KOFORIDUA TECHNICAL UNIVERSITY

FACULTY OF APPLIED SCIENCE AND TECHNOLOGY

DEPARTMENT OF HOSPITALITY MANAGEMENT

FACTORS INFLUENCING STUDENTS' SATISFACTION WITH BLENDED

LEARNING AFTER COVID-19 PANDEMIC

BY

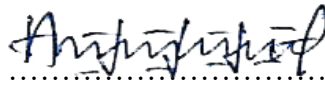**ISABELLA ALABI**

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A PROJECT WORK PRESENTED TO THE FACULTY OF APPLIED SCIENCE AND

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DECLARATION

I declare that this project work is the result of my own original research work undertaken under the supervision of Dr. Emmanuel Gamor that all books consulted have been duly acknowledged and it has not been submitted to any other institution for the award of any certificate.

Isabella Alabi

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Signature

Date

13th December, 2023

SUPERVISOR CERTIFICATION

I hereby certify that the above students of BTECH in Hospitality and Tourism Management of Koforidua Technical University is the writer of this project work and was duly supervised in accordance with the guidelines of supervision of project works laid down by the University.

Dr. Emmanuel Gamor ………………………… …………13/12/2023…

Supervisor   Signature   Date

DEDICATION

I dedicate this project to God who gave me the strength to complete this work. My gratitude cannot be complete without mentioning the immense contribution of my parents who supported me in diverse ways. God richly bless you all.

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ABSTRACT

The main aim of the studies is to examine the factors influencing students' satisfaction with blended learning after the Covid-19 pandemic with evidence from the Koforidua Technical University (KTU). Three specific objectives were developed based on extant literature. A questionnaire was used to collect information from 180 students of the Koforidua Technical University. The results from the findings revealed that students factors such as availability of technical support, students' time management skills, quality interactions with instructors and peers, feedback frequency and quality, reliable internet and technology access, diverse online resources, and instructor competence in using online tools contributes to effective blended learning. It was also revealed that students mostly prefer blended learning (combination of face-to-face and online components) followed by face-to-face classes only and online classes was least preferred by students. Based on the conclusions from the study, it is recommended that KTU and other educational institutions consider strengthening technical support services to ensure students have easy access to assistance when encountering technological issues during their blended learning experiences.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The recent COVID-19 epidemic has had an impact on higher education institutions all across the world (Ali, 2020). A countrywide lockdown was enacted in many nations, prohibiting many students' face-to-face interactions and physical presence at institutions of higher learning (Ali, 2020). Even though the pandemic's initial outbreak was noted in December 2019, higher education is yet to overcome its accompanying difficulty (Karakose, 2021; Ngoatle, Mothiba, & Ngoepe, 2022). In order to enable the delivery of seamless and sustainable teaching and learning online, higher education institutions were compelled to adjust to the sudden change to distant and online learning (Wekullo, Kabindio & Juma, 2023).

Information and communications technology (ICT) is used by higher education institutions to provide their main services, teaching and learning, in exclusive remote and hybrid contexts (Gupta & Yadav, 2022). The COVID-19 pandemic, in particular, presents several difficulties for efficiently delivering e-learning, according to recent research by Evans et al. (2021). Numerous challenges and problems must be overcome for efficient remote-only e-learning delivery, including the availability of administrative and teaching resources, and most importantly the dependability of IT platforms, digital learning tools, and infrastructure (Nikou & Maslov, 2023). A potential difference in the intention to use e-learning between COVID-19 and non-COVID19 situations was discovered by some recent studies including Weintraub (2023) and Mohammed et al. (2023).

Additionally, effective e-learning includes both practical teaching and mentoring in addition to the online uploading of content via a learning management system (LMS). This shows a distinction between effective/efficient online learning and remote emergency teaching (Lucas & Vicente, 2023). Additionally, creating an effective learning environment requires both online and offline learning infrastructures (Bornaa, Abugri & Iddrisu, 2023), both of which were lacking during the COVID-19 period because the majority of higher education institutions were unable to offer adequate offline learning spaces. LMSs have therefore reemerged in popularity as a result of the rising need for remote learning (Karakose, 2021; Ngoatle, Mothiba & Ngoepe, 2022).

According to Sun et al. (2008, p. 1189), students' satisfaction with e-learning is "the degree of perceived learner satisfaction with e-learning settings as a whole", and the e-learners' perceived satisfaction with e-learning is considered a key indicator of e-learning system adoption (Arbaugh, 2000). According to this study's findings (Baber, 2020; Grey and DiLoreto, 2016), students' satisfaction with e-learning outcomes include both the immediate results of a fruitful learning experience and their overall achievement in the courses they took utilising e-learning systems.

According to some authors, such as Richardson et al. (2016), there is a strong association between students' happiness with e-learning systems and how much learning they believe themselves to have learned overall. Multiple variables have been used to quantify the outcomes of e-learning from a scholarly perspective, particularly in relation to studies on perceived satisfaction with e-learning outcomes (Sun et al., 2008). In recent research to

investigate the impact of the COVID-19 pandemic on e-learning satisfaction, several of these factors, including IT system quality, course design quality, students' participation in an online class, and course information and structure have been used (Nikou & Maslov, 2023; Alshammari, Almankory & Alshammari, 2023).

The COVID-19 pandemic brought about an unprecedented disruption to education worldwide (Rezali et al., 2023), compelling institutions to rapidly adopt online and blended learning models to ensure the continuity of education (Zhang & Ranadheera, 2023). As the pandemic unfolded, students and educators alike found themselves navigating uncharted territory, grappling with the challenges and opportunities presented by remote and hybrid learning (Saez, 2023). Now, as we emerge from the acute phase of the pandemic, it is crucial to assess the factors that influence students' satisfaction with blended learning in the post-COVID-19 educational landscape (Wekullo, Kabindio & Juma, 2023).

Blended learning, which combines traditional face-to-face instruction with online components, emerged as a prominent mode of education during the pandemic (Dixit & Pathak, 2023; Imran et al., 2023; Thahir, Widiawati & Baitillah, 2023). While it offered flexibility and continuity in the face of crisis, it also posed unique challenges related to course design, technology integration, and student engagement (Thahir, Widiawati & Baitillah, 2023). As educational institutions move forward, understanding the determinants of student satisfaction with blended learning becomes imperative to improve the quality of education delivery and meet the evolving needs of students (Dixit & Pathak, 2023).

1.2 Problem statement

Blended learning is a teaching and learning approach that combines online and face-to-face instruction (Le et al., 2022; Nikolopoulou, 2022). The COVID-19 pandemic has led to a

significant increase in the use of blended learning as a way to ensure continuity of education (Batista-Toledo & Gavilan, 2022). However, the sudden shift to blended learning has raised concerns about its effectiveness and impact on students satisfaction (Innab et al., 2022; Aisha & Ratra, 2022).

The emergence of the COVID-19 pandemic led to a rapid shift in educational paradigms, compelling educational institutions worldwide to adapt blended learning approaches as a response to the new challenges posed by the crisis (Stracke et al., 2022; Wong, 2023). When blended learning with its mix of online and in-person instruction offered a solution to continuity, it brought forth a host of questions regarding its effectiveness and impact on student satisfaction (Wong, 2023).

After the covid-19 pandemic, there are a lot of hue and cry on learning among students with regards to the modes used during the pandemic (Ke, Zhou & Duan, 2023). Blended learning and face-to-face has reduced since the COVID-19 is no more. Student therefore prefer blended learning after the pandemic but the mode in recent times is different (Wong, 2023).

As the educational landscape continues to evolve, it becomes imperative to delve into various elements that contribute to hinder students satisfaction with this hybrid learning model (Paliwal & Deshmukh, 2023; Calhoun, 2023). A study is needed to explore the multifaceted nature of blended learning, considering factors as technology infrastructure, course design, interaction, instructor competence, flexibility, assessment methods, support services, learning environment, students motivation and adaptation to this new pedagogical approach (Calhoun, 2023; Farsawang & Songkram, 2023). Hence, there is a need to understand online learning after covid-19 (Subasi et al., 2023). Thus, the focus of the study

is to examine the influencing factors of students satisfaction with blended learning after COVID-19 pandemic (Batista-Toledo & Gavilan, 2022; Meccawy, 2023).

1.3 Research objective

The main aim of the study is examine the factors influencing students satisfaction with blended learning after COVID-19 pandemic with evidence from the Koforidua Technical University (KTU).

1.3.1 Specific objectives

The study is guided by the following specific research objectives:

1. To determine the factors affecting the effectiveness of blended learning on KTU students

2. To determine the factors that influence online learning satisfaction on students in KTU

3. To solicit the best mode of learning from students regarding face to face and blended learning in KTU

1.4 Research question

1. What are the key factors affecting the effectiveness of blended learning among students at KTU, and how do these factors impact their overall learning experiences?

2. What factors contribute to student satisfaction with online learning at KTU, and how do these factors affect students' overall perception of the quality of their online education?

3. To what extent do students at KTU prefer face-to-face learning over blended learning, and what factors influence their preferences for these different modes of instruction?

1.5 Significance of the Study

The significance of the study lies in its potential to provide valuable insights and inform educational practices in a rapidly evolving learning environment. The following are the significance of the study.

Firstly, understanding the factors that influence student satisfaction in blended learning helped KTU and other educational institutions enhanced the quality of their educational delivery. Thus, by addressing these factors, institutions designed more effective and engaging blended learning experiences that benefit students.

Secondly, the COVID-19 pandemic accelerated the adoption of online and blended learning, research at KTU shed light on how students perceived and adapt to these changes, helping educators make informed decisions about the future of education. Additionally, student satisfaction is closely related to engagement in the learning process, hence identifying the factors positively impact satisfaction which guide KTU in developing strategies to increase student engagement which will lead to better learning outcomes.

Also, understanding the factors affecting student satisfaction lead to better faculty training and support. Thus, faculty received guidance on how to optimize their teaching methods in the blended learning environment, which led to improved student experiences. Finally, research conducted at KTU contributed to the broader academic literature on blended learning and student satisfaction, which influenced educational practices and policies

beyond the institution.

