satisfaction.

1.4 Research Questions

1. What are the effects of learner self-motivation on satisfaction in learning online?

2. What is the relationship between interaction and satisfaction in online learning?

3. What are the effects of online learning challenges on satisfaction in online learning?

1.5 Significance of the Study

In recent years, education in general is facing continuous changes in teaching methods, from the traditional teaching pedagogies (teacher-centred) to modern teaching pedagogies (student centred learning) and the introduction of technology all aimed at making the learner a critical thinker, a problem solver, innovator, a good communicator and a collaborator, a global citizen, a leader and a digital literate (Gelles et al., 2020). Quality education according to Anneke (2019) is aimed at developing commitment, tolerance, patriotism, flexibility, respect for evidence, reflection, comportment, co-operation, responsibility, environmental awareness, respect for the rule of law and diversity, equity trust and integrity and teamwork. A study on online learning pedagogies, its expected quality and whether these expected qualities have been met will enable learners in higher education to do self-evaluation of service satisfaction and their level of technology acceptance, it will enable lecturers in assessing learners and evaluating online teaching methods and working towards improving online learning, for example Redmond, Heffernan, Abawi and

Henderson (2018) state that there is much we can do to create online learning environments that enhance learning and teaching outcomes. These environments should "provide opportunities for students to engage in online learning, and to foster connections with each other, instructors, the educational institution and industry while developing strong disciplinary knowledge and multidisciplinary skills", since more and more research works are expected in online learning, this study will serve as a reference material for further research in online learning and it will also help educational policy makers in making policies that will enhance quality of online learning.

1.6 The Scope of the Study

Online learning happens in all levels of education and the adoption to online learning in private schools is encouraging as compare to public (Abbasi, Ayoob, Malik & Memon, 2020). However, this study was limited in scope due to limited time and other resources. Also, online learning involves many stakeholders from the vice chancellor, to the lecturers, to students, parents, policy-makers and administrators but this study was narrowed down again to only one stakeholder that is the student. The narrowed scope was as a result of time and financial constraints.

The study covers accounting students in UEW in the Central region of Ghana. The study covered only level 200 and 300 accounting students of UEW this was to ensure that the collected data and survey instruments were well managed and analysed on time. Also, there were large number of potential participants in the study population, but the study only focused on the population involved in the current study of accounting in UEW and this was to ensure easy access to the population.

1.7 Organisation of the Study

The study is divided into five chapters. Chapter One is concern with the background to the study, statement of the problem, research question, objectives of the study, significance of the study, scope of the study, limitation of the study and lastly how the whole study is organized. Chapter Two dealt with the literature review. This chapter examines the views of other theorists and authors about the issues under discussion as well as review of previous studies on the impacts of electronic banking on customer satisfactions. Chapter Three outlines the research methods the researcher employs in carrying out the study. The chapter also deals with the study area, sample size and the sample selection as well as methods of data collection, management among others. Chapter Four presented the analysis and presentation of data in this study. Chapter Five being the final chapter of this study presented the summary, conclusion and the necessary recommendations of the study which emanated from the findings of the study.
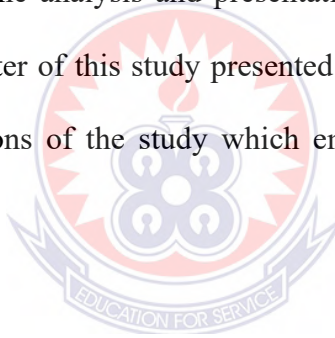
CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.0 Introduction

This chapter presents a comprehensive literature review on online learning. The first review covered the theoretical framework of the subject followed by the empirical and conceptual frameworks of the subject. There was also a thorough review on the key themes raised in the research questions.

2.1 Theoretical Framework

Jordan, Kleinsasser and Roe (2014), stated that to specify a particular theoretical framework and justify its selection and use in online learning is not logic rather there is a need for cognitive flexibility to move across options and sometimes combine two or more frameworks within one project.

According to Jordan et al., (2014) a variety of educational stakeholders grapple with numerous and varied wicked problems that hold no simple nor permanent solution. This situation increases the burden of making progress and intensifies a need for a well-articulated theoretical framework to avoid competing or contradictory actions". On the contrary Redmond et al. (2018) believed that to ensure fealty and consistency, a single framework must be selected and used. Karodia (2019) also attested to the fact that a single framework is not enough to complete a course of study there is always the need for customization to meet the individual needs of all learners and to avoid "one size fits all" there is the need for facilitators to seek for more options. This was further supported by Bettis and Roe (2008) who used social-constructivist theory and feminist theory in investigating girls' roles in literature discussion.

11

This research work dive into many theoretical framework options to information necessary to change course, and the knowledge and freedom to combine frameworks.

The scientific study of learning began in the early of the 20th century and since then there has been many theories including the behaviourist theories, cognitive psychology, constructivism, social constructivism, experiential learning, multiple intelligence, and situated learning theory and community of practice.

Now with the introduction of technology, there is a serious debate as to which of the theories is more suitable to use or do, we need to develop new theories for this kind of learning (Kaur, Shriram & Ravichandran, 2011). First e-learning was designed based on the behaviourist theory of learning. The behaviourist approach of learning was proposed by Thorndike (1913) Pavlvo (1927) and BF Skinner (1974) who claimed that learning is something we can observe from the behaviour of the learner which is caused by stimuli from the external environment. But some other educators came out that some sort of learning are not observable and there is more to learning than change in behaviour, hence the cognitive theory of learning, they also claimed that learning is an internal process where the learner's mind is an information-processor so they learn by receiving information and processing it using their cognitive operation and store the processed information in their memories, (Bettis, Ferry & Roe, 2016), and add to the learner's existing knowledge structure (Davies & Graff, 2005). The constructivist also came in recently to say that learners are not passive information recipients but they actively construct their knowledge by interacting with the environment (Litherland et al., 2013).

On the contrary, the connectives believed that learning is not dependent on the learner but on the changing environments through innovations which at a point in time will

demand the learner to unlearn past things and learn new things. With online learning, machines have to be smarter for there is a need for learning to reside in both machines and humans (Liu, Chen, Sun, Wible & Kuo, 2010). Educators are still wondering how to design instructions for machines and humans to enable the two interact effectively with each other (Liu et al., 2010). Under critical examination of these theories there are some huge similarities in ideas and principles, for this reason. Anneke (2019) propose the taxonomy of learning but that notwithstanding more and more theories of learning are emerging every day. For example, the theory of social learning, social-constructivism, experiential learning, multiple intelligences, situated learning theory and community of practice and 21st century learning or skills multimedia learning theory, semiotic theory, language task engagement theory and psychosocial and social media use theory. Mayer, Sweller and Moreno (2015) have researched into the theories of learning and realized that the already existing theories were not enough to explain the concept of e-learning accurately so they established some principles based on the cognitive learning theory purposely to reduce the extraneous cognitive load and to manage the germane and the intrinsic loads at a level more appropriate for online learners.

2.1.1 The E-learning Theory

Currently, E-learning theory has been developed based on the cognitive principles of learning. The theory demonstrates how educational technologies can be designed and used to enhance learning effectively (David, 2015). According to Mayer (1997) the principles used in the e-learning theory are adopted from the cognitive load theory. David (2015) defined cognitive load theory as " the amount of mental effort involved in working memory during a task" he further grouped the cognitive load into three groups as extraneous, germane and intrinsic and his reason for this grouping was that

13

learning using technology exposes learners to too much information that their memory capacity will not just be enough to process and store all this information within a limited time there by making the learner's brain recognizing this information as overload and creating a signal in the brain that it is being overused so he suggest that for efficient learning the learner needs to balance these three groups of loads. This was supported by (Love & Fry, 2006) who stated that online learning exposes learners to so much information that their ability to select useful information from the available ones becomes a problem so cognitive load theory is being able to group information to help the learner learn effectively using the internet. Also, Mayer, Sweller and Moreno (2015) saw the need to make information simpler for the online learner so they designed eleven principles which e-learning theory is inclusive to reduce the extraneous cognitive load and manage germane and intrinsic loads.

The E-learning theory had been studied closely by several researchers and they developed so many other principles to guide the theory. One of the most essential principles to this theory is personalization. This principle encourages informal interactions between facilitators and learners so as to enhance effective learning Kartal (2010). This was supported by (Mayer et al., 2015) who also believed that there is better learning with computerized instructional content in a personalized informal style, personalized formal style, and neutral-formal style. Kurt (2011) studies shown that there is a significant difference and improvement in online students' cognitive load scores when using personalized informal style than when using non-personalized style. Prior to the E-learning theory, Harasim (2012) developed the online collaborative learning theory which was a modification of the collaborative learning theory.

2.1.2 The Diffusion of Innovation Theory

The journey to adopting innovations has over the years been studied and the most common one is the one by Rogers in his book (Love & Fry, 2006). This theory of innovation has over the years been the most appropriate model for investigation of technology adoption in higher education (Mayer, 1997). Many other researchers including McNamara (2012) have recommended the model.

Liu et al., (2010) defined technology as an instrumental action designed purposely to reduce cause and effect of a relationship in attaining a desire result. He also defined diffusion as the communication of innovation among members of a social system through certain channels over a period of time. He came out with four key components of diffusion of innovation including: innovation, communication channels, time and social system.

He described innovation as an idea, project or a practice that seems new to an individual. The time of the invented idea, practice or project does not count as long as the individual perceived it as new. The adoption of an innovation comes with changes that occur to an individual as a result of adopting an innovation or not adopting it. These changes can be advantage or disadvantage to the individual. The lessen the consequences of this the adoption of this innovation the individual is advice to take into consideration the merits and demerits of the innovation.

The second element of diffusion of innovation is communication channels. Kaur, Shriram & Ravichandran (2011) defined a communication channel as a particular media through which a message is sent and received. Anneke (2019) stated that diffusion is a specific kind of communication which can happen between two individuals and a communication channel. He further states that there are two kinds of

communication channels: mass media and interpersonal communication channels. He described the interpersonal communication channels as powerful to create and it is two-way communication channel unlike the mass media which include TV, Radio or newspaper. Online learning uses informal communication channels such as the radio, mail and social media platforms which does not include immediate response function (Lin, 2011).

According to Duncan and McNamara (2012) the third element is time which is normally ignored by behavioural research. He argued that the time factor included in diffusion research demonstrate the strength of the research. The time dimension is included in the innovation-diffusion process, adopter categorization, and the rate of adoptions.

The last element of the diffusion process is social system. Kaur et al., (2011) defined the social system as "set of interrelated units engaged in joint problem solving to accomplish a common goal" (page, 23). Diffusion occurs in social system and it is affected by the structure of the social system. He categorized adopters based on the effects the nature of a social system has on individual innovativeness.

2.1.3 Online Collaborative Learning Theory

Collaborative learning refers to a learning strategy that allows students from different levels of proficiency to form smaller groups and work together as towards achieving a common goal. Students take responsibility of other's learning achievement as well as that of their own (Gokhale, 1995). Online collaborative learning is a collaborative learning that happens online but not face-to-face. The online collaborative learning theory was developed by Harasim (2012) from the foundations of computer-mediated communication and networked teaching (Lee, 2006). The online collaborative

learning theory is rooted and integrated into the cognitive development theories which are grounded around conversational learning, deep learning, academic knowledge advancement and constructive learning (Bates, 2015). The online collaborative learning encourages learners to be problem solvers rather memorizing learning content to just pass examinations, also this theory encourages teachers to be part of the learning discourse community to ensure that core concepts, practices, and discipline standards are fully integrated into the learning cycle rather than just providing resources and guiding students to perform series of activities during lessons (Harasim, 2012). According to Mayer (1997) online collaborative learning is very effective and it has influence students' academic performance positively. This was backed by Lee (2006), who stated that each member of the group contributes positively towards the overall goal of the group and online learning just felt like face-to-face learning. Also, Magen-Nagar and Shonfeld (2018) in his research shown that OCL contribute greatly towards the reduction of technological anxiety whiles improving technological self-confidence.

