# SERVICE QUALITY AND STUDENT SATISFACTION MODERATED BY BLENDED LEARNING ENVIRONMENT AT KYAMBOGO UNIVERSITY

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**A DISSERTATION SUBMITTED TO KYAMBOGO UNIVERSITY DIRECTORATE OF RESEARCH AND GRADUATE TRAINING IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF EDUCATION IN POLICY, PLANNING, AND MANAGEMENT OF KYAMBOGO UNIVERSITY**

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# DECLARATION

I, Grace Kauta, affirm that this dissertation titled "SERVICE QUALITY AND STUDENT SATISFACTION MODERATED BY BLENDED LEARNING ENVIRONMENT AT KYAMBOGO UNIVERSITY'' is my original work and has never been submitted for any award to any other institution.

Signature …… Date…….

Grace Kauta

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## APPROVAL

This is to attest that this dissertation titled "Service quality and student satisfaction moderated by blended learning environment at Kyambogo University" has been written under our guidance and meets the requirements set by Kyambogo University. It is now ready for submission for examination.

Signature…… Date: …….

Dr Wilson Mugizi (PhD)

Signature……. Date: …….

Dr Leticia Komba Rwakijuma (PhD)

# DEDICATION

I dedicate this work to my beloved friend the Holy Spirit, my mentor Fr. John Baptist Kauta, my husband Augustine Severino Oteba, my sons Jesse Sevrino Oteba, Jonathan Augustine Oteba, Jotham Elisha Gracious Oteba and my daughter Michelle Kisakye. I also dedicate it to my friends Joyce Ojambo, Grace Awino, Maureen Adim, Sarah Mawejje, Sarah Pricilla Amono, Hamadi Awazi, and Annet Caroline Lima. My dear my brother Wilson Ngula, and all those who aided me in various ways.

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# LIST OF ACRONYMS AND ABBREVIATIONS

**BLE**: Blended Learning Environment

**COI:** Community of Inquiry

**DV**: Dependent Variable

**IV**: Independent Variable

**KYU**: Kyambogo University

**MO**: Moderating Variable

**PLS-SEM**: Partial Least Squares Structural Equation Modeling

**SERVQUAL**: Service Quality

**SPSS**: Statistical Package for the Social Sciences

**SQ**: Service Quality

**SS**: Student Satisfaction

# ABSTRACT

This study examined whether service quality and student satisfaction are moderated by a blended learning environment at Kyambogo University. The objectives of this study were; to determine the influence of service quality on student satisfaction, to assess the influence of blended learning environment on student satisfaction, and to examine the moderating effect of blended learning environment on service quality and student satisfaction. This study used a quantitative approach and correlational design, Data were collected using a self-administered questionnaire on a sample of 619 second, and third-year students of Kyambogo University. Data were analysed using descriptive statistics and Partial Least Squares Structural Equation Modelling (PLS-SEM) using SPSS 20 and Smart PLS 4. Descriptive results revealed that students' satisfaction, service quality, and blended environment were moderate. SEM results revealed that service quality and blended learning environment had a positive and significant influence on student satisfaction. The results further showed that a blended learning environment positively and significantly moderated the association between service quality and student satisfaction. It was concluded that service quality and blended learning environment influence student satisfaction, and blended learning environment moderates the association of service quality and student satisfaction. Thus, it was recommended that the Kyambogo University administration should consider service quality `dimensions when providing services to students. Additionally, the University administration should ensure that SQ and BLE are combined when providing services to students because a blended learning environment moderates the association between service quality and student satisfaction

# CHAPTER ONE

# INTRODUCTION

## 1.0 Introduction

The diversity and vibrancy of Kyambogo University's student community attracted me from the very beginning when I enrolled for my studies. This personal experience sparked my interest in what contributes to student satisfaction. Having navigated the obstacles and triumphs of university life, I felt a strong affinity for this subject and the desire to enhance the student experience. Student satisfaction is a vital component of the education process since it reflects students' levels of fulfilment and experiences throughout their academic journey (Than & Khaing, 2020). Student satisfaction encompasses various dimensions, including instructional quality, course content, resources, interactions with instructors and peers, support services, and the overall educational environment (Hoh et al., 2018). Understanding and encouraging student satisfaction is critical for a variety of reasons. Student satisfaction, for example; increases active participation and improves the academic performance of students (Nastasic et al., 2019), contributes to higher retention and graduation rates (Abu Rashed Osman et al., 2017; Than & Khaing, 2020), and improves learning results and knowledge retention (Al-sheeb et al., 2018). Therefore, uncovering and addressing student satisfaction in this study is believed to allow institutions to make informed improvements, meet evolving student needs, and foster continuous enhancement of the overall student experience especially at Kyambogo University.

## 1.1 The Study Background

Information about the study's theoretical, conceptual, historical, and contextual perspectives is provided in this section.

***1.1.1 Historical Perspective.*** Throughout history, the importance of student satisfaction in higher learning institutions has been an issue of interest. It began with addressing basic living conditions (Livesey, 2016), progressed to pedagogical innovations promoting student-centred learning (O'Grady, 2011), and eventually became a recognized indicator of educational quality (Abu Rashed Osman et al., 2017; O'Grady, 2011). Specifically, Livesey (2016) highlights that student satisfaction emerged as a significant issue as early as the 12th century when universities were established in Europe. During this period, the substandard living conditions within these institutions directly affected student satisfaction. As a result, university administrators recognized the need to address student welfare by implementing systems to improve accommodation, food, and medical care. These efforts reflected an early recognition of the vital role student satisfaction plays in fostering a conducive learning environment and supporting student well-being.

In the 14th century, O'Grady (2011), pointed out that the concept of student satisfaction gained even more significance for higher education institutions. This was due to the belief among educationalists that education played a crucial role in fostering social and individual development. Consequently, educators of that time introduced pedagogical innovations, such as student-centered teaching advocated by Jean-Jacques Rousseau and the emphasis on experiential learning and the use of concrete objects in learning promoted by John Henrich Pestalozzi. These innovations aimed at enhancing student satisfaction. Currently, as highlighted by Abu Rashed Osman et al. (2017), student satisfaction is universally acknowledged as a crucial indicator of learning quality.

In the United States of America, the concept of student satisfaction gained importance in the mid-twentieth century, coinciding with the expansion of higher education following World War II's end. Bloland goes on to note that at the time, the GI Bill expanded college enrollment,

requiring universities to prioritize student services and campus life to accommodate and retain a diverse student population. According to Astin (1985), in the 1970s and 1980s, student satisfaction became an important criterion for institutional success, influencing policies and practices aimed at improving academic support, campus infrastructure, and extracurricular activities.

In Europe, the Bologna Process, which began in 1999, intensified the emphasis on student satisfaction. This intergovernmental project aimed to create a more coherent and comparable European Higher Education Area. The Bologna Process emphasized the prominence of student-centered education and the quality of the student experience, urging universities to make student satisfaction a central component of their educational programs. According to Teichler (2002), surveys such as the European Student Barometer began to assess student satisfaction in a range of categories, including teaching quality, facilities and job prospects, thereby aligning educational practices with student expectations and worldwide standards.

According to De Jager and Gbadamosi (2010) the importance of student satisfaction in Africa has only recently been recognised, coinciding with the rapid growth of advanced education in the 1990s. De Jager and Gbadamosi go on to say that, while the initial goal in Africa was to escalate access to education, the quality of the educational experience gradually became a top priority. By the 2000s, research had begun to emphasise the role of student satisfaction in boosting educational achievements and institutional reputation. African universities began to build feedback mechanisms to collect student comments on various aspects of academic and campus life, and this feedback was incorporated into policy and practice reforms

The idea of emphasizing student satisfaction is very new in Uganda; it gained popularity in the 21st century. In Uganda, higher education prioritized expanding access while attending to

fundamental issues with resources and facilities (Obwona & Ssewanyana 2007). But as the industry expanded, the quality of the student experience rose to the top. Research conducted in the latter part of the 2010s and the beginning of the 2020s (Kyoshaba et al., 2022; Wong & Chapman 2022) has shown how crucial student satisfaction is to retention rates, academic success, and institutional reputation. Since then, Ugandan educational institutions have started implementing more structured techniques, including as regular surveys and feedback systems, to assess and enhance student satisfaction (Kizza, 2020). These efforts are part of broader initiatives to align Ugandan higher education with international standards and improve the overall quality and competitiveness of its institutions

Due to the importance of student satisfaction studies have been carried out to establish its determinants. For instance, in a meta-analysis by Dhawan (2022), 162 studies revealed positive associations between various dimensions of service quality, such as administrative service, student sustenance, instruction, syllabus, and physical evidence quality, with student satisfaction. For example, they noted that the studies they reviewed focused on specific regions, indicating a contextual gap and the need for research in Uganda.Furthermore, Dhawan (2022) identified a conceptual gap, pointing out that previous studies focused solely on the relationship between service quality attributes and student satisfaction, without investigating additional aspects such as a blended learning environment. Addressing these gaps can lead to a better understanding of the elements that influence student satisfaction, as well as the discovery of novel techniques to improve educational quality in higher learning institutions. This study investigated whether service quality and a blended learning environment affect student satisfaction at Kyambogo University.

***1.1.2 Theoretical Perspective.*** The study was informed by the SERVQUAL Model established by Parasuraman et al. in 1985 (Parasuraman et al., 1985) and the COMMUNITY OF INQUIRY

THEORETICAL FRAMEWORK developed by Garrison et al. in 2000 (Garrison et al.,2000). According to the SERVQUAL model, customer satisfaction is impacted by how well service providers fulfill or exceed customer expectations across the five aspects of service quality (Parasuraman et al., 1985). These aspects, described by Parasuraman et al. (1985), include tangibility, reliability, responsiveness, assurance, and empathy. Using this approach, the study sought to determine whether the tangibility of services, reliability of services, responsiveness of staff, service assurance, and service empathy influence student satisfaction. While the SERVQUAL model provides appreciated insights into the measurements of service quality that influence student satisfaction, there is a research gap in understanding factors that extend beyond the model's scope, particularly the impact of aspects such as the blended learning environment. Blended learning, as acknowledged by academics such as Dinh et al. (2021), Hussein et al. (2021), B, Li, et al. (2022), Yu et al. (2022), and Zeqiri et al. (2021), can dramatically shape student satisfaction. To fill the aforementioned gap and explore the broader aspects that influence student satisfaction, this study combines the SERVQUAL model with the COMMUNITY OF INQUIRY (COI) THEORETICAL FRAMEWORK established by Garrison et al. in 2000 (Garrison et al 2000).

The COMMUNITY OF INQUIRY (COI) THEORETICAL FRAMEWORK is a theoretical paradigm for the field of education. It is a paradigm for assessing and implementing solutions to improve learning and teaching in online and blended settings. This concept is based on three key components: social presence, cognitive presence, and teaching presence (Garrison et al. 2000). By offering a comprehensive view of the educational experience, the CoI theoretical framework highlights the importance of these components in producing a stimulating and successful learning environment. Reinforced by a well-established theoretical foundation, the CoI

theoretical framework equips researchers with the capacity to assess diverse dimensions of the blended learning environment as suggested by Garrison et al. This adaptability renders it a valuable instrument for this study in investigating the influence of collaboration with peers, interactions with instructors, access to resources, and the application of learner-centered instructional methods on overall student satisfaction.

According to the existing literature, (Caskurlu et al., 2020; Cleveland-Innes & Wilton, 2018; Garrison et al., 2000; Lacaste et al., 2022; Martin et al., 2022), blended learning environments have the potential to effectively moderate the association between service quality and student satisfaction. To elaborate, Caskurlu et al. (2020) discovered that a blended learning environment strengthens the impact of service quality by cultivating an interactive and collaborative atmosphere, improving access to different resources, and facilitating tailored learning experiences. Garrison et al. corroborate this perspective by highlighting that blended learning environments foster heightened interaction between students and instructors, cultivating a sense of belonging among learners. They stressed the pivotal role of a sense of belonging and community in positively influencing overall student satisfaction, underscoring the importance of communal support in enhancing the educational experience.

Lacaste et al. (2022) add to this discourse by noting that collaborative learning activities within blended learning environments empower students to draw from diverse perspectives and partake in a shared learning journey. Actively engaged learners tend to derive greater satisfaction from their educational experiences, a fact further reinforced by Martin et al. (2022) who emphasize the significant contribution of resource availability in blended learning environments, coupled with effective service quality, to overall student satisfaction. Furthermore, Cleveland-Innes and Wilton assert that personalized and customized learning experiences within blended learning

environments, tailored to individual needs and preferences, augment student satisfaction by addressing specific learning needs and fostering a more fulfilling educational journey. These theories influenced the study objectives, as explained; the SERVQUAL Model, which focuses on service quality dimensions such as reliability, responsiveness, assurance, empathy, and tangibility, provided a foundational framework for understanding how various aspects of service delivery affect student satisfaction. By using this approach, I wanted to investigate how the quality of services given by Kyambogo University—ranging from administrative assistance to academic services—affects overall student satisfaction. This directly impacted my first objective: investigating the influence of service quality on student satisfaction.

The COMMUNITY OF INQUIRY (CoI) Framework emphasizes the value of social, cognitive, and teaching presence in creating a conducive atmosphere for learning. In the context of a blended learning environment, this paradigm aided in investigating how the combination of online and face-to-face learning settings influences student satisfaction. Using the CoI Framework, I sought to determine how the quality of interactions and the learning community in a blended learning environment at Kyambogo University contribute to student satisfaction. This realization was crucial in establishing my second goal: to evaluate the impact of a blended learning environment on student satisfaction.The third goal was to investigate the moderating effect of the blended learning environment on the link between service quality and student satisfaction. By merging insights from the SERVQUAL Model and the CoI Framework, I hypothesized that a high-quality blended learning environment might either boost or reduce the impact of service quality on student satisfaction. This integrated approach allowed the researcher to determine whether the strengths or weaknesses in one area (service quality) could be influenced by the conditions in another (blended learning environment), resulting in a more complete understanding of the

elements influencing student satisfaction. Furthermore, the SERVQUAL Model provided a lens through which service quality could be evaluated, whilst the COMMUNITY OF INQUIRY FRAMEWORK provided insight into the impact of the learning environment. Together, these frameworks guided the development of my research objectives to comprehensively understand and enhance student satisfaction at Kyambogo University.

***1.1.3 Conceptual Perspective.*** Student satisfaction is the short-term cognitive attitude and emotional feeling resulting from students' overall assessment of their learning experience (Hoh et al., 2018; Weerasinghe & Fernando, 2017). Wong and Chapman (2022) state that student satisfaction is the student's opinion of how well their expectations for specific learning situations are met or exceeded. In this study, student satisfaction is the extent to which students perceive and evaluate various aspects of their educational experience and encompassed dimensions such as university environment and attractiveness, instructor factors, program factors (Mokhethi et al., 2019). Additionally, the study considered the influence of administrative student services (Daniel et al., 2017). By considering these dimensions, the study aimed to assess student satisfaction based on students' perceptions and evaluations of their university environment, instructors, program quality, and the availability of administrative student services.

The independent variable, service quality, refers to customers' perceptions of the excellence or superiority of the service they receive (Seo and Um, 2022). According to Onditi and Wechuli (2017), service quality is the view of how consumers or users evaluate the service based on their expectations. Furthermore, Parasuraman et al. (1985) define service quality as the degree to which the service level provided meets the customer's expectations. In this study, service quality was defined as the tangibility of services, service reliability, staff responsiveness, service assurance, and service empathy, in accordance with the dimensions proposed by Parasuraman et

al. (1985). These categories capture several aspects of service quality to analyze their impact on student satisfaction. The moderating variable in this study is a blended learning environment, which has limited literature in terms of scholarly definitions. However, some scholars use the term blended learning interchangeably with blended learning environment. Blended learning refers to "the integration of traditional classroom instruction with technology and distance learning" (Muxtorjonovna, 2020, p.508). Blended learning is intended to provide students with a more adaptable and tailored educational experience by combining the best features of both traditional and online learning. Blended learning is also characterized as the blend of e-learning and face-to-face learning methods (Hussein et al., 2020).

Cleveland-Innes and Wilton (2018) define blended learning as "the amalgamation of face-to-face classroom instruction with online learning within a course or program" (p.6). According to Akkoyunlu and Soylu (2006), a blended learning environment is a type of distance education that combines the advantages of distance education with the efficacy of traditional education, such as face-to-face interactions. Osguthorpe and Graham (2003) define a blended learning environment as a combination of online and in-person learning activities. In this study, the blended learning environment was defined as peer collaboration, instructor interaction, access to resources, and learner-centered instruction (Garrison et al., 2000).

***1.1.4 Contextual Perspective.*** The study on Service Quality, Blended Learning Environment, and Student Satisfaction was conducted at the main campus of Kyambogo University in Uganda. Kyambogo University founded in 2003, is the country's second-largest public university, with twelve academic units that provide a varied range of undergraduate and graduate programs. The university is committed to offering a high-quality learning environment that encourages students to thrive; with a diversity of study modalities accessible to meet a variety of needs Kyambogo University has a student population of about 24,467 and

has made significant improvements to its facilities and infrastructure (Kyambogo University Newsletter January-February 2021; Kyambogo University Directorate of Planning and Development 2023). Engineering laboratories, lecture halls, the central library, and ICT infrastructure, for example, have all been improved. The university actively participates in professional associations, and encourages staff development (Kasule & Neema-Abooki, 2015).

Despite these efforts, there are indications of student dissatisfaction at Kyambogo University. For example, Nampomba (2022) investigated visually challenged students' satisfaction with Kyambogo University Library Services. This study revealed that students were dissatisfied. Kasule and Bisaso (2016) conducted a study on the competence of campus administrative staff and the quality of service provision at Kyambogo University, revealing low ratings in service quality from both teaching staff and students. This shared dissatisfaction suggests a failure by the university to meet student's expectations and needs. Student satisfaction depends on factors such as instruction quality, organisational support, amenities, and overall experience. Similarly, Mayega (2015) conducted a comprehensive study on staff and student unrest in Ugandan universities, including Kyambogo University, highlighting recurring student strikes as expressions of discontent and calls for improvements in various aspects of the educational experience. Reports published by (Daily Monitor, May 02,2023 and New Vision, 2016) also shed light on student dissatisfaction at Kyambogo University, particularly in areas such as premises, studying arrangements, student welfare, uploading of results, payment of government-sponsored student allowances and learning resources. Therefore, universities need to prioritize student satisfaction and proactively address any issues to ensure a positive educational experience and the overall success of the institution. The key question addressed in this study is: "What factors within service quality and blended learning environment significantly influence student satisfaction at Kyambogo University?"

## 1.2 Statement of the Problem

Student satisfaction is critical for creating a good and supportive learning environment, encouraging academic accomplishment, and ensuring an institution's long-term reputation and prosperity (Kyoshaba et al., 2022; Than & Khaing, 2020). Despite the efforts to promote student satisfaction, student dissatisfaction remains high in Kyambogo University despite the University's efforts to improve learning facilities such as lecture rooms, computer laboratories, internet, engineering faculty, and the central library. Kasule and Bisaso (2016), Mayega (2015), Mugizi et al. (2020), and Nampomba (2022), in their studies revealed student dissatisfaction. Specifically, Kasule and Bisaso looked at the competence of administrative staff and quality of service provision and the results revealed that both the instructors and learners rated the quality of service delivery as low, Mayega looked at causes of student strikes in Universities Kyambogo inclusive, indicating unmet expectations and an urgent need for improvement.

Additionally, reports by Daily Monitor on May 02, 2023; New Vision 2016, highlighted student discontent with various university aspects such as uploading results on time, and payment of government-sponsored student allowances among others. If this situation remains unattended, student performance will decline, there will be distraction in the university, and negative influence of staff on students (Oja, 2011). Therefore, in order to solve this problem, the study assessed factors relating to student satisfaction specifically looking at service quality and blended learning environment.

## 1.3 The Purpose of the Study

This study examined whether the association between service quality and student satisfaction was moderated by a blended learning environment at Kyambogo University.

## 1.4 Objectives of the Study

The following were the objectives of the study;

(1) To determine the influence of service quality on student satisfaction at Kyambogo University.

(2) To assess the influence of a blended learning environment on student satisfaction at Kyambogo University.

(3) To examine the moderating effect of a blended learning environment on service quality and student satisfaction at Kyambogo University.

## 1.5 Research Hypotheses

This study established whether service quality and student satisfaction was moderated by blended learning environment. This study tested the following research hypotheses:

H1: Service quality influences student satisfaction at Kyambogo University

H2: Blended learning environment has an influence on student satisfaction at Kyambogo University

H3: Blended learning environment moderates the association of service quality and student satisfaction at Kyambogo University

## 1.6 Scope of the Study

***1.6.1 Sample Scope.*** This study was carried out at Kyambogo University in Uganda, which is located around eight kilometres from Kampala City Centre along the Kampala-Jinja Road. Graduate and undergraduate students from the university's main campus took part in this research

***1.6.2 Content Scope.*** This study concentrated on different dimensions of student satisfaction namely university environment and attractiveness, instructor factor, program factor, and administrative student services (Mokhethi et al., 2019; Daniel et al., 2017). Service quality was studied as tangibility of services, reliability of services, responsiveness of staff, service assurance, and service empathy (Al-Otaibi & Ismail, 2020; Parasuraman et al., 1988). Regarding the blended learning environment, the research investigated specific practices associated with this approach, such as collaboration with peers, interaction with instructors, access to resources, and learner-centered instruction (Cleveland-Innes & Wilton 2018).

***1.6.3 Time Scope.*** The time horizon was cross-sectional. Therefore, the study covered the months of August to September 2023.

## 1.7 Significance of the Study

The study holds both theoretical and applied significance as it contributes to the existing literature on service quality, blended learning environment, and student satisfaction. It aimed to advance current theories, validate conceptual frameworks, and provide new perceptions into the aspects influencing student satisfaction in the setting of Kyambogo University. The findings enhance our understanding of how service quality and blended learning environment impact student satisfaction, informing interventions and strategies to improve the student experience.

The research benefits not only Kyambogo University but also other institutions by sharing insights, best practices, and recommendations for evidence-based practices and policy-making in higher education. Moreover, improving student satisfaction enhances the institutional reputation, leading to improved academic performance, retention rates, and positive word-of-mouth recommendations. The study has the potential to provide the groundwork for future research on student satisfaction and its impact on academic outcomes. Overall, this research has the potential to effect positive change, improve the student experience, and contribute to the growth of higher education, particularly at Kyambogo University

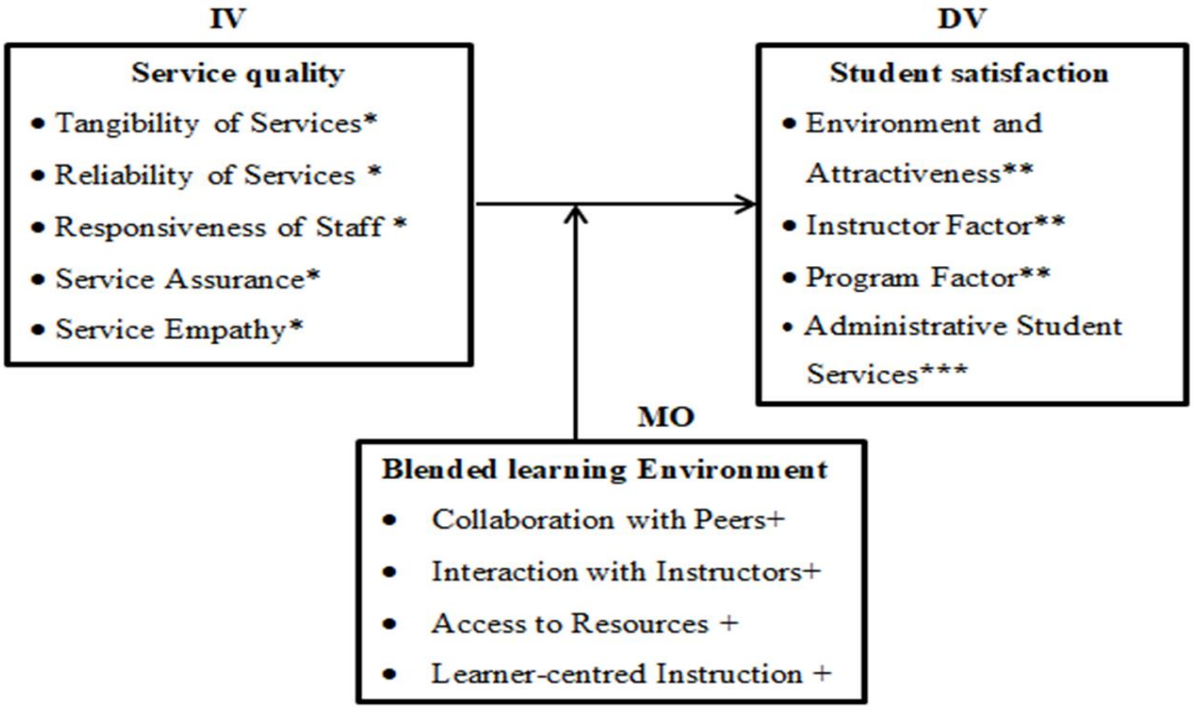
### 1.8 Conceptual Framework

This was drawn from two established theoretical frameworks: the SERVQUAL model established by Parasuraman, Zeithaml, and Berry in 1985 (Parasuraman et al.,1985) and the COMMUNITY OF INQUIRY THEORETICAL FRAMEWORK by Garrison et al. 2000 (Garrison et al., 2000). As noted in the theoretical perspective subsection, these frameworks show that service quality and blended learning environment influence student satisfaction, as illustrated in Figure 1.1

**Figure 1.1**

Conceptual framework postulating that Service Quality and Blended Learning Environment Influence Student Satisfaction

**Figure 1.1 Conceptual Framework**




*Note: Sources*

* Concept adapted from an earlier instrument (Parasuraman et al.,1988)

** Concepts adopted from an earlier instrument (Mokhethi et al., 2019)

*** Concepts adopted from an earlier instrument (Daniel et al., 2017)

+ Concept adopted from an earlier instrument (Garrison et al., 2000)

Figure 1.1 illustrates that the association of Student Satisfaction and Service Quality is moderated by blended learning environment. The framework shows that student satisfaction includes

university environment and attractiveness, instructor factor, program factor (Mokhethi et al., 2019), and administrative student services (Daniel et al., 2017). Concerning service quality, the framework shows it in terms of tangibility of services, reliability of services, responsiveness of staff, service assurance, and service empathy (Parasuraman et al., 1988). Blended learning environment was looked at in terms of collaboration with peers, interaction with instructors, access to resources, and learner-centred instruction (Garrison et al., 2000)

### 1.9 Definition of Key Terms

**Student satisfaction:** denotes the short-term cognitive attitude and emotional feelings resulting from students' overall evaluation of their educational experience

**Service quality:** The term "service quality" describes how clients assess the quality or perfection of the services they receive.

**A blended learning environment:** refers to a learning environment that utilizes both online and face-to-face learning activities

# CHAPTER TWO

# LITERATURE REVIEW

## 1.0 Introduction

The theoretical review and a review of related literature are covered in this chapter. The SERVQUAL Model and the COMMUNITY OF INQUIRY THEORETICAL FRAMEWORK were the theories examined. The relationship between the independent, moderating, and dependent variables is demonstrated by the evaluation of related literature. Existing research gaps were found throughout the literature evaluation, and recommendations for how to fill them were offered.

## 2.1 Theoretical Review

The study was steered by two theoretical frameworks: the SERVQUAL model established by Parasuraman et al. 1985 (Parasuraman et al.,1985) and THE COMMUNITY OF INQUIRY THEORETICAL FRAMEWORK by Garrison et al. 2000 (Garrison et al.,2000). The SERVQUAL model states that the extent to which service providers fulfil or surpass client expectations in each of the five service quality dimensions affects customer satisfaction. (Parasuraman et al.,1985). These dimensions, as identified by Parasuraman et al. (1988), include tangibility, reliability, responsiveness, assurance, and empathy. According to Parasuraman et al. (1988), the tangibility dimension includes buildings, tools, and personnel appearance, all of which influence consumer perceptions of the delivery. Reliability pertains to the service provider's capacity to perform the promised service precisely and consistently, instilling consumer confidence (Parasuraman et al., 1988). Responsiveness refers to service providers' eagerness to serve clients and meet their demands as quickly as possible. Assurance focuses on the knowledge, courtesy, and competence of employees, which establish trust and confidence in the service being provided. Finally, empathy

involves demonstrating a caring and individualized approach to customers, understanding their unique needs and providing personalized attention (Parasuraman et al.,1988).