1.6 Organization of the study

The study will be organized into five (5) chapters. Chapter one is about the introduction of the study. It looks at the background to the study, statement of the problem, objectives of the study, significance of the study, and the organization of the study. Chapter two presents the review of related literature relevance to the subject matter. Literature will be reviewed according to the research questions and objectives of the study. Chapter three would highlight the methodology used with respect to collection of the research data. It will incorporates the research design, study population, sampling technique and sample size, the method of data collection as well as the method of data analysis. Chapter four will deal with the data presentation and analysis. Chapter five presents the findings, conclusion and recommendations for study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a comprehensive review of the literature related to the factors influencing students' satisfaction with blended learning, particularly in the context of education following the COVID-19 pandemic. Blended learning, characterized by a combination of face-to-face and online instructional methods, has gained prominence as an educational model, and understanding the factors that impact student satisfaction within this context is essential. This review of existing literature will provide the foundation for the development of the research framework in this study.

2.1 Conceptual Review

2.1.1 Blended Learning

The term "blending" refers to the combination of several components to produce a new framework, which serves as the foundation for the idea of blended learning (Vallée, Blacher, Cariou & Sorbets, 2020). The combination of traditional classroom education with e-learning and multimedia technology, like video streaming and virtual classrooms, is known as blended learning, according to Thorne (2013) (Vallée, Blacher, Cariou & Sorbets, 2020). Blended learning is defined by Garner and Oke (2015) as an educational setting that enhances students' educational outcomes by combining online and in-person learning (F2F) (Rasheed, Kamsin & Abdullah, 2020).

The phrase "blended learning" is a teaching strategy that mixes different delivery modalities in an effort to produce the most effective and efficient learning outcome possible

(Rasheed, Kamsin & Abdullah, 2020). This combination can include face-to-face (F2F) instructor-led training with several forms of instructional technology, like films, CD-ROMs, web-based training, and videotapes (Kumar et al., 2021). To characterise this kind of combination, Singh (2003) used the term "blended e-learning" (Kumar et al., 2021). A mixed course can be designed in any way, with totally online and fully face-to-face learning settings at either end of the spectrum (Kumar et al., 2021).

In order to maintain uniformity throughout this review, blended learning will be characterised as the blending of in-person and technology-mediated education, when all participants go through periods of distance-based separation (Kumar et al., 2021). Blended learning, distributed learning, decentralised learning, hybrid learning, and flexible learning are all included in this description. Despite some minor variations, these strategies all tackle the issue of geographic separation between learning locations and place a strong emphasis on interactions between students and teachers (Dakhi, Jama & Irfan, 2020). Additionally, by drawing students from across the region, the country, and the world, blended learning strategies help programmes and institutions lower the cost of delivering courses while increasing programme reach (Dakhi, Jama & Irfan, 2020). When compared to traditional distance education, students are more engaged with blended learning approaches because they value the flexibility they provide (Dakhi, Jama & Irfan, 2020).

Blended learning is defined by Yulianti and Sulistiyawati (2020) as an educational strategy that combines and harmonises in-person and virtual learning. Blended learning, as defined by Lalima & Lata Dangwal (2017), is a novel idea that incorporates ICT-supported learning while embracing the advantages of traditional classroom instruction. Furthermore, Arisanti et al. (2017) contend that using both online and offline activities can produce better

outcomes than conventional face-to-face techniques. Puspaningtyas and Ulfa (2021), who characterise blended learning as a learning paradigm that blends the advantages of in-person instruction with online learning models, also share this viewpoint. Oweis (2018) goes on to say that at many educational institutions, blended learning is a modern educational method that is gradually replacing traditional e-learning.

2.1.2 Blended Learning Through Physical And Virtual

Examining the blended learning strategy is essential in light of the COVID-19 epidemic, where remote learning has become the norm. According to some academics, blended learning (b-learning) and online learning could revolutionise higher education if they are widely used (Ateş Çobanoglu, 2018, p. 139). These days, e-learning isn't limited to a set time and location and is only done online. Instead, it takes on a more mixed form that involves both online and offline activities that keep students and teachers interested. Additionally, the distinction between in-person and virtual learning has blurred due to the widespread use of learning management systems (LMSs) and other digital tools, enabling students to use these tools for learning, exploration, and the creation of meaningful knowledge (Ellis and Goodyear, 2016). Blended learning suggests that students learn in traditional classroom environments as well as online, actively thinking and reflecting in addition to passively absorbing course material on screens.

However, the lack of necessary "offline components," such on-campus learning spaces, caused schools to negatively damage traditional in-person learning during the COVID-19 pandemic. As a result, distant learning—which is similar to self-directed and less organised learning—became mandatory for the students. According to the definition given in this

paper, e-learning is any type of learning that uses information and communication technology (ICT) and is easily incorporated into an institution's larger educational procedures. Additionally, we see e-learning as a crucial component of blended learning, obfuscating the distinctions between the two and making it difficult to determine where one starts and the other concludes. The idea of blended learning becomes much more relevant in light of the COVID-19 scenario, despite its difficulties. It appears that the pandemic and the quarantine that followed changed the traditional blended learning method and its success metrics, moving it in the direction of a more digital and self-directed learning paradigm (Ozadowicz, 2020).

2.1.3 Factors That Affects The Effectiveness Of Blended Learning

2.1.3.1 Training Effectiveness

An employee's knowledge, abilities, behaviours, or attitudes are to be developed through a training programme. Therefore, the achievement of training objectives is related to training effectiveness (Anthony et al., 2019). According to Chung and Yang (2006), the majority of the research being done on training evaluation at the moment focuses on how employees respond to the programme and how much knowledge or skill they take away from it (Anthony et al., 2019).

2.1.3.2 Student Mentality

Satisfying students in the classroom is a worthwhile goal and a fruitful way to end the teaching process. When it comes to e-learning environments, this satisfaction becomes even more important because dissatisfied students may decide to stop taking online classes

or pursue their education elsewhere (Keskin, 2019).

2.1.3.3 E-learning Systems

Significant changes have occurred in the field of education and training as a result of the information technology industry's rapid progress. For e-learning to be successful, the information technology infrastructure's dependability and the smooth distribution of course materials are critical components (Zhang, Cao, Shu & Liu, 2022). In their investigation of the primary variables influencing the transfer of training through e-learning, Park and Wentling (2007) found that a user-friendly interface positively affects the transfer of training. The importance of the learning system's interaction with regard to user pleasure was also emphasised. Results from a study by Chen and Hsu (2007) showed that learners' perceptions of the system's ease of use and their propensity to use it are positively influenced by interface design and technology excellence.

2.1.3.4 Technological Barriers

Organisations must have the necessary infrastructure to support e-learning systems in order to deploy e-learning successfully. This means taking hardware capabilities and compatibility into account (Jowsey, Foster, Cooper-Ioelu & Jacobs, 2020). Therefore, e-learning's usability and utility have a big impact on how widely used it is inside the company. Making sure that all employees within the organisation have easy access to personal computers, intranets, extranets, and the internet helps simplify ease of use (Jowsey et al., 2020). In addition, keeping steady connectivity and enough bandwidth to avoid course materials downloading slowly is crucial to keeping students interested in the

learning process. Difficulties arising from restricted access to educational resources and learning environments can have an adverse effect on usability and accessibility, which in turn hinders the process of learning. These problems may be made worse by technical obstacles, such as inadequate technical support. Students may run into problems when registering for online courses or learning the requisite technology abilities, such communicating effectively, utilising online resources with ease, and figuring out certain processes like passwords and permissions (Alamri, Watson & Watson, 2021).

2.1.3.5 Blended Learning Instructors

With the increasing integration of e-learning into businesses and educational institutions, the role of instructors has changed. As per the findings of Kelly et al. (2007), an instructor's modern-day responsibilities should include facilitating learning rather than just imparting knowledge. Volery and Lord (2000) go on to say that educators should actively involve students in their learning process, going beyond simply serving as a source of information to acting as motivators. According to Rovai et al. (2006), teacher-facilitators who are enthusiastic and energetic have a beneficial impact on the effectiveness of education. Eom et al. (2006) also point out that greater levels of user satisfaction are correlated with increasing contact between teachers and students. Moreover, they discovered that students' satisfaction levels are considerably raised by an experienced teacher who excels at assisting learning.

2.1.4 E learning

According to Sun et al. (2008), e-learning is commonly defined as the new paradigm that uses information and communication technology (ICT) to systematically provide learners with training and educational content. Although e-learning systems are mostly concerned with the dissemination of knowledge online, they can also cover related topics including digital communication (Liaw and Huang, 2013). There may be uses for these characteristics of digital communication that go beyond online information sharing. Furthermore, there are somewhat different perspectives regarding e-learning, with some seeing it as more than just a way to provide educational content; others see it as a way to improve individual career satisfaction, incorporate HRM systems, and increase the efficiency and happiness of e-learners (Uden et al., 2007). The goal of e-learning is better understood because to these viewpoints' holistic, open systems approach.

We follow the commonly recognised concept of e-learning put forward by Sun et al. (2008) in this study. This viewpoint states that there are two key stages of e-learning: content creation and delivery/maintenance. Planning, designing, producing, and assessing content are all included in content development, which ultimately results in content distribution and upkeep. E-learning is regarded as an iterative process with benefits and drawbacks of its own (Khan, 2004). On the one hand, e-learning provides affordable, self-paced, learner-centered instruction. However, it can not involve social connections and raise the likelihood of dissatisfaction and bewilderment, particularly during pandemics. Furthermore, teachers must devote a substantial amount of effort to course preparation for e-learning (Zhang et al., 2012). According to Bansode and Kumbha (2012), Learning Management Systems (LMS) are fundamental information systems in e-learning that

enhance students' learning experiences by giving course content a platform and simplifying the work of educators in the delivery of instruction and training.

According to researchers like Sun et al. (2008) and Nortvig et al. (2018), one important factor in determining whether or not e-learning initiatives are successful is how satisfied students are with their learning objectives. According to Sun et al. (2008), a number of factors affect students' satisfaction with e-learning outcomes, including their computer anxiety, the calibre and accessibility of the IT infrastructure, the digital learning management tools used, the attitudes of instructors towards the use of e-learning, the calibre of e-learning courses, and the content of these courses, among other things. Furthermore, Fleming et al. (2017) have concluded that things like the ease of use of e-learning results, the perceived value of the knowledge taught, and the availability of technical help for users influence e-learning satisfaction and the likelihood of future use.