2.2 Empirical Review

Several attempts have been made in defining online learning and service quality. Some scholars argue that there is no common acceptable definition for online learning. Examples McNamara (2012) stated that it is difficult to find a commonly accepted definition for the term online learning and according to Anneke (2019) there is even no common definition for the term. Bettis et al., (2016) also made a comment on these inconsistencies by saying that there may be as many definitions of the term online learning as there are academic papers on the subject. Some of the attempted definitions are Gelles et al., (2020) online learning encompasses the use of the internet and other important technologies to produce materials for learning, teach learners, and

also regulate courses in an organization, also, according to (Mahzan & Lymer, 2014), An online learning system is defined in the literature as "access to learning experiences via the use of some technology". Online learning includes e learning and other forms of distance learning that are based on technological solutions (Bacow et al., 2012a, b; Love & Fry, 2006; Lee, 2006) "online learning is a situated activity that occurs in various settings and, if implemented appropriately, can provide an ideal environment facilitating social interaction whilst providing academic, social, and psychological benefits" (Liu, et al., 2010 page,34). Also, service quality has been defined by many researchers for example McNamara (2012) defines service quality as a subjective assessment that a customer makes between the quality of the service he expects and what he actually gets.

Also, Liu et al. (2010) believe that service quality involves two parties: the service provider and the customer. These authors expressed the view that while quality means "conformity to requirements" to the service provider, it means "fitness for use" to the customer. Based on this argument, Kaur, Shriram and Ravichandran (2011) insisted that the appropriate term to use when assessing service quality is "perceived service quality"; since measuring service quality is as a result of comparison of perceptions about the delivery of a specific service to a specific customer. One cannot talk of service quality without recognizing the contribution of Davies and Graff (2005) who stated that service quality is the difference between customer expectations and perceptions of service quality. Later in 1988 they develop the SERVQUAL Theory and modified it in 1991 to a multi-item or multidimensional scale for assessing customer perceived quality of services and actual satisfaction. Many researchers over the years have adopted this theory (Litherland et al., 2013; Kumar 2014; Gelles et al., 2020; Love & Fry, 2006).

Technology is very essential in the accounting curricular in meeting international standardization in all aspects of accounting. Example, Chugh (2010) cited relevant technologies for accounting curricula, including blogs, wikis, bulletin board systems, electronic mail, audio podcasting (podcasts), video podcasting (vodcasts), chat rooms, audio conferencing, and video conferencing. Kaur, Shriram and Ravichandran (2011) noted that IT represents a crucial area that should be covered in accounting curricula to address modifications in the marketplace and to promote graduates' employability. This view is supported by Chugh (2010) who found that technology is one of the seven essential competencies required by accountant recruiters.

Online learning systems are found to be appreciated by students (Love & Fry, 2006) and there is improvement in the performance of students who took online examinations (Aisbitt & Sangster, 2005). Bettis, et al., (2016) stated that quality time spent by students in online educational platforms improves performance significantly in the final examination in accounting courses? Other evidences show that online learning has come to stay, examples (Lin, 2011) explained that online learning offer versatility in participation, accessibility and convenience and for this reason online learning will continue to be an integral part of higher education. this was buttressed to handle the education, training, and retraining needs of an expanding society" and (Alshurafat et al., 2020) stated that an online learning system is an indispensable by Liu et al. (2010) who pointed out that   Technology has become an essential way solution for educational institutions during the COVID-19 period and for this reason students worked hard to overcome the challenges associated with online learning. Despite the numerous evidences pointing at online learning as the best teaching pedagogy in this modern era, online has its own drawbacks that affect quality of higher education. Bettis, et al., (2016) online learning is viewed as individualizing

learning and limiting interaction with others and students feeling isolated from their teachers, from the content of the course and from their classmates also, courses were text-based lectures and several reading and writing assignments completed without focus on holistic development of the students. Also, Gelles et al., (2020) said online learning is like communication between computer and students which does not allow students to explore, think critically and learn through problem solving.

2.2.1 Online learning on service satisfaction

Technology Acceptance Model was developed by Davis (1989) and it is a common research model to predict usefulness and acceptance of technology by individual users (Chugh, 2010; Bettis, et al., 2016; Mahzan & Lymer, 2014; Lee, 2006). Many researchers such as (Litherland et al., 2013; Love & Fry, 2006; Liu et al., 2010) have studied and tested TAM and have confirmed that individual technology acceptance behaviour is largely determined by the usefulness and ease of use of the technology.

McNamara (2012) further spelled out perceived usefulness and perceived ease of use as the two important factors relevant in computer use behaviours. Davis explains that perceived usefulness is that prospective user's subjective probability that using a specific technology will enhance his performance in his job or life. And Perceive ease of use was also explained as the degree to which the prospective user expects the specific technology to be free of effort. According to Liu et al., (2010), ease of use and perceived usefulness are the first factors one will consider whiles deciding on accepting any technology, they further added that the factors could be influenced by external variables such as social variables, cultural variables and political variables. This was buttressed by Razali, Shahbodin, Hussin & Bakar, (2015). McGowan (2012) who stated that perceived usefulness and ease of use are affected by social factors

20

such as language, skills and facilitating conditions and political factors are mainly those factors that seem to impose certain technologies on the citizens of a country without taking into consideration the readiness of citizens to adopt to change.

Online learning involves the blending of teaching and technologies that allow students to acquire knowledge as well as special skills over the internet (Lee, 2006). One could not rule out the deficiencies in internet connections as something which discourages most students from choosing online learning over face-to-face learning but it is also a fact that most students reject online learning due to the complicities of the technologies used in teaching and learning over the internet TAM was developed by Davis for the evaluating of the behaviour of users of various technologies. Mayer (2003) the model looks into two vital reasons why a certain technological advancement could either be accepted or rejected and they are perceived usefulness and perceived ease of use (Bettis, et al., 2016). Also Mahzan and Lymer (2014) explains that users of technology based their acceptance on the usefulness of the technology and the ease of use of that technology. Duncan and McNamara (2012) argues that there is a direct relationship between the technology acceptance and its usefulness as well as its ease of use but its sufficiency to predict behaviour of users of a particular technology is doubtful. Several other past studies have shown that TAM is inadequate when using it to predict user's behaviour. Panigrahi, Srivastava and Sharma (2018) further argued that, even though several research works show that the use of TAM to predict the acceptance of technology was common, the model is insufficient to explain users' adoption and use of new technology, this was buttressed by Bettis, et al., (2016) who stated that TAM model is a notion that it could explain one's behaviour. However, it was reported that one's behaviour could not be explain by TAM since there are other environmental, social and economic factors that

21

informed one's decision of either rejecting or accepting to use a particular technology (McGowan, 2012). Argued that perceived usefulness is a major factor which can predict TAM, but this is not always the case especially with technologies such as that for entertainment such as gaming technologies.

2.2.2 Online Learning and students interaction

The emergence of online learning is a whole new scale of learning environment, alternative to those learning environments which are on proximal geographies and face-to-face interaction, it is a well-designed new learning experience which allows the learner to personally decides the venue and time of learning and it sometimes gives the learner the opportunity to blend online and offline social capital. The notion that learning is facilitated by, and based on, interactions among students (Potter & Johnston, 2006). McGowan (2012) connect social capital and learning. Social capital has been suggested to affect learning as it becomes self-generating through learning interactions (Litherland et al., 2013). Thus, the confusion around the conceptualization of social capital as the instrument or the outcome makes the causal direction questionable (Lin, 2011). Many researchers defined social capital and among then are: "Social capital is a resource embedded in human interactions" (Davies & Graff, 2005).

Students learn in many ways. They learn by attending lectures, by involving in group discussions, personal studies or even visiting the library. Most students in various universities build networks through groups that they belong to. Students involve in face-to-face learning belong to groups such as hall where they live, courses that is the course they do, religious group on campus and other social groups that help the student to build networks that are beneficial to the student at the present or in the

future (McNamara, 2012). Anneke (2019) who stated that online learning fail to provide this kind of platform for the students to network with other students as well as the rest of the school community since learning has been made personalized and individualistic He added that networking among students are determined by their ability to afford a particular technology, their free time to interact with others, their motif behind picking up a particular course and their preferred platforms of choice as students may demonstrate disparate levels of access to the requisite online technologies and skills but (Liu et al., 2010) argued that through technology we are even more connected than before, we can make friends all over the world and with this our network is not limited to any physical interactions with people but the strength our networks are based on our exposure to the rest of the world.

Pierre Bourdieu a France Sociologist and an Anthropologist in the 1980s who form social capital theory, in his work explained how networks are formed and maintained for the collective interest of the members in the group. He defined capital as "the currency that buys you the highest position in society" He further described that networks are based on power, exclusivity and excess, he looked at how power gets to maintained through exclusivity of relationships he explained that powerful groups and societies in France connect with other equally powerful groups and societies and the management of access to those powerful groups was a way to keep society stratify and also to protect the resources within the groups. As many other people understood this groups as evil and stingy, (Liu et al., 2010) in his video explained these powerful groups and societies involved people who grew up together so the relationships between them is natural and the members in the group feel sense of belonging and accepting new members into this trusted inner cycle is very difficult since people

cannot be trusted, so the members manage the resources of the group and by doing so they as well manage the access to the group.

Liu et al. (2010) further stated that in order to grow a strong network for your benefit and the benefits of others with others there are five practical applications one has to consider; he talked about building positive relationships around you. Also, Zhou (2015) talked of online learners interacting positively with their colleges over the internet. He suggested that students can be grouped and provided with tasks to perform together as a way of building positive relationships since he studied the networking ties between offline social capital in learning communities and online interactions in both face-to-face normal classroom lectures and that of distance-learning where students learn using the internet in few public universities. Social capital is very important to learning for this reason online technologies are very interactive and they even make it a point for learning and facilitators to share photos, videos and live interactions it is the goal of online learning to better the improve upon the normal classroom by helping learners to choose the flexibility of their studies without missing out interactivity among them (Chandio et al., 2017). Social interactions, in both face-to-face normal classroom and online classroom are both fundamentals for successful acquisition of known as well as the transfer of this knowledge into lifelong successful networks in the communities (Kaur, Shriram & Ravichandran, 2011). Thus, online interactivity may be perceived as a supplementary extension to offline social capital, or even as a causal effect to social capital. Litherland et al. (2013) the concept of social capital and online learning are very much useful together since learning could only take place when there is interactivity, online learning provides numerous avenues for learners to interact among themselves as well as interact with their facilitators freely. Even though meeting over for dinners

and having friends over has reduced by 35%, (Pierre Bourdieu, 1986) we are even more connected than ever through technology and thus learners today add value to the larger group that is members of the online groups are looking to add value and help others within the network rather than cutting corners which actually strengthens the network and help other learners through easy and faster sharing of information over the internet.