According to Parasuraman et al. (1988) by effectively managing and meeting customer expectations across these dimensions, service providers can enhance customer satisfaction and build long-term relationships. The SERVQUAL model provides a comprehensive structure for organizations, including universities, to investigate the elements that influence customer satisfaction, with a particular emphasis on students. This study used the SERVQUAL model to investigate the impact of five aspects of service quality, namely tangibility, reliability, responsiveness, assurance, and empathy, on students' satisfaction levels, as described by Parasuraman et al. By adopting the SERVQUAL model, this research seeks to assess the extent to which tangibility of services, reliability of services, responsiveness of staff, service assurance, and service empathy interactions influence students' overall satisfaction.

Several researchers have used the SERVQUAL model to evaluate service quality and student satisfaction, including studies conducted by (Abu Rashed Osman et al., 2017; Hoque et al., 2023; and Sibai et al., 2021). Abu Rashed Osman et al. (2017) investigated the association between SERVQUAL aspects and student satisfaction by gathering quantitative data from 199 students at 14 private universities in Dhaka. They employed multiple regression to analyze the data. The data demonstrated that responsiveness, assurance, empathy, and student quality had a substantial influence on student satisfaction. However, due to the study's focus on only four private universities in Dhaka out of a total of 82 universities in the country, the number of participants was inadequate to generalize the findings to the larger higher-learning environment. Hoque et al. (2023) evaluated service quality and student satisfaction at private universities in Chattogram, Bangladesh, using the SERVQUAL model. They collected data using questionnaires from 299

students and used structural equation modeling to analyse data and revealed that service quality dimensions influenced student satisfaction. The study solely targeted students from private universities in Bangladesh, limiting its ability to represent the entire education sector.

Sibai et al. (2021) used the SERVQUAL model to examine service quality and student satisfaction among pharmacy students at a Saudi Arabian private medical institution. The study, which included 189 respondents, used descriptive statistics and multiple regression analysis to identify gaps in service quality elements such as responsiveness, empathy, and tangibility. These gaps suggested that the expected service did not match what was deemed satisfactory in terms of the mentioned service quality. Tangibility, responsiveness, and assurance were also found to predict satisfaction. However, this study discovered that not all aspects of service quality predicted student satisfaction. Additionally, since the research was conducted exclusively in private medical colleges, there is a need for further studies in the broader education sector. These findings highlight the presence of population and contextual gaps in the reviewed literature.

While the SERVQUAL model provides valuable insights into the components of service quality that influence student satisfaction, there is a research gap in understanding factors that go beyond the model's scope, specifically the impact of aspects such as the blended learning environment. Blended learning, as recognized by academics such as Dinh et al. (2021), Hussein et al. (2021), B. Li et al. (2022), Yu et al. (2022), and Zeqiri et al. (2021), had the potential to significantly shape students' overall satisfaction. To close the aforementioned gap and explore the broader aspects that determine satisfaction, this study integrated the SERVQUAL model with the COMMUNITY OF INQUIRY (COI) THEORETICAL FRAMEWORK invented by Garrison et al. in 2000.

The COMMUNITY OF INQUIRY (COI) THEORETICAL FRAMEWORK, serves as a theoretical model within the field of education. This framework is structured around three pivotal elements: social presence, cognitive presence, and teaching presence (Garrison et al., 2000). By offering a comprehensive perspective on the educational experience, COI FRAMEWORK highlights the profound significance of these components in shaping a stimulating and effective learning atmosphere. Reinforced by a well-established theoretical foundation, the COI FRAMEWORK equips researchers with the capacity to assess diverse dimensions of the blended learning environment as suggested by Garrison et al. This adaptability renders it a valuable instrument for this study in investigating the influence of collaboration with peers, interactions with instructors, access to resources, and the application of learner-centered instructional methods on overall student satisfaction.

As indicated by the existing literature (Caskurlu et al., 2020; Cleveland-Innes and Wilton, 2018; Garrison et al., 2000; Lacaste et al., 2022; Martin et al., 2022), blended learning environments hold the potential to effectively moderate the relationship between service quality and student satisfaction. To elaborate, Caskurlu et al. discern that a blended learning environment amplifies the magnitude of service quality through the cultivation of an interactive and collaborative setting, improved accessibility to diverse resources, and the facilitation of personalized learning experiences. Garrison et al. collaborate this perspective by highlighting that blended learning environments foster heightened interaction between students and instructors, cultivating a sense of belonging among learners. They stressed the pivotal role of a sense of belonging and community in positively influencing overall student satisfaction, underscoring the importance of communal support in enhancing the educational experience.

Lacaste et al. (2022). add to this discourse by noting that collaborative learning activities within blended learning environments empower students to draw from diverse perspectives and partake in a shared learning journey. Actively engaged learners tend to derive greater satisfaction from their educational experiences, a fact further reinforced by Martin et al. (2022) who emphasize the significant contribution of resource availability in blended learning environments, coupled with effective service quality, to overall student satisfaction. Furthermore, Cleveland-Innes and Wilton assert that personalized and customized learning experiences within blended learning environments, tailored to individual needs and preferences, augment student satisfaction by addressing specific learning needs and fostering a more fulfilling educational journey.

## 2.2 Review of Related Literature

### *2.2.1 Influence of Service Quality on Student Satisfaction*

The existing body of literature encompasses studies that focus on service quality and student satisfaction. In this portion, the researcher provides a review of relevant studies on the association between service quality and student satisfaction, along with empirical investigations that go deeper into this relationship. Al-Otaibi and Ismail (2020) reviewed 11 research on service quality and student satisfaction, concentrating on the SERVQUAL model's five service quality factors (tangibles, reliability, responsiveness, assurance, and empathy). Their findings revealed that all five characteristics had a bearing on student satisfaction, albeit to differing extents. However, the analysis also identified a research gap in the impacts of empathy on client satisfaction, indicating a need for additional empirical research in this area. The current study attempted to address the study gap by thoroughly examining all five characteristics of service quality, including empathy, as provided by the SERVQUAL model. The goal was to examine how these dimensions' influence student satisfaction at Kyambogo University.

Dhawan (2022) conducted a comprehensive meta-analysis of 162 research to identify various characteristics of service quality in educational institutions that contribute to student satisfaction. The dimensions examined included administrative service quality, assistance to student's quality, teacher quality, instructional quality, syllabus quality, and tangible evidence quality. Dhawan identified a positive correlation between all of these dimensions and student satisfaction. However, the bulk of this research was conducted in specific regions, such as South Asia, Southeast Asia, West Asia, East Asia, North America, Africa, and Europe, indicating a contextual gap that calls into question the findings' applicability to Uganda. Furthermore, Dhawan mentioned that most studies examined the relationship between service quality parameters and student satisfaction, revealing a conceptual gap in the research. This suggested that more research should be conducted into other aspects of student satisfaction in higher education institutions, such as the blended learning environment explored in the current research. Addressing this gap may lead to a better understanding of the elements impacting student satisfaction, as well as the identification of new avenues for improving educational quality in HEIs.

Abu Rashed Osman et al. (2017) investigated the association between SERVQUAL aspects (responsiveness, assurance, empathy, and student quality) and student satisfaction at private universities in Dhaka, Bangladesh. They conducted their investigation by distributing a questionnaire to 199 students and analyzed the data using multiple regression. The study found that responsiveness, assurance, empathy, and student quality had a substantial impact on student satisfaction. Assurance had the greatest influence across these categories, then empathy and student quality. However, the study identified a research gap concerning the limited scope and generalizability of the findings. Specifically, the research was narrowed to private universities in Dhaka, which may not adequately represent state-owned universities like Kyambogo University.

Additionally, the sample size used was not sufficiently large to draw comprehensive and widely applicable conclusions. To fill this research gap, the current study was carried out in a government university, incorporating a more representative sample of students to heighten the generalizability of the results.

Gul and Shah (2019) studied the influence of service quality on student satisfaction in higher learning institutes in Khyber Pakhtunkhwa, Pakistan. They investigated service quality using Cronin's SERVPERF scale. They used questionnaires to collect data from 520 students at KPK's higher learning institute. The data was analyzed by regression analysis. The findings revealed that service quality positively impacts student satisfaction. The study had a theoretical gap, that the study intends to fill by using the SERVQUAL model. Martha-Martha and Priyono (2018) explored how service quality affects student satisfaction and loyalty in higher educational institutions in Riau, Indonesia. They employed a questionnaire to collect data from 1000 learners, which they then evaluated using Structural Equation Modelling. They discovered that service quality positively influences student satisfaction.

Martha-Martha and Priyono recognized a methodological gap in their work due to the use of a limited sample size, which impacted the validity and applicability of their results. In the present study, the researcher increased the sample size to improve the findings' generalizability. Hoque et al. (2023) assessed service quality and student satisfaction in private campuses in Chattogram, Bangladesh, using the SERVQUAL model. They collected data using questionnaires from 299 students and used Structural Equation Modelling to analyse data and establish that service quality magnitudes influenced student satisfaction. The study solely targeted students from private campuses in Bangladesh, limiting its ability to represent the entire education sector.

Sibai et al. (2021) used the SERVQUAL methodology to investigate service quality and student satisfaction among pharmacy learners at an independently owned medical institution in Saudi Arabia. The study, which comprised 189 participants, discovered gaps in the areas of responsiveness, empathy, and tangibility, indicating that perceived and anticipated services diverged in terms of reported service quality. In addition, tangibility, responsiveness, and assurance were found to predict satisfaction. However, the present study revealed that not all measurements of service quality predicted student satisfaction. Additionally, since the research was conducted exclusively in private medical colleges, there is a need for further studies in the broader learning sector. These findings highlight the presence of population and contextual gaps in the reviewed literature.

Twum and Peprah (2020) investigated the impact of service quality on student satisfaction. They examined five elements of service quality namely: tangibility, reliability, responsiveness, empathy, and assurance. The researchers used a cross-sectional questionnaire to collect information from 100 students. Data was analyzed using SPSS software, and it was discovered that the school of business's service quality and aspects of assurance, tangibility, and responsiveness were extremely satisfactory. However, empathy was only moderately satisfying. This implied that service quality affected student satisfaction. Zygiaris et al. (2022) looked into the impact of service quality on customer satisfaction in the auto care industry after the pandemic. The SERVQUAL methodology was also employed in the study to look into the connection between service quality and customer satisfaction. They evaluated data from 130 surveys using structural equation modeling in Smart PLS-3, confirmatory factor analysis (CFA), and SEM. They identified the factors that influence consumer satisfaction. The study also found that empathy, assurance, reliability, responsiveness, and tangibility all enhance consumer satisfaction. Zygiaris et al.

criticized the study since it was based on data acquired from a single source and at a particular point in time, which could be prone to Common Method Bias. To fill this gap, this study was conducted in different schools and faculties at Kyambogo University.

The results of the literature reviews done by Al-Otaibi and Ismail (2020), Dhawan (2022), and the empirical studies conducted by Martha-Martha and Priyono (2018), Hoque et al. (2023), and Sibai et al. (2021) all point to the existence of a correlation between service quality and student satisfaction. These studies provided evidence that supported the notion that service quality influences student satisfaction. However, considering the gaps identified by these scholars for instance, Al-Otaibi and Ismail (2020) highlighted an empirical gap concerning limited studies on the effects of empathy on customer satisfaction calling for further investigation in this area. According to Dhawan (2022), the regional focus of the studies they reviewed raised doubts about how applicable the results are to the Ugandan context. It became critical for the present investigation to experimentally explore the influence of service quality on student satisfaction.

### *2.2.2 Influence of Blended Learning Environment on Student Satisfaction*

The literature contains a substantial number of studies examining the interaction between blended learning environments and student satisfaction. In this section, the researcher reviewed relevant review studies that explored the relationship and discussed empirical studies that provided further insights. Li et al. (2022) did a comprehensive meta-review of 106 inquiries to investigate the impact of blended instruction on student comprehension and its significant moderators. These studies were published between January 2000 and September 2021 and encompassed experimental research conducted in China and other countries.

The findings of Li et al.'s research show that blended learning instruction improves student performance. The results found that junior and senior secondary school pupils benefited the most

from blended instruction. This was notably obvious when the education period lasted one to three months and class sizes ranged between 51 and 100 learners. Furthermore, a combination of 50% online instruction and synchronous or synchronous plus asynchronous communication resulted in the best student learning outcomes. Among various instructional approaches, task-centered learning, imaginative play, inquiry-centered instruction, and individualized teaching had a greater beneficial influence on learning outcomes than others.

Furthermore, when compared to individual studies, group studies were more effective in promoting student learning. These findings added to our appreciation of how blended learning environments can advance student enactment and shed light on the most effective instructional methods. However, Li et al. (2022) criticized the studies they reviewed for primarily focusing on investigations conducted in developed countries, highlighting the need for further research in developing countries. To address this gap, the current study was carried out in Uganda, an emergent country. Furthermore, the researcher recognized a contextual gap in that the studies reviewed by Li et al. were done in the context of secondary schools, while this study was carried out in a higher learning institution, providing insights specific to that setting.

Yu et al. (2022) conducted a meta-review of 30 research that investigated the results and perceptions of students related to blended learning environments. The study they conducted demonstrated that blended learning environment outcomes outperformed traditional learning outcomes. Yu et al. did not criticize the studies they reviewed. Dinh et al. (2021) researched to determine the impact of social environment and cognitive components on student satisfaction. The researchers collected data from 345 students through a questionnaire and analyzed it using Pearson correlation. The study revealed a strong connection between social environment, cognitive variables, and student satisfaction. However, Dinh et al. acknowledged a

methodological gap in their study, as they solely relied on correlation analysis and did not employ more advanced analytical techniques such as path confirmation, regression, linearity, and the function of variables in the model. This highlights the need for further research that goes beyond simple correlation analysis and incorporates more sophisticated analytical methods such as path analysis and moderation analysis. By filling this gap, the researcher enhanced the accuracy and robustness of the results while also gaining an enhanced understanding of the underlying mechanisms and dynamics in the research field.

Hussein et al. (2021) investigated the factors impacting undergraduate student satisfaction in a blended learning environment at an independent Saudi institution. They collected survey questionnaire responses from 221 undergraduate students and analyzed the data using STRUCTURAL EQUATION MODELING WITH PARTIAL LEAST SQUARES. The findings revealed learners were mostly satisfied with the integration of face-to-face and videoconferencing classes, as well as their instructor's roles. The Student Information System (SIS), online forums, and course materials and modules all received moderate satisfaction, whereas the Learning Management System (LMS) and E-library received the least. Hussein et al. did note limitations in their research, though. First off, there is a moderation gap in their study methodology since they neglected to take into account the moderating impacts of demographic characteristics like sexual orientation, age, and technical skill ability.This highlights the need for further research that explores the moderating effects of variables, such as blended learning, on the relationships or outcomes being studied. Furthermore, the study was only done among the six Saudi campuses of the Arab Open University, restricting the findings' applicability to other university situations. This contextual gap necessitated greater generalizability or external validity of the findings. To address

these inadequacies, the current study was carried out at a university in Uganda, providing a diverse environment and increasing the generalizability of the finding.

Zeqiri et al. (2021) conducted a study to investigate the impact of blended learning on student performance and satisfaction. They collected data from 319 learners at South East European University through questionnaires and analyzed it using multiple regression. It was found that blended learning had a substantial effect on both students' performance and satisfaction. However, Zeqiri et al. acknowledged a procedural limitation in their study, in particular, the application of a small sample size. They recognized the need for future research that employs a greater sample size to improve the generalizability of the results. By addressing this limitation, researchers can obtain more robust and reliable results regarding the effect of a blended learning environment on student performance and satisfaction.

The outcomes from the literature reviews conducted and the empirical studies collectively suggest the existence of an interaction between blended learning environments and student satisfaction. These studies provided evidence that supported the notion that blended learning environment influences student satisfaction. However, considering the gaps identified by these scholars specifically, Dinh et al. (2021) acknowledged a methodological gap in their study, emphasizing the necessity for sophisticated analytical approaches such as regression and path analysis to gain a better understanding of the connection between blended learning environments and student satisfaction. Hussein et al. (2021) conducted the study just among the six Saudi branches of the Arab Open University, which limits the findings' applicability to other university scenarios. This contextual gap necessitated greater generalizability or external validity of the findings. Thus, it became crucial for this study to conduct an empirical inquiry into the impact of a blended learning environment on student satisfaction.

### *2.2.3 Student Satisfaction and Service Quality Moderated by Blended Learning Environment*

Existing literature exploring the moderating influence of a blended learning environment on service quality and student satisfaction is limited. However, ample studies have investigated service quality and student satisfaction with different variables acting as moderating factors. For instance, Caskurlu et al. (2020) conducted a systematic review to determine the strength of the association between Teaching Presence and students' overall learning and satisfaction in fully online courses. After reviewing 30 papers, the researchers discovered a relatively substantial positive association between Teaching Presence and perceived learning (r=.602). Similarly, the data revealed a positive and relatively high association between Teaching Presence and student satisfaction with online courses (r =.59). It was also revealed that the instructional length, subject area, and instructional presence scale all had an impact on the association between teaching presence and satisfaction. The researchers did not criticize their findings. However, this meta-analysis shed more light on how teaching presence influences student outcomes by exploring these relationships across settings, academic areas, and metrics, with implications for instructional design and implementation. This study seeks to fill the gap by investigating the moderating effect of blended learning environments on service quality and student satisfaction in particular.

Damaris et al. (2019) studied the association between service quality and student satisfaction, with motivation as a moderating variable. They collected data from 210 students at Mercu Buana University Jakarta and utilized Structural Equation Modelling and Linear Structural Modelling for data analysis. The results revealed that the outcomes of service quality on student satisfaction were moderated by motivation. While Damaris et al. did not critique their study, it is important to note an empirical gap in their research. Specifically, they did not explore the potential moderating effect of other variables, such as blended learning environment, on the association

between service quality and student satisfaction. A blended learning environment, with its distinctive characteristics and potential impact on student experiences, has the potential to influence the interaction of the link between service quality and student happiness. As a result, additional research, such as the current study on the moderating influence of a blended learning environment in this context, is required to improve the comprehension of what is promoting student satisfaction in educational settings.

Garrison et al. (2000) investigated a conceptual framework to identify the factors necessary for a good higher education experience in the practice of university graduate-level programs. They conducted a review of the communications and distance education literature, focusing on issues of text-based communication. The study undertook a literature review in communications and distance education, with a focus on text-based communication challenges. This review resulted in the development of a conceptual framework and model for a community of inquiry, which contained three key components of an educational transaction: cognitive presence, social presence, and instructional presence. The findings demonstrated that computer conferencing looks to have a high potential for building an educational community of inquiry while also mediating critical thought and discourse (critical inquiry). The researchers did not criticize their study. However, a conceptual gap was identified when they looked at the mediating role of computer conferencing. This study sought to fill this gap by looking at the moderating effect of a blended learning environment on service quality and student satisfaction.

Martin et al. (2022) conducted a meta-review of 19 research studies on CoI Presences (teaching, social, and cognitive) and their correlations to learning endpoints such as factual learning, perception learning, and satisfaction. They investigated the correlation between each CoI presence (teaching, social, and cognitive) and factual learning, perception learning, and

satisfaction, as indicated by the CoI survey. They broadly searched a broad search of articles in journals and PhD theses published between 2000 and 2019. The findings showed a substantial link (r =.586) between cognitive presence and satisfaction and a moderate correlation (r =.447) between social presence and satisfaction. The researchers highlighted limitations in the studies analyzed, such as the fact that, although having coded multiple variables to do moderator analysis, they were unable to do so due to the low frequencies, which is a study limitation. Furthermore, just 19 research passed the inclusion and exclusion criteria, resulting in an insufficient sample size, especially given that they analyzed nine different models independently. Thus, the present study attempted to fill a conceptual gap by exploring whether a blended learning environment moderates service quality and student satisfaction.

Padlee et al. (2016) explored how students' characteristics, such as gender, race, and state of origin, moderated the relationship between evaluated quality and satisfaction with university services in Kuala Terengganu, Malaysia. The researchers collected questionnaire data from 277 students and employed regression analysis for data analysis. The conclusions of their study revealed that students' characteristics had a significant controlling role in the relationship between perceived quality and student satisfaction. It is worth noting that Padlee et al. did not critique their study. However, it is important to acknowledge that their research was specifically conducted at a university in Malaysia, which may limit the applicability of their findings to Kyambogo University in Uganda. Richardson et al. (2017) used a meta-analysis to further comprehend the nature of the connection between social presence and student outcomes (i.e., student satisfaction and perceived learning), meticulously combining quantitative findings to identify the causes of deviation across studies. They looked at how the connection varies between studies evaluating social presence with online course features and other variables. The study found a relatively substantial favourable

average relationship between social presence and contentment (r = 0.56, k = 26). They also discovered that the severity of the relationship between social presence and satisfaction was influenced by course length, academic area, and the social presence scale. The researchers did not criticize their study. However, this study did not look at other aspects that moderate student satisfaction such as the blended learning environment which this study sought to fill.

Saleem et al. (2017) evaluated the relationship between service quality and student satisfaction in Pakistani higher education institutions, taking into account the moderating factors of university culture, pricing, and reputation. They obtained survey questionnaire data from 747 undergraduate students and used correlation analysis to analyze the results. Their study found that the presence of university culture, university reputation, and price as moderating factors had a substantial impact on student satisfaction in higher education institutions. Specifically, university culture exhibited an affirmative influence on service quality, subsidising to the achievement and maintenance of student satisfaction. However, price and university reputation had a negative impact on this relationship. It is imperative to note that Saleem et al. acknowledged a limitation in their study, which focused solely on 20 higher education institutions in Pakistan. Therefore, the generalizability of their findings to higher education institutions outside of Pakistan may be limited due to this contextual gap.

Singh and Jasial (2020) examined how perceived trust moderated the correlation between service quality and student satisfaction in advanced management education institutions in Delhi and the National Capital Region of India. The researchers collected questionnaire responses from 326 students and analyzed the data using AMOS Graphics. Their findings revealed that perceived trust had a regulating effect on the connection between service quality and student satisfaction. Singh and Jasial acknowledged the study's limitations, notably that they did not include some

service quality elements such as physical environment, communal life, organization locality, and assessment techniques, all of which may inspire student satisfaction. Additionally, the respondents of the research were designated exclusively from Delhi and the National Capital Region, suggesting a limitation in terms of the applicability of their conclusions to other geographic locations.

A study by Shameera (2021) sought to investigate the moderating effect of demographic characteristics on the link between higher education service quality and student satisfaction in higher education institutes in Sri Lanka's southern province. The data was collected by distributing questionnaires to 250 students, and the analysis was performed using ANOVA, correlation analysis, and multiple regression approaches. The study's findings demonstrated an important favourable connection between university service quality and student satisfaction. Furthermore, three demographic characteristics, namely age, occupation, and income level, were found to strengthen the link between higher learning service quality and student happiness. These findings provided useful insights into the elements that influence student satisfaction in the higher education sector. However, Shameera (2021) acknowledged certain limitations in the study. One limitation was the restricted scope, which prevented generalization across all students in the complex education sector. Furthermore, the study acknowledged the possibility of other factors that could significantly influence students' satisfaction in the advanced education sector. This limitation highlights the significance of considering additional factors, such as the blended learning environment, when examining the relationship between service quality and student satisfaction. As a result, this study evaluated whether a blended learning environment moderates the relationship between service quality and student satisfaction, presenting an additional understanding of the factors impacting student satisfaction in higher education. Given the unique

qualities and likely effect of blended learning environments on student experiences, they may alter the relationship between service quality and student satisfaction.

The limited investigation available suggests that a blended learning environment, with its unique characteristics, has the potential to influence the interaction concerning service quality and student satisfaction. However, there is a research gap specifically exploring the moderating effect of a blended learning environment on this relationship. Previous studies have examined service quality and student satisfaction while considering other variables as potential moderators, providing valuable insights in different contexts. To address this gap and build upon previous findings, it is crucial to investigate whether a blended learning environment acts as a moderator in the affiliation between service quality and student satisfaction. This study seeks to address that gap and contribute to the knowledge by investigating the influence of blended learning environments in increasing student satisfaction in terms of service quality. By performing this current study, the researcher hopes to fill a knowledge gap and obtain an improved comprehension of how the blended learning environment affects the association of service quality and its consequent impact on student satisfaction. The findings of this study may add to the current literature by throwing light on the impact of blended learning environments in improving student satisfaction in the context of service quality.

# CHAPTER THREE

# METHODOLOGY

## 3.0 Introduction

This chapter provides a summary of the study's methodology. The research method, research design, population, sample size, sampling technique, data collection method, data collection instrument, research procedure, quality control, data management, and ethical consideration

## 3.1 Research Approach

This research employed a quantitative approach, which involved measuring variables and analysing those variables using statistical procedures. The utilization of a quantitative approach was based on its emphasis on objectivity, generalizability, precise measurement of variables, and statistical data analysis (Mohajan, 2020). The usage of quantitative approaches permitted the researcher to obtain numerical data that was statistically analyzed. This numerical data facilitated the identification of precise relationships between variables. The quantitative study led to statistical analysis techniques namely path and moderation analyses (Creswell & Creswell, 2018), enabling examination of relationships, hypothesis testing, and concluding the data.

## 3.2 Research Design

The correlational study methodology the investigator used to determine whether two or more variables of interest have a relationship between them (Asenahabi, 2019) was adopted by this study. The correlational design was used because the primary focus of the study was to assess the association between service quality, blended learning environment, and student satisfaction. The study assessed how service quality moderated by a blended learning environment influenced student satisfaction in a university setting.

### 3.3 Population

The study's target population consisted of 9,402 second-and third-year students from the School of Management and Entrepreneurship, which represented applied sciences and professional studies, and the Faculty of Arts and Humanities, which represented the humanities and social sciences on Kyambogo University's main campus. This selection was based on the idea that these students had spent enough time at the University, had enough time to adjust to the university atmosphere, utilizing available resources, and were acquainted with the blended learning environment of the university, especially since COVID-19 when blended learning became prominent. The student enrolment numbers for each academic unit as of August 2023 were as follows: Faculty of Arts and Humanities (3871) and School of Management and Entrepreneurship (5531) (Kyambogo University Directorate of Planning and Development 2023).

### 3.4 Sample Size

According to Krejcie and Morgan's (1970) Table sample size determination for each stratum, a minimum sample size of 703 students was required. The sample size of 346 students from the Faculty of Arts and Humanities and 357 students from the School of Management and Entrepreneurship.

### 3.5 Sampling Techniques

Simple random sampling was the method utilized to select a sample from the population, where I randomly selected a subset of participants from the population using a sampling frame provided by Excel. All second and third-year students in the academic units under study had their class lists entered. Every person in the population was equally likely to be chosen.

### 3.6 Data Collection Method

The study collected data from a substantial proportion of respondents in a relatively brief period using a survey method with a self-administered questionnaire. Surveys are particularly advantageous for gathering quantitative data as they enable researchers to quantify participants' responses, providing numerical insights for analysis and interpretation.

### 3.7 Data Collection Instrument

A self-administered questionnaire with tools previously utilized by other scholars was used to collect data. The self-administered questionnaire constituted four sections, sections A, B, C, and D. Section A had items on background variables namely: gender, age group, length of years at the university, and level of study. Section B is the dependent variable (student satisfaction) with four constructs: university environment and attractiveness, instructor factor, program factor, and administrative student services. Section C covers the first independent variable (service quality) with five constructs: tangibility of services, reliability of services, responsiveness of staff, service assurance, and service empathy (Parasuraman et al., 1988). Section D constitutes the second independent variable (blended learning environment) with four constructs: collaboration with peers, interaction with the instructor, access to resources, and learner-centered instruction. A five-point Likert scale was used to rate each item in sections B, C, and D. The lowest score was 1 for the worst-case scenario and the highest score was 5, which represented the best-case scenario.

### 3.8 Measurement of Variables

The study variables included service quality, blended learning environment and student satisfaction. Table 3.1 shows the corresponding measurements.