Furthermore, a number of factors, most notably e-learning pleasure, have been found by Nortvig et al. (2018) to influence learning outcomes. A few of these are: (1) the existence of a supportive and stimulating online learning community where instructors and students engage in constructive dialogue; (2) learners' strong self-belief in their capacity to learn; (3) the availability of a suitable learning environment with both online and offline components, where teachers act as mentors; and (4) the well-designed courses. Together, all of these components enhance the general sense of fulfilment that comes from participating in online learning.

2.1.5 The COVID-19 Pandemic And E-Learning

Higher education institutions were forced to close as a result of the worldwide lockdown measures implemented during the COVID-19 pandemic, which interfered with students' and teachers' social and physical contacts (Karalis and Raikou 2020). According to Almaiah et al. (2020) and Ebner et al. (2020), numerous higher education establishments adopted e-learning as their principal method of instruction as a result. The importance of remote learning and course design consequently increased as crucial factors to take into account when assessing the efficacy of e-learning, particularly in light of COVID-19 (Almaiah et al., 2020).

According to a survey of higher education instructors, there are a number of obstacles affecting their readiness to offer online courses (Alea et al., 2020). According to observations, some students may prefer traditional face-to-face training, and others may feel severe psychological discomfort during pandemic-induced remote learning (Hasan and Bao, 2020). However, higher education institutions have given e-learning a lot of attention, including the creation of e-learning technologies and approaches, as a result of the need to adjust to the changing educational landscape (Ebner et al., 2020).

As a result of the growing amount of data being consumed by e-learning tools and applications, it is argued that making sure internet access and information and communication technology (ICT) are available for designing and delivering education has become a critical challenge (Favale et al., 2020). As such, e-learning encounters significant obstacles that span technical domains, such as ICT dependability and equipment accessibility, and social domains, such as teachers' capacity to facilitate e-learning and students' possible anxiety.

2.1.6 COVID-19 Related Factors

According to Kaisara and Bwalya (2021) there were a number of obstacles to the adoption and use of e-learning systems during the COVID-19 epidemic that have been clarified through recent study. The main barriers higher education institutions faced during the pandemic-induced lockdown, for example, were technological, individual, cultural, and course-related issues, according to Almaiah et al. (2020). Ainiet al. (2020) also identified the primary obstacles to e-learning during the global COVID-19 crisis as ICT connectivity, self-regulation, competency, and support for e-learning systems.

People's knowledge of COVID-19 is critical in determining how they will feel about tackling pandemic-related issues and implementing countermeasures, as emphasised by WHO (2020) and Alahdal et al. (2020). Furthermore, in compliance with the Distance Education Models promoted by the Academy Administration Practise (2011), educational establishments need to be sufficiently equipped and willing to allocate resources towards the adoption of remote learning, a necessity that has been exacerbated by the Covid-19 pandemic.

Lastly, an investigation into the difficulties of e-learning education was carried out by Musingafi et al. (2015, p. 59), who noted a number of issues that were frequently brought up, including a lack of study time, restricted access to and use of ICT resources, poor feedback, and a shortage of study materials. Alea et al. (2020) tackled these issues from the standpoint of educators, looking at how ready postsecondary educational establishments were and the obstacles of implementing e-learning in times of quarantine. The authors examined three elements that they conceptualised as being connected to COVID-19: (1) knowledge of the COVID-related circumstances, (2) educational

institutions' preparedness to support distance learning, and (3) perceived difficulties encountered in the field of distance learning education during COVID-19.

Alea et al. (2020) have established a complex conceptual framework to explain the impact of COVID-19 on higher education. In addition to the contextual factors that force people to participate only in distant e-learning, there is an intervening component that influences how the e-learning process is carried out. Thus, we have added further components to our suggested model: (1) virtual learning communities; (2) IT features pertaining to accessibility and quality; and (3) course design quality. Essentially, this model has been modified for use in educational contexts and enhanced by a number of critical aspects that may have an impact on how satisfied students are with the results of their online education.

2.1.6.1 Digital Communities In E-Learning

A compelling case can be made for the idea that students' participation and communication in online communities is essential to their learning and comprehension (Koh & Kan, 2021). Students can create learning communities where they can create, share, and discuss knowledge outside of traditional classrooms or within broader learning communities by using collaborative learning management systems (Shreeve et al., 2009). According to Liaw and Huang (2013), e-learning objectives are linked to communication activities (like sending emails or using chat rooms) and exploration activities (like using web browsers). Three different categories of e-learning interactions were identified by Liaw and Huang (2013): learner-instructor, learner-learner, and learning content. Therefore, it is crucial to distinguish how digital communities and participatory culture fit into the understanding of students' satisfaction with e-learning results.

A variety of digital tools are utilised by members of these communities to support their endeavours and cultivate a feeling of community, all of which serve to increase cohesiveness and involvement (Sillence & Baber, 2004). Additionally, the evolution of digital communities within the e-learning domain may be influenced by organisational characteristics, socioeconomic issues, IT infrastructure, and digital literacy training initiatives (Gil-Garcia & Luna-Reyes, 2009).

Moreover, people in a participatory culture believe that their contributions are important and show some degree of receptivity to the opinions and feelings of others (Jenkins, 2009). Promoting a participatory culture in the context of e-learning is crucial for successful electronic learning engagement. In order to do this, one must learn new skills such as information literacy (the ability to find, evaluate, and share information), networking, and collective intelligence (the ability to use knowledge to accomplish shared goals in collaboration) (Jenkins, 2009).

For example, when it comes to e-learning, collective intelligence can be characterised as the joint endeavour of all community members—teachers and students alike—with the goal of maximising their individual knowledge resources in order to improve the collective capacity for studying and learning. Specifically, in light of the limitations imposed by quarantine orders, student-teacher interactions may take place in virtual communities during the pandemic scenario.

2.1.6.2 Information Technology (Quality And Accessibility)

Information Technology (IT) is essential to the operation of e-learning. Accordingly, e-learning may be significantly impacted by restrictions on access to necessary IT resources

(Benigno & Trentin, 2000). In determining satisfaction with e-learning outcomes, Selim (2007) emphasised the importance of elements like the convenience of Internet connectivity on campus and the efficiency of IT infrastructure. Empirical studies have indicated that e-learning participants significantly depend on the calibre of information technology infrastructure to obtain the required materials (Alsabawy et al., 2016). Furthermore, the e-learning process can be greatly impacted by the quality of the user experience with an IT system, especially a learning management system (Maslov & Nikou, 2020).

However, it is imperative to take into account the possibility that the present COVID-19 scenario could impose restrictions on students' access to and use of university-provided IT infrastructures.

2.1.6.3 Course Design Quality

The factors that determine a course's structure and content, such as course information, instructional objectives, course layout, and course output, are all included in the quality of a course's design (Wright, 2003). This factor may have an impact on how satisfied users are with their e-learning experiences (Martín-Rodríguez et al., 2015). Furthermore, it is consistent with course content quality and information-quality metrics (Lee et al., 2009; Liu & Chu, 2010).

According to Uppal et al. (2018), the total quality of e-learning comprises various aspects, such as the service's level of support, the quality of the information, and the system's quality. Features ingrained in the e-learning instructional design, like high-quality content and options for learner assistance, evaluation, and acknowledgment, can also have a

significant impact on how e-learning outcomes are used and how satisfied learners are with them (Garavan et al., 2010).

It is imperative to acknowledge, though, that the current pandemic scenario has the potential to compromise the calibre of course design. This disturbance stems mainly from the restrictions put in place by quarantine protocols, including limited access to the entire range of IT infrastructures and other IT-associated instruments and materials.

2.1.7 E-Learning Satisfaction

The dependent variable in our study is students' satisfaction with e-learning results in the context of higher education, as was previously mentioned. Various things may have an impact on this level of contentment. A number of aspects, including learning materials, the learning environment, student-student interaction, and effective assistance, have been identified as influential by Benigno and Trentin (2000) in their theoretical analysis of student satisfaction with e-learning results (Taghizadeh et al., 2021). According to Sun et al. (2008), perceptions of e-learning satisfaction are influenced by six factors: the learner, the instructor, the course, the technology, the design, and the learning environment. Liaw and Huang (2013) contended that interactive learning environments, perceived anxiety, and perceived self-efficacy could all have an impact on one's sense of satisfaction. Ramayah and Lee (2012) have proven that users' happiness with e-learning systems is influenced by system quality, information quality, and service quality. This ultimately affects users' inclination to utilise such systems. As a result, it is clear that a wide range of possible circumstances could affect how satisfied one is with online learning.

Furthermore, specific individual traits are included as control factors in this study. There has been debate over whether younger kids are more likely to use technology for education, with conflicting results. According to Fleming et al. (2017), for example, age has little bearing on satisfaction levels or intentions to utilise e-learning platforms. Additionally, Yakubu et al. (2020) proposed that the use of LMS and past experience affect e-learning system acceptability. Therefore, in order to determine whether differences in path correlations arise based on individual characteristics and their happiness with e-learning outcomes, we will use age and the length of time they have been using e-learning systems as control variables. Lastly, we want to investigate the model's mediation structure. Within this framework, the influence of COVID-19-associated variables (e.g., cognizance of COVID-19 and perceived obstacles during the pandemic) on contentment with e-learning results could possibly be mediated via online learning communities, the quality and accessibility of IT, and the calibre of course design.

2.1.7 E-Learning And The Physical Classroom

Many studies exploring different aspects of classroom learning, including e-learning as well as physical learning, can be found in the literature (Abidah et al., 2020; Arkorful & Abaidoo, 2015; Atmojo & Nugroho, 2020; Burgess & Sievertsen, 2020; Ferrel & Ryan, 2020; Jafar et al., 2023; Marinoni et al., 2020; Nugroho, 2020; Songkram, 2015; Tayebinik & Puteh, 2013). Physical classrooms are preferred, according to Ngure (2022), especially in the technical and vocational education and training (TVET) sector. At TVET, gaining practical skills relevant to a particular occupation is highly valued, frequently through experiential learning in labs and workshops housed within institutions. Students are able to

participate in practical instruction in these environments, which is an essential part of their learning. However, distance learning methods are thought to be less successful than in-person training, particularly for tasks requiring first-hand knowledge of certain tools and supplies. For example, the profession of automotive mechanics requires a great deal of practical experience, which can be difficult to provide virtually.

Physical classrooms also help in the communication of nonverbal indicators like winks and smiles, as well as paralinguistic traits including tone of voice, eye contact, facial expressions, and body language. Lewis (2012) asserts that these components are essential for efficient communication. Qiu and McDougall (2013) have observed that in-person CLEs offer a social component to education, facilitating the development of negotiation and interaction skills that are essential for students' academic pursuits.