Chandio et al. (2017) believed that online learning is preferred to face to face learning since every learner over the internet is much involved and is exposed to a lot of available resources at their disposal, the learners use these resources effectively and they achieve academic excellence. He further added that online learners also go an extra mile in helping other people to connect to their networks, their network gets bigger and more resourceful when more people are connected, (Zhou, 2015) talked about healthy collaborations on doing projects among students, students learn to collaborate effectively and do projects given to them at school which actually helped them in building strong networks. This prepares them for even future projects. The world today is full of people who are ready to take advantage of others and having such people in your network weakens the network for this reason learners must build trust and credibility within their networks by desisting from taking advantage of other learners (Bettis et al., 2016). Online students have advance far ahead of this formal learning environments they have integrated various interaction medias and platforms to make their learning fun and more interactive. Today university students are engaged in both face-to-face and online interactions across modes and platforms and they have developed close ties and networks with their course mates as they interact frequently with them in informal network platforms such as WhatsApp and StudyNotesWiki (SNW) while simultaneously engaging in fruitful discussions with a

diversity of students far across the globe. Panigrahi et al, (2018) shared many benefits students drive from these interactions as the possibility of students to share resources, receive constructive feedback, participate in mutually advantageous interactions and take decisions based on new and alternate viewpoints also, there are socio-affective benefits to collaborative interactions in online learning networks such as the ability of the students to gain self-confidence from these interactions, develop mutual feelings of trust and reciprocity, and grow a sense of belonging and shared purpose in an emotionally supportive environment (Panigrahi et al, (2018)).

2.3 Conceptual Framework and Hypothesis Development

2.3.1 Students' satisfaction

Students' satisfaction is described by many researchers including McGowan, (2012); Bettis et al. (2016); Chugh (2010) and Litherland et al., (2013) as one of the best measures of effective education. Paisey and Paisey (2005) states that instructors should be appraise by learners rather that supervisors. At any level of education, student's performance can be improved through effective assessment of students' satisfaction during learning (Chugh (2010)). This is not different with online learning as stated by (Lee, 2006) that, improvement in online teaching practices and the retention of students in their academic programs is as a result of their satisfaction. He defined student satisfaction as the extent to which a student perceives his or her needs, goals and desires as completely being met. When it comes to online learning student satisfaction is determined by the facilitator and the friendliness of the medium used (Eom & Wen, 2006). Many other researchers such as McGowan (2012); Paisey and Paisey (2005); Potter and Johnston (2006); Putnam (1993b) attest to this fact. Paisey and Paisey (2005) states that teacher-student interaction as well as the nature of the course of study are important measures of satisfaction in online learning. Bettis, et al.,

(2016) also, states that student's satisfaction in online learning can be put into four categorize as: interaction, learning environment, organizational support and communication. During the covid-19 pandemic Mahzan and Lymer (2014), also identify the role of the facilitator, the role of technology and the role of the learner as the determinants of online learning satisfaction.

2.3.2 Learner motivation

The amount of learning that happens in any learning environment is greatly determined by the learner's motivation. Mayer (2003) explained that motivation can either be extrinsic (driven from external rewards) or intrinsic (driven from self-satisfaction), he defined intrinsic motivation as internally self-generated zeal that directs the behaviour of an individual towards achieving their goals. Duncan and McNamara (2012) states that with face-to-face learning the presence of both teachers and peers serve as motivation for the learners but in the case of online education, learners are left with more responsibility of managing their learning, which is often refer to as an inherent challenge of the online learning experience. He further explained that because of this inherent challenge of online learning, the online learner has the responsibility of planning, monitoring and adapting his thoughts, feelings and actions in a cyclical process to achieve his learning goals. The major force that drives a successful self-regulated learning is self-motivation (Lin, 2011). Bettis, et al., (2016) point that, adults who are self-motivated learn tend to develop an independent learning style which display self-directed behaviour and have an internal locus of control over their learning needs.

Many research works identify self-motivation is one of the determinants of students' success and satisfaction with online learning (Davies & Graff, 2005). For instance,

Litherland et al., (2013) describe maturity, self- motivation, and self-discipline as 'necessary determinants' of successful and satisfied online learners. Meanwhile, McNamara (2012) identify them as the most important determinant of online student success. In an online learning environment, learner motivation is closely tied to learners' interest in participating in a lesson even in the physical absence of their instructors and peers (Liu et al., 2010).

Kaur, Shriram and Ravichandran (2011) states that, learner self-motivation depends largely on lecturer's pedagogical approach to online teaching rather than their maturity level. Meanwhile, Bettis, et al., (2016), identify poor internet connections as major destructions that demotivate online learners in attending online lessons. Mahzan and Lymer (2014) states that staying focus during online lessons is a major challenge online learners face. Again, McGowan (2012) states that online learners practice passive procrastination which affect their academic performance and result in low satisfaction. Thus, based on this review of learner motivation in online learning, I devise the following hypothesis:

H1: Perceived satisfaction is as a result of learner self -motivation in online learning.

2.3.3 Interaction

As stated earlier in this chapter, the notion that learning is facilitated by, and based on, interactions among students. Panigrahi et al, (2018) and Panigrahi, Srivastava and Sharma (2018) connect social capital and learning. Social capital has been suggested to affect learning as it becomes self-generating through learning interactions (Bettis, et al., 2016). Thus, the confusion around the conceptualization of social capital as the instrument or the outcome makes the causal direction questionable (Chugh, 2010). Interaction is defined by Mahzan and Lymer (2014) as "a multi-faceted construct that

determines how well learning takes place in any educational context". He added that education is occurs through interaction with instructors, students and the course content. Lee, (2006) added that interaction also comprised of learners engaging with technological medium used in teaching a course. Lin (2011) expresses the extreme importance of interaction in in education and suggested that interaction as a principle of online curriculum design in higher education.

According to Moore (1989) famous classification, interaction is classified as: learner-content interaction, learner-instructor interaction and learner-learner interaction. The learner-content interaction looks at students' perceptual and cognitive contact with the materials that they are supposed to study in a given course of study. Such materials can include prescribed textbooks, course readings materials, audio-video materials and computer software. With regards to online learning in higher education learner-content interaction takes the form of e-content which include e-books, e-journals, simulations, presentations, animations, databases, websites, audio-video productions, discussion forums and immersive content (Lin, 2011). Students' easy access to e-content is a major determinant of student satisfaction in online learning (Litherland et al., 2013). McNamara (2012) even report student-content interaction to be the most crucial factor among all forms of interaction that leads to student satisfaction in online learning. Due to this, the development of interactive e-content comprising info graphics, video clips, forums and quizzes is essential in creating a quality online learning experience for learners. Thus, based on this review on interaction during online learning the following hypothesis has been devised:

H2: Adequate interaction leads to satisfaction in online learning.

29

2.3.4 Challenges of online learning

The introduction of E- learning in the public universities came with its own challenges. Indeed, there is significant research on the challenges faced by public universities in the implementation of the E- learning. Alshurafat et al. (2020) posit that the Internet is key to online learning and collaboration. However, this is not very reliable in most places thus making online learning challenging. Another key challenge identified is the difficulty in teaching practical coursed via E-learning. As rightly noted by Burford and Gregory (2012), courses which involve practical works with high cost of tools are almost impossible to teach using online mode. Alshurafat et al. (2020) also notes the difficulty of using online learning for experimental courses. Students' online learning experience is made worse by software and hardware issues that they face in their devices (Kumar & Baber, 2021), in particular when mobile devices that many students rely on for online learning may not be compatible with some software (e.g., word, excel, PowerPoint), required for their active and participatory learning (Burford & Gregory 2012). It is a common finding that the lack of suitable devices which adequately facilitate online learning can impact student satisfaction with e-learning (Chugh, 2010). In addition, lack of focus during online learning has been identified as one of the challenges of online learning. According to Bettis, et al., (2016) in online learning space, students find it difficult to focus due to lack of physical presence of the instructor, lack of eye contact, lack tools used for teaching, and the absence of peers. Alshurafat et al. (2020) also identify limited opportunities for learners' collaboration as another major challenge faced by online learners. They further added that this lack of collaboration leads to feeling of isolation in an online learning environment. Duncan and McNamara (2012) also identify isolation as a challenge faced by the online learners.

30

Thus, in summary, there are diverse challenges identified as associated with online learning, especially as it is practiced during the pandemic, and the impact of these challenges on students' satisfaction has become my concern. Therefore, I hypothesize that:

H3: Challenges encounter by learners in online learning affects their satisfaction negatively.
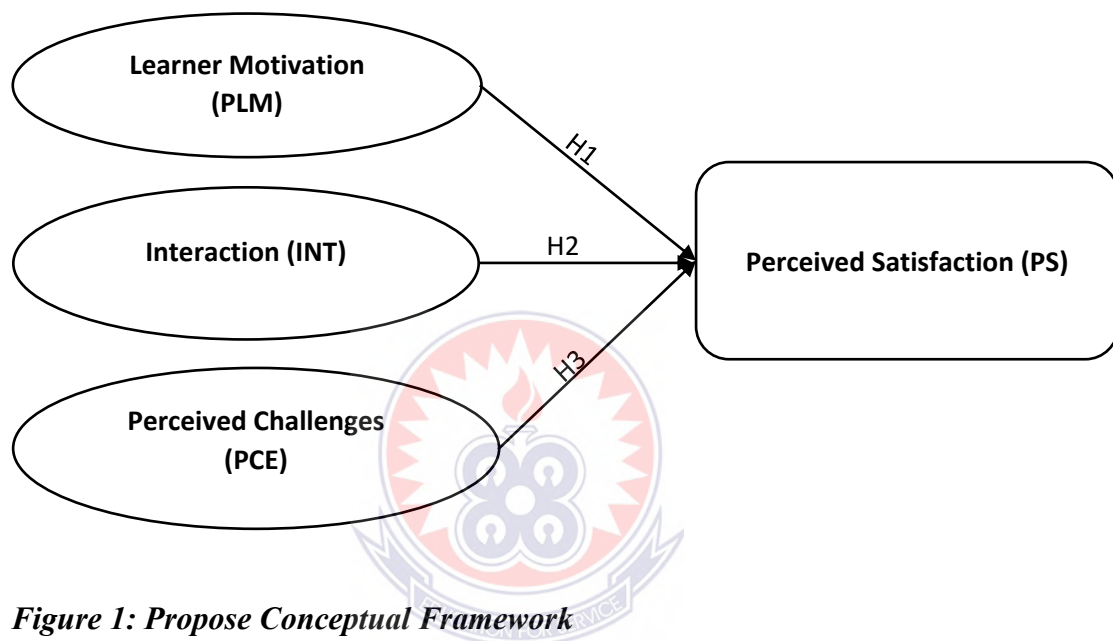
Figure 1: Propose Conceptual Framework

The following are the hypothesis of the study:

H1: Perceived satisfaction is as a result of learner self -motivation in online learning.

H2: Adequate interaction leads to satisfaction in online learning.

H3: Challenges encounter by learners in online learning affects their satisfaction negatively.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter explained the methodology used in detail with so much focus on the research design process of the study. It has mainly relied on the philosophical stance and the research problem to guide on the methodological choice. Specifically, it has explained why mixed methods research approach is considered the most appropriate approach for this research work. Also, this chapter exploited all the procedures used in collecting, analysing and reporting the data. Separate procedures were used for both the quantitative and qualitative approach. This is because the quantitative and the qualitative approaches both have distinct purposes to serve. Another major thing discussed in this chapter is the well explained procedures implemented to enhance the validity and reliability of the studies. The chapter was concluded by defining the procedural issues included in the research. The procedural issues include: the timing, weighting and integration of decisions as well as considerations for ethical issues were all included in this research.

3.1 Research Approach

The approach for this research work was mixed approach. The researcher used quantitative and qualitative approaches in carrying out this research this was to enable the researcher to gain more insight into online learning and its effects on accounting students. A qualitative research according to Bhandari (2020) is the collecting and analysing non-numerical data example; text, video or audio to aid in understanding concepts, opinions, or experiences. It is used to gather in-depth insights into a problem or to generate new ideas for research, Bhandari (2020) quantitative research is the process of collecting and analysing numerical data. It can be used to find

patterns and averages, make predictions, test causal relationships, and generalize results to wider populations. The researcher adopted the quantitative research approaches because this approach combines elements of quantitative methods in order to help find accurate answers to the research questions and to help gain a more complete picture than a standalone qualitative study.