*Table 3.1*

**Variables in the Instrument, their Sources, and Reliability**

| Variables | Measures | No items | Source of the instrument, number of items, and their reliability(α) |
|---|---|---|---|
| Student satisfaction | University environment and attractiveness | 8 | Mokhethi et al. (2019) (9 items; α=0.797) |
| | Instructor factor | 6 | Mokhethi et al. (2019) (6 items; α=0.764) |
| | Program factor | 6 | Mokhethi et al. (2019) (6 items;α=0.749) |
| | Administrative student services | 15 | Daniel et al. (2017) (17 items α =Not applicable ) |
| Service Quality | Service Tangibility | 4 | Parasuraman et al. (1988) (4 items;α=.72) |
| | | 5 | Hoque et al.(2023) (5 items; α=0.611) |
| | Reliability of services | 5 | Parasuraman et al.(1988) (5items; α=.83) |
| | | 4 | Hoque et al. (2023) (4 items; α=0.681) |
| | Responsiveness of staff | 4 | Parasuraman et al. (1988) (4 items;α=.82) |
| | | 5 | Hoque et al. (2023) (6 items; α=0.804) |
| | Service Assurance | 2 | Parasuraman et al. (1988) (3 items; |
| | | 2 | α=.81) |
| | | | Hoque et al. (2023) (3items; α=0.630) |
| | Service Empathy | 3 | Parasuraman et al.(1988) (5 items; α=.86) |
| | | 3 | Hoque et al. (2023) (3 items; α=0.782) |
| Blended learning Environment | Collaboration with peers | 4 | Mugizi and Rwothumio (2022) (10 items; α=0.819) |
| | Interaction with instructors | 4 | Dinh et al. (2021) (10 items; α=0.892) |
| | Access to Resources | 5 | Singh and Jasial (2020) (7 items; α=0.897) |
| | Learner-centred Instruction | 5 | Matheos et al. (2005) ( 5 items α =Not applicable ) |

### 3.9 Quality of Data Collection Instrument

In collaboration with the supervisors, the researcher ensured the face validity of the instrument (see Appendix A). This involved reviewing each item in the instrument to ensure its relevance, clarity, and reasonableness. Additionally, the researcher established the validity and reliability of the instrument by employing established tools used by previous scholars, as outlined in Table 3.1. After completing the data collection phase, the researcher conducted structural equation modeling (SEM) to confirm the validity and reliability of the instrument.

### 3.10 Research Procedure

This section outlines the entire research methodology utilized in a study investigating the relationship between service quality and student satisfaction at Kyambogo University, which was moderated by a blended learning environment. It comprises information about the participants, the materials and tools used, the step-by-step technique, data collecting and analysis methodologies, and ethical issues, the study included 702 undergraduate students from Kyambogo University, aged 18 to 40 and above. To produce a representative sample from both academic divisions—the School of Management and Entrepreneurship and the Faculty of Arts and Humanities—participants were selected through a straightforward random selection process. The sample size determination table by Krejcie and Morgan (1970) was used to establish the sample size. The data was collected using a standardized questionnaire divided into four components. Demographic information includes age, gender, faculty, and year of study. Service Quality: The SERVQUAL instrument, which includes 37 items, measures five dimensions of service quality: tangibility, reliability, responsiveness, assurance, and empathy. Student Satisfaction: A 36-item scale derived from prior studies was used to measure overall student satisfaction. Blended Learning Environment: An 18-item scale that assesses the effectiveness and integration of blended learning

components. The instruments were validated to ensure clarity, reliability, and validity. Cronbach's alpha values for each section were above 0.70, indicating good internal consistency.

Participants were recruited through announcements in classrooms, university residential halls and hostels. The procedure to collect the data took four weeks. Students were free to stop participating at any time without facing any repercussions. SPSS version 20 was used to analyze the quantitative data. The following measures were taken:

Data cleansing: Checked for missing values and outliers. Missing data were handled by mean imputation. Descriptive statistics were calculated to characterise the sample's demographic characteristics as well as the primary factors. Inferential statistics: The relationship between service quality and student satisfaction was examined using partial least squares, a type of structural equation modeling. Moderation Analysis: Using interaction coefficients, the researcher looked into the moderating role of the blended learning environment on the relationship between service quality and student satisfaction. For consistency, Cronbach's alpha was calculated for every scale. The Directorate of Research and Graduate Training of Kyambogo University granted ethical approval. The purpose of the study, the participants' rights, and the confidentiality of their answers were explained to them. All data were safely maintained, with access restricted to the research team.

### 3.11 Quality Control

This entailed evaluating the instrument's validity and reliability. The validity and reliability of the data were established in this investigation. The results are shown in Tables 3.2 and 3.3 below.

**3.11.1 Validity.** The study established the content validity of the instruments by ensuring that indicator variables conformed to the conceptual framework Figure 1.1. Heterotrait-Monotrait (HTMT) Discriminant validity and factor analysis utilizing structural equation modeling were two

examples of validity assessments. The degree to which the constructs empirically differ from one another is called discriminant validity. As a result, evaluation of discriminant validity is essential in any study using latent variables and several items and indicators to represent the constructs (Hamid et al., 2017). In this current study, discriminant validity was tested to make sure that the latent constructs used to measure the variables under study were distinct from one another and were not assessing the same thing. Since the HTMT ratio of correlation aided in the evaluation of reflectively measured constructs, it was computed, comparing discriminant validity with different measures of the same construct in the model. This made it easier for the researcher to determine whether a construct's indicators truly created the construct. Table 3.2 presents the findings.

***Table 3.2***

***AVE and Heterotrait Monotrait (HTMT) Discriminant Validity Assessment***

| Measures | AVE | SS | ASS | PF | UEA | |
|---|---|---|---|---|---|---|
| SS | | | | | | |
| ASS | 0.652 | 0.513 | | | | |
| PF | 0.808 | 0.831 | 0.843 | | | |
| UEA | 0.682 | 0.607 | 0.691 | 0.878 | | |
| Measures | AVE | SQ | SE | RS | ROS | ST |
| SQ | | | | | | |
| SE | 0.582 | 0.713 | | | | |
| RS | 0.508 | 0.756 | 0.810 | | | |
| ROS | 0.518 | 0.639 | 0.682 | 0.679 | | |
| ST | 0.512 | 0.664 | 0.813 | 0.763 | 0.678 | |
| Measures | AVE | BE | LC | PC | | |
| BE | 0.679 | | | | | |
| LC | 0.839 | 0.886 | | | | |
| PC | 0.679 | 0.893 | 0.720 | | | |

*Note*: Program factors are denoted by PF, student satisfaction by SS, administrative student services by ASS, and university environment and attractiveness by UEA. SQ stands for service quality. SE stands for Service Empathy. Services Reliability, or RS ROS stands for Staff

Responsiveness. ST stands for Service Tangibility. LC stands for learner-centered instruction, BE for blended learning environment, and PE stands for peer collaboration.

Since no value was more than 0.90, the test results in Table 3.2 show that the correlation condition's HTMT ratio was satisfied (Henseler et al., 2015). The measurements were therefore discriminatively valid. Additionally, Average Variance Extracted (AVE), which assesses convergent validity by proving that changes in items were explained by the constructs, was used to establish convergent validity, which is defined as the examination of the amount of correlation of numerous indicators of the same construct. Convergent validity was confirmed in this investigation by AVE values that were higher above the acceptable cutoff of 0.5 (Alarcon et al., 2015). In chapter four, factor analysis was performed on indicators of several constructs assessing the research variables using structural equation modeling to further confirm that the constructs were independent. All those values above 0.50 were considered valid measures of the constructs (Hair Jr et al., 2020). In chapter four, the findings are displayed in the relevant models.

**3.11.2 Reliability.** Reliability describes the degree to which measures of the construct are consistent and dependable, that is, how consistently and dependably they measure what they are supposed to be measuring (Ahmed & Ishtiaq, 2021). Measurements are considered reliable if the same results can be obtained consistently by applying the same method under similar conditions. In this study, composite reliability (CR) and Cronbach's Alpha (α) were used to determine the internal consistency of the measurement tool. Composite reliability (Construct reliability) refers to the measure of internal consistency in scale items. Accordingly, a construct's reliability needs to be at least 0.70 (Dash & Paul, 2021). However, a statistical instrument called Cronbach's Alpha shows that scales and tests created or used for research projects are appropriate for their intended use. Because Cronbach's Alpha lowers reliability scores by presuming that all indicator features in

the population are the same, Composite Reliability (CR) was chosen for measuring reliability. Cronbach's Alpha tends to underestimate internal consistency reliability and is susceptible to the scale's item count.

**Table 3.3**

***Reliability for Study Constructs***

| **Student Satisfaction** | **A** | **CR** | **VIF** |
|---|---|---|---|
| Administrative Student Services | 0.733 | 0.849 | 1.309 |
| Programme Factor | 0.762 | 0.894 | 1.447 |
| University Environment and Attractiveness | 0.767 | 0.865 | 1.560 |
| **Service Quality** | | | |
| Empathy | 0.765 | 0.847 | 1.732 |
| Reliability | 0.839 | 0.878 | 2.354 |
| Responsiveness | 0.768 | 0.843 | 2.065 |
| Tangibility | 0.811 | 0.863 | 2.070 |
| **Blended Learning Environment** | | | |
| Learner Centred | 0.762 | 0.864 | 1.469 |
| Peer Collaboration | 0.808 | 0.912 | 1.469 |

Cronbach's Alpha and Composite Reliability scores for the study constructs are displayed in Table 3.3. According to the findings, all reliability values for the various constructs were higher than 0.7, indicating that the items used to measure the constructs had a sufficient degree of reliability (Lai, 2021).

### 3. 12 Data Management

The researcher employed quantitative data management procedures, encompassing two key activities: data processing and data analysis. The collected data from the self-administered questionnaire was processed by coding and entering them into a computer. Subsequently, they

were summarized using frequency tables and edited to eliminate any errors. IBM SPSS version 20 Statistics software was utilized for these tasks. Both descriptive and inferential analysis were performed on the data. The computation of frequencies, percentages, medians, and means was required for descriptive analysis. This part of the analysis was made easier by IBM SPSS version 20 Statistics. The analysis of inferential data was done using Smart PLS. Path models that describe the relationships between variables are determined by smart PLS (Hair Jr et al., 2017). Structural Equation Modeling (SEM) was used to test for interrelationship amid study variables. The researcher tested three hypotheses for inferential data analysis: Service quality influences student satisfaction, blended learning environment influences student satisfaction, and blended learning environment moderates the connection between service quality and student satisfaction. Specifically, path analysis was used to test the first two hypotheses, while moderation analysis was employed for the third hypothesis.

### 3.13 Ethical Considerations

Participants in the study were provided with extensive details regarding the research, encompassing its objectives, methodologies, possible hazards, and advantages. confidentiality measures, and their rights as research subjects. Their informed consent was obtained voluntarily, ensuring their understanding and willingness to participate. To safeguard privacy and confidentiality, data was collected and stored securely with limited access. Anonymity was maintained during data analysis and reporting by excluding personally identifiable information. The researcher adhered to data protection regulations, minimized harm or discomfort, and prioritized participants' well-being. Participation was voluntary, with the right to withdraw without consequences. The study was conducted with honesty, integrity, and transparency, ensuring accurate data collection, analysis, and reporting. A professional and respectful relationship was

maintained with participants. By incorporating these ethical considerations and safeguards, this study on service quality, blended learning environment, and student satisfaction upheld participants' rights and well-being.

# CHAPTER FOUR

## DATA PRESENTATION, ANALYSIS AND INTERPRETATION

### 4.0 Introduction

The study results are presented, analyzed, and interpreted in this chapter. The results include both descriptive and inferential statistics.

### 4.1 Background Variable

Data on the respondents' background variables gender, age, education level, and current academic year are shown in this section. Table 4.1 presents the findings.

***Table 4.1***

***Background Variable***

| Item | Categories | Frequency | Per cent |
|---|---|---|---|
| Sex | Male | 374 | 60.1 |
| | Female | 245 | 39.9 |
| | Total | 619 | 100.0 |
| Age Group | Up to 30 | 489 | 79.0 |
| | 30 but below 40 | 107 | 17.3 |
| | 40 and above | 23 | 3.7 |
| | Total | 619 | 100.0 |
| Education level To be attained | Post Graduate Diploma | 140 | 22.7 |
| | Bachelor's | 479 | 77.3 |
| | Total | 619 | 100.0 |
| Current Academic year | Second year | 285 | 46.1 |
| | Third year | 334 | 53.9 |
| | Total | 619 | 100.0 |

Table 4.1 shows that (60.1%) of the students were male, while (39.9%) of them were female. The data indicate that the majority of students were male. Nevertheless, responses of student's male and female were captured though the population of female students was with a difference of

(20.2%). The data on age of students showed that the larger percentage (79.0%) were up to 30 years, followed by 30 but below 40 years (17.3%) and 40 above years (3.7%). The results suggest that students of different categories of age participated in the study. Therefore, the results were representative of students of different ages. The results on education level revealed that the majority (77.3%) were bachelor's students followed by (22.7%) were postgraduate diploma students. The data showed that students were evenly distributed. The results, therefore, show that students of different education levels took part in the study. Thus, the results were representative of students of different education levels.

## 4.2 Descriptive Results on Student Satisfaction

Student satisfaction was looked at in terms of university environment and attractiveness, instructor factor, programme factor, and administrative services.

***4.2.1 University Environment and Attractiveness.*** The constructs of university environment and attractiveness was studied using eight items. Table 4.2 presents descriptive results on the construct.

*Table 4.2*

***Descriptive Results for University Environment and Attractiveness***

| University environment and attractiveness | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| I am satisfied with the physical appearance of the university campus | 268 (43.3%) | 118 (19.1%) | 67 (10.8%) | 103 (16.6%) | 63 (10.2%) | 2.31 |
| It is easy to gain access to university resources through the library | 106 (17.1%) | 204 (33.0%) | 140 (22.6%) | 111 (17.9%) | 58 (9.4%) | 2.75 |
| The lecture rooms and computer laboratories are accessible and user friendly | 144 (233%) | 120 (19.4%) | 167 (27.0%) | 122 (19.7%) | 66 (10.7%) | 2.78 |
| I am likely to recommend the university to prospective students | 117 (18.9%) | 123 (19.9%) | 164 (26.5%) | 161 (26.0%) | 54 (8.7%) | 2.69 |
| The eating places are hygienic and the students are given quality food | 128 (20.7%) | 135 (21.8%) | 166 (26.8%) | 123 (19.9%) | 67 (10.8%) | 2.86 |
| I am likely to continue pursuing my studies at the university | 88 (14.2%) | 117 (18.9%) | 173 (27.9%) | 163 (26.3%) | 78 (13.6%) | 3.04 |
| I am satisfied with the rooms at the university in terms of their comfort, technology, resources, and overall suitability for effective learning | 129 (20.8%) | 133 (21.5%) | 138 (22.3%) | 155 (25.0%) | 64 (10.4%) | 2.83 |
| I receive adequate administrative support and guidance | 176 (28.4%) | 125 (20.2%) | 131 (21.2%) | 116 (18.7%) | 71 (11.5%) | 2.65 |

Table 4.2 shows the results for whether students were pleased with the physical appearance of the university campus where (26.8%) of students concurred while (62.4%) differed and (10.8%) were not certain. The mean (2.31) implies that which implies students are not satisfied with the university physical appearance of the university campus. As to whether it was easy to gain access to university resources through the library (27.3%) of students concurred while (50.1%) differed and (22.6%) were not sure. The mean (2.75) implied that students were not sure whether it was easy to access university resources through the library. Regarding lecture rooms and computer laboratories being accessible and user friendly (30.4%) of students concurred while (42.6%) differed, and (27.0%) were undecided. The mean (2.78) implied that students were not sure whether lecture rooms and lecture rooms were accessible and user-friendly.

Regarding whether students could recommend the university to prospective students (38.8%) of students concurred while (34.7%) differed and (26.5%) were not sure. The mean (2.69) implied that students were not sure whether to recommend the university to prospective students. Regarding eating places being hygienic and the quality of food offered (30.7%) of students concurred while (42.5%) differed and (26.8%) were not certain. The mean (2.86) implied that students were not sure whether the eating places were hygienic students were given quality food. With continuing to pursue studies at the university (39.0%) of students concurred while (33.1%) differed and (27.9%) were not sure. The mean (3.04) implied that students were not sure on whether to continue pursuing their studies at the university. For whether students were satisfied with the rooms at the university (35.4%) of students concurred while (42.3%) differed and (22.3%) were not sure. The mean (2.83) showed that students were not sure whether they were satisfied with the rooms at the university in terms of comfort, technology, resources and overall suitability for effective learning. Regarding whether students received adequate administrative support and

guidance (30.2%) of students concurred while (48.6%) differed and (21.2%) were not certain. The mean (2.65) implied students were not sure whether they got adequate administrative support and guidance. To find out how students rated the university environment and attractiveness, the average index was calculated for eight items measuring constructs. The results are summarized in Table 4.3.

***Table 4.3***

***Summary Results for University Environment and Attractiveness***

| | **Descriptive** | | **Statistic** | **Std. Error** |
|---|---|---|---|---|
| University Environment and Attractiveness | Mean | | 2.74 | .037 |
| | 95% Confidence Interval for Mean | Lower Bound | 2.67 | |
| | | Upper Bound | 2.81 | |
| | 5% Trimmed Mean | | 2.73 | |
| | Median | | 2.75 | |
| | Variance | | 0.85 | |
| | Std. Deviation | | 0.92 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.25 | |
| | Skewness | | 0.22 | 0.10 |
| | Kurtosis | | -0.47 | 0.20 |

Table 4.3 shows mean =2.74 and the median = 2.75 with a positive skew (0.22) which suggested that the results were normally distributed. The average mean also meant that students rated university environment and attractiveness to be moderate. Standard deviation (0.92) indicated consistence of the responses. The normal distribution of results is displayed by the normal curve in Figure 4.1.

*Figure 4.1*

***Histogram for University Environment and Attractiveness***

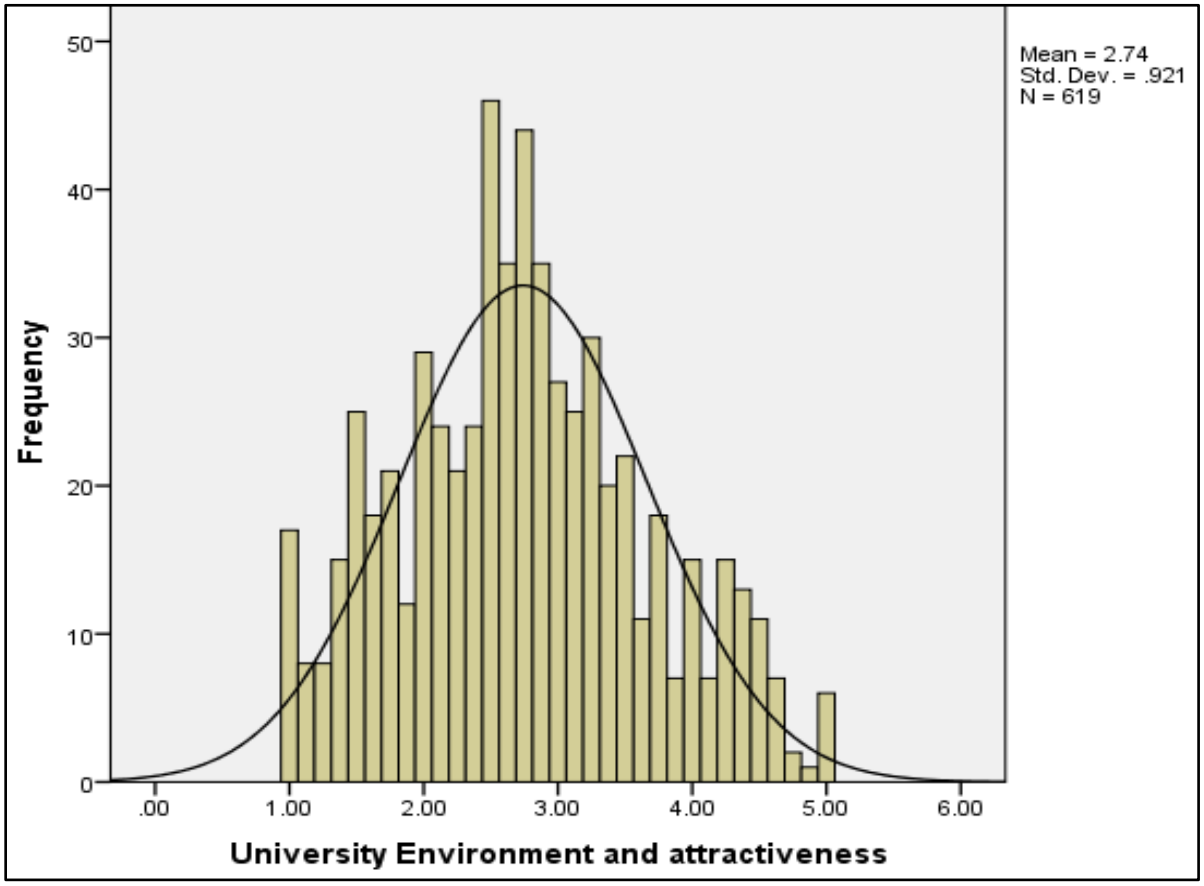



Figure 4.1 shows that the students rated university environment and attractiveness to be moderate mean =2.74. The standard deviation (0.92) meant the responses were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.2.2 Instructor Factor.*** The construct instructor factor was studies using six items. In table 4.4 are descriptive results on the same.

**Table 4.4**

***Descriptive Results for Instructor Factor***

| Instructor factor | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| The lecturers are friendly in their interactions with students inside and outside the lecture rooms | 173 (27.9%) | 138 (22.3%) | 129 (20.8%) | 118 (19.1%) | 61 (9.9%) | 2.61 |
| The lecturers are knowledgeable and have expertise in the subject matter they teach | 74 (12.0%) | 157 (25.3%) | 174 (28.1%) | 153 (24.7%) | 61 (9.9%) | 2.95 |
| The lecturers are accessible and approachable outside class hours for discussion or clarification on course content | 131 (21.1%) | 118 (19.1%) | 172 (27.8%) | 127 (20.5%) | 71 (11.5%) | 2.82 |
| The lecturers contribute to my overall satisfaction with the educational experience at the university | 88 (14.2%) | 133 (21.5%) | 174 (28.1%) | 165 26.7%) | 59 (9.5%) | 2.96 |
| The lecturers explain course content material and concepts well, ensuring clarity and understanding among the students | 100 (16.2%) | 114 (18.4%) | 171 (27.6%) | 168 (27.1%) | 66 (10.7%) | 2.98 |
| The marking system employed by the lecturers is fair and unbiased in evaluating student performance | 103 (16.6%) | 132 (21.3%) | 159 (25.7%) | 156 (25.2%) | 69 (11.2%) | 2.93 |

The result in Table 4.4 on whether lecturers are friendly in their interactions with students inside the lecture room indicated that majority (50.2%) of students differed while (29%) concurred and (20.8%) remained undecided. The mean of (2.61) implied that students were not sure whether lecturers were friendly in their interactions inside the lecture room. On whether the lecturers were

knowledgeable and had expertise in the subject matter they taught (37.4%) of students differed while (34.6%) concurred and (28.1%) were uncertain. The mean (2.95) implied that students were not sure whether lecturers were fairly knowledgeable and had expertise in the subject matter they taught. As to whether lecturers are accessible and approachable outside class hours for discussion or clarification on course content (40.2%) of students differed while (32%) concurred and (27.8%) were not sure. The mean (2.82) implied that students were not sure whether the lecturers were fairly accessible and approachable outside class hours for discussion and clarification on course content.

Concerning the extent to which instructors influence students' general contentment with their university education (36.2%) of students concurred while (35.7%) differed and (28.1%) were undecided. The mean (2.98) implied students were not sure whether instructors influence students' general contentment with their university education. On whether lecturers explain course material and concepts well, ensuring clarity and understanding among students (37.8%) of students concurred while (34.6%) differed and (27.6%) were not sure. The mean (2.98) implied that students were not sure whether lecturers explained course material and concepts well ensuring clarity and understanding among students. As to whether the marking system employed by lecturers is fair and unbiased in evaluating student performance (37.9%) of students differed while (36.4%) concurred and (25.7%) were not sure. The mean (2.93) implied that students were not sure whether the marking system was fair and unbiased in evaluating student performance. To find out how students rated the instructor factor, for each of the six items used to measure the construct, an average index was determined. Table 4.5 presents the summary results.

**Table 4.5**

***Summary Results for Instructor Factor***

| | Descriptive | | Statistic | Std. Error |
|---|---|---|---|---|
| Instructor | Mean | | 2.87 | .037 |
| Factor | 95% Confidence | Lower Bound | 2.80 | |
| | Interval for Mean | Upper Bound | 2.95 | |
| | 5% Trimmed Mean | | 2.86 | |
| | Median | | 2.83 | |
| | Variance | | 0.83 | |
| | Std. Deviation | | 0.91 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.33 | |
| | Skewness | | 0.19 | 0.10 |
| | Kurtosis | | -0.51 | 0.20 |

Table 4.5 shows mean= 2.87 with positive skew (skew=0.19) and low standard deviation =0.91 suggesting that the results were consistent. The mean (2.87) suggests that students rated instructor factor to be moderate. The normal distribution of the results is displayed by the normal curve in Figure 4.2.

***Figure 4.2***

***Histogram for Instructor Factor***

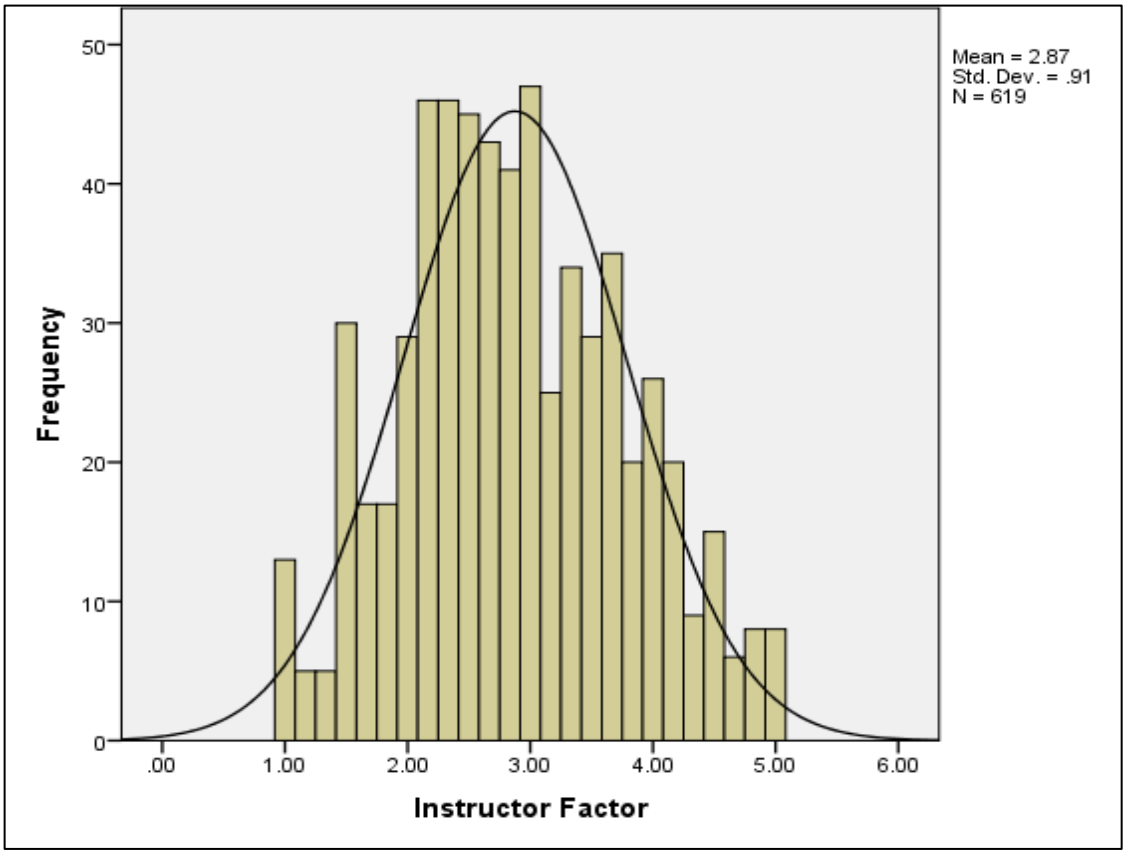



Figure 4.2 shows that the students rated the instructor factor to be moderate, mean= 2.87. The standard deviation (0.91) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.2.3 Program Factor***. The construct of program factor was studied using seven items. The construct's descriptive results are shown in Table 4.6.