E-learning is essential to the transformation of education, as suggested by Samir et al. (2014). E-learning is defined by Gaebel et al. (2014) and Sandars (2013) as the blending of different ICT tools and electronic gadgets with teaching techniques. On the other hand, Aboagye and colleagues (2020) assert that e-learning is primarily centred around computer technology and online materials.

In their study of e-learning among digitally literate students globally, Radha et al. (2020) found some favourable outcomes about the benefits and acceptance of e-learning. They discovered that students' academic performance was positively impacted by e-learning, that students usually regarded it acceptable, and that its use for academic reasons was growing. According to Arkorful and Abaidoo (2015), e-learning has the potential to transform education by providing "just-in-time" learning opportunities to a global audience, including part-time learners and people with disabilities. They argue that e-learning breaks down

geographical and temporal barriers.

An important benefit of distance learning is that it eliminates the need for travel, which can save a lot of money on both direct and indirect costs. Because study materials can be easily updated and kept for students to use whenever they're ready, e-learning also helps solve staffing shortages. According to Srivastava (2019), the utilisation of audio and video resources can enhance student engagement and retention.

By taking into account the experiences of both teachers and students, Sarker et al. (2019) investigated the viability of introducing e-learning via a learning management system (LMS) in Bangladeshi postsecondary educational programmes. Maatuk et al. (2022) examined the use of e-learning in a public institution during the COVID-19 epidemic from the viewpoints of instructor and student. The study revealed that educators believed e-learning contributed to students' growth. But they also mentioned that one major obstacle to its implementation was the high operating costs. These results emphasise that there are difficulties associated with using e-learning in educational environments.

Mbarek and Zaddem (2013) expanded on earlier studies on implementation issues in e-learning by including into their model variables such as e-learning effectiveness, social presence, computer self-efficacy, perceived utility, perceived ease of use, and interaction between trainers and trainees. They emphasised the value of social presence in improving classroom dynamics. Sarker et al. (2019) also noted that teachers frequently did not have enough time to prepare for lectures, that online content and posts often did not sufficiently motivate students, and that technical problems—such as poor audio-visual quality of recorded lectures, slow webpage interfaces, choppy video streaming, and server outages—were commonplace.

Additionally, a systematic study was carried out by Regmi and Jones (2020) to determine and compile the benefits and drawbacks of e-learning in health sciences education (el-HSE). The main obstacles to the widespread adoption of e-learning, according to them, are low motivation and expectations, resource-intensive demands, inappropriateness for all disciplines or material kinds, and a lack of IT skills. The difficulties post-secondary students had during the COVID-19 epidemic were examined by Aboagye et al. (2020) in the context of online education. After examining social, academic, teacher-related, and general issues, they concluded that accessibility challenges were the most important.

In certain circumstances, online learning may be more effective than in-person classroom instruction, according to a number of studies (Zhang & Nunamaker, 2003). On the other hand, some research have found adverse impacts. For example, three different classroom formats—traditional, web-based, and hybrid segments—were compared by McAlister et al. (2001). The examination scores for the three segments did not differ significantly, according to their findings. When compared to other students, those who participated in the web-based component indicated a slightly lower level of satisfaction with their education.

Tayebinik and Puteh (2013) investigated the benefits of blended learning in comparison to in-person education through a study of pertinent literature and came to the conclusion that blended learning is better than pure e-learning. Using both in-person and online forms, Wiesenberg and Stacey (2008) also looked at the philosophical and methodological differences between Australian and Canadian university lecturers. Their research sought to ascertain if the shift from traditional classroom settings to online learning environments resulted in the creation of novel teaching approaches or ingenious combinations of pre-

existing techniques in each setting. In distributed classrooms, Wiesenberg and Stacey discovered that teachers needed assistance to make the shift from conventional lecturer-centered to new learner-centered teaching approaches. Regarding results, they found no appreciable distinction in grades between students who attended in-person classes and those who did so virtually.

To sum up, the COVID-19 pandemic has highlighted the fact that e-learning is a significant and long-lasting aspect of education. Still, there are obstacles to overcome in its implementation, proving that traditional classroom settings are still relevant in the field of education.

2.1.8 The Impact Of COVID-19 On Business And Social Life

According to Brammer, Branicki, and Linnenluecke (2020), there are differing effects of the COVID-19 pandemic on the social and economic life. With regard to the economy, this primarily relied on the nature of the endeavour. Not having personal contact was a significant impact. There are three primary ways that the epidemic has spread throughout the economy (Brammer, Branicki, & Linnenluecke, 2020). The first channel resulted in a decrease in the consumption of products and services and had an immediate effect. Lockdowns and the necessity of maintaining social separation by remaining at home were the causes of this. The economy is indirectly impacted by the second channel. It dealt with financial market shocks and how they affected the actual economy. It was anticipated that household wealth would decline as savings rose and consumer expenditure would continue to decline. The third channel dealt with interruptions on the supply side. Production activities were delayed or hindered by constraints, which had an adverse effect on supply

chains, labour demand, and employment (Donthu & Gustafsson, 2020).

Numerous activities were impacted in a cascading manner by the supply chain collapse. The reason for this was the highly specialised and interrelated nature of the industrial activities (Donthu & Gustafsson, 2020). Circular flows were also produced during the pandemic. The demand fell sharply during the epidemic for services like lodging, dining, and shopping that involve face-to-face interaction. However, there has been a rise in demand for services like information and communication technology (ICT) that can be offered remotely or do not require in-person interactions (Donthu & Gustafsson, 2020). Government-imposed limits differed in the degree to which demand changed. Donthu and Gustafsson (2020) said that during the pandemic, short-term manufacturing of various goods including as furniture, transport equipment, printing, petroleum, chemicals, and plastics, non-metallic minerals, computers, electronics, and electricals decreased in Canada. Food, drink, and paper production all saw growth. Virtually all tangible goods were less widely distributed in wholesale trade. As per Donthu and Gustafsson (2020), there was a fall in retail sales across all sectors except for food and beverage. Limitations and prohibitions were not severe in Korea, but sales of food were declining in every industry. The pandemic had a significant impact on Korea since the nation was heavily dependent on imports and exports of goods and services. The given examples demonstrate how the pandemic's economic effects varied depending on the nation (Donthu & Gustafsson, 2020). Indeed, there have been strong global links found between the state of passenger aviation and the rise in the number of illnesses. New limitations and a decrease in travel were brought about by the rise in illness (Donthu & Gustafsson, 2020).

The epidemic has a profound and wide-ranging effect on social interactions. Apart from

economic factors, social and health factors also hold significance (Auriemma & Iannaccone, 2020; Onyeaka et al., 2021). The following are examples of social aspects: the inability to use a variety of services; the postponement or cancellation of major sporting events; the avoidance and barring of domestic and international travel; the need to keep social distance from peers and family members; the inability to use hotels, restaurants, and places of worship; the closure of all entertainment venues, including theatres, gymnasiums, sports clubs, and swimming pools; the postponement of stationary examinations and the adoption of remote learning. Important considerations were the effects on society's health (Auriemma & Iannaccone, 2020; Onyeaka et al., 2021). They included, among other things, the postponement of previously planned surgeries and treatments, limited access to medical services, and significant health and life hazards associated with getting the coronavirus. Numerous hours at home were required due to the aforementioned constraints. Balsalobre-Lorente et al. (2020) reported that job and educational activities were also relocated to the home.

2.1.9 The Functioning of Higher Education during the Pandemic

Online education replaced traditional classroom instruction due to the necessity of social separation. According to Prokopenko and Berezhna (2020), digital learning became the only feasible means of preserving higher education in the face of the COVID-19 epidemic. Various approaches were implemented by different countries. In Hong Kong, for example, large-scale lectures and activities were abruptly cancelled, and within two weeks, university offices, libraries, study spaces, cafeterias, and sports facilities were closed (Prokopenko & Berezhna, 2020). Despite differences in timings caused by the severity of

the pandemic, overall trends were quite consistent across countries (Prokopenko & Berezhna, 2020).

Students found themselves in a virtual learning environment by default. With the shift to online learning environments, chat rooms became the primary means of communication (Sá & Serpa, 2020). With the help of webcams, researchers and students were able to interact via tiny screens. Students frequently used their personal laptops, but staff members were given free webcams. Although most had laptops, others had desktop PCs with no integrated cameras (Sá & Serpa, 2020).

With COVID-19, teachers and students had to adjust to live-streamed classes, for which they were not always ready. When remote learning first started out, it was primarily sharing PowerPoint files and streaming lectures—it was missing that crucial component of interaction. Online education replaced traditional in-person instruction as an innovative social endeavour after initially being perceived as a replacement process (Sá & Serpa, 2020). Significant obstacles were encountered in the early stages of remote learning, chiefly related to insufficient infrastructure for online instruction and the relative inexperience of teachers in this method of delivery, which had an effect on the standard of education (Sá & Serpa, 2020). Initiatives for quick teacher training were crucial in reducing some of these problems, and teachers had to quickly create courses suitable for online delivery.

According to Agormedah et al. (2020), there are five main obstacles standing in the way of higher education institutions' digital transformation: change (which is necessary), the speed at which change and implementation occur, technology (including hardware and software), staff, lecturers, and student competence, and funding (for training and

equipment, among other things). Within higher education institutions, e-learning, or online learning, is only one aspect of a larger digital evolution. According to Agormedah et al. (2020), online learning includes the use of technology, gadgets, and the internet for educational purposes. A few academics have called the online learning that occurred during the COVID-19 outbreak "emergency remote learning." This terminology reduces the effectiveness and quality of traditional online learning to some level (Neuwirth, Jović, & Mukherji, 2021). It emphasises how there was no rigorous, all-encompassing approach used to build and develop online education during the crisis, portraying it more as an emergency response than as a model of online education (Sá & Serpa, 2020).