Bergman (2008) claimed that the quantitative method allows the data to be analysed using numbers and pictorial objects such as the pie chart, histograms and other pictorial graphs to better understand the interpreted data. This was supported by Creswell and Creswell (2018) who suggested that a quantitative method is suitable for researches in behavioural, health, and social sciences, especially in multidisciplinary settings and complex situational or societal research as the method uses the strengths of many approaches to provide broader perspective on the issue. For example, an experiment may reveal an anomaly that was not evident in observation, while observations provide nuances that cannot be captured in multiple-choice surveys.

Creswell and Plano Clark (2011) explained that the mixed method involves collecting data using both quantitative and qualitative methods in a single and many studies for the purpose of understanding the phenomenon under study. The mixed method research approach was the right choice because the research process suggested that quantitative or qualitative data alone will not sufficiently answer the research questions. The researcher once more used the mixed method approach because it helps the researcher reach out to larger sample size, and thus results can be generalized. Hence the strength of "large N," in quantitative method can complement the weakness of "small n" in qualitative method also mixed methods enable the research results to be put in context and therefore richer conclusions can be drawn.

Using qualitative data to illustrate quantitative findings helped the researcher "to put meat on the bones" of the analysis. And finally, there was triangulation in using the mixed approach that is the strengthening of the validity of the conclusions by converging qualitative and quantitative data. Using different methods to collect data on the same subject make the results more credible.

Creswell (2014) identified three different types of mixed methods as concurrent (convergent), explanatory sequential and exploratory sequential. This study used the concurrent type of mixed method. Creswell and Plano Clark (2011) explained that the concurrent mixed method is when the quantitative and qualitative data are collected at the same time, even though weight may be given to one method of data over the other. The reason for the concurrent triangulation methods is to make qualitative and quantitative data more accurate defining relationships among variables of interest. The qualitative and quantitative methods could be converged to provide a comprehensive detailed analysis of the research problem in a single data collection phase (Creswell & Creswell, 2018).

3.2 Research Design

A research design is the 'procedures for collecting, analysing, interpreting and reporting data in research studies, it constitutes the blueprint for collecting, measuring and analysing data (Creswell & Plano Clark 2011). The research design sets the procedure on the required data, the methods to be applied to collect and analyse this data, and how all of this is going to answer the research question (Bergman, 2008). Creswell and Creswell (2018) identified three possible types of research design as: exploratory, descriptive and explanatory. He based his classification on the purpose of the research. For instance, descriptive study is purposely to provide a picture of

34

variables and how they are related to each other as they occur naturally (Blumberg, Cooper & Schindler, 2015). However, descriptive studies cannot explain why an event has occurred (Patton, 2015). Therefore, other alternative research designs such as explanatory or exploratory approach are needed. Exploratory research is conducted when very little is known concerning a phenomenon or a problem that has not been clearly defined (Welman, 2012). It does not aim to provide conclusive answers to the research questions, but serves as basis for other researchers to dig into the topic hence its aim is to search into new problems on which little or no previous research has been done (Brown, Robitaille, Zelinski, Dixon, Hofer & Piccinin, 2016). Even in extreme cases, exploratory research forms the basis for more conclusive research and determines the initial research design, sampling methodology and data collection method (Singh, 2017)

The design for this research work was a descriptive survey. Survey research is a type of research design where the primary method of collecting data is survey. In this study design, surveys are used as a tool by the researcher to gain a greater understanding about students' satisfaction in using online learning. The descriptive survey was used to gather descriptive data on the experience of students in using online learning. The design was adopted for the purpose of describing the effects of networking on quality of online learning. The design was also employed to help gather quantitative data in order to understand the in depth of the study. Avoke (2005) indicated that survey research in education involves collecting of information from members of a group of students, teachers, or other educational stakeholders which provides quantitative description of trends, attitudes or opinions of that population. Survey research design allows the researcher to gather information from a large population (Merriam, 2019). The descriptive survey was considered the most appropriate because it aids at

describing the experiences of a large population in using online learning. According to (Mertens, 2010) explained that survey research method ensures a more accurate sample which helps the researcher to gather targeted results in which to draw conclusions and make important decisions.

The survey design was also used because it helps the researcher to concentrate on a specified time frame and do a quick overview of the experiences of the sample within this time frame. The design was ideal as it helps the researcher in finding quick answers to the research questions.

The survey design has some number of challenges. Survey data as noted by Creswell (2014) is self-reported information reporting on only what people think but not what they do. Also, Merriam (2019) stated that survey design has a potential of neglecting the significance of the data if no much attention is given to range covered rather than the adequacy of the implications of the data for relevant issues and theories. Frankel and Wallen (2019) also pointed out that the privacy of the correspondents may be compromised and this makes it very challenging for correspondents to give reliable and relevant responses to questions. In order to reduce these challenges to minimal, the researcher paid critical attention to ethical consideration to enhance the findings of the study. Aside these challenges, the descriptive survey is appropriate for the study. This is due to the fact that the breath of coverage of many students' means that it is more likely to aid in obtaining data based on a representative sample and hence can be generalized.

3.3 Population

Krieger (2012) defined population as all elements of a well-defined group of persons, events or objects. Morison (2010) opined that population is the sum aggregate of or

totality of the elements the researcher has interest on. This means the population of a study is the target of the study as defined by the aims and objectives of the study. In this case the population for this study constitute level three and four accounting students in the University of Education, Winneba, School of Business.

3.4 Sampling and Sample Procedure

Mostly, the target population is too large for a researcher to study. The number of subjects may be too many for the researcher to handle with limited resources available. The geographical spread or area may be too wide to cover with the limited time for the research. As a result of cost, time and other constraints, it may be very difficult to study the entire population. It becomes necessary, reasonable and only feasible to study a portion of the population which is described as sample. A Sample size according to Kibuacha (2021) is a research term used in defining the number of individuals included in a research study to represent a population. The sample size references the total number of respondents included in a study, and the number is often broken down into sub-groups by demographics such as age, gender, and location so that the total sample achieves represents the entire population.

Determining the appropriate sample size is one of the most important factors in statistical analysis. If the sample size is too small, it will not yield valid results or adequately represent the realities of the population being studied. On the other hand, larger sample sizes yield smaller margins of error and are more representative, a sample size that is too large may significantly increase the cost and time taken to conduct the research. Using the Morgan's sample size determination table, with 95% confidence level, and population of 1139 accounting students the sample size was 297 students. The sampling technique used was stratified sampling technique. The sample

size was grouped into levels 100, 200, 300 and 400 and within these groups a simple random sampling was performed to attain the participants of the study.

3.5 Research Instrumentation

A structured questionnaire was used to collect the data. The questionnaire consisted of closed ended questions which offer respondents a fixed set of choices to select from using a Likert scale format for easy response. Well-designed closed-ended questions were administered to address the objectives of the study. The researcher however understood that important details may be missing in the answers that are why the researcher carefully chose questions which ensured that the research questions were fully addressed as suggested by Saani (2013).

3.6 Instrument Validity and Reliability

Validity of a research instrument is the ability of the instrument to measure what it intends to measure effectively (Kumar, 2014). To be sure that the questionnaire was appropriate to measure what it intended to it was given series of scrutiny by the researcher and the researcher's supervisor. The content of the questionnaire was reviewed and the suggested changes were affected accordingly before the questionnaire was administered. Reliability is the measure of how consistent the instrument is. The researcher has performed pre testing using 20 participants (students), the results were analyzed for internal consistency using Stata version and this generated a least Cronbach's alpha coefficient of 0.62 and a higher Cronbach's alpha coefficient of 0.78 of internal consistency. According to Sauro (2015), Cronbach's alpha ranges from 0.0 to 1.0 and the minimum acceptable measure of reliability has always been 0.70. With reference to Sauro's claim, the alpha

coefficients from the pretested questionnaire indicated that the instrument was valid and consequently the instrument was used.

Table 3.1: Reliability values for Cronbach's Alpha

Instrument	Cronbach's Alpha	Status
Perceived Satisfaction (PS)	0.78	Good
Perceived Learner Motivation (PLM)	0.62	Acceptable
Perceived Challenges (PCE)	0.68	Acceptable
Interaction (INT)	0.71	Good

Source:

3.7 Data Analysis Procedure

To ensure consistency, completeness accuracy and uniformity of the response, the researcher carryout an exercise to check errors and to eliminate missing patterns. The researcher used descriptive statistics to analysed the demographic information of the respondents. The percentages were also used to analysis each of the variables based on the questionnaire. The data was transformed and tested for normality using descriptive analysis. It was found that the data was normally distributed so the Pearson's correlation and regression were used to determine whether a relationship existed between the variables that are relationship between the independent variable and the dependent variables.

3.8 Ethical Consideration

According to Bhattacherjee (2012) ethics are moral distinctions between what is wrong and what is right. To ensure the credibility and validity of the research work the needed data was collected using appropriate statistical standards in research. Respondents were identified in an interactive conversation to validate them for

participation. Respondents were assured that the data collected would be treated with confidentiality and it would only be used for academic purpose. The rights of both human and non-human were protected. Respondents were protected both physically and psychologically, real names of respondents were not used and enough time was given to respondents which aid in collection of sufficient and reliable information. Lastly, the work of others used in this work was appropriately referenced to avoid plagiarism.

3.9 Chapter Summary

The methodology used in obtaining data for the objectives of the study was presented. The chapter covers the research design and approach, which was based on quantitative research approach. The study used structured questionnaire for the collection of data. The main respondents were students of University of Education Winneba.
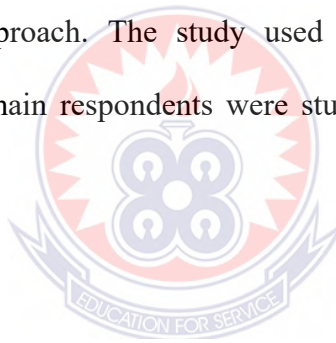
CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.0. Overview

This chapter presents the analysis and discussions of the data collected for the study. This work was carried out using a survey which was designed and was circulated by the researcher to undergraduate students of University of Education Winneba School of Business. The questionnaire was distributed to a sample of 297 undergraduates enrolled in different study programs in Business Administration: Accounting ($n = 110$; 37%), Finance ($n = 82$; 28%), Marketing ($n = 67$; 23%) and Human Resource Management ($n=38;13%$). A total of 203 valid and unduplicated responses were received. The researcher after gathering the data using questionnaires, the data was coded using a matrix Microsoft Excel, and this allowed the data to be analysed using Statistical Package for Social Sciences (SPSS). The data screening process included clearing and transforming the data into a usable form. In this process, the missing value analysis and the outlier analysis were conducted and there were no missing values or outliers found. The rest of the chapter is organized in five sections. The first section presents the demographic or the bio-data of the respondents whiles the other four sections addressed the research questions raised in chapter one.