*Table 4.6*

***Descriptive Results for Program Factor***

| Program Factor | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| I find the program of study I enrolled in interesting and engaging | 176 (28.4%) | 116 (18.7%) | 111 (17.9%) | 141 (22.9%) | 75 (12.1%) | 2.71 |
| The program of study provides me with intellectual stimulation, encourages critical thinking, and expands my knowledge in the field | 55 (8.9%) | 181 (29.2%) | 165 (26.7%) | 136 (22.1%) | 82 (13.2%) | 3.01 |
| The amount of study required for the program of study and the grades or academic outcomes I have achieved are sufficient | 96 (15.5%) | 136 (22.0%) | 157 (25.3%) | 164 (26.5%) | 66 (10.7%) | 2.95 |
| The program of study contributes to my academic development, such as enhancing my skills, knowledge, and comprehension of the topic. | 161 (26.0%) | 96 (15.5%) | 121 (19.7%) | 173 (27.9%) | 64 (10.9%) | 2.82 |
| The program of study offers a sufficient workload required for my course | 98 (15.8%) | 183 (29.5%) | 151 (24.5%) | 137 (22.1%) | 50 (8.1%) | 2.77 |
| The sequence of topics presented in my study program flow logically allowing a smooth progression of learning and understanding | 110 (17.7%) | 149 (24.1%) | 164 (26.5%) | 139 (22.5%) | 57 (9.2%) | 2.81 |
| The program of study is preparing me for real-world applications or future academic pursuits in the study discipline | 117 (18.9%) | 116 (18.7%) | 151 (24.4%) | 162 (26.2%) | 73 (11.8%) | 2.93 |

Table 4.6 presents the cumulative percentage of students who thought the study program to be engaging and interesting.

Table 4.6 presents the cumulative percentage of students who thought the study program to be engaging and interesting (47.1%) of students differed while (35%) concurred and (17.9%) were not sure. The mean (2.71) implied students were not sure whether the program of study was interesting and engaging. Regarding whether the program of study provides intellectual stimulation, encouraging critical thinking and expansion of knowledge in the field of study (38.1%) of students differed while (35.2%) concurred and (26.7%) were not sure. The mean (3.01) implied students were not sure whether the program of study provided intellectual stimulation, encouraged critical thinking and expanded their knowledge in their fields of study.

As to whether the amount of study required for the program of study and the grades achieved is sufficient (37.5%) of students differed while (37.2%) concurred and (25.3%) were not sure. The mean (2.95) implied students were not sure whether the amount of study required for the program of study and grades achieved was sufficient. Regarding whether the program of study contributed to students' academic development, cumulatively (41.5%) of students differed while (38.8%) concurred and (19.7%) were not sure. The mean (2.82) implied students were not sure whether the program of study contributed to their academic development such as enhancing their skills, knowledge, and understanding the subject matter. As to whether the program of study offered sufficient workload in terms of coursework, assignments and projects required for the course (45.3%) of students differed while (30.2%) concurred and (24.5%) not sure. The mean (2.77) implied students were not sure whether the program of study offered sufficient workload.

On whether the sequence of topics presented in the student's study program flowed logically allowing a smooth progression of learning and understanding (41.8%) of students differed while (31.7%) concurred and (26.5%) remained undecided. The mean (2.81) implied students were not sure whether the sequence of topics in their study programs flowed logically.

Regarding whether the program of study was preparing the students for real-world applications or future academic pursuits in the study disciplines, cumulatively (38%) of students concurred while (37.6%) differed and (24.4%) were not sure. The mean (2.93) implied students were not sure whether the program of study prepared them for real-world applications or future academic pursuits. To find out how students rated the program factor, for the seven items that measured the construct, an average index was computed. Table 4.7 presents the summary results.

***Table 4.7***

***Summary Results for Program Factor***

| | **Descriptive** | | **Statistics** | **Std. Error** |
|---|---|---|---|---|
| Program | Mean | | 2.86 | .038 |
| Factor | 95%Confidence | Lower Bound | 2.79 | |
| | Interval for Mean | Upper Bound | 2.93 | |
| | 5% Trimmed Mean | | 2.85 | |
| | Median | | 2.71 | |
| | Variance | | 0.87 | |
| | Std. Deviation | | 0.93 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.43 | |
| | Skewness | | 0.28 | 0.10 |
| | Kurtosis | | -0.86 | 0.20 |

Table 4.7 shows mean= 2.86 with a positive skew (0.28) which suggested that the results were normally distributed. The mean also meant that students rated program factor to be moderate. The standard deviation (0.93) also indicated consistence in distribution of responses. The normal distribution of results is also displayed by the normal curve in Figure 4.3.

*Figure 2.3*

***Histogram for Program Factor***

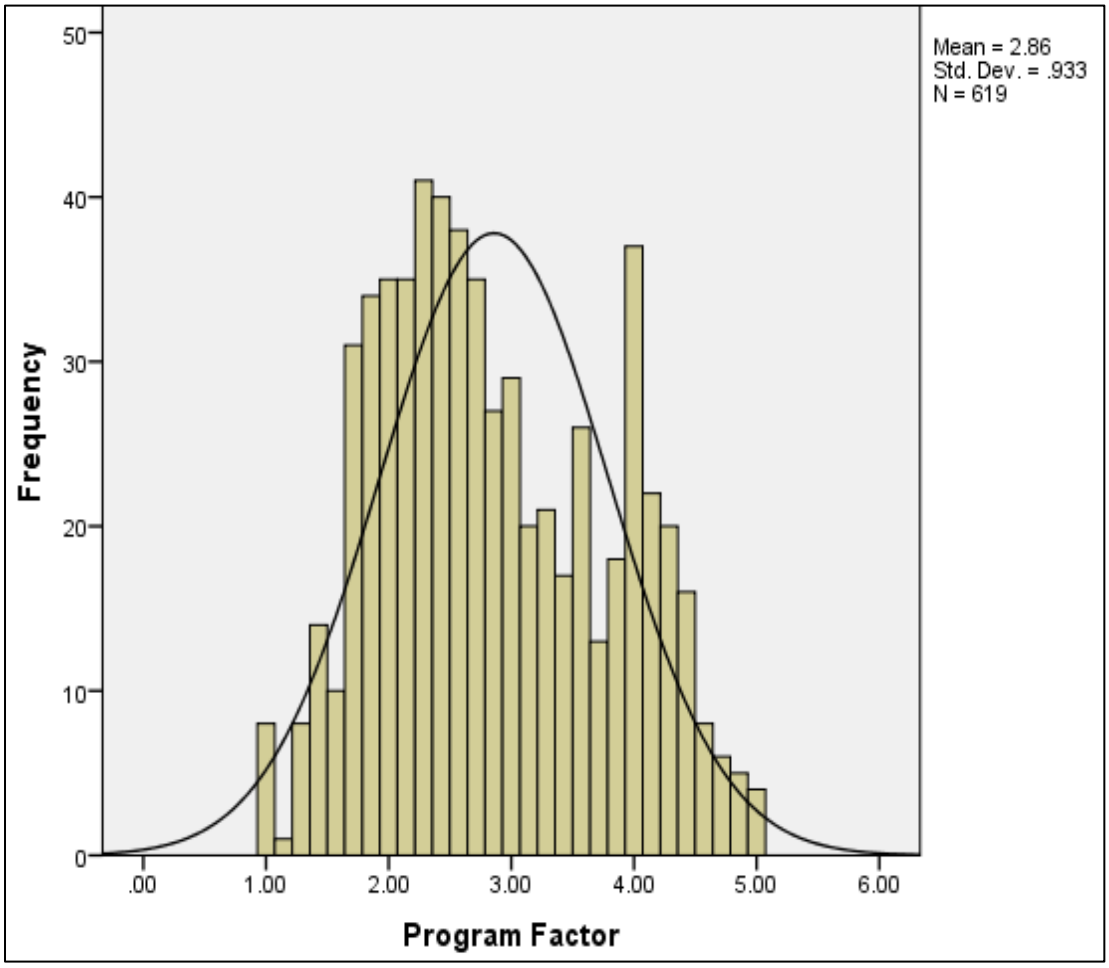



Figure 4.3 shows that students rated program factor to be moderate mean=2.86. The standard deviation (0.93) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

**4.2.4 Administrative Student Services.** The construct of administrative student services was

Studied using fifteen items. Table 4.8 shows descriptive results on the construct.

*Table 4.8*

**Descriptive Results for Administrative Student Services**

| Administrative student services | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| The placement services at the university are effective in assisting students with internship, job placement, and career opportunity | 198 (32.2%) | 123 (19.9%) | 152 (24.3%) | 113 (18.3%) | 33 (5.3%) | 2.45 |
| The registration assistance provided by the university facilitates a smooth and efficient enrolment process for me | 73 (11.8%) | 175 (28.3%) | 164 (26.5%) | 158 (25.5%) | 49 (7.9%) | 2.90 |
| I am satisfied with recreational sports facilities and activities offered by the university for students physical well-being and leisure | 126 (20.4%) | 118 (19.1%) | 196 (31.7%) | 128 (20.7%) | 51 (8.2%) | 2.77 |
| The services provided by the students guild are useful and supportive in enhancing my overall student experience | 86 (13.9%) | 137 (22.1%) | 168 (27.1%) | 170 (27.5%) | 58 (9.4%) | 2.96 |
| I am satisfied with the student lounge facilities provided by the university for socializing, studying and relaxation | 99 (16.0%) | 125 (20.2%) | 178 (28.8%) | 150 (24.2%) | 67 (10.8%) | 2.94 |
| I am satisfied with the student health services offered by the university such as medical care, counselling and mental health support | 95 (15.3%) | 138 (22.3%) | 167 (27.0%) | 153 (24.7%) | 66 (10.7%) | 2.93 |
| The halls of residence are comfortable , well-maintained and conducive for my living needs | 108 (17.4%) | 135 (21.8%) | 185 (29.9%) | 133 (21.5%) | 58 (9.4%) | 2.84 |
| The university intervenes and provides support in addressing risky behaviours such as drug use, or other harmful activities among students | 109 (17.6%) | 130 (21.0%) | 166 (26.8%) | 144 (23.3%) | 70 (11.3%) | 2.90 |

| | | | | | | |
|---|---|---|---|---|---|---|
| The university provides support to students in terms of resources, mentorship, and initiatives tailored to their specific needs and challenges | 149 (24.1%) | 120 (19.4%) | 123 (19.9%) | 155 (25.4%) | 72 (11.2%) | 2.80 |
| The university provides effective support services for disabled and handicapped students for equal access to education and campus facilities | 95 (15.3%) | 132 (21.3%) | 182 (29.4%) | 149 (24.1%) | 61 (9.9%) | 2.81 |
| The university provides support to students from disadvantaged backgrounds such as scholarships, financial aid, or specialized assistance | 112 (18.1%) | 142 (22.9%) | 185 (29.9%) | 135 (21.8%) | 45 (7.3%) | 2.77 |
| I feel safe and secure on campus | 81 (13.1%) | 108 (17.4%) | 172 (27.8%) | 183 (29.6%) | 75 (12.1%) | 3.10 |
| I use the digital services provided by the university such as e-library resources, audio-visual resources, or digital platforms for my academic and research needs | 115 (18.6%) | 130 (21.0%) | 173 (27.9%) | 131 (21.2%) | 70 (11.3%) | 2.86 |
| I am satisfied with the transportation services offered by the university, including shuttle services, and parking facilities | 95 (15.3%) | 132 (21.3%) | 182 (29.4%) | 149 (24.1%) | 61 (9.9%) | 2.92 |
| I am satisfied with the availability and quality of student support services offered by the university such as counselling services, career guidance, and academic tutoring | 114 (18.4%) | 126 (20.4%) | 157 (25.3%) | 143 (23.1%) | 79 (12.8%) | 2.91 |

The results in Table 4.8 on whether placement services at the university were effective in assisting students with internship, job placement, and career opportunity, (52.1%) of students differed while (23.6%) concurred and (24.3%) were not sure. The mean (2.45) implied that students disagreed that the placement services at the university were effective in assisting students with internship,

job placement and career opportunity. Regarding the registration assistance provided by the university (40.1%) of students differed while (33.4%) concurred and (26.5%) remained without decision. The mean (2.90) implied students were not sure whether the registration assistance provided by the university facilitated a smooth and efficient enrolment process for the students. On whether students were satisfied with recreational sports facilities and activities in the university (39.5%) of students differed while (28.9%) concurred and (31.7%) were not sure. The mean (2.77) implied students were not sure whether they were satisfied with the recreational sports facilities and activities in the University for their physical Well-being and leisure.

On whether services provided by the guild were useful and supportive in enhancing students overall experience (36.9%) of students concurred while (36%) differed and (27.1%) were not sure. The mean (2.96) implied students were not sure whether services provided by the guild were useful and supportive in enhancing overall student experience. As to whether students were satisfied with lounge facilities for socialising, studying and relaxation (36.2%) of students differed while (35%) concurred and (28.8%) were not sure. The mean (2.94) implied students were not sure whether they were satisfied with the lounge facilities provided by the University for socialising, studying and relaxation. Regarding satisfaction with health services at the university (37.6%) of students differed while (35.4%) concurred and (27.0%) were without decision. The mean (2.93) implied students were not sure whether the health services like medical care, counselling, and mental health services offered by the university were satisfying. On whether halls of residence were comfortable, well-maintained and conducive for living (39.2%) of students differed while (30.9%) concurred and (29.9%) were not sure. The mean (2.84) implied students were not sure the halls of comfortable, well-maintained and conducive for living.

Concerning whether the university intervenes and provides support in addressing risky behaviour among students (38.6%) of students differed while (34.6%) concurred and (26.8%) were not sure. The mean (2.90) implied that students were not sure whether the university intervenes and provides support in addressing risky behaviour such as drug use, and other harmful activities among students. Regarding whether the university provides support to students in terms of resources, mentorship and initiatives tailored to specific needs of students (43.5%) of students differed while (36.6%) concurred and (19.9%) were not sure. The mean (2.80) implied students were not sure whether the university provides support in terms of resources, mentorship, and initiatives tailored to specific needs and challenges of students.

On whether the university provided effective support services for disabled and handicapped students (36.6%) of students differed while (34%) concurred and (29.4%) were not sure. The mean (2.81) implied students were not sure whether the university provides effective support services to the disabled and handicapped students to enable equal access to education and campus facilities. About whether the university provides support to students from disadvantaged backgrounds (41%) of students differed while (29.1%) concurred and (29.9%) were not sure. The mean (2.77) implied students were not sure whether the university provided support to students from disadvantaged backgrounds in form of scholarships, financial aid or specialised assistance. Regarding safety and security at the university (41.7%) of students concurred while (30.5%) differed and (27.8%) were not sure. The mean (3.10) implied students were not sure whether they were safe and secure at campus. On whether the use of digital services provided by the university (39.6%) of students differed while (32.5%) concurred and (27.9%) were not sure. The mean (2.86) implied students were not sure whether they were using digital services provided at the university such as e-library resources, audio-visual resources or digital platforms for their academic and

research needs. About whether students were satisfied with the transportation services at the university (36.6%) of students differed while (34%) concurred and (29.4%) were not sure. The mean (2.92) implied students were not sure whether they were satisfied with the transportation services offered such as shuttle services and parking facilities

Regarding whether students were satisfied with the availability and quality of student support services offered by the university (38.8%) of students differed while (35.9%) concurred and (25.3%) were not sure. The mean (2.91) implied students were not sure whether they were satisfied with the availability and quality of student support services such as counselling services, career guidance, and academic tutoring. To find out how students rated administrative student services, an average index was calculated for fifteen items measuring the construct. Table 4.9 presents the summary results.

***Table 4.9***

***Summary Results for Administrative Student Services***

| | Descriptive | | Statistic | Std. Error |
|---|---|---|---|---|
| Administrative | Lower Bound | | 2.86 | .031 |
| Student Services | 95% Confidence for | Lower Bound | 2.80 | |
| | Interval for Mean | Upper Bound | 2.92 | |
| | 5% Trimmed Mean | | 2.85 | |
| | Median | | 2.83 | |
| | Variance | | 0.59 | |
| | Std. Deviation | | 0.77 | |
| | Minimum | | 1.00 | |
| | Maximum | | 4.93 | |
| | Range | | 3.93 | |
| | Interquartile Range | | 1.07 | |
| | Skewness | | 0.09 | 0.10 |
| | Kurtosis | | -0.35 | 0.20 |

Table 4.9 shows a mean =2.86 with a positive skew (0.09) which suggests that the results were normally distributed. The low mean meant that students rated administrative student services to be moderate. The standard deviation (0.77) also indicated a consistent distribution of responses. The normal distribution of the results is also displayed by the normal curve in Figure 4.4.

**Figure 4.4**

***Histogram for Administrative Student Services***

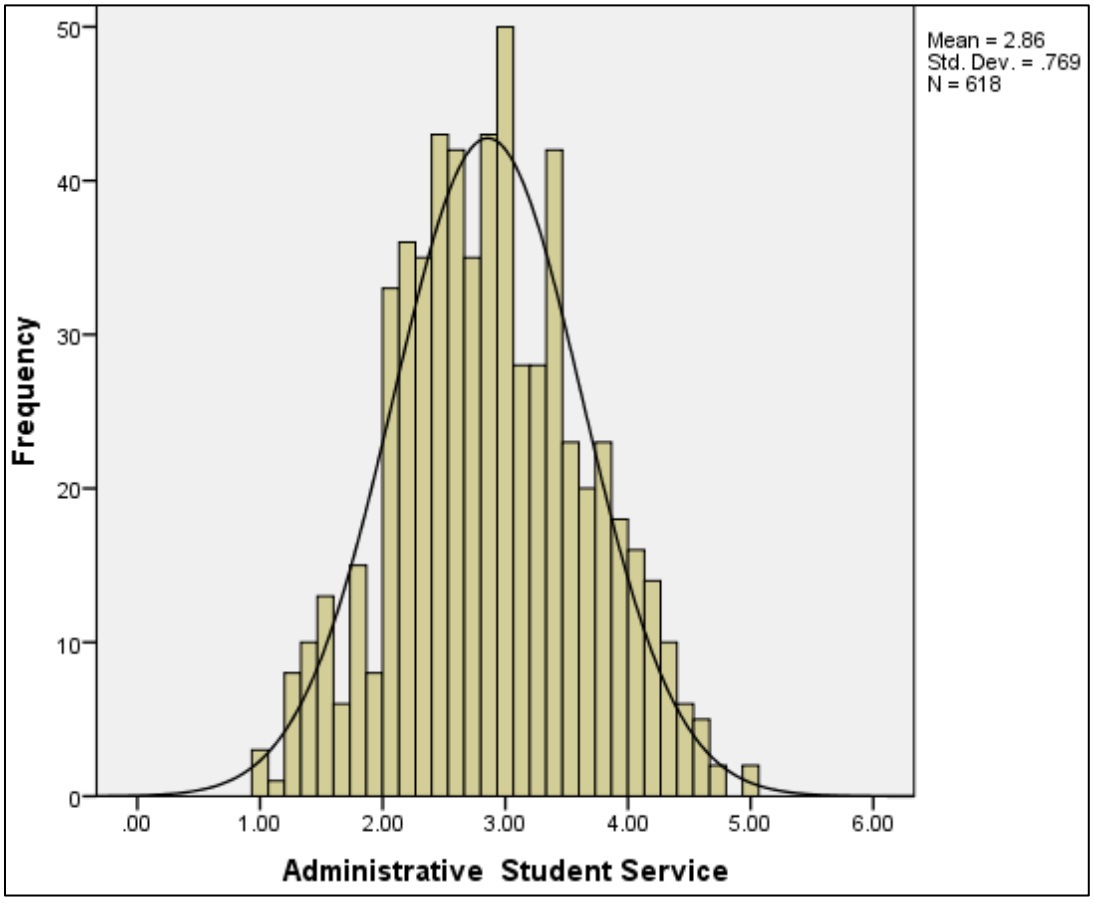



Figure 4.4 shows that students rated administrative student services to be moderate mean=2.86. The standard deviation (0.77) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.2.5 Student Satisfaction.*** To test how overall students rated student satisfaction, an average index was created for four constructs measuring the variables which are university environment and attractiveness (UEA1-8), instructor factor (IF1-6), program factor (PF1-7), and administrative student services (ASS1-15) (See Appendix A). Table 4.10 presents the summary results.

***Table 4.10***

***Summary Results for Student Satisfaction***

| | **Descriptive** | | **Statistic** | **Std. Error** |
|---|---|---|---|---|
| Student | Mean | | 2.75 | .030 |
| Satisfaction | 95% Confidence | Lower Bound | 2.69 | |
| | Interval for Mean | Upper Bound | 2.81 | |
| | 5% Trimmed Mean | | 2.75 | |
| | Median | | 2.69 | |
| | Variance | | 0.54 | |
| | Std. Deviation | | 0.74 | |
| | Minimum | | 0.97 | |
| | Maximum | | 4.81 | |
| | Range | | 3.83 | |
| | Interquartile Range | | 1.00 | |
| | Skewness | | 0.18 | 0.10 |
| | Kurtosis | | -0.50 | 0.20 |

The results in Table 4.10 shows mean (2.75) close to median (2.69) positive skew (0.18) which suggested that the results were normally distributed. The mean also meant that students rated student satisfaction to be moderate. The standard deviation (0.74) indicated consistence in distribution of responses. The normal distribution of the results is also displayed by the normal curve in Figure 4.5.

*Figure 4.5*

***Histogram for Student Satisfaction***

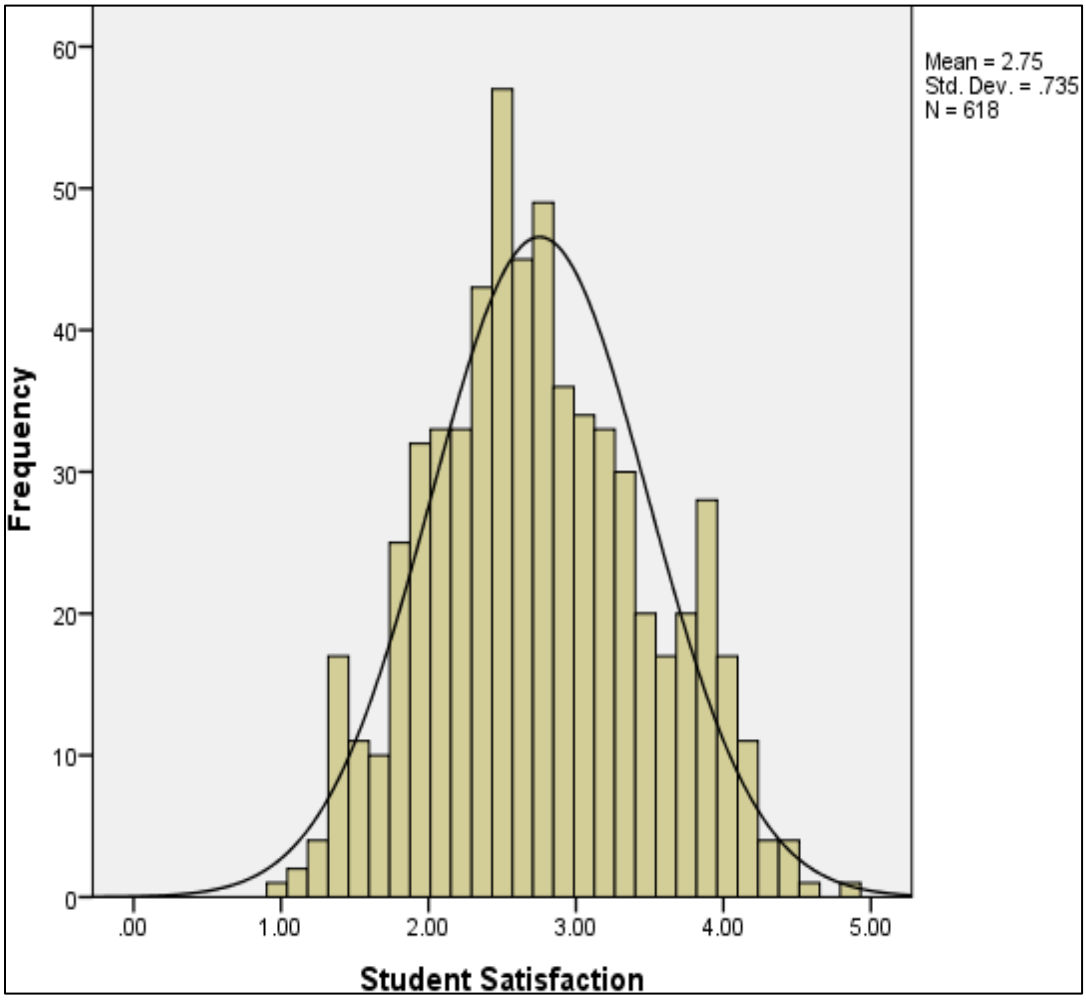
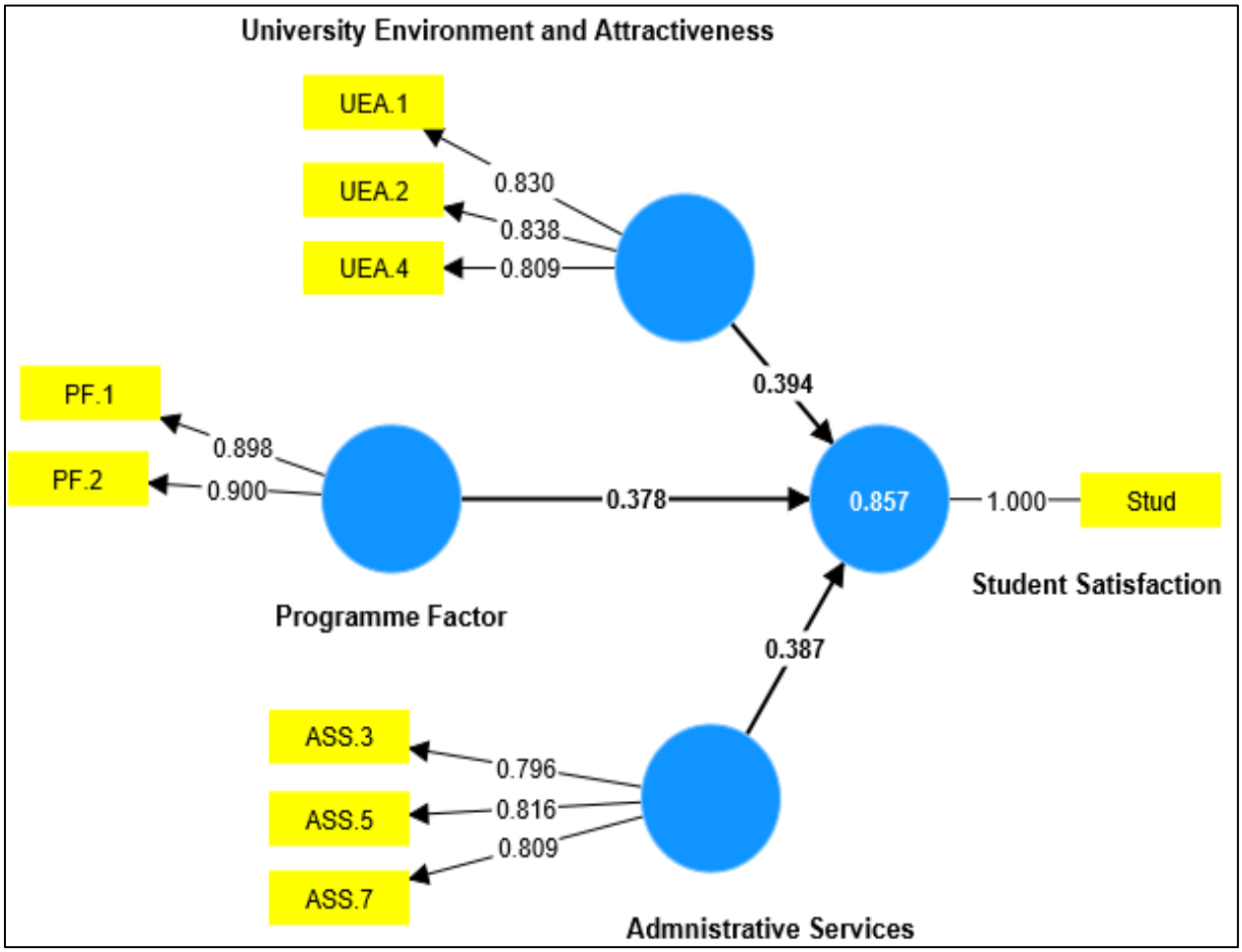



Figure 4.5 shows mean=2.75 which implied that student satisfaction was moderate. The standard deviation (0.74) implies that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results. Structural equation modelling was conducted for student satisfaction and the model is presented in the Structural Model Figure 4.6 which describes the concept of student satisfaction.