There is no one-size-fits-all approach to online education during the epidemic, according to research done all throughout the world. Across all educational levels, a variety of communication platforms and technologies were used, such as synchronous and asynchronous video lectures (Dutta & Smita, 2020). According to Dutta and Smita (2020), asynchronous techniques including sharing presentations, videos, and written correspondence via forums and chat rooms were more common than real-time video conferencing using systems like Microsoft Teams and Zoom. Teachers and students had difficulties as a result of the variety of teaching approaches, especially those who were not well-versed in information technology and who at first found it difficult to prepare and administer classes online (Dutta & Smita, 2020). In the months that followed, these educators adjusted and improved their digital skills because of the extended distance learning that the epidemic required. Universities have made maintaining high-quality instruction a priority, which has made it necessary to take action against academic dishonesty, support efficient teaching methods, guarantee fair student assessments, and

grant unrestricted access to vital learning resources (Dutta & Smita, 2020).

2.2 Theoretical Framework

This section of the study contains the theories that underpin the study. The study on factors influencing students' satisfaction with blended learning after the COVID-19 pandemic can be underpinned by various educational and psychological theories that help provide a theoretical framework for understanding and analyzing the factors. However, this study is underpinned by the Technology Acceptance Model (TAM) (Mustafa & Garcia, 2021).

2.2.1 Technology Acceptance Model (TAM)

The TAM was first introduced by Davis et al. (1989) to explain information system acceptance. Most scholars now mostly accept the revised TAM, which was later amended by Straub et al. (1995) (Li & Li, 2009). The Theory of Reasoned Action (TRA) (Hale et al., 2002) forms the basis of Technology Acceptance Model (TAM). TAM seeks to explain most technology usage behaviours, particularly with regard to science and technology. According to TAM, perceived utility and simplicity of use have an impact on users' acceptance and use of technology (Mustafa & Garcia, 2021). This theory can be applied to blended learning to explain how students' opinions on the usefulness and simplicity of use of technology affect how satisfied they are with the process.

2.2.1.1 Perceived Ease of Use (PEOU)

In the context of blended learning, PEOU refers to students' perceptions of how easy it is to navigate and utilize the technology and digital tools involved in their learning experience

(Mohd-Amir et al., 2021). For instance, this may encompass the user-friendliness of the learning management system (LMS), the accessibility of online course materials, and the simplicity of virtual communication platforms. Students who find the technology associated with blended learning easy to use are more likely to have a positive attitude toward the learning experience. They may be more inclined to engage with online components, complete digital assignments, and actively participate in virtual discussions (Mohd-Amir et al., 2021).

2.2.1.2 Perceived Usefulness (PU)

PU in the context of blended learning refers to students' beliefs about how beneficial and valuable this mode of learning is in helping them achieve their educational goals (Mohd-Amir et al., 2021; Wicaksono & Maharani, 2020). Students assess the usefulness of blended learning based on various factors, including the quality of online resources, the flexibility it offers, and its contribution to their overall learning outcomes. Students who perceive blended learning as highly useful are more likely to engage enthusiastically with the approach. They may view it as a valuable tool for enhancing their knowledge and skills, leading to greater satisfaction with the learning experience (Wicaksono & Maharani, 2020).

2.2.1.3 Behavioral Intention to Use

According to TAM, the intention to use technology is a critical precursor to actual usage (Racero, Bueno & Gallego, 2020). In the context of blended learning, behavioral intention translates to students' willingness and eagerness to actively participate in the online and in-person components of their courses. Students with a strong behavioral intention to use

blended learning are more likely to embrace the approach fully. They may exhibit proactive behaviors, such as attending virtual classes, completing digital assignments on time, and seeking additional online resources, all of which contribute to higher satisfaction levels (Racero, Bueno & Gallego, 2020).

2.2.1.4 Actual Use

Actual use of blended learning pertains to the extent to which students actively engage with and utilize the technology and digital resources available to them (Natasia, Wiranti & Parastika, 2022). This encompasses attending online lectures, participating in discussion forums, accessing e-learning materials, and submitting assignments through digital platforms. Higher levels of actual use reflect students' commitment and involvement in the blended learning process, which can positively influence their overall satisfaction with the learning experience.

2.2.1.5 Student Satisfaction

In the TAM framework, student satisfaction serves as a key outcome variable. It represents the culmination of students' experiences with the blended learning environment, incorporating their perceptions of ease of use, usefulness, and their actual usage behaviors (Adeyemi & Issa, 2020). Students who find blended learning easy to use, highly useful, and who exhibit strong behavioral intention and actual use are more likely to report higher levels of satisfaction with their blended learning experience.

The application of TAM will help to gain a structured framework for understanding and analyzing the complex interplay between students' perceptions, intentions, behaviors, and

ultimate satisfaction with this educational approach. This, in turn, can inform strategies for improving and optimizing blended learning environments to enhance student satisfaction and learning outcomes.

2.3 Conceptual Framework
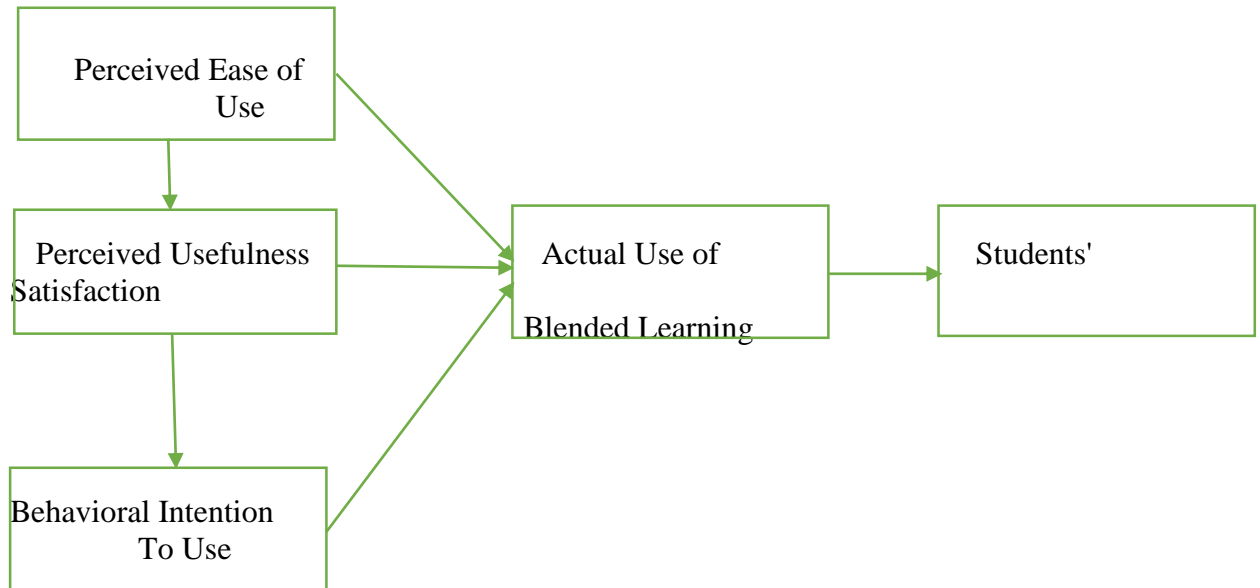
Source: Research Construct (2023)

Independent Variables

Perceived Ease of Use (PEOU): This variable represents students' perceptions of the ease of using technology and digital tools in blended learning.

Perceived Usefulness (PU): This variable reflects students' beliefs about the usefulness and value of blended learning for achieving their educational goals.

Behavioral Intention to Use (BI): This variable measures students' willingness and intent to actively engage with blended learning components.

Mediating Variables:

Actual Use of Blended Learning (AU): This variable represents the extent to which students actively participate in and utilize blended learning tools and resources.

Dependent Variable:

Students' Satisfaction with Blended Learning (S): This variable serves as the primary outcome measure in the study, indicating the level of satisfaction students experience with the blended learning approach.

2.3.1 Conceptual Pathways

- The conceptual framework suggests that students' perceptions of PEOU and PU influence their behavioral intention to use blended learning (BI).

- Behavioral intention to use (BI) subsequently affects students' actual use of blended learning (AU). Students who intend to use it more are likely to engage more actively.

- Actual use of blended learning (AU) has a direct impact on students' satisfaction with blended learning (S). The more students actively use the technology and online resources, the higher their satisfaction levels.

- Additionally, PEOU and PU may have indirect effects on students' satisfaction with blended learning (S) by influencing behavioral intention (BI) and, subsequently, actual use (AU).

2.4 Empirical Review

Following the COVID-19 pandemic outbreak, Ochnio et al. (2022) assessed the online teaching process at universities and identified weaknesses and shortages in online education. The research employed the purposeful sampling technique to choose 809 student respondents from five different nations. Students' evaluations of online courses are shown to be much higher in nations and universities with a long history of using interactive platforms and online teaching than in those without. Based on their prior experience with online learning, students generally rated in-person instruction higher than that of online instruction. There exists a substantial correlation between the level of preparation for the online courses and the overall assessment of these courses.

Wang, Hassan, Pyng, and Ye (2023) looked at possible influences on the online learning interactions of international students. A stratified random sampling technique was used in this study to choose 320 overseas students enrolled in online courses for the research sample. According to the findings, the target variable (SS) is directly and favourably impacted by each of the four antecedent variables (SE, PQ, PV, and TP), with Perceived Quality (PQ) having the biggest effect on Student Satisfaction (SS). The correlation between the antecedent variables (SE, PQ, PV, and TP) is also verified; PQ is significantly positively impacted by both SE and TP, while PV is strongly positively impacted by both PQ and SE. The result variable (SL) is substantially positively impacted by the target variable (SS).

The antecedent elements influencing students' satisfaction with e-learning outcomes during the epidemic were identified and evaluated by Nikou and Maslov (2023). Utilising structural equation modelling (SEM), a suggested research model was examined.

According to the SEM results, students' happiness with e-learning outcomes is strongly influenced by digital communities in e-learning, information technology (quality and accessibility), and the calibre of online course design. More intriguingly, the findings indicate that e-learning outcomes are also influenced by COVID-19-related characteristics, such as awareness of the virus, perceptions of the difficulties, and the readiness of educational institutions.

The study conducted by Nkrumah, Asafo-Adjei, and Akossey (2023) centred on students' perspectives regarding the differences between the physical and electronic classroom environments, as well as the consequences for quality control in Technical and Vocational Education and Training (TVET). Using a stratified random sampling approach, 453 continuing students with expertise in both traditional classroom settings and online learning environments were selected. The findings showed that, in contrast to traditional classroom settings, students found it challenging to understand how electronic classrooms, or "e-classrooms," efficiently support their learning. The physical classroom setting, with its supportive emotional climate, good interaction norms, and high-quality content delivery, proved to be a preferable choice due to technical issues with internet connectivity and student assistance.