4.1 The Demographic Information of Respondents.

This data represents the respondents' characteristics such as; sex, age range, program of study, level, IT proficiency and whether they have ever participated in online learning. The demographic profile of 203 undergraduates who took part in the study is given in Table 1. As the table shows majority of the survey participants were females constituting 59.5% of the total respondents and the males constitute 40.5% this makes the females the dominant group over the males in terms of opinions. In terms of age,

41

the participants ranged from 18 to 30 years. However, most of the respondents were between the ages of 21 and 25, and they comprised 81.2% of the total respondents. This was second by respondents of age group between 18 and 20 (15.8%) and those who were 26-30 constitute the least group (3%) it can be inferred from the age distribution table below that the respondents age was not evenly distributed as majority of the respondents were between 21 and 25 years. In terms of the year of study which comprises of level 100, 200 300 and 400, the level 300s were the majority constituting (45.8%), second by level 200s constituting (28.6%), then level 100s (18.2%) and 400s were the least constituting (7.4%). A majority of the participants self-rated their IT literacy as intermediate (86.1%) while the rest of the respondents claimed they were either low or advance in terms of their IT proficiency level.

Table 2: Descriptive Statistics of Sample Respondents (N=203)

Variable		Frequency	Percentage (%)
Sex	Male	81	39.90
	Female	122	60.10
Age Range	18-20	32	15.76
	21-24	165	80.80
	25-30	5	2.46
	Missing	1	0.49
Program of Study	Accounting	149	73.30
	Finance	12	5.90
	Marketing	10	4.90
	HR	6	2.90
	Not specify	26	12.80
Level	100	12	5.90
	200	26	12.80
	300	145	71.42
	400	20	9.85
IT Proficiency	Low	20	9.80
	Intermediary	139	68.30
	Advance	44	21.60

4.2 Variables*:* Descriptive Statistics

All variables in this research work that is Perceived Satisfaction (PS), Perceived Learner Motivation (PLM), Perceived Challenges (PCE) and Interaction (INT) were measured through a five-point Likert scale questionnaire ranking from strongly disagree (1) to strongly agree (5). However, in the analysis, for simplicity reasons the researcher combined strongly agree and agree to form the single response Agree (3), and strongly disagree and disagree were also amalgamated to create the single response Disagree (1): the response Neutral (2) was left as it is. Using excel and SPSS the researcher obtained Tables 2, 3,4 and 5 which show the percentages of responses for each indicator variable measured under the four latent constructs.

4.3 Perceived Satisfaction (PS)

This section presents the results of responses on satisfaction of students in online learning based on the lecturer's use of technology during online lessons. Satisfaction was dependent on a number of variables such as the lecturer's preparation for online learning (PS1), the opportunities created by lecturers for students to interact online (PS2), the effectiveness of the mode of sharing resources online (PS3), the fairness of assessments (PS4) and whether students were satisfied with the time lecturers provide them with feedback. Table 3 shows that most students 94 representing 87% of the total responses agree that lecturers use of technology was satisfactory. However, majority of the responses recorded for lecturer creation of opportunities for interaction was disagreeing. From the same table 91 responses representing 83% of the total responses were dissatisfied with their interactions with their lectures online.

Meanwhile, 99 responses representing 91% agree that the method of sharing resources was effective. Then again, 93 representing 85% of the total responses agree that

assessments were free and fair and lastly students were satisfied with the time the receive feedback from their lecturers as 106 responses representing 96% agree that lecturers give feedback on time.

In summary, students indicated that they are satisfied with the way lecturers use technology and this has confirmed the claim by Bacow et al (2012) that facilitators in tertiary institutions have improved in the way they use technologies in online learning. Alshurafat et al., (2020), however, believe that some lecturers are reluctant to changing from the traditional methods of teaching to the use of modern technologies because they find it difficult in using these technologies. Also, the research findings indicated that sharing of learning resources online is effective and students were satisfied and this has gone in line with Panigrahi et al, (2018) who asserted that online learning enable both students and instructors to share resources with ease. However, McGowan (2012) and Paisey and Paisey (2005) pointed out that a well implement E-learning provides an ideal environment for both social and academic interaction. On the contrary as indicated in this study online learning does not create opportunities for interactions among students, students' responses shown clearly that they were not satisfied with the nature interactions between them and the lecturers as well as among their peers. Whiles students were not happy with interaction they were satisfied with the manner in which assessments were carried out as indicated in the findings. This point confirmed the claim made by Bettis, et al., (2016) who stated that online learning allows students to spend quality time on their assessment which improves their performance. These arguments buttress the call for a paradigm shift in traditional ways of teaching to the use of modern technologies in teaching and assessing students.

Table 3: Descriptive Statistics of Sample Respondents (N=203)

Perceived Satisfaction (PS)

	PS 1		PS 2		PS 3		PS 4		PS 5	
Disagree	10	4.60%	165	84.30%	6	2.80%	16	7.30%	2 0.	90%
Neutral	18	8.30%	6	2.80%	12	5.60%	16	7.30%	4 1.	80%
Agree	171	87.00%	28	13.00%	181	91.70%	169	85.30%	195	97.20%

4.4 Perceived Learner Motivation

This section presents motivation that drive students to online learning. Students are motivated by the following factors: the student's interest in attending online lessons (PLM1), the internet connectivity (PLM2), the learner's environment (PLM3), the availability of learning resources at learner's disposal (PLM4) and the familiarity of online media used by lecturer example zoom, vclass etc. (PLM5). In terms of students' readiness for online learning, most of the students agreed that they were ready for online lessons. From the table 3, 191 responses representing 95% of the total responses agree that they have interest in attending online lessons. Meanwhile, 181 of the responses representing 90% of the total responses agree that internet connectivity demotivated them from joining lessons online.

Also, 88% of the responses disagree that their home environment serves as a motivation for online lessons. This implies that 177 students out of 203 students are not motivated by their learning environment elsewhere other than the classroom. In contrast, 151 students representing 78% of the total responses agree that they were expose to a lot of learning resources and this motivated them to take online lessons. However, 187 of the students representing 92% of the responses were not familiar with the media used by the lecturer in presenting online lessons.

45

Alshurafat et al. (2020), pointed out learners are motivated to participate in E-learning because of the flexibility of online learning when it comes to time and place of learning thus allowing students the luxury of choosing the place and time that suits them. However, the results of this study indicated that students are not motivated by their study environments. This is as a result of poor internet connectivity in most areas where students find themselves. As the results of the finding indicated that students are demotivated by poor internet connectivity. This was buttressed by Favale et al (2020) who posited that the Internet is key to online learning and collaboration. However, this is not very reliable in most places thus making online learning stressful and demotivating.

Table 4: Descriptive Statistics of Sample Respondents (N=203)

Learner Motivation (LM)

	LM 1		LM 2		LM 3		LM 4		LM 5	
Disagree	6	2.80%	181	90.00%	177	88.20%	52	23.60%	187	92.70%
Neutral	4	1.80%	2	0.90%	4	1.80%	0	0.00%	8	3.60%
Agree	191	95.40%	20	9.10%	22	10.00%	151	76.40%	8	3.60%

4.5 Perceived Challenges of Online Learning

This section presents the results of the analysis of the challenges that come with online learning. These challenges are: technical challenges (PC1), ability of learners to focus during online lectures (PC2), and ability of learners to use IT devices (PC3), feel of isolation by online learners (PC4) and absence of practical training during lessons (PC5). Majority of the responses recorded for technical difficulties (90%), agreed, implying that software issues and the unavailability of appropriate devices for online learning and assessment activities pose a challenge for most learners. Also,

46

majority of the learners (74%) agreed that absence of opportunities for practical training is a major challenge for majority of students. On the contrary, most students 169 representing 83% claimed they can use IT devices. Meanwhile, 169 representing 83% of the respondents disagreed that they were feeling isolated during online learning. Also, not staying focused during online lessons has received 181 disagreements indicating that staying focus may is not challenging to respondents.

Alshurafat et al. (2020) pointed out that academic courses which involve practical works with high cost of tools are almost impossible to teach using online mode. Burford and Gregory (2012) also reiterated the assertion by indicating that it is very difficult using online learning for experimental courses. As indicated by the results of this finding online learning does not provide avenues for practical lessons. The results also find out some other technical challenges which hinder online learning. For instance Bacow et al., (2012), notes that factors such as poor internet connectivity lack of effective communication between facilitators and learners and unfamiliar media used by some instructors as the technical challenges associated with online learning. In conclusion, most of the issues associated with online learning still exist. And this calls for the need of stakeholders of online education and other educationist to create ways of solving these challenges.

Table 5: Descriptive Statistics of Sample Respondents (N=203)

Perceived Challenges (PC)

	PC 1		PC 2		PC 3		PC 4		PC 5	
Disagree	10	4.50%	42	19.10%	173	85.60%	169	83.80%	181	89.20%
Neutral	10	4.50%	14	6.40%	12	5.40%	10	4.50%	6	2.70%
Agree	183	90.90%	147	74.50%	20	9.00%	26	11.70%	18	8.10%

4.6 Interaction

This section presents the results of the analysis of interaction in online learning. Interaction was analysis using for factors including: limited opportunities to interact with lecturer online (INT1), limited resources for learning (INT2), absence of learning groups online making group assignments difficult to do (INT3) and limited opportunities for learners to interact with course mates online (INT4). From table 5 75 of the respondents representing 36% of the total responses agree that there were limited opportunities for them to interact with their lecturers online indicating that more (50%) of the respondents have unlimited opportunities to interact with their lecturers online. Also 60% of the respondents disagree that the e-resources are limited. However, most of the students (78%) agree that their learning group members are not always online making it difficult for them to do their group assignments. Also, 70% representing 143 of the total respondents reported that they had inadequate opportunities to interact with their peers during online sessions.

Another finding of this study that is worth further discussion is the observed relationship between student satisfaction and interaction. The study found that poor interaction leads to decreased student satisfaction. This supports a common finding in the literature that overall interaction is a major determinant of student satisfaction in online learning for instance Panigrahi et al, (2018); Burford and Gregory (2012) and Alshurafat et al. (2020).

Table 6: Descriptive Statistics of Sample Respondents (N=203)
Interaction (IN)

	IN 1		IN 2		IN 3		IN 4	
Disagree	102	50.25	122	60.10%	37	18.23%	48	23.64%
Neutral	26	12.80%	31	15.27%	8	3.60%	14	6.90%
Agree	75	36.90%	44	21.67%	158	78.32%	143	70.44%

4.7 Analysis of Data Using Structural Equation Modeling (SEM)

In this section the researcher analysis data using SEM with Spss Amos. The reliability of the latent constructs was assessed in the previous chapter. This section will assess the measurement model and the structural model of the study. The measurement model represents the relationship that exist between the observed and latent variables. Example is the relationship between PS1 and PS, PS2 and PS etc. this model represents the CFA model of the study. The section looks into the model requirement, the linearity of the exogenous and endogenous variables, the correlation among the latent constructs, the model fitness, the validity of the model and finally comparing the square root of the average variance extracted and the correlations of the measurement model.

Finally, the structural model was assessed. The structural model shows the relationships between the latent variables. That is the relationship that exists between PS and PLM, or PCE and PS etc. under the structural model, the model was assessed to find its goodness of fit and the path coefficients were estimated for the study.

4.7.1 Measurement model requirement

In this section the researcher checks Univariate and multivariate normality requirements of the data for SEM using the distributional indicative measures, Skewness, and Kurtosis. The range of skewness values for all the indicator variables were from −1.46 to 1.54. Only four indicators had values greater than 1. Also, Kurtosis values are less than 7 for all the indicator variables indicating univariate normality. The Mardia's coefficient was used to measure the multivariate normality of the indicators. Mardia value recorded is at 27.63, and this value is way below the

recommended cut-off of 483 with 21 observed variables meeting multivariate normality. This satisfied the univariate and multivariate normality test of the study.