*Figure 4.6*

***Student Satisfaction Structural Equation Model***




The Structural Model Figure 4.6 describes the concept of student satisfaction. The model demonstrates that the concept of student satisfaction is multifaceted and involves the university environment and attractiveness, programme factor, and administrative services. The model shows that for University environment attractiveness out of 8 indicators three were retained, for programme factor two out of seven indicators were retained, for administrative services three out of fifteen indicators were retained. When factor analysis was performed as advised by Hair Jr. et al. (2021), the components that were maintained loaded far over the minimum validity value (0.5). However, for the instructor factor all the items did not load and were removed. As a result, the

items kept in the model were accurate measures of every construct. The dropped items were not included in any further analysis.

***4.2.6 Student Satisfaction and Gender.*** A student's t-test study was performed to see whether gender differences existed in student satisfaction. Table 4.11 presents the results.

**Table 4.11**

**Student t-test Results for Gender and student satisfaction**

| Categories | N | Mean | Std.Deviation | t | P |
|---|---|---|---|---|---|
| Male | 372 | 2.85 | O.74 | 1.945 | 0.331 |
| Female | 247 | 2.81 | 0.78 | | |
| Total | 619 | 2.83 | 0.76 | | |

Table 4.11 illustrates that the average male (mean=2.85) had a higher mean than the female (mean=2.81). The student's t-test (t=1.945) showed a high level of significance (p=0.331>0.05). This suggests there is no substantial variation in student satisfaction between males and females.

***4.2.7 Student Satisfaction and Age Groups.*** To evaluate variations in student satisfaction depending on their age, an ANOVA test was done (Table 4.12)

**Table 4.12**

**ANOVA Results for Age Group and Student Satisfaction**

| Categories | N | Means | Std.Deviation | F | P |
|---|---|---|---|---|---|
| Up to 30yrs | 486 | 2.83 | 0.79 | 1.393 | 0.758 |
| 30yrs but below 40yrs | 107 | 2.85 | 0.61 | | |
| 40yrs and Above | 26 | 2.83 | 0.70 | | |
| Total | 619 | 2.84 | 0.70 | | |

The descriptive results in Table 4.12 show that the mean score on student satisfaction was higher for students of 30 years but below 40 years (mean=2.85), followed by students up to 30 years and 40 years and above (mean= 2.83). The observed F-statistics (F=1.393) were large with a significance (P=0.758>0.05). This indicates that there are no appreciable differences in student satisfaction between age groups.

***4.2.8 Student Satisfaction and Levels of Education.*** To examine variations in student satisfaction depending on levels of education, an ANOVA test was done as presented in Table 4.13.

**Table 4.13**

**ANOVA Results for Level of Education and Student Satisfaction**

| Categories | N | Means | Std.Deviation | F | P |
|---|---|---|---|---|---|
| Diplomas | 84 | 3.01 | 0.74 | 2.222 | 0.065 |
| Postgraduate diplomas | 150 | 2.81 | 0.75 | | |
| Bachelor's degree | 385 | 2.85 | 0.78 | | |
| Total | 619 | 2.89 | 0.76 | | |

Table 4.13, shows that diplomas had the highest mean score on student satisfaction (mean=3.01), followed by bachelor degrees (mean=2.85) and postgraduate diplomas (mean=2.81). The observed F-statistic (F=2.222) has a high level of significance (p=0.065, p>0.05). This shows that there is no significant difference in student satisfaction across the three educational categories.

***4.2.9 Student Satisfaction and Current Academic Year.*** To assess variations in student satisfaction depending on levels of education, an ANOVA test was done as presented in Table 4.14.

**Table 4.14**

**ANOVA Results for the Current Academic Year and Student Satisfaction**

| Categories | N | Mean | Std. Deviation | F | P |
|---|---|---|---|---|---|
| First-year | 107 | 2.91 | 0.79 | 4.240 | 0.006 |
| Second-year | 202 | 2.96 | 0.76 | | |
| Third-year | 310 | 2.75 | 0.74 | | |
| Total | 619 | 2.87 | 0.76 | | |

Table 4.14 shows that second-year students had the highest average score on student satisfaction (mean=2.96), followed by first-year students (mean=2.91) and third-year students (mean=2.75). The measured F-statistics (F=4.240) had a low level of significance (p=0.006, p<0.05). This suggests that there is a significant difference in student satisfaction and the current academic year.

## 4.3 Descriptive Results on Service Quality

Service quality was studied as a construct in terms of tangibility of services, reliability of services, responsiveness of staff, service assurance, and service empathy.

***4.3.1 Tangibility of services***. The construct of tangibility of services was studied using nine items. Table 4.15 shows descriptive results on the construct.

**Table 4.15**

***Descriptive Results for Tangibility of Services***

| Tangibility of Services | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| The university is fitted with state-of-the-art facilities that can be used to develop students' interests and talent | 178 (28.8%) | 122 (19.7%) | 134 (21.6%) | 142 (22.9%) | 43 (7.0%) | 2.60 |
| The university has equipment for the significant learning process | 74 (12.0%) | 181 (29.2%) | 174 (28.1%) | 157 (25.4%) | 33 (5.3%) | 2.83 |
| The university has a hygienic environment | 93 (15.0%) | 147 (23.7%) | 161 (26.0%) | 168 (27.1%) | 50 (8.3%) | 2.90 |
| The university facilities are clean and well maintained | 87 (14.1%) | 137 (22.1%) | 153 (24.7%) | 178 (28.8%) | 64 (10.3%) | 2.99 |
| The university environment is conducive to learning and studying | 81 (13.1%) | 120 (19.4%) | 137 (22.1%) | 201 (32.5%) | 80 (12.9%) | 3.13 |
| The lecturers dress well and appear professional and neat | 134 (21.6%) | 126 (20.4%) | 129 (20.8%) | 150 (24.2%) | 80 (13.0%) | 2.87 |
| The lighting conditions in the lecture rooms at the university are sufficient in relations to visibility and creating a favourable learning environment | 147 (23.7%) | 151 (24.4%) | 141 (22.8%) | 144 (23.3%) | 36 (5.8%) | 2.63 |
| The university buildings appear appealing in terms of their architectural design, and cleanliness | 110 (17.8%) | 122 (19.7%) | 156 (25.2%) | 162 (26.2%) | 69 (11.1%) | 2.93 |

The results from Table 4.15 on whether the university is fitted with state-of-the-art facilities that can be used to develop students' interests and talent (48.5%) of students differed while (29.9%) concurred and (21.6%) were not sure. The mean (2.60) implied students were not sure whether the university was fitted with state-of-the-art facilities that could be used to develop their interests and talents. Regarding equipment for the significant learning processes (41.2%) of students differed while (30.7%) concurred and (28.1%) were not sure. The mean (2.83) implied that students were not sure whether the university had equipment for significant learning process.

As to whether the university environment was hygienic (38.7%) of students differed while (35.3%) concurred and (26.0%) were not sure. The mean (2.90) implied students were not sure whether the university has a hygienic environment. About whether the university facilities are clean and well maintained (39.1%) of students concurred while (36.2%) differed and (24.7%) were not sure. The mean (2.99) implied students were not sure whether the university facilities were clean and well maintained. Regarding whether the university environment is conducive to learning and studying (45.4%) of students concurred while (32.5%) differed and (22.1%) were not sure. The mean (3.13) implied that students were not sure whether the University environment was conducive to learning and studying. About whether the lecturers dress well and appear professional and neat (42%) of students differed while (37.2%) concurred and (20.8%) were not sure. The mean (2.87) implied that students were not sure whether lecturers dress well and appear professional and neat. On whether the lighting conditions in the lecture rooms was sufficient (48.1%) of students differed while (29.1%) concurred and (22.8%) were not sure. The mean (2.63) implied that students were not sure whether the lighting conditions in the lecturer rooms was sufficient in relations to visibility and creating a conducive learning environment.

Regarding the university amenities such as restrooms, and outdoor space maintenance (48.6%) of students differed while (28.5%) concurred and (22.9%) were not sure. The mean (2.74) implied students were not sure whether the university amenities such as restrooms, and outdoor space were well maintained in terms of cleanliness and functionality. On whether the university buildings appear appealing (37.5%) of students differed while (37.3%) concurred and (25.2%) remained without decision. The mean (2.93) implied students were not sure whether the university buildings were appealing in terms of their architectural design and cleanliness. To find out how

the students rated tangibility of services, an average index was calculated for nine items measuring the construct. The results are summarised in Table 4.16.

***Table 4.16***

***Summary Results for Tangibility of Services***

| | Descriptive | | Statistic | Std. Error |
|---|---|---|---|---|
| Tangibility of Services | Mean | | 2.85 | .033 |
| | 95% Confidence Interval for Mean | Lower Bound | 2.78 | |
| | | Upper Bound | 2.91 | |
| | 5% Trimmed Mean | | 2.84 | |
| | Median | | 2.65 | |
| | Variance | | 0.68 | |
| | Std. Deviation | | 0.82 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.22 | |
| | Skewness | | 0.21 | 0.10 |
| | Kurtosis | | -0.64 | 0.20 |

Table 4.16 shows a mean (2.85), which is close to the median (2.65), and a positive skew (0.21), indicating that the results were normally distributed. The mean also indicated that students considered service tangibility to be moderate. The standard deviation (0.82) indicated a consistent distribution of responses. Figure 4.7 shows the normal distribution of the results.

*Figure 4.7*

***Histogram for Tangibility of Services***

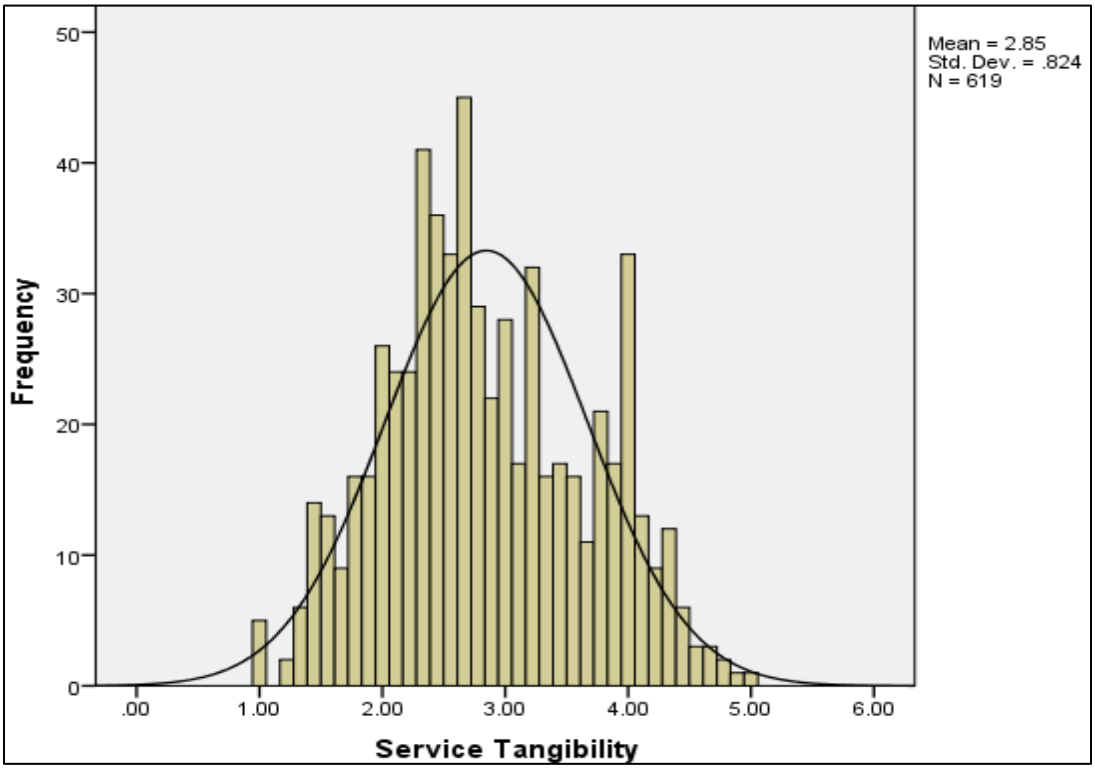



Figure 4.7 shows that the students rated the tangibility of services to be moderate mean=2.85. The standard deviation (0.82) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.3.2 Reliability of Services.*** The construct reliability of services was studied using nine items. In Table 4.17 shows descriptive results on the construct.

**Table 4.17**

***Descriptive Results for Reliability of Services***

| Reliability of Services | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| The university staff always gives students the right guidance about the course | 162 (26.2%) | 139 (22.5%) | 112 (18.1%) | 148 (23.9%) | 5.8 (9.3%) | 2.69 |
| The class schedules are timely | 47 (7.6%) | 172 (27.8%) | 155 (25.0%) | 187 (30.2%) | 53 (9.4%) | 3.06 |
| The faculty staff are always available for consultations | 92 (14.9%) | 145 (23.4%) | 166 (26.8%) | 151 (24.4%) | 65 (10.5%) | 2.92 |
| The university has good communication channels used to share important information | 73 (11.8%) | 136 (22.0%) | 179 (28.9%) | 169 (27.3%) | 62 (10.0%) | 3.02 |
| The administrative processes and procedures at the university are reliable | 76 (12.3%) | 149 (24.1%) | 154 (24.8%) | 178 (28.8%) | 62 (10.0%) | 3.00 |
| The university support staff are responsive and prompt in addressing your queries and concerns. | 84 (13.6%) | 145 (23.4%) | 175 (28.3%) | 168 (27.1%) | 47 (7.6%) | 2.92 |
| The registration process at the university is reliable and effective | 67 (10.8%) | 141 (22.8%) | 166 (26.8%) | 189 (30.6%) | 56 (9.0%) | 3.04 |
| The university keeps records accurately ensuring reliable student information, grades, and course enrolment data | 74 (12.0%) | 136 (22.0%) | 182 (29.4%) | 168 (27.1%) | 59 (9.5%) | 3.00 |
| I am satisfied with the university's reliability in providing services on time, such as administrative tasks, prompt academic support, and efficient facility maintenance | 92 (14.9%) | 128 (20.7%) | 160 (25.8%) | 184 (29.7%) | 55 (8.9%) | 2.97 |

Table 4.17 on whether university staff give students the right guidance about the course (48.7%) of students differed while (33.2%) concurred and (18.1%) were not sure. The mean (2.69) implied that students were not sure whether university staff gave the right guidance about the course. Regarding class schedules being timely (39.6%) of students concurred while (35.4%) differed and

(25.0%) were not sure. The mean (3.06) implied students were not sure whether class schedules were timely. About whether the faculty staff was available for consultation (38.3%) of students differed while (34.9%) concurred and (26.8%) were not sure. The mean (2.92) implied students were not sure whether faculty staff were always available for consultation. As to whether the university has good communication channels used to share important information (37.3%) of students concurred while (33.8%) differed and (28.9%) were not sure. The mean (3.02) implied students were not sure whether the university had good communication channels used to share important information like deadlines and announcements.

Regarding the reliability of administrative processes and procedures, (38.8%) of students concurred while (36.4%) differed and (24.8%) were not sure. The mean (3.00) implied that students were not sure whether administrative processes and procedures were reliable. On whether the university support staff were responsive and prompt in addressing queries and concerns (37%) of students differed while (34.7%) concurred and (28.3%) were not sure. The mean (2.92) implied that students were not sure whether the university support staff (helpdesk) were responsive and prompt in addressing students' queries and concerns. Regarding the reliability and effectiveness of the registration process (39.6%) of students concurred while (33.6%) differed and (26.8%) were not sure. The mean (3.04) implied that students were not sure whether the registration process at the university was reliable and effective.

About whether the university keeps records accurately (36.6%) of students concurred while (34%) differed and (29.4%) were not sure. The mean (3.00) implied students were not sure whether the university kept records accurately ensuing reliable student information, grades, and course enrolment data. On whether students were satisfied with the university's reliability in providing services on time (38.6%) of students concurred while (35.6%) differed and (25.8%) were

not sure. The mean (2.97) implied that students were not sure whether they were satisfied with the university's reliability in providing services such as administrative tasks, prompt academic support and efficient facility maintenance on time. To find out how students rated the reliability of services, an average index was calculated for nine items measuring the construct. The results are summarised in table 4.18.

***Table 4.18***

***Summary Results for Reliability of Services***

| | **Descriptive** | | **Statistic** | **Std. Error** |
|---|---|---|---|---|
| Reliability of | Mean | | 2.96 | .033 |
| Services | 95% Confidence | Lower Bound | 2.89 | |
| | Interval for Mean | Upper Bound | 3.02 | |
| | 5% Trimmed Mean | | 2.95 | |
| | Median | | 2.89 | |
| | Variance | | 0.68 | |
| | Std. Deviation | | 0.82 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.22 | |
| | Skewness | | 0.13 | 0.10 |
| | Kurtosis | | -0.57 | 0.20 |

Table 4.18 shows average mean (2.96) which is close to median (2.89) with a positive skew (0.13) which suggested that the results were normally distributed. The mean also meant that students rated reliability of services as moderate. The standard deviation (0.82) also indicated consistence in distribution of the responses. Figure 4.7 shows the normal distribution of the results

*Figure 4.8*

***Histogram for Reliability of Services***

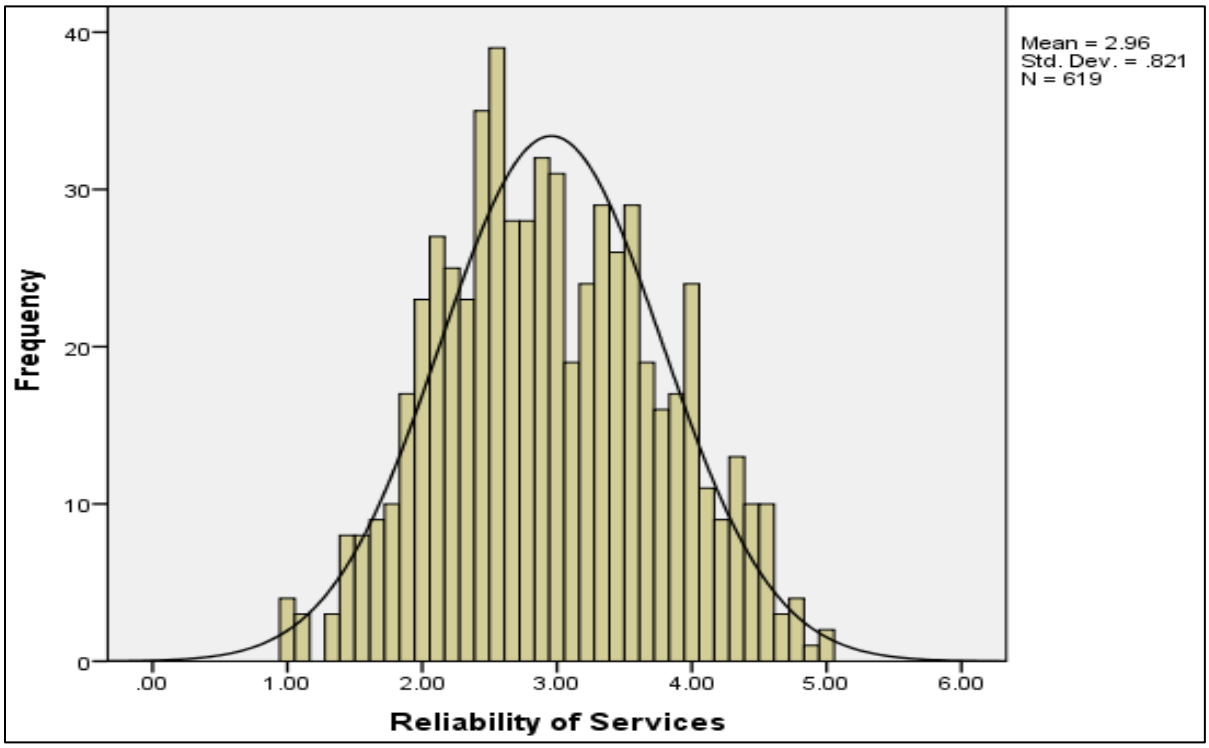



Figure 4.8 shows that students rated reliability of services to be moderate mean =2.96. The standard deviation (0.82) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.3.3 Responsiveness of Staff.*** The construct responsiveness of staff was studied using nine item. In Table 4.19 are descriptive results on the construct.

*Table 4.19*

***Descriptive Results for Responsiveness of Staff***

| Responsiveness of staff | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| The university provides clarity and completeness of information regarding academic matters like course requirements, and program information | 193 (31.1%) | 123 (19.9%) | 110 (17.7%) | 130 (21.0%) | 63 (10.3%) | 2.59 |
| I face difficulty in getting timely access to required academic services like registration, enrolment, and advising | 50 (8.1%) | 214 (34.6%) | 160 (25.8%) | 149 (24.1%) | 46 (7.4%) | 2.88 |
| The university staff is accessible and available for academic consultations and discussions | 106 (16.1%) | 125 (20.5%) | 155 (25.0%) | 182 (29.4%) | 55 (8.9%) | 2.94 |
| The lecturers ensure students understand the subject | 60 (9.7%) | 143 (23.1%) | 153 (24.7%) | 205 (33.1%) | 58 (9.4%) | 3.09 |
| Phone calls and messages are promptly answered by the university staff. | 106 (16.5%) | 131 (21.0%) | 169 (27.3%) | 163 (26.3%) | 50 (8.9%) | 2.87 |
| The university personnel are available to help students in addressing their concerns when needed | 80 (12.9%) | 136 (22.0%) | 176 (28.4%) | 181 (29.3%) | 46 (7.4%) | 2.96 |
| The lecturers solve immediate problems that students encounter during their studies | 87 (14.1%) | 133 (21.3%) | 180 (29.1%) | 164 (26.6%) | 55 (8.9%) | 2.94 |
| The administrative staff of the university promptly solves the problems of the students that may face outside the academic matters | 83 (13.4%) | 164 (26.5%) | 167 (27.0%) | 155 (25.0%) | 50 (8.1%) | 2.88 |
| The channels of communication provided by the university for students to raise complaints or express their concerns are accessible | 88 (14.2%) | 125 (20.2%) | 168 (27.1%) | 166 (26.9%) | 72 (11.6%) | 3.01 |

The results in Table 4.19 on whether the university provides clarity and completeness of information regarding academic matters ((51%) of students differed while (31.3%) concurred and (17.7%) were not sure. The mean (2.59) implied students were not sure whether the university provides clarity and completeness of information regarding academic matters like course requirements and program information. Regarding whether students faced difficulty in getting timely access to required academic services (42.7%) of students differed while (31.5%) concurred and (25.8%) were not sure. The mean (2.88) implied that students were not sure whether they faced difficulty in getting timely access to required academic services like enrolment, registration and advice.

About whether the university staff is accessible and available for academic consultation and discussions (38.3%) of students concurred while (36.8%) differed and (25.0%) were not sure. The mean (2.94) implied students were not sure whether the university staff was accessible and available for consultations and discussions. On whether lecturers ensure students understand the subject ((42.5%) of students concurred while (32.8%) differed and (24.7%) remained without decision. The mean (3.09) implied students were not sure whether lectures ensured students understand the subject matter. Concerning whether phone calls and messages of students were promptly answered by the university staff (37.5%) of students differed while (35.2%) concurred and (27.3%) were not sure. The mean (2.87) implied students were not sure whether phone calls and messages were promptly answered by the university staff.

Regarding the university personnel's availability to help students in addressing their concerns when needed (36.7%) of students concurred while (34.9%) differed and (28.4%) were not sure. The mean (2.96) implied students were not sure whether the university personnel were available to help them in addressing their concerns when needed. On whether lecturers solve

immediate problems that students encounter during their studies (35.5%) of students concurred while (35.4%) differed and (29.1%) were not sure. The mean (2.94) implied that students were not sure whether lecturers solved immediate problems that students encountered during their studied. Concerning whether the administrative staff promptly solve problems of students that they face outside academic matters (39.9%) of students differed while (33.1%) concurred and (27.0%) were not sure. The mean (2.88) implied that students were not sure whether the administrative staff of the university promptly solved problems of students faced outside academic matters. On whether the channels of communication provided by the University for Students to raise their complaints were accessible (38.5%) of students concurred while (34.4%) differed and (27.1%) were not sure. The mean (3.01) implied students were not sure whether the channels of communication provided by the University for Students to raise their complaints were accessible. To find out how students rated the responsiveness of staff, an average index was calculated for nine items measuring the construct. The results are summarised in Table 4.20.

**Table 4.20**

**Summary Results for Responsiveness of Staff**

| | **Descriptive** | | **Statistic** | **Std. Error** |
|---|---|---|---|---|
| Responsiveness of Staff | Mean | | 2.91 | 0.03 |
| | 95% Confidence Interval for Mean | Lower Bound | 2.85 | |
| | | Upper Bound | 2.97 | |
| | 5% Trimmed Mean | | 2.91 | |
| | Median | | 2.89 | |
| | Variance | | 0.63 | |
| | Std. Deviation | | 0.79 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.11 | |
| | Skewness | | 0.06 | 0.10 |
| | Kurtosis | | -0.40 | 0.20 |

Table 4.20 shows a mean= (2.91) which is close to the median (2.89) with a positive skew (0.06) which suggests that the results were normally distributed. The mean also meant that students rated responsiveness of services to be moderate. The standard deviation (0.79) also indicated consistency in the distribution of responses. The normal distribution of results is displayed by the normal curve in Figure 4.9.

*Figure 4.9*

***Histogram for Responsiveness of staff***

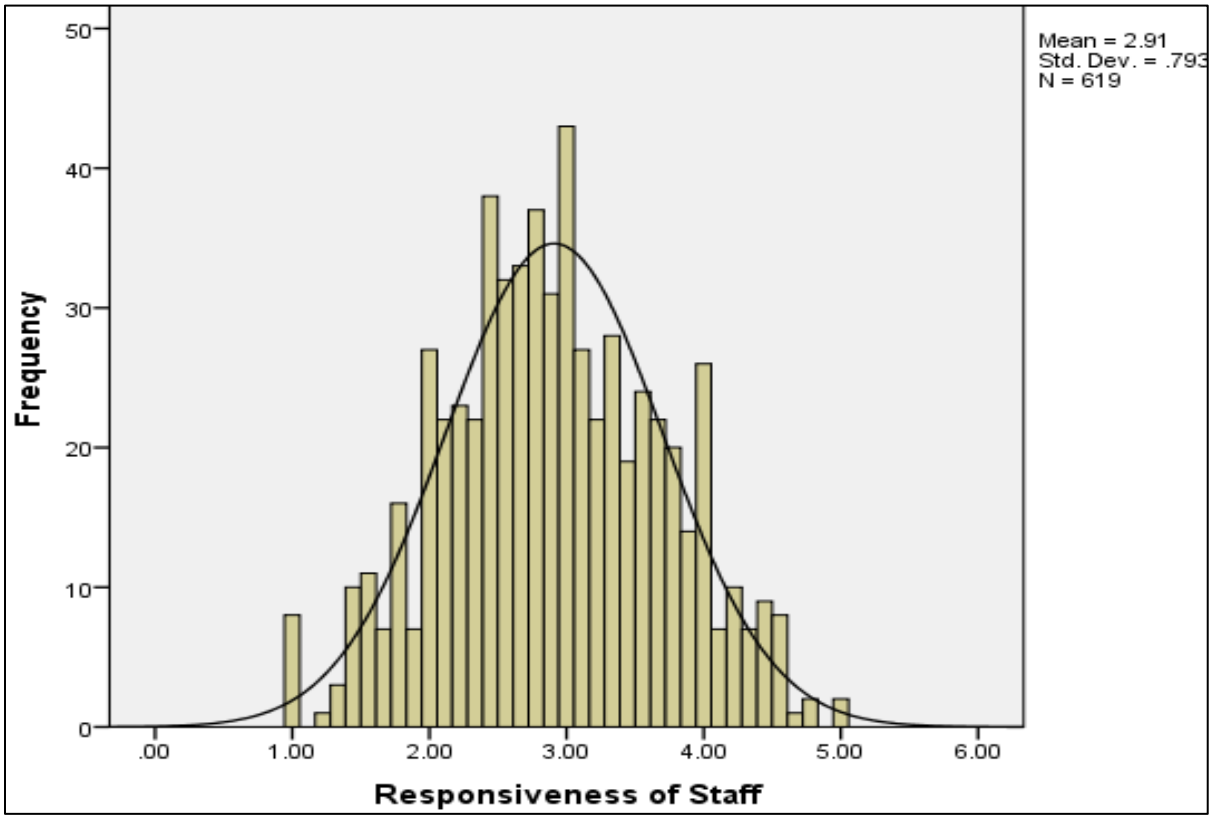



Figure 4.9 shows that the students rated responsiveness of staff to be moderate mean=2.91. The standard deviation (0.79) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.3.4 Service Assurance.*** The construct service assurance was studied using four items. Table 4.21 shows descriptive results on the construct.