Tran Thi Minh (2022) investigated the variables influencing the mixed learning environment at Vietnamese universities. 880 students from medium-sized Vietnamese universities were surveyed for the study using a straightforward random sample technique. It was discovered that classroom learning opportunities are constrained by standard teaching approaches. Rules might occasionally end up being the main thing preventing pupils from being creative and from learning to love learning. Learning strategies that

combine traditional and virtual learning environments are effective. It encourages students to learn and helps to personalise their educational experiences.

Li and Agyeiwaah (2023) investigated how total learning satisfaction in tourism and hospitality education was affected asymmetrically by features of online learning. Penalty reward comparison analysis, impact range performance analysis (IRPA), and impact asymmetry analysis are the three analytical processes that the authors employ in their adoption of the three-factor satisfaction theory. Traditional IPA proposes nine high importance and performance online features, according to the study's findings. Only four characteristics, according to the IRPA, are found to have a high performance and high range impact on happiness. Even though it significantly affected pleasure, the attribute "secure" performed poorly.

The study conducted by Horng et al. (2023) assessed the ways in which students studying tourism and hospitality believed that using sharing economy platforms improved their education and altered environmental values and attitudes. The strategy that was used was multiple mediation-moderation. Through the development of sustainable behaviours (such as creative, helpful, and environmentally conscious conduct), students' values and attitudes are indirectly influenced by sharing an economic platform as a basic feature, according to the results of the mediation effects. Digital learning is also a significant moderating factor in the moderation effects, influencing students' expectations for effort and values related to sustainability in a sustainable manner.

In the midst of the COVID-19 epidemic, Tinnion and Simpson (2022) investigated the experiences and perceptions of virtual and blended learning modalities in a group of undergraduate sport and exercise sciences students. The results of the research show that

there were variations in the learning community, academic support, assessment and feedback, and within-year group (Year 2), with higher blended learning survey perception scores. However, among Year 1 pupils, no noteworthy variations were seen between year groups.

<h1 style="text-align:center">CHAPTER THREE</h1>

<h1 style="text-align:center">RESEARCH METHODOLOGY</h1>

3.0 Introduction

This section of the study presents the methodology of the research. The section of the chapter captured the research design, sources of data, study population, the required sample size, sampling techniques that was used in selecting the respondents, and data collection tools. The method of data analysis techniques and ethical considerations was also captured in this section of the study.

3.2 Research Design

The choice of a quantitative case study approach for this study is based on recommendations by prominent researchers (Creswell, 2013; Hosenfeld, 1984; Yin, 2003). Furthermore, it is deemed valuable for its capacity to yield insightful information, particularly during the preliminary and exploratory phases of research. Employing the case study approach enabled a thorough examination of the situation under investigation and permit a close examination and direct testing of students' perspectives, mirroring real-world scenarios, as demonstrated in previous studies (Cronin, 2014). Again, quantitative research allows for precise measurement of variables. In the context of studying student satisfaction, using standardized scales and instruments can provide numerical data that quantify satisfaction levels. Thus, a quantitative case study design is appropriate for examining factors influencing students' satisfaction within KTU because it allows for precise measurement, generalizability, comparative analysis, causal exploration, objectivity, and data-driven decision-making. It offers a structured and empirical approach to

understanding student satisfaction, which can be valuable for KTU in enhancing the educational experience for its students.

3.3 Sources of Data Collection

The study used both primary and secondary data. This employed the primary data to accomplish the research objectives employed the use of questionnaires in printed form to get responses in the chosen hospital. Secondary data were obtained from books and journal articles.

3.4 Population of the study

According to Stratton (2021), the study population consists of all the members or elements in a specific area within which the researcher has interest. Hence, the target population for the study were students in Koforidua Technical University (KTU) who were readily accessible during the study period. The population is deemed suitable for the study because it enabled the researcher to obtain first-hand information regarding issues in the targeted respondents.

3.5 Sampling Technique

Acher, Perrouin and Cordy (2023) define the sampling technique as the method used to select the respondents or individuals who are eligible to participate in the study. In this study, purposive sampling used to select the appropriate respondents from the population of interest. This method assisted the researchers in finding suitable and appropriate study participants. During data collection, readily accessible and willing respondents were

chosen using purposive sampling technique. Using this method, the researchers were able to select participants who are willing and relevant to the study.

3.6 Sample Size

Sample size refers to the number of observations or participants included in a study or survey (Althubaiti, 2023; Bujang, 2023). It represents the subset of the population that is selected and analyzed to make inferences or draw conclusions about the entire population (Althubaiti, 2023; Bujang, 2023). 180 students were selected randomly from the Koforidua Technical University to constitute the sample size of the study.

3.7 Research Instrument

A research instrument refers to the tool or method used to collect data in a research study (Sundram & Romli, 2023). It is the means through which researchers gather information or measure variables of interest (Sundram & Romli, 2023). The choice of research instrument depends on the research objectives, the type of data needed, and the characteristics of the study population (Draganoudi, Kaliampos, Lavidas & Ravanis, 2023). The researcher used structured questionnaires to obtain the required information. The questionnaires were presented in simple and direct form for easy understanding. The research questionnaire were grouped into different sections such as, respondent background information and information on the objectives of the study.

3.8 Data Collection Method

The questionnaires were administered to the students in KTU with a stipulated time to enable them in responding to the questions. To ensure quality and reliable data from the respondents, the researcher ensured that the information on the questionnaires are well structured, explained and understood by all the respondents before answering the questionnaires.

3.9 Data Analysis

The researcher coded and edit the responses to make sure that all the questionnaires had been properly answered before entering them into the appropriate statistical software, such as Statistical Package for the Social Sciences (SPSS) version 26, so as to ensure logical completeness and consistency of responses before the analysis is done.

The researcher willdid the analysis in accordance with the proposed research objectives. The analysis proceed in a structured way, starting with a descriptive statistical analysis of the respondent demographic data using frequency tables and percentages, then moving on to an analysis of the research objectives. Descriptive statistics including charts, percentages, mean scores, and standard deviations were used to analyse the objectives.

3.10 Ethical Considerations

Access to respondents' information and ethics are crucial factors to take into account when conducting a study, according to Fisher et al. (2023). However, the researcher must first be given access to the respondents in order to collect the required data (Iltis, Fortier, Ontjes & McCall, 2023). According to Iltis, Fortier, Ontjes and McCall (2023), reliable research is

carried out with the consent of all pertinent participants in order to protect the respondents' privacy and confidentiality as well as taking care of their welfare.

3.10.1 Informed Consent

The permission of each participant were requested, and they were guaranteed that the data would only be used for academic purposes. Since participation in the study is optional, they are free to opt out at any time.

3.10.2 Confidentiality

To make the respondents believe that the researcher is truly a student of Koforidua Technical University, an identification card was made available to respondents. The researcher made it known to the respondents that, there is no pressure on providing information and all laws binding information disclosure will be observed. All sources cited and referred for the study were duly acknowledged at the reference section. The researcher ensured that the identity of all the participants are kept anonymously during the data analysis and presentation of the results from them.

CHAPTER FOUR

PRESENTATION OF DATA, INTERPRETATION AND DISCUSSION

4.0 Introduction

The fourth chapter of this study elaborates on the empirical results through data gathered

using the methodology described in the previous chapter. The chapter presents a descriptive

analysis of the data obtained on the demographic characteristics and the main objectives.

This section of the analysis was done with the help of SPSS.

4.1 Socio-Demographic Characteristics of Respondents

A total of 180 sets of responses were gathered for this study. Table 4.1 shows the

demographic profile of respondents involved in the study. The results showed that 97

representing 53.9% of respondents were females and 83 representing 46.1% were males.

According to the findings, the majority of respondents were females. Thus, more than half

of the respondents involved in the study were females. The study also shows that 59

(32.8%) of the respondents were within 18-24 years, 67 (37.2%) were 25-34 years, 15

(8.3%) were 35 years and above and 39 (21.7%) were respondents below 18 years. The

findings from the study show that majority of the respondents were between 25 and 34

years old. The study again captured the respondents' level of study. The results show that

25 (13.9%) were those offering BTECH at level 300, 49 (27.2%) of respondents in BTECH

400, 22 (12.2%) were respondents at level 100, 46 (25.6%) of respondents were in level

200, and 38 (21.1%) were respondents in level 300. Hence, majority of the respondents

were in BTECH 400 as revealed from the findings. The department of the respondents was

also captured in the study and the findings revealed that 22 (12.2%) were in the

accountancy department, 19 (10.6%) were in computer science department, 69 (38.3%) in hospitality management department, 24 (13.3%) in marketing department, and 16 (8.9%) were in other departments such as biomedical engineering, and 30 representing 16.7% were respondents procurement and supply science department. Thus, the results from the findings showed that majority of the respondents were in the hospitality management department. The study further captured the residency status of the respondents involved in the study. The findings from the study show that 102 (56.7%) of respondents were living off-campus, while 78 (43.3%) were living on campus. The results imply that the majority of the respondents were living off-campus.

Table 4.1: Demographic Background of Respondents

Characteristics	Frequency	Percentage
Gender		
Female	97	53.9
Male	83	46.1
Age		
18-24 years	59	32.8
25-34 years	67	37.2
35 years and above	15	8.3
under 18 years	39	21.7
Academic Year		
BTECH 300	25	13.9
BTECH 400	49	27.2
HND Level 100	22	12.2
HND Level 200	46	25.6
HND Level 300	38	21.1
Department		
Accountancy	22	12.2
Computer Science	19	10.6
Hospitality Management	69	38.3
Marketing	24	13.3
Others	16	8.9
Procurement and Supply Science	30	16.7
Residential Status		
Living off-campus	102	56.7
Living on campus	78	43.3
Total	**180**	**100.0**

4.2: Factors Affecting the Effectiveness of Blended Learning among Students

This section of the study sought to examine the factors that affect the effectiveness of blended learning among students. Respondents indicated their response using a scale 1- 5; where 5 = strongly agree (SA), 4 = agree (A), 3 = neutral (N), 2= disagree (D), 1 = strongly disagree (SD). The results are shown in Table 4.2 below. The researcher considered fourteen (14) items under factors that affect the effectiveness of blended learning among students.