Table 7: Normality Measures for Indicator Variables

Variable	Skew	Kurtosis
PS1	0.83	0.15
PS2	1.06	0.41
PS3	0.76	-1.00
PS4	-1.46	-1.74
PS5	0.16	−1.22
PS6	0.31	−0.38
PS7	0.20	−0.41
PCE1	0.23	0.05
PCE2	1.54	0.39
PCE3	−0.61	−1.20
PCE4	−1.21	−1.33
PCE5	0.17	−0.42
PLM1	0.71	−1.37
PLM2	−0.21	−1.11
PLM3	0.94	−1.10
PLM4	1.29	1.07
PLM5	0.45	−1.17
INT1	1.04	0.67
INT2	−0.93	−1.59
INT3	0.73	−1.92
INT4	−0.52	−1.73
	Variable	27.63

4.7.2 The linearity of the dependent and the independent variables

The linearity among the variables was also tested using a regression method. Perceived Satisfaction (PS) was regressed against each of the dependent variables and curve fittings were tested as reported in Table 8. Learner Motivation (PLM) was linearly related to Perceived Satisfaction (PS) with an F-value of 171.299 at one percent level of significance. Perceived Challenges of E-learning (PCE) was also connected to PS linearly with an F-value of 92.586, while the linearity relation between PS and Interaction (INT) gives an F-value of 26.675. the cubic and quadratic forms gave lower F values. The dependent variable (PS) and the independent variables showed a satisfactory level of the linear curve fittings between each pair. Hence, the satisfaction of the linearity assumption of the study.

Table 8: *Functional Forms between Dependent and Independent Variables: Linearity*

Equation	F Values		
	LM	PC	IN
Linear	171.299	92.586	26.675
Quadratic	86.645	56.106	13.795
Cubic	64.546	41.042	9.660

* Dependent PS; ** $p < 0.001$.

4.7.3 Correlation among latent constructs

One of the basic requirements for structural equation modelling (SEM) is the presence of a satisfactory level of correlation among the variables. To ensure that this fundamental requirement is met, the Pearson correlation analysis was performed and the results are shown in Table 9. The Pearson correlation coefficient for the variables ranged from 0.23 (the lowest, between PS and INT) to 0.99 (the highest, between PCE and PLM) indicating a satisfactory level of expected relationships among the variables. Thus, a basis for further analysis.

Table 9: *Estimated Pearson Correlations among Latent Constructs*

	PS	PLM	PCE	INT
PS	1			
LM	0.28	1		
PC	−0.51	−0.99	1	
IN	−0.23	-0.67	−0.57	1

4.7.4 Model fitness

The measurement model shows the relations between the observed variables and the latent variables. It represents the confirmatory factor analysis (CFA) of the model specifying the pattern by which each measure loads on a particular factor. Considering the overall model fit, Model chi-square $\chi^2 = 654.263$, df = 150 and CMIN/DF recorded 3.79, making the measurement model acceptable. From table 8

below, the chi-square was supplement by the Root Mean Square Error of Approximation (RMSEA), which assesses the hypothesized model fit with a population covariance matrix, is 0.038 for the estimated model, and 0.140 > PCLOSE reject the null "RAMSEA is greater than 0.05". Meanwhile, the root mean square residual (RMR) of the study (RMR=0.037) is less than the critical value of 0.05. Also, GFI (Goodness of fit index) and adjusted GFI (AGFI) are is 0.942 and 0.924, respectively and since they are greater than 0.90 this is also evidence that the measurement model is well fit. Other model fitness indicators such as the NFI, TLI and IFI met the threshold and therefore have proven the model as good-fitting.

Table 10: Model fit Indices of the Measurement Model

Category	Model Fit Index	Index Value	Threshold	Comment
1. Absolute fit	RMSEA	0.038	<0.05 good fit; 0.05–0.01 mediocre fit	Satisfied
	GFI	0.942	>0.90	Satisfied
	RMR	0.037	<0.05	Satisfied
2. Incremental fit	AGFI	0.924	>0.80	Satisfied
	CFI	0.939	>0.90	Satisfied
	NFI	0.939	>0.90	Satisfied
	TLI	0.927	>0.90	Satisfied
3. Parsimonious fit	CMIN/df	3.790	<3 good. <5 acceptable	Satisfied

4.7.5 Validity of the measurement model

Duncan and McNamara (2012) explained that the validity of a measurement is the extent to which a measurement represents the features that are found in the phenomenon under the study. The constructs validity is tested using Average Variance Extracted (AVE), standardized loadings, and the construct reliability (CR)

for all variables. AVE reported for the PS and INT are above 0.5 while the other two constructs PLM and PEC record AVE values at 0.318 and 0.387, respectively. CR values for PS, PCE, and INT are above the cut-off of 0.7 while it is almost 0.7 (0.698) for PLM. Thus, all the factor loadings are significant. The results of all the three indicators that are presented in Table 11 provide evidence for a satisfactory level of convergent validity for the measurement model.

Table 11: Standardized Loadings, AVE, and CR values

	PS	PLM	PCE	INT
PS1	0.600			
PS2	0.665			
PS3	0.775			
PS4	0.651			
PS5	0.784			
PS6	0.735			
PS7	0.762			
PLM1	0.786			
PLM2		0.572		
PLM3		0.620		
PLM4		0.611		
PLM5		0.492		
PCE1		0.517		
PCE2			0.622	
PCE3			0.489	
PCE4			0.632	
PCE5			0.624	
INT1			0.723	
INT2				0.813
INT3				0.778
INT4				0.601
AVE	0.522	0.318	0.387	0.542
CR	0.896	0.698	0.870	0.777

4.7.6 Square root AVE and correlations of the model

Indications from the table show that the relevant AVE square root values are more that the inter-variable correlations hence the validity of the measurement model of the current study.

Note: the values in the diagonal represent the square root AVE values and the values below them are the correlations.

Table 12: Comparison of Square Root AVE values and Correlations

	PS	PLM	PCE	INT
PS	0.723			
PLM	0.448	0.565		
PCE	0.309	0.497	0.623	
INT	0.110	0.551	0.401	0.737

4.7.7 Assessment of the structural model

The table below shows the results of the goodness of fit of the structural model. The RMSEA, GFI, RMR CMIN/df and the indices of the incremental fit all within the threshold and therefore proven the model to be a good fit. Meanwhile, comparing the Structural Model and the Measurement Model, the CMIN/df has reduced by 0.56. There is also an improvement in the CFI by 0.014. Meanwhile, RMSEA has slightly reduced from 0.038 to 0.030. The results of this comparison indicate that the structural model has achieved a better overall model fit than the measurement model.

Table 13: The Fitness Indexes of the Structural Model

Category	Model Fit Index	Index Value	Threshold	Comment
1. Absolute fit	RMSEA	0.030	<0.05 good fit; 0.05–0.01 mediocre fit	Satisfied
	GFI	0.962	>0.90	Satisfied
	RMR	0.021	<.0.05	Satisfied
2. Incremental fit	AGFI	0.950	>0.80	Satisfied
	CFI	0.953	>0.90	Satisfied
	NFI	0.933	>0.90	Satisfied
	TLI	0.944	>0.90	Satisfied
3. Parsimonious fit	CMIN/df	3.230	<3 good. <5 acceptable	Satisfied

4.7.8 Results of the structural equation model

The results of the structural equation model (SEM) are represented in Table 11. The table gives the reports of the standardized structural path estimates of the main model and the factor loadings for all items on the latent factor, SEs, CRs and p-values of the SEM model. At one percent level of significance, all the path estimates are significant and are in their expected direction. The three hypotheses of the study were tested through the path coefficients (β), critical ratios and related p-values. It was revealed that Learner Motivation (PLM) has the strongest effect on students' Perceived Satisfaction (PS). Also, it has a direct and positive relationship with students' perceived satisfaction ($\beta = 0.386$; CR $= 9.132$; $p < 0.001$) and this confirms hypothesis one. However, Interaction (INT) has a direct and negative relationship with students' satisfaction ($\beta = -0.172$; CR $= -4.632$; $p < 0.001$), which also support hypothesis two. Finally, Perceived Challenges of E-learning (PCE) has a direct and negative relationship with students' perceived satisfaction ($\beta = -0. -0.242$; CR $= -5.112$; $p < 0.001$), hence, the confirmation of hypothesis three.

Table 14: **Path Coefficients Estimated Through Structural Equation Modelling (SEM)**

			Estimate	S.E.	C.R.	P
PLM	- - ->	PS	0.386	0.227	10.132	0.001
PCE	- - ->	PS	−0.242	0.074	−5.112	0.001
INT	- - ->	PS	−0.172	0.095	−4.632	0.001
PS	- - ->	PS1	0.569	0.039	19.618	0.001
PS	- - ->	PS2	0.635	0.037	21.924	0.001
PS	- - ->	PS3	0.754	0.041	25.751	0.001
PS	- - ->	PS4	0.584	0.045	19.803	0.001
PS	- - ->	PS5	0.743	0.042	25.339	0.001
PS	- - ->	PS6	0.663	0.045	22.551	0.001
PS	- - ->	PS7	0.705	0.036	29.616	0.001
PLM	- - ->	PLM1	0.744	0.032	29.082	0.001
PLM	- - ->	PLM2	0.331	0.112	8.328	0.001
PLM	- - ->	PLM3	0.468	0.115	10.600	0.001
PLM	- - ->	PLM4	0.638	0.110	11.812	0.001
PLM	- - ->	PLM5	0.435	0.116	10.224	0.001
PCE	- - ->	PCE1	0.494	0.083	9.869	0.001
PCE	- - ->	PCE2	0.397	0.044	11.012	0.001
PCE	- - ->	PCE3	0.364	0.053	10.004	0.001
PCE	- - ->	PCE4	0.494	0.060	12.802	0.001
PCE	- - ->	PCE5	0.628	0.069	14.091	0.001
INT	- - ->	INT1	0.705	0.073	12.161	0.001
INT	- - ->	INT2	0.852	0.134	13.682	0.001
INT	- - ->	INT3	0.710	0.100	15.130	0.001
INT	- - ->	INT4	0.478	0.078	15.126	0.001
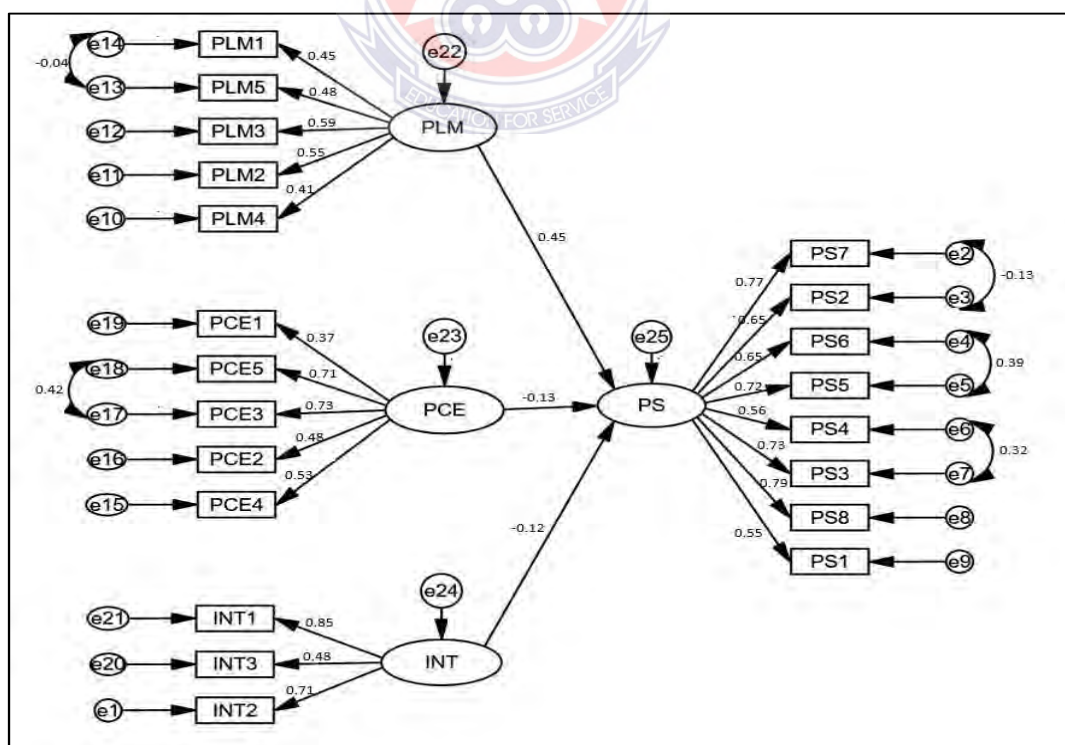
Graphical output of SEM. Model fit indices: chi-square = 578.513, df = 183, CMIN/df = 3.230, TLI = 0.944, CFI = 0.953, NFI = 0.933, RMR = 0.021, RMSEA = 0.030