***Table 4.21***

***Descriptive Results for Service Assurance***

| Service Assurance | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| The lecturers are competent in delivering their courses and providing academic guidance | 148 (23.9%) | 143 (23.1%) | 127 (20.1%) | 155 (25.0%) | 46 (7.9%) | 2.69 |
| The university has credible and accurate rules regarding academic policies, requirements, and procedures | 66 (10.7%) | 130 (21.0%) | 169 (27.3%) | 202 (32.6%) | 52 (8.4%) | 3.07 |
| The university staff inspires confidence in your ability to succeed academically | 164 (26.5%) | 150 (24.2%) | 117 (18.9%) | 149 (24.1%) | 39 (6.3%) | 2.59 |
| There are accurate security measures and protocols to ensure the safety and well-being of students and staff | 92 (14.9%) | 171 (27.6%) | 144 (23.3%) | 155 (25.0%) | 57 (9.2%) | 2.86 |

Table 4.21 on whether the lecturers are competent in delivering their courses and provide academic guidance (47%) of students differed while (32.9%) concurred and (20.1%) were not sure. The mean (2.69) implied that students were not sure whether lecturers were competent in delivering their courses and provide academic guidance. Concerning credible and accurate rules regarding academic policies, requirements, and procedures of the university (41%) of students concurred while (31.7%) differed and (27.3%) were not sure. The mean (3.07) implied students were not sure whether the university had credible and accurate rules regarding academic policies, requirements, and procedures. About whether the university staff inspired confidence in students to succeed academically (50.7%) of students differed while (30.4%) concurred and (18.9%) were not sure. The mean (2.59) implied that students were not sure whether university staff inspired confidence in their ability to succeed academically. Regarding security measures and protocols to ensure safety and well-being of students and staff (42.5%) of students differed while (34.2%)

concurred and (23.3%) were not sure. The mean (2.86) implied that students were not sure whether there were accurate security measures and protocols to ensure the safety and well-being of students and staff. To find out how the students rated service assurance, an average index was calculated for four items measuring the construct. The results are summarised in Table 4.22.

***Table 4.22***

***Summary Results for Service Assurance***

| | **Descriptive** | | **Statistic** | **Std. Error** |
|---|---|---|---|---|
| Service | Mean | | 2.80 | 0.04 |
| Assurance | 95% Confidence | Lower Bound | 2.73 | |
| | Interval for Mean | Upper Bound | 2.88 | |
| | 5% Trimmed Mean | | 2.79 | |
| | Median | | 2.75 | |
| | Variance | | 0.86 | |
| | Std. Deviation | | 0.93 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.50 | |
| | Skewness | | 0.26 | 0.10 |
| | Kurtosis | | -0.83 | 0.20 |

Table 4.22 shows a mean= (2.80) which is close to the median= (2.75) with a positive skew (0.26) which suggested that the results were normally distributed. The mean also meant that students rated service assurance to be moderate. The standard deviation (0.93) indicated consistency in the distribution of the responses. The normal distribution of the results is also displayed by the normal curve in Figure 4.10.

*Figure 4.10*

***Histogram for Service Assurance***

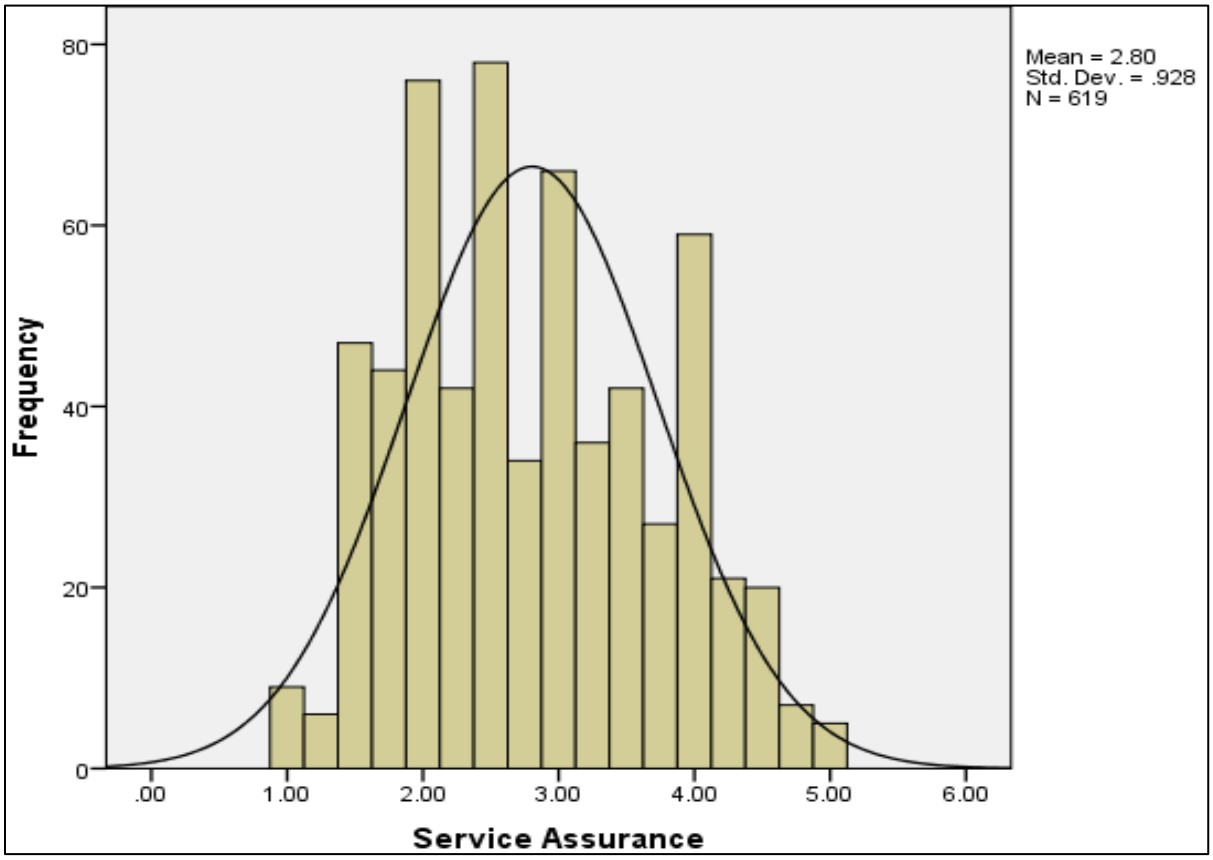



Figure 4.10 shows that students rated service assurance to be moderate mean=2.80. The standard deviation (0.92) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.3.5 Service Empathy.*** The construct of service empathy was studied using six items. In Table 4.23 are descriptive results on the construct.

*Table 4.23*

***Descriptive Results for Service Empathy***

| Service Empathy | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| The university staff(faculty, administrative personnel, and support staff) are friendly and approachable in addressing my concerns | 163 (26.3%) | 161 (26.0%) | 138 (22.3%) | 131 (21.2%) | 26 (4.2%) | 2.51 |
| The University staff genuinely understand my needs and concerns | 86 (13.9%) | 177 (28.6%) | 209 (33.8%) | 108 (17.4%) | 39 (6.3%) | 2.74 |
| I receive personalized attention from the University staff | 94 (15.2%) | 146 (23.6%) | 175 (28.2%) | 164 (26.2%) | 42 (6.8%) | 2.86 |
| The University staff go out of their way to assist me with my academic or personal concerns | 88 (14.2%) | 148 (23.9%) | 197 (31.8%) | 136 (22.0%) | 50 (8.1%) | 2.86 |
| I am comfortable discussing my academic or personal challenges with the staff of the University | 78 (12.6%) | 144 (23.3%) | 166 (26.8%) | 169 (27.3%) | 62 (10.0%) | 2.99 |
| The university staff listens to my concerns and provide guidance or solutions | 88 (14.2%) | 130 (21.0%) | 168 (27.1%) | 160 (25.8%) | 73 (11.8%) | 3.00 |

Table 4.23 regarding whether the staff are friendly and approachable in addressing students concerns (52.3%) of students differed while (25.4%) concurred and (22.3%) were not sure. The mean (2.51) implied students were not sure whether the university staff were friendly and approachable in addressing their concerns. Concerning the university staff genuinely understanding the needs and concerns of students (42.5%) of students differed while (23.7%) concurred and (33.8%) were not sure. The mean (2.74) implied students were not sure whether the university staff genuinely understood their needs and concerns.

On whether students received personalised attention from the university staff (38.8%) of students differed while (32.2%) concurred and (28.2%) were not sure. The mean (2.86) implied students were not sure whether they received personalised attention from the university staff. About whether the university staff got out of their way to assist students on academic or personal concerns (38.1%) of students differed while (30.1%) concurred and (31.8%) were not sure. The mean (2.86) implied students were not sure whether the university staff got out of their way to assist students with academic or personal concerns. As to whether students were comfortable discussing their academic or personal challenges with staff of the university (37.3%) of students concurred while (35.9%) differed and (26.8%) were not sure. The mean (2.99) implied students were not sure whether they were comfortable discussing their academic and personal challenges with the staff of the university. Regarding whether university staff listen to student's concerns and provide guidance (37.6%) of students concurred while (35.2%) differed and (27.1%) were not sure. The mean (3.00) implied students were not sure whether university staff listened to their concerns and provided guidance. To find out how students rated service empathy, for the six items that measured the construct, an average index was computed. Table 4.24 presents the summary results.

**Table 4.24**

**Summary Results for Service Empathy**

| | Descriptive | | Statistic | Std. Error |
|---|---|---|---|---|
| Service | Mean | | 2.83 | .033 |
| Empathy | 95% Confidence | Lower Bound | 2.76 | |
| | Interval for Mean | Upper Bound | 2.89 | |
| | 5% Trimmed Mean | | 2.82 | |
| | Median | | 2.83 | |
| | Variance | | 0.69 | |
| | Std. Deviation | | 0.83 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.33 | |
| | Skewness | | 0.17 | 0.10 |
| | Kurtosis | | -0.31 | 0.20 |

Table 4.24 shows a mean= (2.83) equal to the median = (2.83) with a positive skew (0.17) which suggests that the results were normally distributed. The mean meant that students rated service empathy moderate. The standard deviation (0.83) also indicated consistency in the distribution of the responses. Figure 4.11 displays the normal distribution of the results.

*Figure 4.11*

***Histogram for Service Empathy***

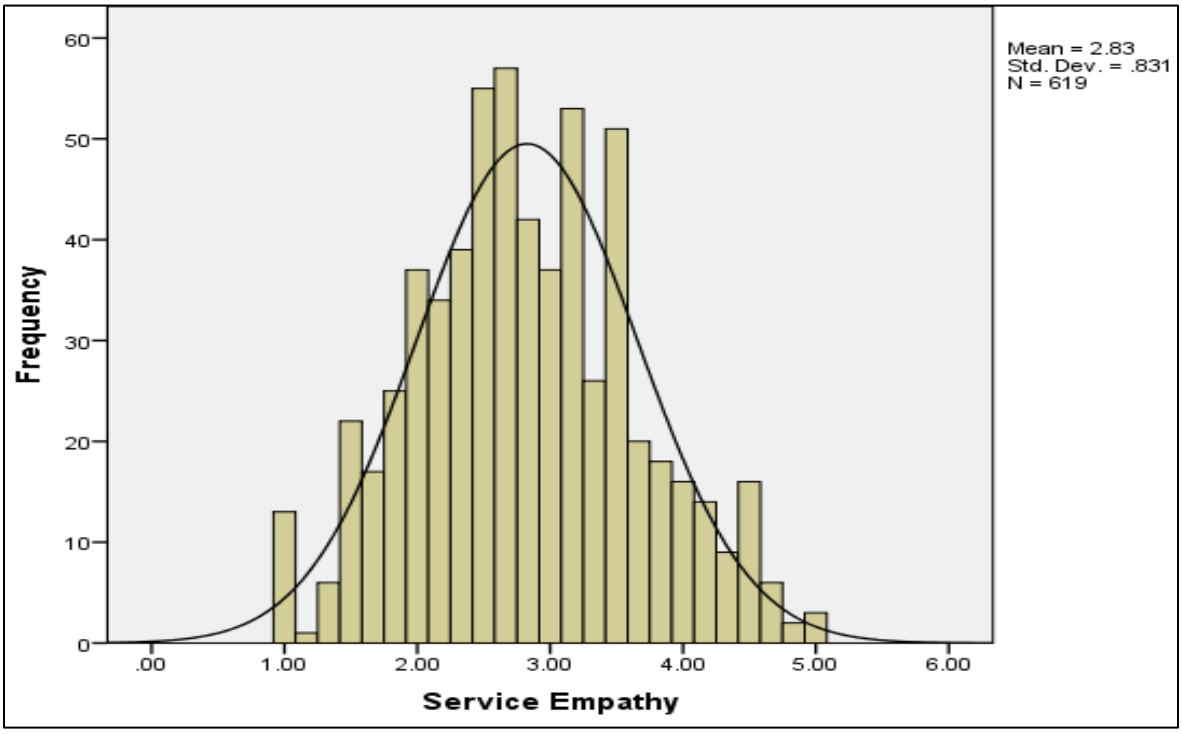



Figure 4.11 shows that students rated service empathy as moderate, mean= (2.83). The standard deviation (0.83) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.3.6 Service Quality.*** To test how overall students rated service quality, an average measure was created for five aspects to test the concept of service tangibility (ST1-9), reliability of services (RS1-9), responsiveness of staff (ROS1-9), service assurance (SA1-4), service empathy (SE1-6) (see Appendix A). Table 4.25 presents the summary results.

*Table 4.25*

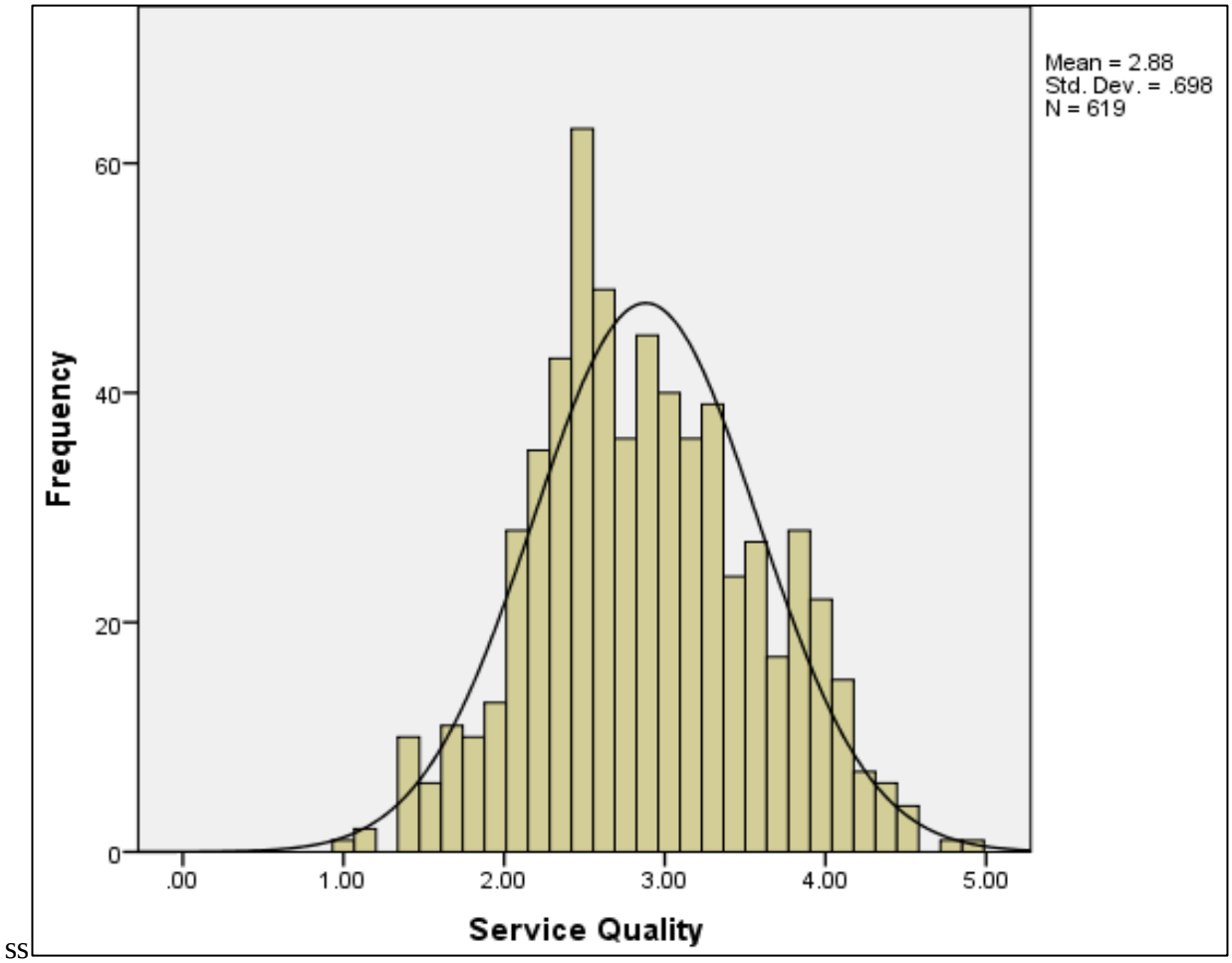
**Summary Results for Service Quality**

| | Descriptive | | Statistic | Std. Error |
|---|---|---|---|---|
| Service | Mean | | 2.88 | .028 |
| Quality | 95% Confidence | Lower Bound | 2.83 | |
| | Interval for Mean | Upper Bound | 2.94 | |
| | 5% Trimmed Mean | | 2.88 | |
| | Median | | 2.84 | |
| | Variance | | 0.49 | |
| | Std. Deviation | | 0.70 | |
| | Minimum | | 1.00 | |
| | Maximum | | 4.92 | |
| | Range | | 3.92 | |
| | Interquartile Range | | 0.97 | |
| | Skewness | | 0.18 | 0.10 |
| | Kurtosis | | -0.39 | 0.20 |

Table 4.25 shows average mean (2.88) which is close to the median (2.84) with positive skew (0.18) which suggested that the results were normally distributed. The mean meant that students rated services quality to be moderate. The standard deviation (0.70) also indicated consistence in distribution of responses. The normal distribution of the results is also displayed by the normal curve in Figure 4.12.

*Figure 4.12*

***Histogram for Service Quality***

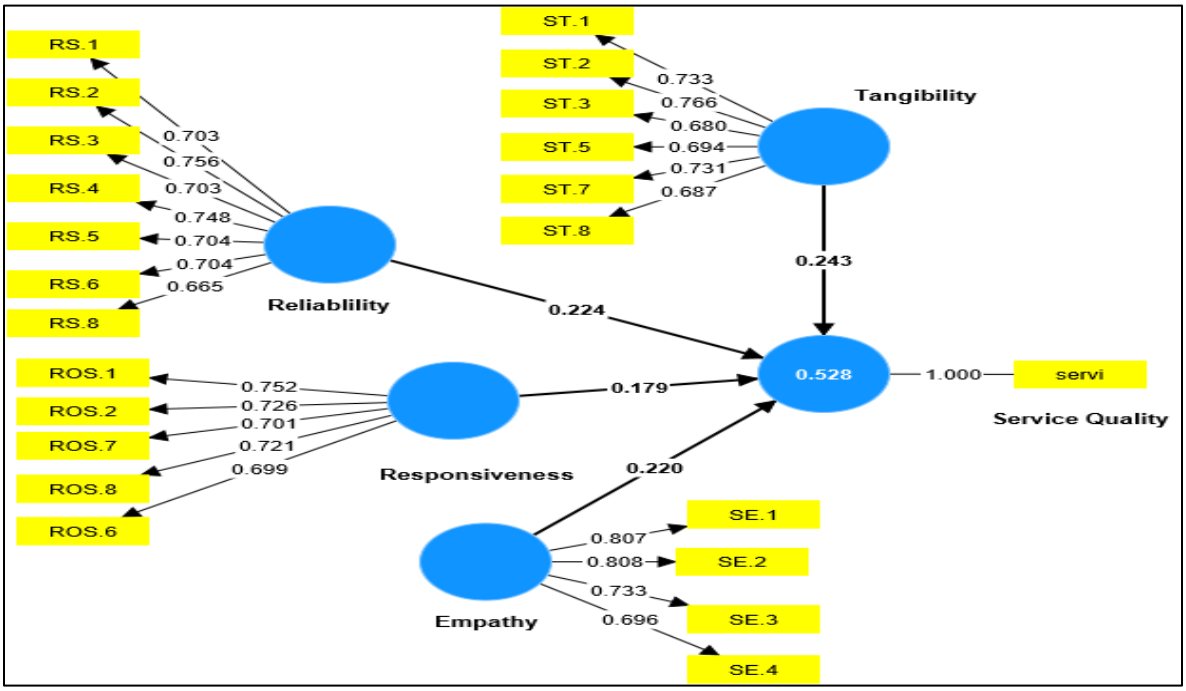



ss

Figure 4.12 reveals mean=2.88 which implied that services quality was moderate. The standard deviation (0.70) implied that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results. Structural equation modelling was conducted for service quality and the model is presented in the Structural Model Figure 4.13 which describes the notion of service quality.

*Figure 4.13*

***Service Quality structural model***




The Structural Model Figure 4.13 describes the idea of service quality. The model shows that service quality involves service tangibility, reliability of services, responsiveness of staff and service empathy. The model shows that for service tangibility six out of nine indicators were retained, for the reliability of services seven out of nine indicators were retained, for responsiveness of staff five out of nine indicators were retained, for service empathy four out of six indicators were retained. The factors retained loaded highly above the minimum validity value (0.5). However, for service assurance all factors did not load and were removed. Therefore, the items retained for all constructs in the model were valid measures of those constructs. Those items which were dropped were excluded from subsequent analyses. Structural equation modelling and path analysis were conducted for service quality and student satisfaction and the model is presented

in the Structural Model Figure 4.14 and results for structural path model (Table 4.22) describing the connection between service quality and student satisfaction

**Figure 4.14**

***Structural Equation Model for Service Quality and Student Satisfaction***

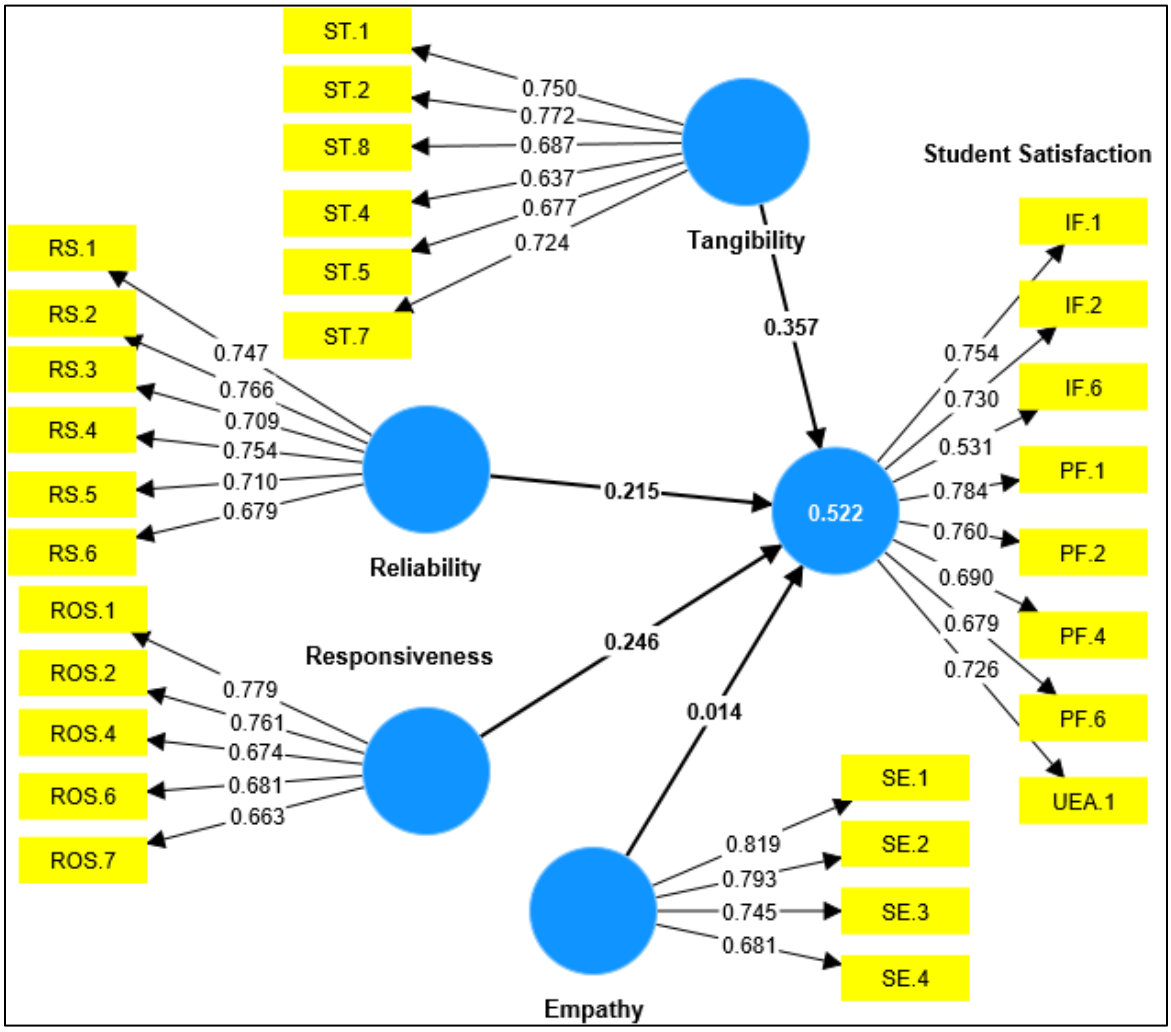


*Table 4.26*

***Structural Path Model for Service Quality and Student Satisfaction***

| Structural Path | β | Means | STD | T | P |
|---|---|---|---|---|---|
| Empathy → Student Satisfaction | 0.014 | 0.015 | 0.044 | 0.318 | 0.751 |
| Reliability → Student Satisfaction | 0.215 | 0.214 | 0.050 | 4.312 | 0.000 |
| Responsiveness → Student Satisfaction | 0.246 | 0.247 | 0.045 | 5.493 | 0.000 |
| Tangibility → Student Satisfaction | 0.357 | 0.358 | 0.048 | 7.373 | 0.000 |

$R^2 = 0.522$

Adjusted $R^2 = 0.519$

The results in Table 4.26 and Figure 4.14 show the hypothesis to the effect that service quality influences student satisfaction (H1.1), service empathy influences student satisfaction (H1.2), reliability of services influences student satisfaction (H1.3) responsiveness of staff influences student satisfaction (H1.4), service tangibility influences student satisfaction (H1.5) were tested. The results revealed that reliability of services (β=0.215, t=4.312, p=0.000), responsiveness of staff (β=0.246, t=5.493, p=0.000), service tangibility (β=0.357, t=7.373, p=0.000) positively and significantly influence student satisfaction. However, service empathy (β=0.014, t=0.318, p=0.751) positively but insignificantly influence student satisfaction. The path model shows that the four service quality constructs contributed 52.2% ($R^2 = 0.522$) on student satisfaction.