The results as presented in Table 4.2 indicate that the average score for the clarity and organization of online course materials was 3.11 with a standard deviation of 1.294 indicating they neither agreed nor disagreed that clarity and organization of online course materials positively impact on learning. The availability of technical support for online components enhances my learning experience (Mean=3.48; Std=1.203) indicating they neither agreed nor disagreed with the statement. My personal time management skills influence my success in blended learning scored (Mean=3.75; Std=1.209) indicating they agreed with the statements. The quality of face-to-face interactions with instructors and peers affects my learning outcomes scored (Mean=3.58; Std=1.181) indicating they agreed with the statement. My level of self-discipline and motivation affects my success in a blended learning environment scored (Mean=3.28; Std=1.422) indicating they neither agreed nor disagreed with the statement. The frequency and quality of feedback provided by instructors are crucial for my learning   (Mean=3.61; Std=1.193) indicating they agreed with the statement. Access to reliable internet and technology tools is essential for effective blended learning scored (Mean=3.63; Std=1.398) indicating they agreed with the

statement. The alignment of online and in-person components is critical for my learning experience (Mean=3.36; Std=1.421) indicating they neither agreed nor disagreed with the statement. The diversity of online resources and activities positively impact my learning scored (Mean=3.64; Std=1.405) indicating they agreed with the statement. The flexibility of blended learning options enhances my educational experience scored (Mean=3.29; Std=1.357) indicating they neither agreed nor disagreed with the statement. The level of instructor competence in using online tools affects my learning (Mean=3.67; Std=1.394) indicating they agreed with the statement. The clarity of course objectives and expectations influences my success in blended learning (Mean=3.68; Std=1.302) indicating they agreed with the statement. Support from peers and group collaboration positively impact my learning outcomes (Mean=3.43; Std=1.358) indicating they neither agreed nor disagreed with the statement. The effectiveness of assessment methods used in blended learning matters for my progress (Mean=3.53; Std=1.257) indicating they agreed with the statement. The findings of this study are similar to a prior study by Tran Thi Minh (2022), who also indicated that several factors played a significant role in shaping the effectiveness of blended learning for students. The factors identified were training effectiveness, student attitudes and mindset, the quality of e-learning systems, technological obstacles, and the proficiency of blended learning instructors.

Again, the results are in line with Dwivedi, Dwivedi, Bobek, and Zabukovšek (2019) that view that training effectiveness plays a crucial role in how teaching and learning are organised in universities since it affects how much knowledge students acquire for their job skills. Subsequent research by Keskin (2019) also revealed that the issues of reasonable subject hierarchy, public and equitable evaluation results, cost-effective training, flexible

training schedules, and clear training goals for students both during and after the training course affect blending learning effectiveness.

Table 4.2: Factors Affecting Effectiveness of Blended Learning among Students (n=180)

Statement	Mean	Std. Deviation
The clarity and organization of online course materials positively impact my learning	3.11	1.294
The availability of technical support for online components enhances my learning experience	3.48	1.203
My personal time management skills influence my success in blended learning	3.75	1.209
The quality of face-to-face interactions with instructors and peers affects my learning outcomes	3.58	1.181
My level of self-discipline and motivation affects my success in a blended learning environment	3.28	1.422
The frequency and quality of feedback provided by instructors are crucial for my learning	3.61	1.193
Access to reliable internet and technology tools is essential for effective blended learning	3.63	1.398
The alignment of online and in-person components is critical for my learning experience	3.36	1.421
The diversity of online resources and activities positively impacts my learning	3.64	1.405
The flexibility of blended learning options enhances my educational experience	3.29	1.357
The level of instructor competence in using online tools affects my learning	3.67	1.394
The clarity of course objectives and expectations influences my success in blended learning	3.68	1.302
Support from peers and group collaboration positively impacts my learning outcomes.	3.43	1.358
The effectiveness of assessment methods used in blended learning matters for my progress	3.53	1.257
Overall mean	3.522	

Source: Field Survey, 2023

4.3 Factors that Influence Online Learning Satisfaction of Students

This section describes the responses of respondents on the factors that influence online learning satisfaction on students. Respondents indicated their response using a scale 1- 5;

where 5 = strongly agree (SA), 4 = agree (A), 3 = neutral (N), 2= disagree (D), 1 = strongly disagree (SD). The results are shown in Table 4.3 below. The researcher considered eight (8) items under the factors that influence online learning satisfaction on students. The average score for course content that is closely aligned with real-world applications that enhance my understanding and engagement in online learning was 3.40 with a standard deviation of 1.389 indicating they neither agreed nor disagreed with the above statement. The availability and active interaction of instructors in the online course positively impact my learning experience (Mean=3.63; Std=1.153) indicating that they agreed with the above statement. Collaborating and interacting with fellow students in online discussions and group activities enhances my learning (Mean=3.40; Std=1.301) indicating they neither agreed nor disagreed with the above statement. Clear and well-structured instructions help me navigate online courses effectively and understand what is expected of me scored (Mean=3.24; Std=1.397) indicating they neither agreed nor disagreed with the above statement. Reliable technology and access to course materials contribute to a smooth and productive online learning experience scored (Mean=3.82; Std=1.139) indicating they agreed with the above statement. Receiving prompt feedback on assignments and assessments is crucial for my learning progress and motivation (Mean=3.12; Std=1.371) indicating they neither agreed nor disagreed with the above statement. The flexibility to manage my own study schedule in online courses is essential for balancing other responsibilities and commitments scored (Mean=3.22; Std=1.355) indicating they neither agreed nor disagreed with the above statement, and the availability of support services, such as technical assistance and counseling, significantly enhances my overall online learning experience scored (Mean=3.42; Std=1.307) indicating they neither agreed nor

disagreed with the above statement.

These results are consistent with those of Nikou and Maslov (2023), who discovered that students' satisfaction with e-learning outcomes is strongly influenced by digital communities in e-learning, information technology (quality and accessibility), and the quality of online course design.

The study also supports Yu's (2022) findings, which indicate that the dimensions of online learners, online instructors, online platforms, and online instructional design all have an impact on how satisfied students are with their online learning experiences.

Table 4.3: Factors Influencing Online Learning Satisfaction of Students (n=180)

Statement	Mean	Std. Deviation
Course content that is closely aligned with real-world applications enhances my understanding and engagement in online learning	3.40	1.389
The availability and active interaction of instructors in the online course positively impact my learning experience	3.63	1.153
Collaborating and interacting with fellow students in online discussions and group activities enhance my learning	3.40	1.301
Clear and well-structured instructions help me navigate online courses effectively and understand what is expected of me	3.24	1.397
Reliable technology and access to course materials contribute to a smooth and productive online learning experience.	3.82	1.139
Receiving prompt feedback on assignments and assessments is crucial for my learning progress and motivation	3.12	1.371
The flexibility to manage my own study schedule in online courses is essential for balancing other responsibilities and commitments	3.22	1.355
The availability of support services, such as technical assistance and counseling, significantly enhances my overall online learning experience	3.42	1.307
Overall mean	3.406	

Source: Field Survey, 2023

4.4 Students' Mode of Learning

This section of the study examined the students' mode of learning regarding face-to-face and online learning. Multiple response was used to know the online learning platforms or tools students used. The results from the study as indicated in Table 4.4 revealed that 39 representing 18.5% used learning management systems, 142 (67.3%) were those that used video conferencing tools such as Zoom and Microsoft Teams. About 7 (3.3%) were those with online discussion forums, 11 (5.2%) used recorded lectures and finally, 12 (5.7%) were those that used interactive simulations.

Table 4.4: Online Learning Platforms or Tools Used

Online Learning Platforms Used	Frequency	Percentage (%)	Rank
Learning Management Systems	39	18.5	2
Video Conferencing Tools (e.g., Zoom, MS Teams)	142	67.3	1
Online Discussion Forums	7	3.3	5
Recorded Lectures	11	5.2	4
Interactive Simulations	12	5.7	3

Source: Field Survey, 2023

The study further asked respondents what factors influence their preference for the selected learning modes. Multiple response was used to obtain the information. The results as shown in Table 4.5 revealed that, 41 (19.8%) were influenced by personal preferences, 93 (44.9%) were influenced by convenience and flexibility, 20 (9.7%) were influenced by interaction with instructors and peers, 16 (7.7%) were influenced by access to resources and materials, 33 (15.9%) were influenced by the ability to self-pace learning, and 4 representing 1.9%

being those who were influenced by other factors.

Table 4.5: Factors Influence Students' Preference for the Selected Learning Modes

Factors That Influence Students' Preference	Frequency	Percentage (%)
Personal preference	41	19.8
Convenience and flexibility	93	44.9
Interaction with instructors and peers	20	9.7
Access to resources and materials	16	7.7
Ability to self-paced learning	33	15.9
Other	4	1.9
Total	**207**	**100.0**

Source: Field Survey, 2023

4.5 Level of Satisfaction with Face-To-Face and Online Learning at KTU

Students were further asked to rate their level of satisfaction with face-to-face learning at KTU. The results as indicated in Table 4.6 showed that 30(16.7%) with neutral level of satisfaction with face-to-face learning at KTU. About 80(44.4%) were satisfied with face-to-face learning at KTU and 70(38.9%) were very satisfied with face-to-face learning at KTU.

Respondents were again asked about what they appreciate most face-to-face learning at KTU. The results indicate that, respondents appreciate face-to-face learning at KTU because of the learning environment, they are able to ask questions and better answers are given, able to ask questions freely without any interruption, boosting students' confidence, appreciate the fact that the lecturers take their time to explain certain things for us to understand it well. Some also indicate that it is due to the interactive nature compared to online, lectures are effective, participatory, and interactive and there is intensive teaching

and learning. Some respondents also indicate that face-to-face is far better than online classes. The challenges or drawbacks respondents encountered with face-to-face learning at KTU was also captured. The results from the findings revealed that, the encountered with face-to-face learning at KTU include the absence of lecturers, breakage of sockets, faulty microphones and speakers, inadequate lecture room, inadequate projectors for learning, low level of learning and teaching materials, timing of lectures are not enforced and too much theory instead of practical.

The results further revealed that 4(2.2%) were respondents who were dissatisfied with the level of satisfaction with blended learning (combining face-to-face and online components) at KTU, 28(15.6%) were that were neutrally satisfied with blended learning (combining face-to-face and online components) at KTU and 78(43.3%) were those that were satisfied and 66(36.7%) were those that were very satisfied with blended learning (combining face-to-face and online components) at KTU.