56

4.8 Discussions

The goal of this study was to investigate the influence of accounting students' satisfaction in using online learning during Covid-19 period. The study was based in UEW School of Business. Due to the extensive literature on online learning and student satisfaction, the study was hypothesized that students' satisfaction with online learning is based on these variables: Perceived Challenges of E-learning (PC), Perceived Learners' self- Motivation (PLM), and Interaction (INT). Data was collected and analysed using descriptive statistics and Structural Equation Modelling (SEM). The findings indicated that students' satisfaction with online learning is significantly affected by perceived challenges, learners' self-motivation and interaction (INT). This was consistent with studies such as Alshurafat et al. (2020), Burford and Gregory (2012), Bacow et al (2012). With the three determinants of students' satisfaction with online learning, learners' perceived challenges with online learning were proven to have greater impact on students' satisfaction than the other two variables. The negative relationship between these two variables implies that challenges faced by students during online learning leads to decrease in their satisfaction with online learning. Surprisingly, findings from empirical review across different contexts identified that online learning aid in avoiding challenges with time and space. For example, Bettis, et al., (2016) find out that unlike face to face learning, students have the responsibility of self-regulating their learning and their learning environment which makes their learning more flexible without time and space challenges. Meanwhile, some studies such as Litherland et al., (2013), Chugh (2010) and Lee (2006) also identified challenges with online learning as a major construct that affect online learning negatively.

The studies also identify students' self-motivation as a major determinant of students' satisfaction with online learning. The studies show that PLM has direct and positive relationship with PS. This means that when students are highly motivated personally to participate in online learning their level of satisfaction will also increase. This confirmed a study by Panigrahi, et al., (2018) that even though students faced various challenges in their online learning experience, they are still highly motivated to continue with online learning because they self-motivated.

Finally, the study also indicated that interaction has a direct and negative relationship with perceived satisfaction. This implies that inadequate interaction leads to dissatisfaction and adequate interaction leads to satisfaction with online learning.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter gives the summary of the findings in the study based on which conclusions are drawn. The chapter also includes the recommendations and suggestions of the study. The summary is guided by the objectives and the research questions of the research work. The purpose of the study is to investigate the satisfaction of accounting students in online learning in the University of Education Winneba (UEW) in the Central Region of Ghana. Based on this the meaning of online learning was ascertained, a brief history of online learning was heighted, the problem of the topic was stated and based on that the following objectives became the major concern of the researcher: the effects of learner self-motivation in participating in online learning on their satisfaction, the relationship between interaction and satisfaction in online learning and the effects of online learning challenges on learner's satisfaction.

The study was achieved in five chapters. Chapter one presents the background to the study, the statement of the problem, the purpose of the study, the significance of the study and the scope of the study. In chapter two literatures was reviewed on thematical areas such as: the conceptual, theoretical and empirical frameworks of the study. A thorough reviewed was also done based on the hypotheses to the research work.

The chapter three presents the research approach, research designed, the population and the sample size, the instrument, the data collection procedure, the validity and reliability of the instrument, the limitations and the ethical issues of the study. The

study used simple random sampling to obtained 247 respondents out of a population of 1139 students. The main instrument used in collecting the data was structured questionnaire. The descriptive technique and SEM were used in analysing the data. Data were presented in tables. In chapter four, data was analysis in five thematic areas including: the bio data of the respondents, the perceived satisfaction, learner motivation, perceived challenges and interaction. The chapter five gives the summary, the conclusion and the recommendations of the study.

5.1 Summary of Findings

This section summaries the findings under the three research objectives as indicated in chapter one. The first research objective seeks to find the effects of learner-self motivation on students' satisfaction with online learning, the second objective of the study finds the relationship between challenges of online learning and students' satisfaction with online learning, and the last objective of this study is to find the relationship between interaction and satisfaction with online learning.

5.1.1 *The effects of learners' self-motivation on their satisfaction with online learning*

It was found out that there is a direct and positive relationship between learners' self-motivation and students' satisfaction with online learning. This means learners' self-motivation has direct and positive effect on online learning. The positive relationship between these two constructs implies that students who are highly self- motivated with online learning have higher chances of being satisfied with online learning, this finding is consistent with empirical studies across different contexts such as Litherland et al., (2013), Chugh (2010) and Lee (2006).

5.1.2 The effects of online learning challenges on learner's satisfaction

It was found out that the challenges faced by the online learners and their satisfaction are directly and negatively related. Even though the study found that perceived challenges of e-learning negatively affect student satisfaction, those challenges that the learners encounter in online learning can be diverse: inherent challenges of learning such as isolation, challenges of the new learning environment, and challenges imposed by technology are some examples. Therefore, the relationship between these different types of challenges and student satisfaction with online learning deserves attention in future research.

5.1.3 The relationship between interaction and satisfaction in online learning

Finally, the study found out that the relationship between interaction and satisfaction with online learning is direct and positive. This study replicated the common finding in the literature that poor interaction in online learning environments leads to decreased student satisfaction, Litherland et al., (2013); Bettis, et al., (2016); Mahzan and Lymer (2014); Chugh (2010) and Lee (2006). Even though interaction is a determinant of student success and satisfaction in any mode of learning, it seems to have extra significance in online learning. This may be because rich student-student and lecturer-student interactions can alleviate the feeling of isolation that many students are supposed to experience in an online learning space.

5.2 Conclusion

The following conclusions were made based on the findings of the study:

Based on the results of findings a conclusion can be drawn that, accounting students of UEW School of Business are satisfied with online learning. It can also be concluded that, the students are not motivated to take online lessons due to poor

internet connectivity and unconducive home learning environment as well as unfamiliarity of media used by lecturers for online lessons. It can also be concluded that accounting students of UEW are faced with challenges in participating in online learning. It can finally be concluded that, UEW accounting students are not satisfied with the nature of interaction between them and lecturers, and among themselves in online lessons.

5.3 Recommendations

The following recommendations are suggested based on the findings of the study:

1. Based on the research findings, internet connectivity is a major hindrance to the success of the full implementation of online learning. It is therefore recommended that Ministry of Education, Ghana Education Service, Communication Companies such as MTN Ghana, Vodafone Ghana, etc, educationist, and other stakeholders of education to see to it that internet is in access to all parts of the country especially in tertiary schools.

2. The study also revealed that interaction is a major challenge to online learning. It is recommended that facilitator using online learning to encourage online participating by awarding marks to students who actively participated in online lesson.

3. it is also recommended that management of universities to ensure that every student has an appropriate IT device upon admission into the institution.

4. The study further recommend that an IT centre should be instituted in every university with staff who are well verse in IT as well as the necessary machines to enable students go through a compulsory IT lessons upon admission.

5. Finally, the study recommends universities to introduce a purely online courses for accounting students who have all the necessary devices and the skills to take an opportunity to benefit from the numerous advantages of online learning.

REFERENCES

Abbasi S., Ayoob T., Malik A., & Memon S.I. (2020). Perceptions of Students regarding E-learning during Covid-19 at a private medical college. *Journal of Med Sci. 36*(S4), S57-S61.

Addai, I. (2015). *The predicaments of non-residential students in Ghanaian institutions of higher education*. Retrieved from: https://issuu.com/alexanderdecker/docs/the_predicaments_of_non-residential

Aisbitt & Sangster, (2005). Using internet-based on-line assessment: A case study. *Accounting Education: An International Journal, 14*(4), 383–394

Alshurafat, H., Beattie, C., Jones, G., & Sands, J. (2020). Perceptions of the usefulness of various teaching methods in forensic accounting education. *Accounting Education, 29*(2), 177–204.

Anneke, V. (2019). Social media and social capital in online learning. Article in *South African Journal of Higher Education*. Retrieved from: https://www.researchgate.net/publication/331731593

Avoke, M. (2005). Inclusive education for persons with disabilities. *African Journal of Special Educational Needs, 4*, 1-5.

Bacow, L. S., Bowen, W. G., Guthrie, K. M., Lack, K. A., & Lon, M. P. (2012a). *Online learning systems in US higher education*. New York: ITHAKA.

Bacow, L. S., Bowen, W. G., Guthrie, K. M., Long, M. P., & Lack, K. A. (2012b). *Barriers to adoption of on-line learning systems in US higher education.* New York: ITHAKA.

Barnard-Brak, L., Paton, V. O., & Lan, W. Y. (2010). Profles in self-regulated learning in the online learning environment. *International Review of Research in Open and Distributed Learning, 11*(1), 61–80

Ben-Glover A. (2021). Tertiary education and accommodation challenges. *Social Education Research, 2*(1), 22-36

Bergman, M. M. (2008). *The theory and application of mixed methods design*. SAGE Publications Ltd

Bettis, P., & Roe, M. F. (2008). Reading girls: Living literate and powerful lives. *Research in Middle Level Education Online, 32*(1). Retrieved from http://www.nmsa.org/

Bettis, P., Ferry, N. C., & Roe, M. F. (2016). Lord of the guys: Alpha girls and the post-feminist landscape of American education. *Gender Issues, 33,* 163-181.

Bhandari, P. (2020). *What is qualitative research? Methods & examples*. https://www.scribbr.com/methodology/qualitative-research

Bhattacherjee, A. (2012). *Social science research: Principles, methods, and practices*. Retrieved from: https://digitalcommons.usf.ed u/oatextbooks/3

Blumberg, Y. Cooper P. O. & Schindler, E. J. (2015). *Do Chickering and Gamson's seven principles also apply to online MBAs?* London: MacMillan.

Brown, C. L., Robitaille, A., Zelinski, E. M., Dixon, R. A., Hofer, S. M., & Piccinin, A. M. (2016). Cognitive activity mediates the association between social activity and cognitive performance: A longitudinal study. *Psychology and Aging*, *31*(8), 831.

Burford, J. F., & Gregory, P. H. (2012). Asynchronous hands-on experiments for mechatronics education. *Mechatronics 12*, 251–260.

Chugh, R. (2010). E-learning tools and their impact on pedagogy. *Emerging Paradigms in Commerce and Management Education*, *5*, 58–81.

Creswell, J. W. & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd Edition). Los Angeles: Sage Publications.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approach* (4th ed). Thousand Oaks, California: SAGE Publications.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches.* Fifth edition. Los Angeles: SAGE.

Curtis, S. M. (2017). Pathway to reform: Developing action research capacity in accounting education. *Issues in Accounting Education* 32(3): 51–79.

Dani, S., M. & Singhai, A. M. (2018). Factors affecting students' perception of online learning: An empirical analysis. *The Indian Journal of Industrial Relations, 5*(2), 334–346.

David, L. (2015). *E-learning theory: Learning theories.* https://www.learning-theories.com/e-learning-theory-mayer-sweller-moreno.html.