The Adjusted $R^2$ (0.519) indicated that 51.9% (Adjusted $R^2 = 0.519$) of student satisfaction was attributable to the significant aspects of service empathy, service tangibility, staff responsiveness, and service reliability. This indicates that other factors not included in this model may have accounted for 48.1% of the variation in student satisfaction, according to the coefficient of determination. Furthermore, the findings suggested that students would be more satisfied with their educational experience if Kyambogo University placed a strong emphasis on service quality.

The hypotheses were accepted since there was a substantial correlation between student satisfaction and four service quality factors: tangibility of services, reliability of services, responsiveness of staff, and service empathy. However, in terms of service assurance, the hypothesis was rejected.

## 4.4 Descriptive Results on Blended Learning Environment

A blended learning environment was studied as a construct in terms of collaboration with peers, interaction with instructors (lecturers), access to resources, and learner-centred instruction.

***4.4.1 Collaboration with Peers***. The construct of collaboration with peers was studied using four items. Descriptive results of the construct are presented in Table 4.27.

***Table 4.27***

***Descriptive Results for Collaboration with Peers***

| **Collaboration with Peers** | **SD** | **D** | **NS** | **A** | **SA** | **Mean** |
|---|---|---|---|---|---|---|
| I frequently collaborate with my peers in online discussions and group projects | 164 (26.5%) | 122 (19.7%) | 108 (17.4%) | 161 (26.0%) | 64 (10.4%) | 2.74 |
| I believe that working together with my peers in online tasks improves my academic performance | 43 (6.9%) | 156 (25.2%) | 160 (25.8%) | 188 (30.5%) | 72 (11.6%) | 3.15 |
| I find it easy to communicate and coordinate with peers for group assignments in the online setting | 73 (11.8%) | 114 (18.4%) | 146 (23.6%) | 192 (31.0%) | 94 (15.2%) | 3.19 |
| The technological tools provided in a blended learning environment facilitate collaboration | 54 (8.7%) | 113 (18.3%) | 136 (22.0%) | 217 (35.0%) | 98 (16%) | 3.32 |

Table 4.27 on whether students frequently collaborated with peers in online discussion and group work (46.2%) of students differed while (36.4%) concurred and (17.4%) were not sure. The mean

(2.74) implied students were not sure whether they frequently collaborated with peers in online discussions and group projects. Regarding working together with peers in online tasks improving students' academic performance (42.1%) of students concurred while (32.1%) differed and (25.8%) were not sure. The mean (3.15) implied students agreed that working together with peers in online tasks improved their academic performance.

Concerning whether students found it easy to communicate and coordinate with peers for group assignments in online setting (46.2%) of students concurred while (30.2%) differed and (23.6%) were not sure. The mean (3.19) implied students agreed that they found it easy to communicate and coordinate with peers for group assignments in online setting. About whether technological tools in blended learning environment facilitated collaboration (51.0%) of students concurred while (27%) differed and (22.0%) were not sure. The mean (3.35) implied that students agreed that the technological tools provided in a blended learning environment facilitated collaboration. To find out how students rated collaboration with peers, for the four items measuring the construct, an average measure was calculated. The results are summarised in Table 4.28.

***Table 4.28***

***Summary Results for Collaboration with Peers***

| | Descriptive | | Statistic | Std. Error |
|---|---|---|---|---|
| Collaboration | Mean | | 3.10 | .040 |
| With Peers | 95% Confidence | Lower Bound | 3.02 | |
| | Interval for Mean | Upper Bound | 3.19 | |
| | 5% Trimmed Mean | | 3.11 | |
| | Median | | 3.00 | |
| | Variance | | 0.99 | |
| | Std. Deviation | | 0.99 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.50 | |
| | Skewness | | -0.07 | 0.10 |
| | Kurtosis | | -0.84 | 0.20 |

Table 4.27 shows a mean= (3.10) which is close to the median= (3.00) with a negative skew (-0.07) suggests the results were normally distributed. The mean also meant that students rated collaboration with peers to be moderate. The standard deviation (0.99) also indicated a consistent distribution of respondents. The normal distribution of results is also displayed by the normal curve in Figure 4.15.

*Figure 4.15*

***Histogram for Collaboration with Peers***

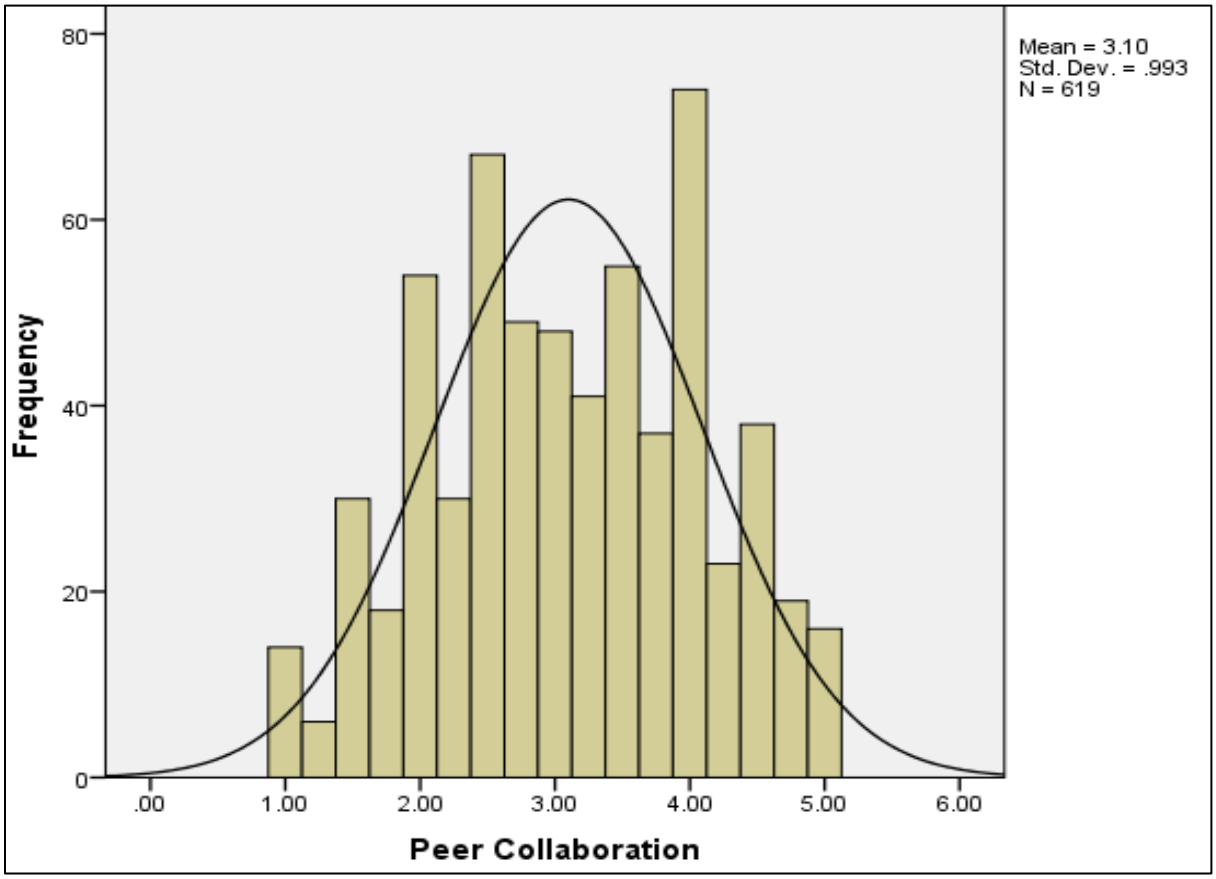



Figure 4.15 shows that students rate collaboration with peers to be moderate mean=3.10. The standard deviation (0.99) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.4.2 Interaction with Instructors (lecturers).*** The construct interaction with instructors was studied using four items. In Table 4.29 are descriptive results on the construct.

*Table 4.29*

***Descriptive Results for Interaction with Instructors***

| Interaction with Instructors | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| My lecturers provide clear instructions and explanations in the online environment | 160 (25.8%) | 144 (23.3%) | 107 (17.3%) | 138 (22.3%) | 70 (11.3) | 2.70 |
| The lecturers effectively use various digital tools such as Google meet, zoom) and technologies to enhance interaction and communication | 51 (8.2%) | 174 (28.1%) | 167 (27.0%) | 171 (27.6%) | 56 (9.1%) | 3.01 |
| The lecturer provides clear and organized online course | 74 (12.0%) | 108 (17.4%) | 156 (25.2%) | 218 (35.2%) | 63 (10.2%) | 3.14 |
| The lecturer provided additional resources and materials to supplement the online course content and enhance the learning experience | 54 (8.7%) | 130 (21.0%) | 132 (21.3%) | 213 (34.5%) | 90 (14.5%) | 3.25 |

Table 4.29 on whether lecturers provide clear instructions and explanations in the online environment (49.1%) of students differed while (33.6%) concurred and (17.3%) were not sure. The mean (2.70) implied that students were not sure whether lecturers provided clear instructions and explanations in the online environment. Regarding whether lecturers effectively used various digital tools (36.7%) of students concurred while (36.3%) differed and (27.0%) were not sure. The mean (3.01) implied students were not sure whether lecturers effectively used various digital tools like Google meet, zoom and technologies to enhance interaction and communication. As to whether lecturers provide clear and organise online courses (45.4%) of students concurred while

(29.4%) differed and (25.2%) were not sure. The mean (3.14) implied students agreed that lecturers provide clear and organised online courses.

Concerning whether the lecturers provide additional resources and materials to supplement the online course content (49.0%) of students concurred while (29.7%) differed and (21.3%) were not sure. The mean (3.25) implied students agreed that lecturers provide additional resources and materials to supplement the online course content to enhance the learning experience. To find out how students rated interaction with instructors, an average index was calculated for four items measuring the construct. The results are summarised in Table 4.30

***Table 4.30***

**Summary Results for Interaction with Instructors**

| | **Descriptive** | | **Statistic** | **Std. Error** |
|---|---|---|---|---|
| Interaction with instructors | Mean | | 3.03 | .039 |
| | 95% Confidence Interval for Mean | Lower Bound | 2.95 | |
| | | Upper Bound | 3.10 | |
| | 5% Trimmed Mean | | 3.03 | |
| | Median | | 3.00 | |
| | Variance | | 0.92 | |
| | Std. Deviation | | 0.96 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.25 | |
| | Skewness | | 0.01 | 0.10 |
| | Kurtosis | | -0.77 | 0.20 |

The results in Table 4.30 show a mean= (3.03) which is close to the median= (3.00) with a positive skew (0.01) suggests the results were normally distributed. The mean also meant that students

rated interaction with instructors as moderate. The standard deviation (0.96) also indicated consistent distribution of responses. The normal curve in Figure 4.16 shows the results' normal distribution.

**Figure 4.16**

***Histogram for Interaction with Instructors***

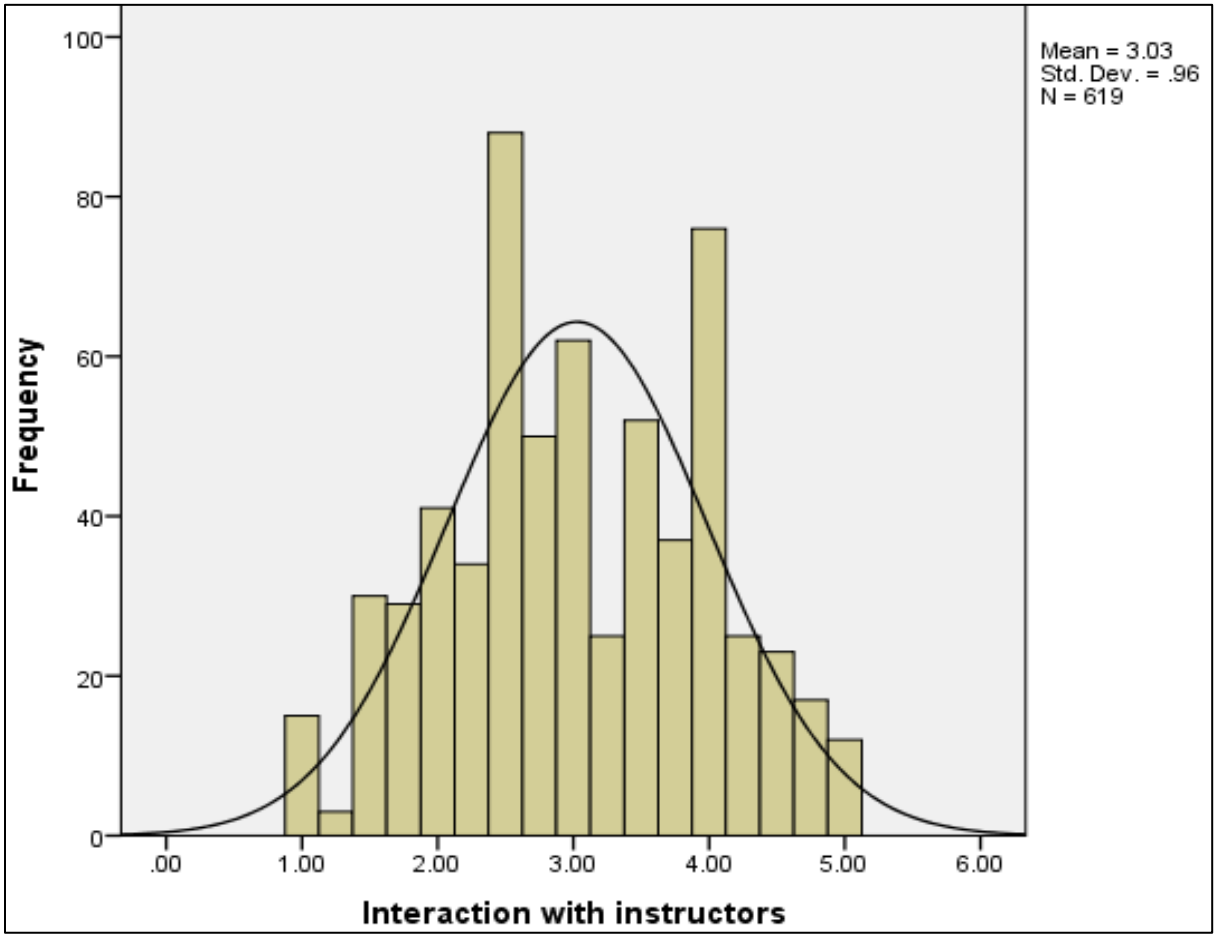



Figure 4.16 shows that the students rated interaction with instructors to be moderate mean=3.03. The standard deviation (0.96) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.4.3 Access to Resources.*** The construct access to resources was studied using five items. In Table 4.31 are descriptive results on the construct.

**Table 4.31**

***Descriptive Results for Access to Resources***

| Access to Resources | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| I have access to digital resources such as e-books, online articles, and multimedia materials | 166 (26.8%) | 130 (21.0%) | 120 (19.4%) | 148 (23.9%) | 55 (8.9%) | 2.67 |
| Physical resources such as textbooks, and supplementary materials are readily accessible when needed | 41 (6.6%) | 169 (27.3%) | 180 (29.1%) | 166 (27.1%) | 63 (9.9%) | 3.07 |
| The lecturer provides clear instructions on how to access and use the digital resources available in the course | 85 (13.7%) | 125 (20.2%) | 157 (25.4%) | 196 (31.7%) | 56 (9.0%) | 3.02 |
| The digital learning platform allows me to easily retrieve and review past discussions and course materials | 61 (9.9%) | 130 (21.0%) | 176 (28.2%) | 186 (29.4%) | 70 (11.3%) | 3.12 |
| The digital learning platform offers user-friendly search and navigation features to locate specific resources | 53 (8.6%) | 103 (16.6%) | 144 (23.2%) | 235 (38.0%) | 84 (13.6%) | 3.31 |

Table 4.31 on whether students have access to digital resources (47.8%) of students differed while (32.8%) concurred and (19.4%) were not sure. The mean (2.67) implied students were not sure whether they had access to digital resources such as e-books, online articles, and multimedia materials. Regarding whether physical resources were readily accessible when needed (33.9%) of

students differed while (30.1%) concurred and (29.1%) were not sure. The mean (3.07) implied that students were not sure whether physical resources such as textbooks, supplementary materials were readily accessible when needed. About whether lecturers provide clear instructions on how to access and use digital resources available in the course (40.7%) of students concurred while (33.9%) differed and (25.4%) were not sure. The mean (3.02) implied that students were not sure whether the lecturers provided clear instruction on how to access and use the digital resources available in the course.

Concerning whether digital learning platforms allow students to easily retrieve and review past discussions and course materials (40.9%) of students concurred while (30.9%) differed and (28.2%) remained without a decision. The mean (3.12) implied students agreed that the digital platforms allowed them to easily retrieve and review past discussions and course materials. As to whether digital learning platforms offered user-friendly search and navigation features to locate specific resources (51.6%) of students concurred while (25.2%) differed and (23.3%) remained without a decision. The mean (3.31) implied students agreed that the digital learning platforms offered user-friendly search and navigation features to locate specific resources. An average index was calculated for five items measuring the construct to determine how students rated access to resources. The results for access to resources are summarised in Table 4.32.

**Table 4.32**

***Summary Results for Access to Resources***

| | Descriptive | | Statistic | Std. Error |
|---|---|---|---|---|
| Access to | Mean | | 3.04 | .036 |
| Resources | 95% Confidence | Lower Bound | 2.97 | |
| | Interval for Mean | Upper Bound | 3.11 | |
| | 5% Trimmed Mean | | 3.04 | |
| | Median | | 3.00 | |
| | Variance | | 0.80 | |
| | Std. Deviation | | 0.90 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.40 | |
| | Skewness | | -0.01 | 0.10 |
| | Kurtosis | | 0-.55 | 0.20 |

Table 4.32 shows a mean= (3.04) which is close to the median= (3.00). Despite the negative skew (-0.01), the results were normally distributed. The mean also meant that students rated access to resources to be moderate. The standard deviation (0.90) also indicated consistency in the distribution of the responses. The normal curve in Figure 4.17 shows the results' normal distribution.

*Figure 4.17*

***Histogram for Access to Resources***

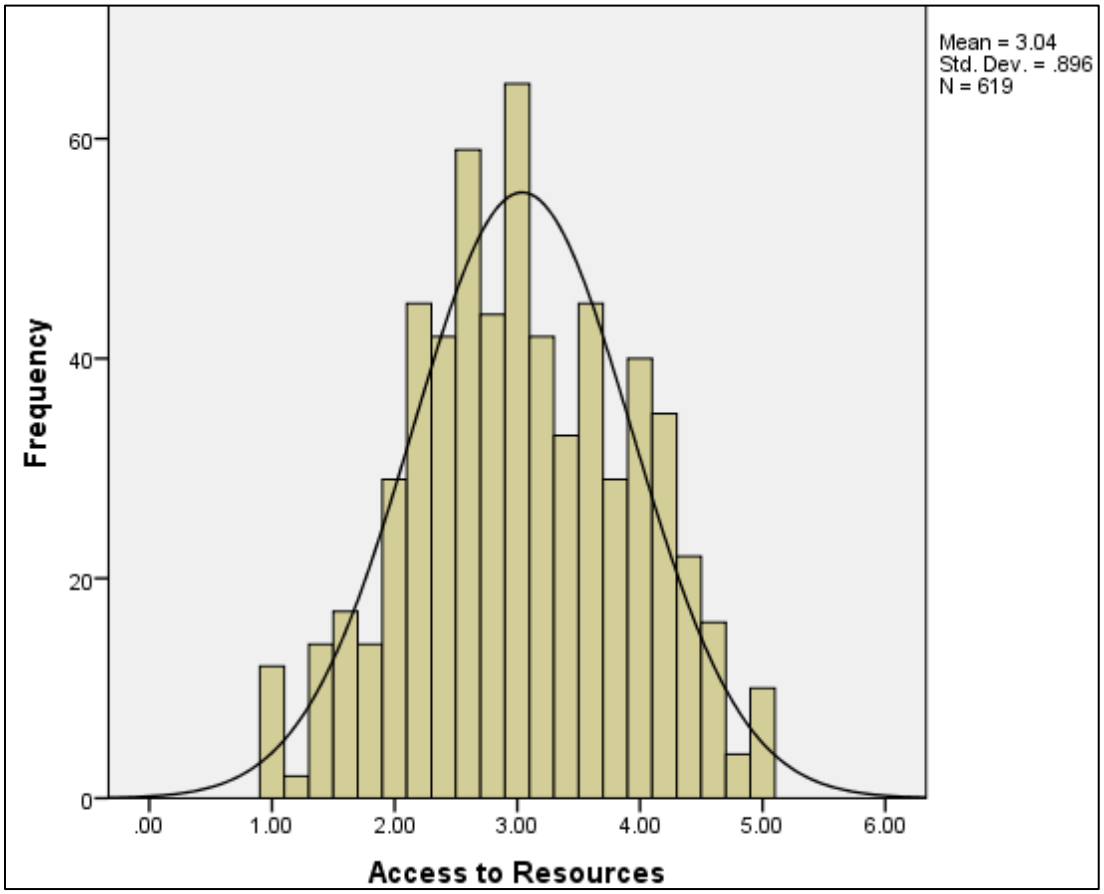



Figure 4.17 shows that the students rated access to resources to be moderate mean=3.04. The standard deviation (0.90) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.4.4 Learner-centred Instruction.*** The construct learner-centred instruction was studied using five items. In Table 4.33 are descriptive results on the construct.

*Table 4.33*

***Descriptive Results for Learner-centred Instruction***

| Learner-centered Instruction | SD | D | NS | A | SA | Mean |
|---|---|---|---|---|---|---|
| The blended learning environment allows me to set my own learning goals and objectives | 152 (24.6%) | 124 (20.0%) | 99 (16.0%) | 173 (27.9%) | 71 (11.5%) | 2.81 |
| I am encouraged to take responsibility for my own learning process in a blended learning environment | 35 (5.7%) | 136 (22.0%) | 184 (29.7%) | 199 (32.1%) | 65 (10.5%) | 3.20 |
| The blended learning activities promote active participation in the learning process | 48 (7.8%) | 124 (20.0%) | 160 (25.8%) | 217 (35.1%) | 70 (11.3%) | 3.22 |
| I have opportunities to discuss and share my ideas and perspectives with peers in a blended learning environment | 48 (7.8%) | 100 (16.2%) | 150 (24.2%) | 226 (36.5%) | 95 (15.3%) | 3.36 |
| The lecturer values and respects my prior knowledge and experiences in the blended course | 41 (6.6%) | 77 (12.4%) | 126 (20.4%) | 244 (39.4%) | 131 (21.2%) | 3.56 |

Table 4.33 concerning whether the blended learning environment allows learners to set their own learning goals and objectives (44.6%) of students differed (39.4%) concurred and (16.0%) were not sure. The mean (2.81) implied that students were unsure whether the blended learning environment allowed them to set their own learning goals and objectives. Regarding whether students were encouraged to take accountability for their learning process in a blended learning environment (42.6%) of students concurred while (27.7%) differed and (29.7%) were not sure. The mean (3.20) implied student agreed that they were encouraged to take charge of their own learning process in a blended learning environment. On whether the blended activities promoted active participation in the learning process (46.4%) of students concurred while (27.8%) differed

and (25.8%) were not sure. The mean (3.22) implied that students agreed that the blended learning activities promoted active participation in the learning process.

As to whether students had chances to discuss and share their ideas and perspectives with peers in a blended learning environment (51.8%) of students concurred while (24%) differed and (24.2%) were not sure. The mean (3.36) implied that students agreed that they had opportunities to discuss and share ideas with peers in a blended learning environment. Regarding the lecturers valuing and respecting students' prior knowledge and experiences in the blended learning course (60.6%) of students concurred while (19%) differed and (20.4%) were not sure. The mean (3.56) implied that students agreed that the lecturers value and respect their prior knowledge and experiences in the blended course. To determine how students rated learner-centered instruction, for the five items that measured the construct, an average index was computed. Table 4.34 presents the summary results for the construct of learner-centered instruction.

**Table 4.34**

***Summary Results for Learner-centred Instruction***

| | Descriptive | | Statistic | Std. Error |
|---|---|---|---|---|
| Learner | Mean | | 3.23 | .036 |
| Centred | 95% Confidence | Lower Bound | 3.16 | |
| Instruction | Interval for Mean | Upper Bound | 3.30 | |
| | 5% Trimmed Mean | | 3.24 | |
| | Median | | 3.20 | |
| | Variance | | 0.79 | |
| | Std. Deviation | | 0.89 | |
| | Minimum | | 1.00 | |
| | Maximum | | 5.00 | |
| | Range | | 4.00 | |
| | Interquartile Range | | 1.40 | |
| | Skewness | | -0.10 | 0.10 |
| | Kurtosis | | -0.64 | 0.20 |

Table 4.34 shows a mean= (3.23) which is close to the median= (3.20). Despite the negative skew (-0.10), the results were normally distributed. The mean also meant that students rated learner-centered instruction to be moderate. The standard deviation (0.89) also indicated consistency in the results. The normal distribution of the results is also displayed by the normal curve in Figure 4.18.

**Figure 4.18**

***Histogram for learner-centred Instruction***

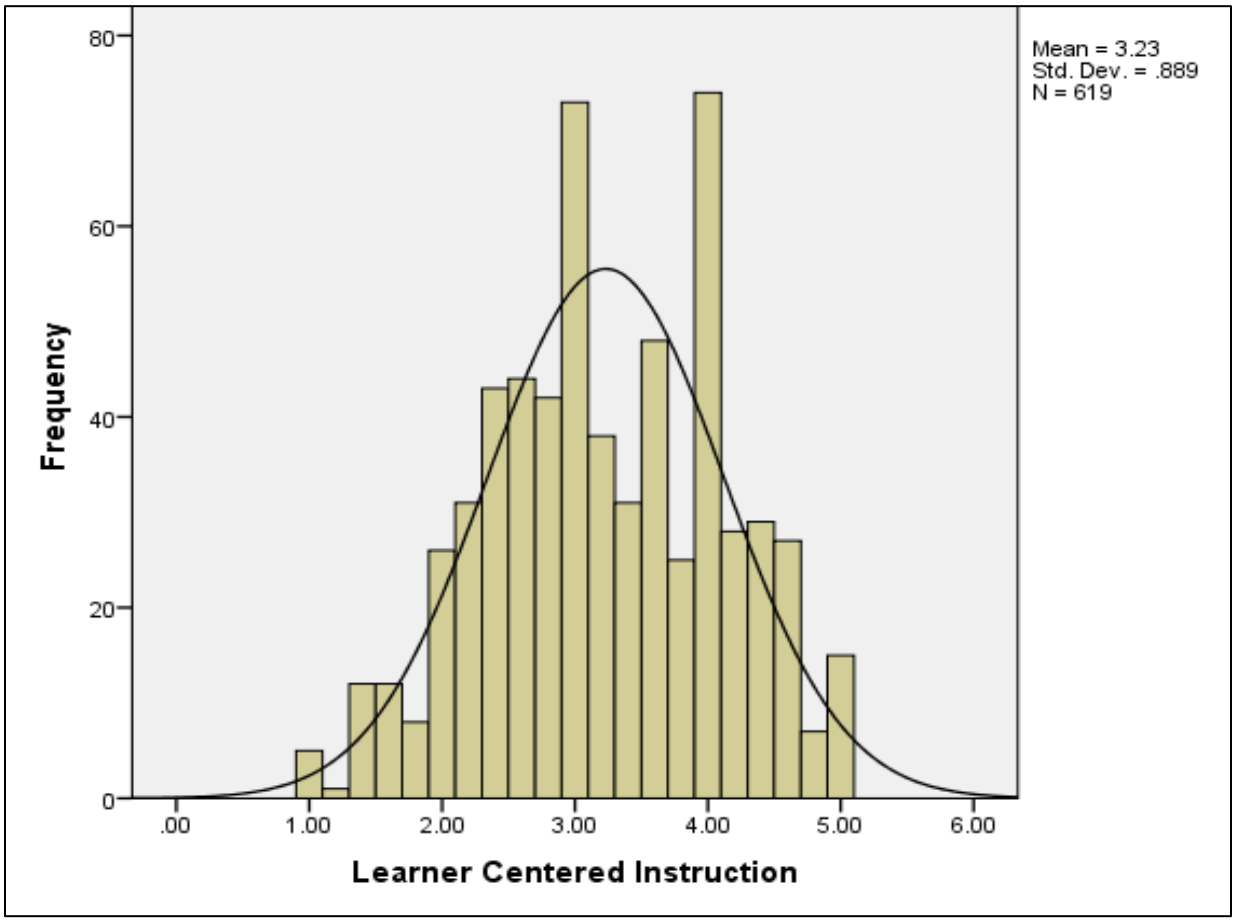



Figure 4.18 shows that students rated learner-centred instruction to be moderate mean= 3.23. The standard deviation (0.89) meant that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results.