It was revealed from the study that respondents appreciate that blended learning helps complete the topics for the semesters, improves learning experiences, is short and time-consuming and the opportunity to learn and experience the other platforms. However, below are the challenges encountered during blended learning at KTU. These include poor commitment of some lecturers, data availability, divided attention, insufficient ICT lab, lack of teaching materials, and poor internet connection.

Table 4.6: Level of Satisfaction with Face-To-Face and Blended Learning at KTU

(n=180)

Characteristics	Frequency	Percentage
Level of satisfaction with face-to-face learning		
Neutral	30	16.7
Satisfied	80	44.4
Very Satisfied	70	38.9
Level of satisfaction with blended learning (combining face-to-face and online components) at KTU		
Dissatisfied	4	2.2
Neutral	28	15.6
Satisfied	78	43.3
Very Dissatisfied	4	2.2
Very Satisfied	66	36.7
Preference to receive course content and instruction		
Blended learning (combination of face-to-face and online components)	126	70.0
Face-to-face classes only	46	25.6
Online classes only	8	4.4

Source: Field Survey, 2023

Finally, students were asked about how they preferred to receive course content and instruction. The results from the study revealed that 126 representing 70% of the respondents prefer Blended learning (combination of face-to-face and online components), 46 representing 25.6% of the respondents use face-to-face classes only and 8 representing 4.4% of the respondents prefer only online classes. Hence, the majority of the respondents involved in the study prefer blended learning (a combination of face-to-face and online components) to receive course content and instruction.

4.6 Chapter Summary

The findings of this study are similar to a prior study by Tran Thi Minh (2022), who also indicated that several factors play a significant role in shaping the effectiveness of blended learning for students. The factors identified were training effectiveness, student attitudes and mindset, the quality of e-learning systems, technological obstacles, and the proficiency of blended learning instructors.

Again, training effectiveness plays a crucial role in how teaching and learning are organized. It affects how much knowledge students acquire for their job skills, in line with Dwivedi, Dwivedi, Bobek, and Zabukovšek (2019) and Keskin (2019). The results found that digital communities in e-learning, information technology (quality and accessibility) and the online course design quality directly influence students' satisfaction with e-learning outcomes. This is similar to Nikou and Maslov's (2023) and Yu's (2022) results that online learning satisfaction is influenced by the dimensions of online learners, online instructors, online platforms and online instructional design.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This section of the study contains the summary of findings from the study as well as the conclusions drawn from the study which were done following the research objectives of this study. The section further elaborates on recommendations for further research.

5.1 Summary of Findings

The main aim of the studies is to examine the factors influencing students' satisfaction with blended learning after the Covid-19 pandemic with evidence from the Koforidua Technical University (KTU). Three specific objectives were developed based on extant literature. A questionnaire was used to collect information from 180 students of the Koforidua Technical University. The results of the study are discussed below.

5.1.1 Factors Affecting the Effectiveness of Blended Learning among Students

The study determined the factors affecting the effectiveness of blended learning on KTU students. The findings indicated that the clarity and organization of online course materials, as well as the alignment of online and in-person components, received mixed responses, with neither agreement nor disagreement. On the positive side, factors like the availability of technical support, students' time management skills, the quality of interactions with instructors and peers, the frequency and quality of feedback, access to reliable internet and technology, the diversity of online resources, and instructor competence in using online tools were acknowledged as contributors to effective blended learning experiences.

Additionally, factors such as the clarity of course objectives and expectations, peer support, and the effectiveness of assessment methods were recognized as essential components in shaping students' success in blended learning.

This aligns with prior research by Tran Thi Minh (2022), which emphasized that training effectiveness, student attitudes, the quality of e-learning systems, technological challenges, and instructor proficiency are essential factors in determining the success of blended learning in universities. Moreover, the significance of these factors in enhancing the effectiveness of blended learning was also emphasized in studies by Keskin (2019) and Nkrumah, Asafo-Adjei, and Akossey (2023).

5.1.2 Factors That Influence Online Learning Satisfaction On Students

The study focused on understanding the factors that influence online learning satisfaction among students at KTU. The results obtained from the findings revealed that students held a neutral stance regarding the impact of the course content alignment with real-world applications on their engagement in online learning. Again, the availability and active interaction of instructors were positively recognized as contributing to an enhanced learning experience. Collaborating with fellow students in online discussions and group activities received a mixed response, with students neither agreeing nor disagreeing about its impact on their learning. Clear and well-structured instructions were seen as necessary for effective navigation and understanding of course expectations.

Students recognized the significance of reliable technology and access to course materials in ensuring a smooth and productive online learning experience. Receiving prompt

feedback on assignments and assessments was seen as crucial for learning progress and motivation but generated mixed responses. Also, it was revealed that the flexibility to manage one's study schedule was considered essential for balancing other responsibilities and commitments. Finally, the availability of support services, such as technical assistance and counseling, was viewed as significantly enhancing the overall online learning experience, although it generated mixed responses. The findings are similar to those of Nikou and Maslov (2023), who emphasized the direct influence of digital communities, information technology quality and accessibility, and online course design quality on students' satisfaction with e-learning outcomes. Similarly, Yu (2022) highlighted the dynamic nature of online learning satisfaction, influenced by dimensions like online learners, instructors, platforms, and instructional design.

5.1.3 Mode of Learning from Students Regarding Face-to-Face and Blending Learning

This study was to solicit the best mode of learning from students regarding face-to-face and blended learning in KTU. The study employed a multiple-response approach to gather the information from students.

The findings of this study revealed that 18.5% of the respondents preferred to engage with course materials and activities through Learning Management Systems. LMS is a digital platform designed to deliver educational content and facilitate communication between students and instructors. The majority (67.3%) use video conferencing tools such as Zoom and Microsoft Teams. These tools are known for facilitating real-time, interactive virtual

classrooms, enabling students to participate in remote learning with their peers and instructors. A smaller group 3.3%, chose to engage with online discussion forums. This suggests that asynchronous communication and text-based interactions were favored by a minority of students. Approximately 5.2% of the respondents found recorded lectures to be a suitable learning method, this mode provides flexibility, allowing students to access and review course content at their own pace. About 5.7% of the respondents embraced interactive simulations. Interactive simulations are often employed for hands-on and experiential learning. The results however implied that the majority of the respondents indicated using video conferencing tools such as Zoom and Microsoft Teams.

5.2 Conclusion

The main aim of the studies was to examine the factors influencing students' satisfaction with blended learning after the Covid-19 pandemic with evidence from the Koforidua Technical University (KTU). A research questionnaire was used to collect information from 180 students across the various departments at Koforidua Technical University. The results from the study are indicated below.

The first objective was to determine the factors affecting the effectiveness of blended learning on KTU students. The results from the findings revealed that students recognized various factors contributing to effective blended learning. These included the availability of technical support, students' time management skills, quality interactions with instructors and peers, feedback frequency and quality, reliable internet and technology access, diverse online resources, and instructor competence in using online tools. The findings also

revealed that some factors were identified as crucial for student success in blended learning. These included clear course objectives and expectations, peer support, and effective assessment methods. Clear objectives, collaborative learning experiences, and well-structured assessments were deemed important for achieving academic goals.

The second objective was to determine the factors that influence online learning satisfaction among students in KTU. The results obtained from the findings revealed that students recognized the significance of reliable technology and access to course materials in ensuring a smooth and productive online learning experience. It was again revealed that receiving prompt feedback on assignments and assessments was seen as crucial for learning progress and motivation for students. Also, it was revealed that the flexibility to manage one's study schedule was considered essential for balancing other responsibilities and commitments. Finally, it was revealed that the availability of support services such as technical assistance and counseling, was seen as significantly enhancing the overall online learning experience.

The last objective was to solicit the best mode of learning from students regarding face-to-face and online learning at KTU. The results obtained from the study revealed that the majority of respondents, preferred video conferencing tools like Zoom and Microsoft Teams. These tools are known for enabling real-time, interactive virtual classrooms, allowing students to engage remotely with instructors and peers. The results also revealed that Learning Management Systems were used by respondents indicating a preference for digital platforms designed to deliver educational content and facilitate student-instructor

communication. Finally, it was revealed that students mostly prefer blended learning (combination of face-to-face and online components) followed by face-to-face classes only and online classes was least preferred by students.

5.3 Recommendations

The following recommendations were made based on the findings and conclusions drawn from this study.

Firstly, given that students recognized several factors contributing to effective blended learning, it is recommended that KTU and other educational institutions consider strengthening technical support services to ensure students have easy access to assistance when encountering technological issues during their blended learning experiences. This could include 24/7 help desks, comprehensive troubleshooting guides, and user-friendly learning platforms.

Again, to improve students' online learning satisfaction, it is recommended that management of the university should also invest in training programs for instructors to enhance their competence in utilizing online tools effectively. Instructors should be well-prepared to provide quality online instruction, improving positive interactions with students.

Finally, considering that the majority of students preferred video conferencing tools like Zoom and Microsoft Teams, it is recommended that given the strong preference for video conferencing tools, KTU should invest in and optimize the use of these platforms for remote learning. Instructors should receive training to effectively use these tools for interactive virtual classrooms.

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TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION

I write to introduce to you the following student by name **ISABELLA ALABI with the registration number B204210060** of the Hospitality Management Department of Koforidua Technical University offering Bachelor of Technology in Hospitality and Tourism Management and is undertaking research on the topic

I would be grateful if you can kindly grant her the permission and also the necessary assistance to enable her obtain the necessary information/data for the research work.

Thank you.

....

Dr. Mrs. Gladys Apreh Siaw

(HEAD OF DEPARTMENT)
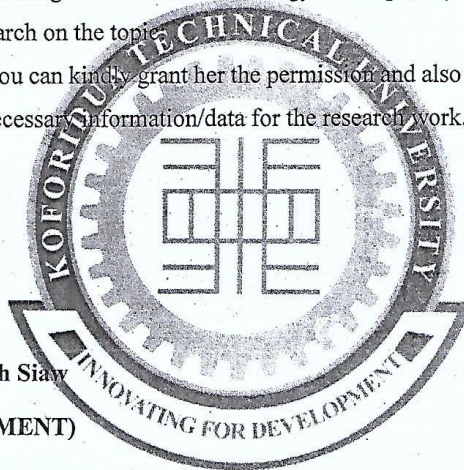
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