Davies, J. & Graff, M. (2005). Performance in e-learning: Online participation and student grades. *British Journal of Educational Technology, 36*(4), 657–663.

Delen, E. & Liew, J. (2016). The use of interactive environments to promote self-regulation in online learning: A literature review. *European Journal of Contemporary Education, 15*(1), 24–33.

Dja'far, V.H., Cahyono, B.Y. & Bashtomi, Y. (2016). EFL teachers' perception of university students motivation and ESP learning achievement. *Journal of Education and Practice, 36*(4), 657–663.

Duncan, K., A. & McNamara, R. (2012). The effect of synchronous and asynchronous participation on students' performance in online accounting courses. *Accounting Education, 21*(4): 431–449.

Favale, T., Soro, F., Trevisan, M., Drago, I., & Mellia, M. (2020). Campus traffic and e-Learning during COVID-19 pandemic. *Comput. Netw,* 176, 107-290.

Fraenkel, J. R., & Wallen, N. E. (2019). *How to design and evaluate research in education* (4th ed.). Boston, MA: McGraw Hill.

Gelles, L. A., Lord, S. M., Hoople, G. D., Chen, D. A., & Mejia, J. A. (2020). Compassionate flexibility and self-discipline: Student adaptation to emergency remote teaching in an integrated engineering energy course during COVID-19. *Education Sciences, 10*(11).

Gokhale, A. A. (1995). Collaborative learning enhances critical thinking. *Journal of Technology Education*, *7*(1), 56-420.

Harasim, L. (2012). *Learning theory and online technologies.* London: Routledge.

Hrastinski, S. (2008). A Study of Synchonous and Asynchronous E-learning Method Discovered that Each Support Different Purposes. *Educause Quarterly. 51-55*

Jones, S. R., Torres, V., & Arminio, J. (2016). *Negotiating the complexities of qualitative research in higher education: Fundamental elements and issues*. New York: CRC Press.

Jordan, M., Kleinsasser, R., & Roe, M. (2014). Wicked problems: Inescapable wickedity. *Journal of Education for Teaching, 40*(4), 415-430.

Karodia, Y. B. (2019). *Top 11 trends in South African education*. https://www.bizcommunity.com/Article/196/722/185945.html (Accessed 9 September 2019).

Kartal, G. (2010). Does language matter in multimedia learning? Personalization principle revisited. *Journal of Educational Psychology*, *102*(3), 615.

Kaur, A., Shriram, R., & Ravichandran, P. (2011). A framework for online teaching and learning: The S-care pedagogical model. *25th AAOU Annual Conference.* 1-12.

67

Kibuacha, T. (2021). Perception towards e-learning during COVID-19 pandemic in India: An empirical study. Thousand Oaks: Sage Publications.

Krieger, E. (2012). Frequency, intensity and topicality in online learning: An exploration of the interaction dimensions that contribute to student satisfaction in online learning. *J. Educ. Libr. Inf. Sci.*, *48*, 21–35.

Kumar, R. (2014). *Research methodology: A step-by-step guide for beginners* (4th Edition). London: Sage Publications.

Kurt, A. A. (2011). Personalisation principles in multimedia learning: Conversational versus formal style in written words. *TOJET: The Turkish Online Journal of Educational Technology*, *10*(3), 185-192.

Lee, Y. C. (2006). An empirical investigation into factors influencing the adoption of an e-learning system. *On-line information review, 30*(5), 517–554.

Lin, H. F. (2011). An empirical investigation of mobile banking adoption: The effects of innovation attributes and knowledge-based trust. *International journal of information management, 31*(3), 252–260

Litherland, K., Carmichael, P., & Martínez-García, A. (2013). Ontology-based e-assessment for accounting education. *Accounting Education, 22*(5), 498–501

Liu, I.-F., Chen, M. C., Sun, Y. S., Wible, D., & Kuo, C.H. (2010). Extending the TAM model to explore the factors that affect intention to use an online learning community. *Computers & Education, 54*(2), 600–610

Love, N., & Fry, N. (2006). Accounting students' perceptions of a virtual learning environment: Springboard or safety net? *Accounting Education: an international journal, 15*(2), 151–166

Magen-Nagar, N., & Shonfeld, M. (2018). The impact of an online collaborative learning program on students' attitude towards technology. *Interactive Learning Environments*, *26*(5), 621-637.

Mahzan, N., & Lymer, A. (2014). Examining the adoption of computer-assisted audit tools and techniques. *Managerial Auditing Journal, 29*(4), 327–349.

Mayer, R. (2003). Elements of a science of e-learning. *Journal of Educational Computing Research*, *29*(3), 297–313.

Mayer, R. E. (1997). Multimedia learning: Are we asking the right

questions? *Educational Psychologist*, *32*(1), 1–19.

Mayer, R.E., Sweller, J. &Moreno, R. (2015). *E-learning theory*. Retrieved form: https://www.learning-theories.com/e-learning-theory-mayer-sweller-moreno.html

McGowan, S. (2012). Going beyond the numbers in teaching financial accounting: The newsletter as an assignment option. *Issues in Accounting Education* 27(4): 1095–1117.

Merriam, S.B. (2019). *Qualitative research: A guide to design and implementation*. San Francisco: Jossey-Bass.

Mertens, D. M. (2010). Philosophy in mixed methods teaching: The transformative paradigm as illustration. *International Journal of Multiple Research Approaches, 4*(1), 9-18.

Moore, M. J. (1993). Three types of interaction. In *Distance education theory,* ed. K. Harry, M. John and D. Keegan, 19–24. New York: Routledge.

Morison, J. (2010). Gov 2.0: towards a user generated state? *The Modern Law Review,* 551-577.

Paisey, C. & Paisey N. J.. (2005). Improving accounting education through the use of action research. *Journal of Accounting Education,* 23(1), 1–19.

Panigrahi, R., Srivastava, P. R., & Sharma, D. (2018). Online learning: adoption, continuance, and learning outcome—a review of literature. *Int. J. Inf. Manage.* 43, 1–14.

Patton, M. Q. (2015). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Potter, B. N. & Johnston C. G. (2006). The effect of interactive on-line learning systems on student learning outcomes in accounting. *Journal of Accounting Education* 24: 16–34.

Putnam, R.D. (1993b). The prosperous community: Social capital and public life. *American Prospect, 13*, 35-42.

Razali, S. N., Shahbodin, F., Hussin, H., & Bakar, N. (2015). Online collaborative learning elements to propose an online project based collaborative learning model. *Jurnal Teknologi, 77*(23), 55-60.

Redmond, P., A., Heffernan, L., Abawi, A. B. & Henderson, R. (2018). An online engagement framework for higher education. *Online Learning 22*(1), 183–204.

Saani , A. J. (2013). Influence of compensation and supervision on private basic school teachers work performance in Ashaiman Municipality. *International Journal of Business and Social Science 4*(17), 64-69

Sauro, J. (2015). 5 reasons to perform a qualitative study. *American Journal of Industrial and Business Management, 10*(12), 16-80.

Singh, B. B., (2017). Nutritional evaluation of grasses and top foliages through *in vitro* system of sheep and goat for silvipasture system. *Range Manag. Agroforest., 38* (2), 241-24.

Welman, J. C. & Kruger, S. J. (2012). *Research methodology (*2nd edition). Cape Town: Oxford Southern Africa.

Yakubu, M.N. & Dasuki, S. (2018). Assessing eLearning systems success in Nigeria: An application of the DeLone and McLean information systems success model. *Journal of Information Technology Education: Research, 17*, 183-203.

Zhou, H. (2015). A systematic review of empirical studies on participants' interactions in Internet mediated discussion boards as a course component in formal higher education settings. *Online Learning Journal*, *19*(3), 1–20.

APPENDIX

UNIVERSITY OF EDUCATION, WINNEBA

SCHOOL OF BUSINESS

QUESTIONNAIRE FOR STUDENTS'S SATISFACTION IN ONLINE

LEARNING

This study is carried out to investigate students' satisfaction in online learning in the University of Education Winneba. The information will enable the researcher to ascertain the impact of interaction, student motivation, students' satisfaction and challenges in using online learning pedagogy. The questionnaire is grouped into two sections; section A and section B. Section A contains six questions bothering on demographic information of Students including academic year, level of IT literacy and academic program. Section B is classified into four subsections including Perceived Satisfaction (PS), Perceived Challenges (PC) of online learning, Perceived Student Motivation (PSM) and Interaction (INT) with 25 questions. You have been chosen to take part in this study. Your responses will be treated with strict confidentiality and your identity will remain anonymous.

SECTION A

DEMOGRAPHIC INFORMATION

Please kindly respond to the questions. Tick (√) as appropriate

1. What is your sex?   A. Male [   ]   B. Female [   ]

2. What is your age range?

   A. 21-25 years [   ]   B. 26-30 years [   ]   C. 31-35 years [   ]

   D. 36-40 years   E. Above 40 years [   ]

3. What programme are you reading?

   A. Accounting [ ]   B. Finance [ ]   C. Marketing [ ]

   D. Human Resource [ ]   E. if others (specify):…….

4. What is your level?

   A. 100   [   ]   B. 200 [   ]

   C. 300 [   ]   D. 400 [   ]   E. Master's [   ]

   F. If Others (Specify): ....

5. What is your level of IT proficiency?

   A. Low [ ]   B. Intermediate [ ]   C. Advance [ ]

6. Have you ever been engaged in any online class?

   A. Yes [   ]   B. No [   ]
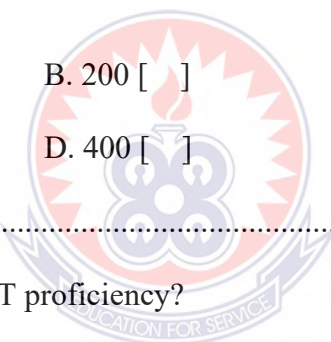
SECTION B

PERCEIVED SATISFACTION

Please indicate your agreement or disagreement with the online learner satisfaction.

Tick (✓) appropriately. Use scale: 5=Strongly Agree, 4= Agree, 3=Neutral, 2=Disagree 1=Strongly Disagree.

		1	2	3	4	5
1	My lecturer effectively uses technology in online sessions.	5	4	3	2	1
2	My lecturer was always adequately prepared for online sessions.					
3	My lecturer created opportunities for me to interact with him/her during online sessions.					
4	My lecturer created opportunities for me to interact with other students effectively.					
5	My lecturer's method of sharing resources was effective.					
6	Continuous assessments were free and fair.					
7	Final examinations were free and fair.					
8	The lecturer provided feedback on time.					
	LEARNER MOTIVATION					
9	I was always ready for online sessions	5	4	3	2	1
10	The lecturer's teaching method motivated me to attend online lessons.					
11	Poor internet connectivity discourages me from attending online lessons.					
12	My home environment motivated me to attend online lessons.					
13	Interacting with my course mates online motivated me to attend online lectures.					
14	I was exposed to so many learning resources and this motivated me to attend online lessons.					

15	Quick feedback from my lecturer motivated me to attend online lecturers.					
16	I was not familiar with medium of used by my lecturer and this demotivated me to attend online lessons.					
		5	**4**	**3**	**2**	**1**
17	I had technical challenges in learning online.					
18	I could not focus during online lectures.					
19	I was not good at using IT devices.					
20	I was feeling isolated.					
20	I was not experiencing the practicability of online lessons.					
INTERACTION						
21	I had limited opportunities to interact with lecturers in online learning					
23	I had limited e-resources for learning					
24	My online learning group was not always active online making it difficult for us to do our group assignment on time.					
25	I had limited opportunities to interact with my course mates					