***4.4.5 Blended Learning Environment.*** To test how overall students rated blended learning environment, an average index was created for four aspects measuring the concept that are; collaboration with peers (CP1-4), interaction with instructors (II.1-4), access to resources (AR1-

5), learner-centred instruction (LI1-5) (see Appendix A). The results are summarised in Table 4. 35.

**Table 4.35**

***Summary Results for Blended Learning Environment***

| | **Descriptive** | | **Statistic** | **Std. Error** |
|---|---|---|---|---|
| Blended Learning | Mean | | 3.10 | .032 |
| Environment | 95% Confidence | Lower Bound | 3.04 | |
| | Interval for Mean | Upper Bound | 3.17 | |
| | 5% Trimmed Mean | | 3.11 | |
| | Median | | 3.06 | |
| | Variance | | 0.63 | |
| | Std. Deviation | | 0.79 | |
| | Minimum | | 1.00 | |
| | Maximum | | 4.78 | |
| | Range | | 3.78 | |
| | Interquartile Range | | 1.22 | |
| | Skewness | | -0.04 | 0.10 |
| | Kurtosis | | -0.68 | 0.20 |

Table 4.35 shows an average mean= ( 3.10) which is close to the median= (3.06). Despite the negative skew (-0.04), the results were normally distributed. The mean also meant that students rated blended learning encviroment to be moderate. The standard deviation (0.79) also indicated consistency in the distribution of the responses. The normal diistribution of the results are also displayed in the normal curve in Figure 4.19.

*Figure 4.19*

***Histogram for Blended Learning Environment***

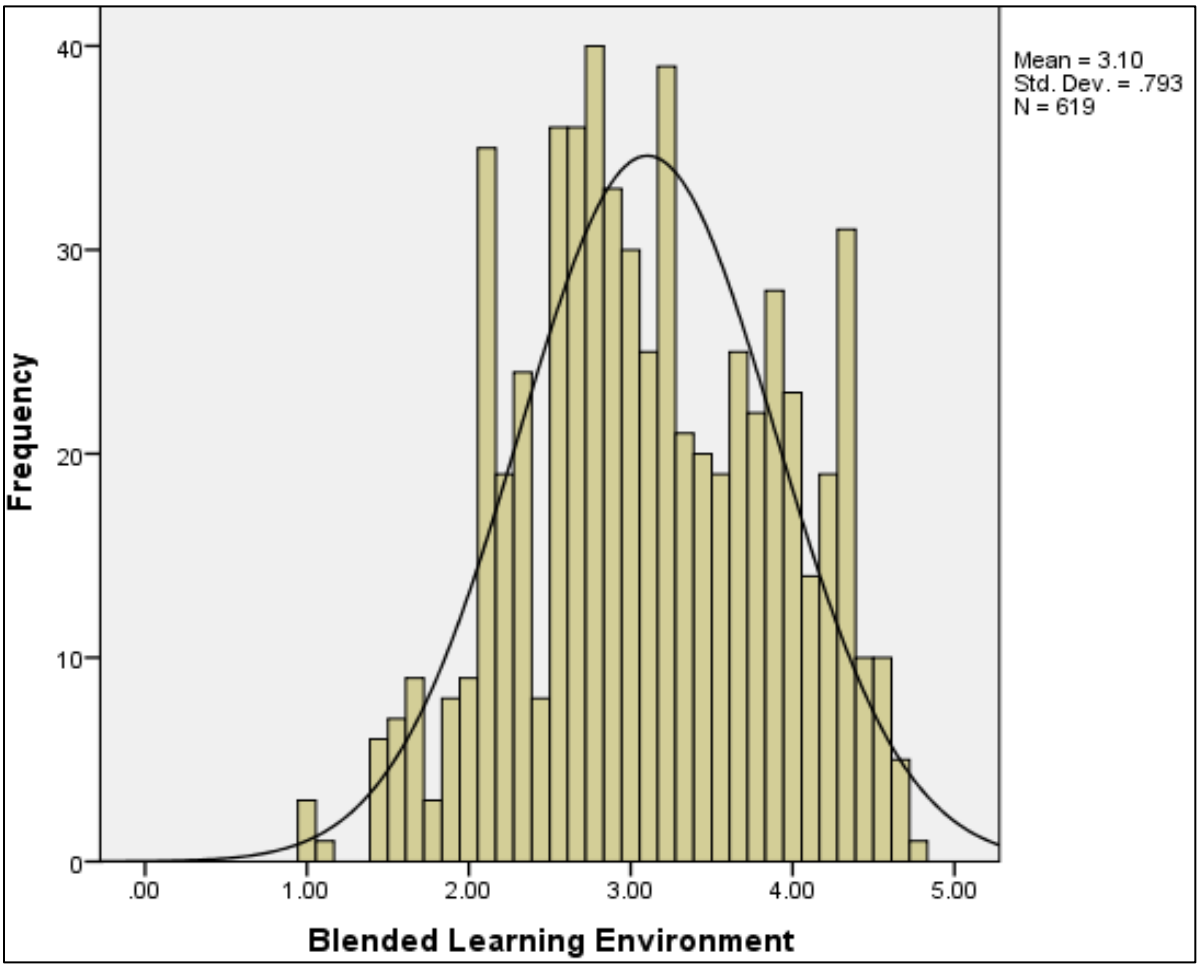
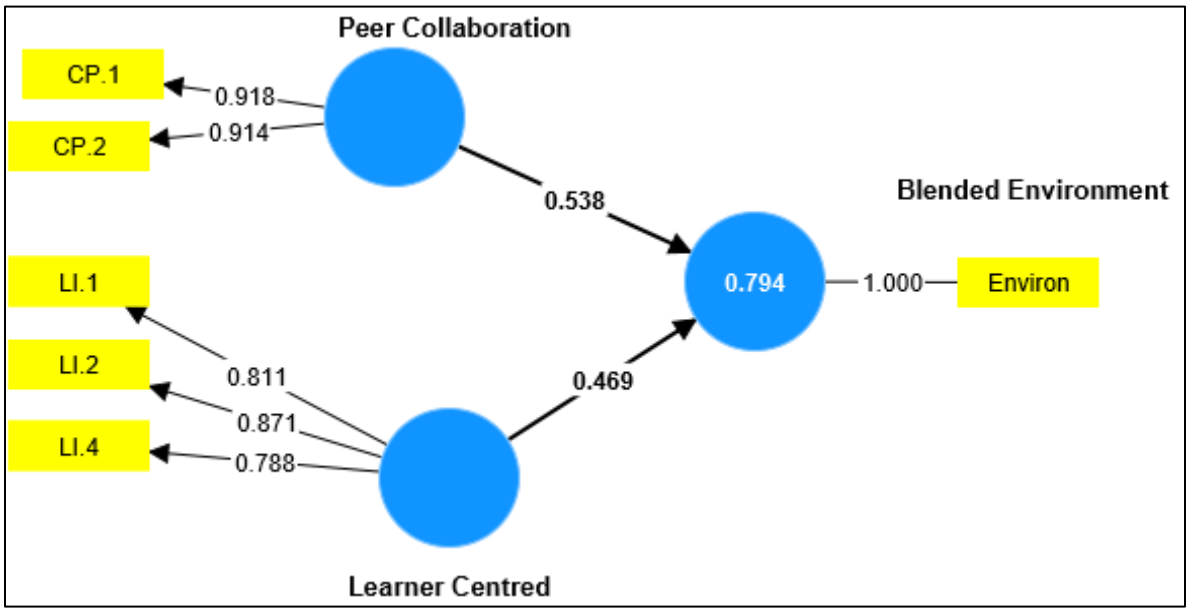



Figure 4.19 reveals mean=3.10 which implies that the blended learning environment was rated to be moderate. The standard deviation (0.79) implied that the results were consistent. As a result, linear analysis may be performed on the data to produce the necessary results. Structural equation modeling was conducted for a blended learning environment and the model is presented in the Structural Model Figure 4.20 which describes the concept of a blended learning environment.

*Figure 4.20*

***Blended Learning Environment Structural Model***




The structural model Figure 4.20 describes a blended learning environment. The model shows that a blended learning environment is a concept that involves collaboration with peers, interaction with instructors, access to resources, and learner-centred instruction. The factor loadings obtained show that two out of four factors of collaboration with peers, and three out of five of learner-centred instruction loaded well over the minimum validity of (0.5) when factor analysis was applied following the advice of (Hair Jr. et al., 2021). Some items were removed, because they did not load highly. As a result, every item that remained for every construct in the model served as a reliable gauge for that construct. The items dropped were not included in the analysis that followed. To analyze the relationship between the blended learning environment and student satisfaction, structural equation modeling was done. The results are shown in Structural Model Figure 4.21, which details how the blended learning environment affects student satisfaction.

*Figure 4.21*

***Blended Learning Environment and Student Satisfaction***

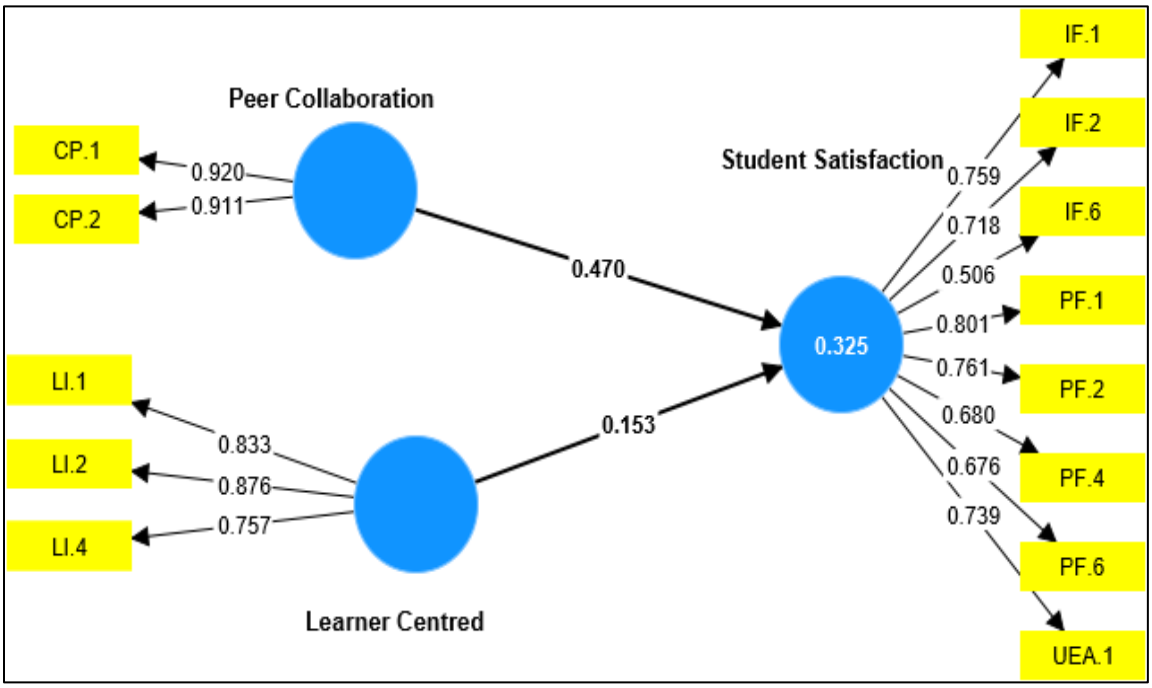



Figure 4.21 shows that a blended learning environment influences student satisfaction. The blended learning environment was studied in terms of four factors namely collaboration with peers, interaction with instructors, access to resources, and learner-centred instruction. For a blended learning environment two of four items for collaboration with peers, and three out of five items for learner-centred instruction that measured the same loaded above minimum validity value (0.5) when using factor analysis. Student satisfaction was studied as four component model that included university environment and attractiveness, instructor factor, program factor, and administrative student services. However, in the test for relationship with the independent variable (blended learning environment), one out of eight items of university environment and attractiveness, three out of six items of instructor factor, four out of seven items of program factor loaded above the minimum validity value (0.5). The items of administrative student services did

not load above the minimum validity value (0.5). Hence, all items that did not load highly were removed from the model. This meant that blended learning environment related to university environment and attractiveness, instructor factor, and program factor. The structural path model is presented in Table 4.36 describing the effect of blended learning environment on student satisfaction.

***Table 4.36***

***Structural Path Model for Blended Learning Environment and Student Satisfaction***

| **Structural Path** | β | Mean | STD | T | P |
|---|---|---|---|---|---|
| Learner Centred -> Student Satisfaction | 0.153 | 0.155 | 0.044 | 3.463 | 0.001 |
| Peer Collaboration -> Student Satisfaction | 0.470 | 0.471 | 0.038 | 12.232 | 0.000 |
| $R^2 = 0.325$ | | | | | |
| Adjusted $R^2 = 0.323$ | | | | | |

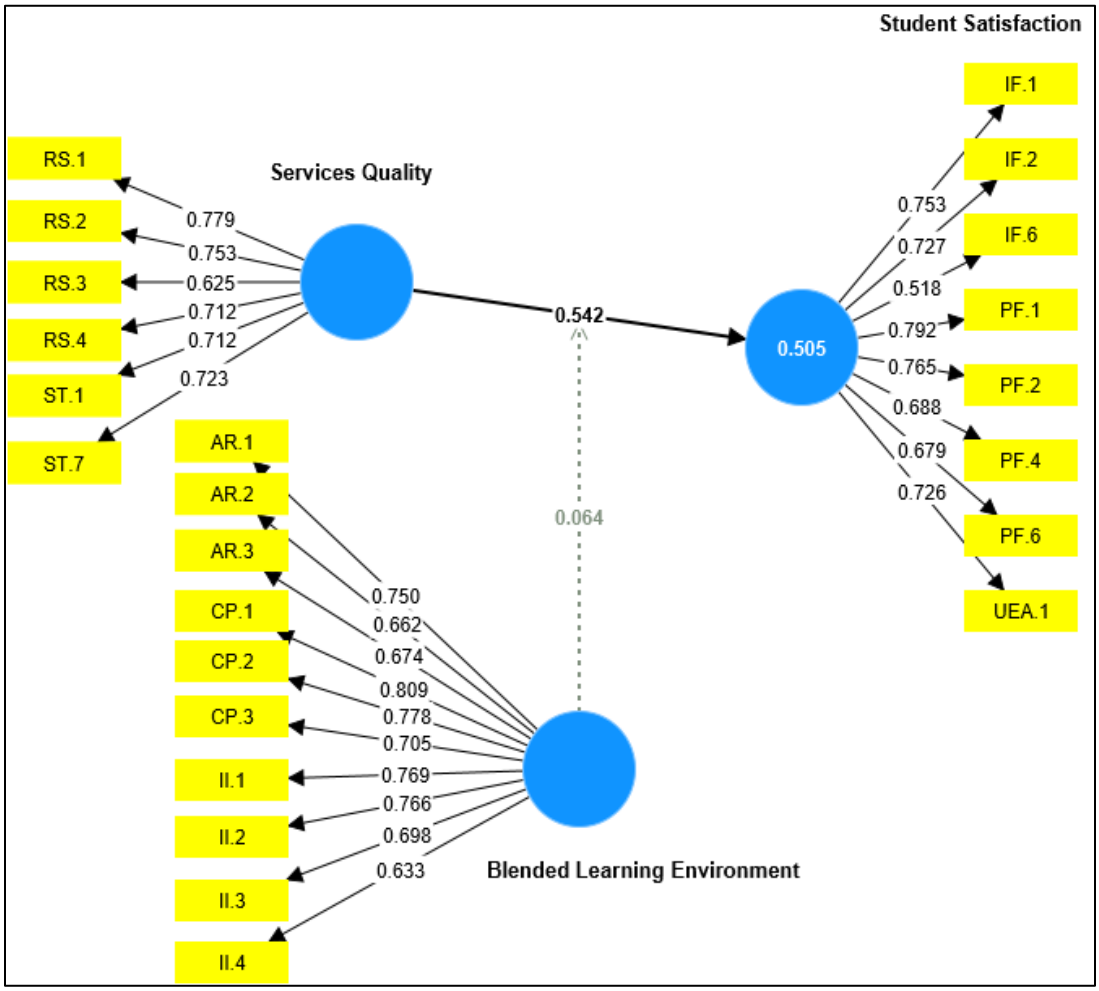
Table 4.36 shows the results of the tests of the hypothesis that learner-centered instruction (H1.1) and collaboration with peers (H1.2) influence student satisfaction. According to the study, peer collaboration (β=0.470, t=12.232, p=0.000) and learning-centered instruction (β=0.153, t=3.463, p=0.001) significantly affect student satisfaction. The path model shows that learner-centered instruction and peer collaboration, contributed (0.325), or 32.5%, to student satisfaction.

Adjusted $R^2$ (0.323) indicated that significant elements, such as peer collaboration and learner-centered instruction, contributed (32.5%) to student satisfaction. This suggests that according to the coefficient of determination, factors not included in this model accounted for (67.5 %) of the variation in student satisfaction. The hypothesis was accepted because of a positive and significant association between peer collaboration and learner-centered instruction. As a result, Kyambogo

University needs to implement a blended learning environment model. Moderation analysis was performed for a blended learning environment, service quality, and student satisfaction, and the model is shown in Structural Model Figure 4.22, which describes the blended learning environment's moderating effect on service quality and student satisfaction.

**Figure 4.22**

***Service Quality and Student Satisfaction Moderated by Blended Learning Environment***




The result in Figure 4.22 shows independent variables namely services quality, and blended learning environment were tested for factor loading. Services quality had five constructs namely service tangibility, reliability of services, responsiveness of staff, service assurance, and service empathy. For reliability of services four items out of nine items, loaded above the minimum

validity value (0.5) when using factor analysis (Hair Jr et al. 2021). For tangibility of services one out of nine items loaded above (0.5). No item loaded for responsiveness of staff, service assurance and service empathy. Blended learning environment was measured using four constructs namely collaboration with peers, interaction with instructors, access to resources, and learner-centered instruction. For collaboration with peers three out of four items highly loaded above the minimum validity value (0.5). For interaction with instructor's four out of four items that measured the construct loaded highly above the minimum validity value (0.5).

For access to resources three out of five items that measured the construct loaded highly above the minimum validity value (0.5). No item loaded for learner-centered instruction. Student satisfaction was measured in terms of four constructs namely university environment and attractiveness, instructor factor, program factor, and administrative student services. For university environment and attractiveness one out of eight items loaded highly above the minimum validity value (0.5). For instructor factor three out of six items loaded highly above the minimum validity value (0.5). For program factor four out of seven items loaded highly above the minimum validity value (0.5). No item loaded for administrative student services. service quality and student satisfaction path model for moderating the effect of a blended learning environment was conducted. Table 4.37 shows the results.

**Table 4.37**

**Service Quality and Student Satisfaction Path Model for Moderating Effect of Blended Learning Environment**

| Moderating Effect | β | Mean | STD | T | P |
|---|---|---|---|---|---|
| Blended Learning Environment → Student Satisfaction | 0.216 | 0.218 | 0.045 | 4.791 | 0.000 |
| Service Quality → Student Satisfaction | 0.542 | 0.542 | 0.041 | 13.106 | 0.000 |
| Blended Learning Environment x Service Quality → Student Satisfaction | 0.064 | 0.064 | 0.029 | 2.204 | 0.028 |
| $R^2 = 0.505$ | | | | | |
| Adjusted $R^2 = 0.502$ | | | | | |

The model in Figure 4.22 and Table 4.37 hypothesised that a blended learning environment had a moderating influence on service quality and student satisfaction. Table 4.32 indicates that the blended learning environment significantly increased student satisfaction (β=0.216, t=4.791, p=0.000). The path coefficient (β=0.542, t=13.106, p=0.000) indicates that service quality has a positive and significant impact on student satisfaction. To demonstrate the moderating influence of a blended learning environment on the link between service quality and student satisfaction, an interaction coefficient was calculated. The path coefficient between blended learning environment, service quality, and student satisfaction was (β=0.064, t=2.204, p=0.028), indicating a positive and substantial moderating effect. As a result, the hypothesis that a blended learning environment moderates the association between service quality and student satisfaction was accepted. As a result, the blended learning environment moderated both service quality and student satisfaction.

# CHAPTER FIVE

# DISCUSSION, CONCLUSION, RECOMMENDATIONS

## 5.0 Introduction

This section includes a discussion of the outcomes, the conclusion derived from the outcomes, and recommendations based on the results. The discussion entails cross-referencing the study's findings with existing literature. As a result, conclusions are drawn from the discussions, and recommendations are made based on them.

## 5.1 Discussion of the Findings

The section of the study discusses the study's findings objective by objective. The discussion starts with the impact of service quality on student satisfaction.

***5.1.1 Service quality and student satisfaction.*** The study's first hypothesis proposed that service quality influences student satisfaction. The outcomes showed that the hypothesis was accepted. Service quality has a favourable and significant influence on student satisfaction, which is consistent with prior research discoveries. (Abu Rashed et al., 2017; Al-Otaibi, 2020; Gul & Shah, 2019; Martha-Martha & Priyono, 2018; Twum & Peprah, 2020). For instance, Al-Otaibi et al. (2020) reviewed how service quality impacts student satisfaction in Saudi higher learning institutions. They concentrated on the five elements of service quality: tangibility, reliability, responsiveness, assurance, and empathy. Their research indicated that service quality affects student satisfaction. Although all five aspects of service quality have varying degrees of influence on student satisfaction, this is consistent with the findings of this study, which found that tangibility, reliability, and responsiveness positively and significantly influence student

satisfaction, while empathy positively but insignificantly influences student satisfaction, and assurance does not influence student satisfaction because no item loaded highly.

Gul and Sha (2019) conducted a study on the implications of service quality on student satisfaction in higher education institutions in Kyhber Pakhtunkhwa, Pakistan. The results showed that service quality had a positive and significant impact on student satisfaction. The five categories of service quality had a positive and significant effect on student satisfaction. The hypothesis investigated the influence of service quality and concluded that the assurance component had a substantial impact on student satisfaction. The results were in line with the findings of (Abu Rashed et al., 2017), but differed from the findings of the present study, in which no item loaded highly for service assurance, implying that it did not affect student satisfaction. Martha-Martha and Priyono (2018) investigated the effect of service quality on student satisfaction at higher learning institutions in Riau, Indonesia. The study indicated that service quality has a positive and significant impact on student satisfaction. The study's findings, which are consistent with those of previous researchers, led to the conclusion that service quality is an important component to consider for students to be satisfied at Kyambogo University.

***5.1.2 Blended Learning Environment and Student Satisfaction.*** The second hypothesis of the study stated that a blended learning environment influences student satisfaction. The results revealed that the hypothesis was accepted. This implied that blended learning environment influences student satisfaction. The finding was supported by previous scholars. According to the study's second hypothesis, a blended learning environment influences student satisfaction. The results indicated that the hypothesis was accepted. This implied that the blended learning environment influences student satisfaction. Previous research has corroborated this finding (Dinh et al., 2021; Hussein et al., 2021; Li et al., 2022; Yu et al., 2022; Zeqiri et al., 2021). For example,

at the FPT University Can Tho campus in Vietnam, Dinh et al. (2021) investigated the relationship between students' learning styles, E-learning self-efficacy, and satisfaction while studying in a blended learning environment. The results showed that cognitive factors and the social environment have a significant impact on students' satisfaction in blended learning courses. They discovered that social environment characteristics, including student-instructor contact and teacher performance in class, play an important influence in motivating students in blended learning courses. This conclusion differs from the findings of this study, in which questions about interaction with instructors did not load highly. This implied that interaction with instructors in a blended learning environment does not influence student satisfaction.

In a study by Hussein et al. (2021) at the Arab Open University in Saudi Arabia, major variables influencing student satisfaction with blended learning were examined. The results demonstrated how blended learning affects students' levels of satisfaction. These results are consistent with the study's findings, which showed a positive and substantial association between peer collaboration and learner-centered instruction, supporting the hypothesis. This suggested that Kyambogo University's blended learning environment had a positive and substantial impact on student satisfaction. Similarly, Zeqiri et al. (2021) studied how blended learning affected students' performance and satisfaction at North Macedonian South European Universities. The findings demonstrated that two components of blended learning, course management and interaction have a beneficial effect on students' satisfaction. The results support the hypothesis that student satisfaction is positively impacted by a blended learning environment.

***5.1.3 Moderating Effect of Blended Learning Environment on Service Quality and Student Satisfaction.*** According to the third hypothesis, student satisfaction and service quality were moderated by the blended learning environment. The findings showed that the link between service

quality and student satisfaction was positively and significantly moderated by a blended learning environment. The results corroborate the third study hypothesis, which postulated that service quality and student satisfaction were moderated by a blended learning environment. However, this study's conclusions contrast with those of earlier researchers (Damaris et al., 2017; Padlee et al., 2016; Saleem et al., 2017; Singh and Jasial, 2020). Damaris et al. (2017) investigated the link between service quality and student satisfaction, using motivation as a moderating variable. Padlee et al. (2016) explored the moderating effect of students' characteristics, such as gender, race, and state of origin, influencing the relationship between perceived quality and satisfaction with university services in Kuala Terengganu, Malaysia.

Saleem et al. (2017) examined the impact of service quality on student satisfaction in Pakistan's higher learning institutions, taking into account the moderating influences of university culture, pricing, and reputation. Singh and Jasial (2020) investigated the moderating role of perceived trust in the connection between service quality and student satisfaction at higher management learning institutions in Delhi and the National Capital Region of India. The conclusions of the research listed above differ from those of this present study. The outcomes of this current study are more than simply data points for me; they represent the actual experiences of my classmates. My analysis is infused with a strong sense of responsibility to fight for changes that will make a real difference in their academic experience. Therefore, the findings led to a conclusion that blended learning environment moderates service quality and student satisfaction.

## 5.2 Conclusion

Drawing from the study's objectives, this part delivers the study's conclusion. The study's conclusion was based on the results of the three hypotheses.

(1) Based on the study's findings, various aspects of service quality significantly impact student satisfaction. Specifically, reliability of services, responsiveness of staff, and tangibility of services are all positively and significantly associated with student satisfaction. Positive β values and significant p-values for these categories (reliability: β=0.215, t=4.312, p=0.000; responsiveness: β=0.246, t=5.493, p=0.000; tangibility: β=0.357, t=7.373, p=0.000) suggest that improvements in these areas will enhance student satisfaction. This demonstrates that, in the context of this study, empathy may not be an important predictor of student satisfaction with other dimensions of service quality. As a result, educational institutions seeking to improve student satisfaction should emphasize improving the reliability, responsiveness, and tangibility of their services. While empathy remains a favourable characteristic, its impact on satisfaction appears to be low and insignificant in this situation.

(2) The study found that learner-centered instruction and cooperation with peers significantly influence student satisfaction. The study found that learner-centered instruction significantly influences student satisfaction (β=0.153, t=3.463, p=0.001). This shows that instructional approaches that prioritize students' needs, preferences, and active participation lead to higher levels of student satisfaction. Collaboration with peers significantly influences student satisfaction (β=0.470, t=12.232, p=0.000). This suggests that allowing students to work together and participate in collaborative learning activities is quite helpful in increasing their overall satisfaction. Finally, educational institutions that want to boost student satisfaction should focus on and encourage learner-centered instructional approaches and provide enough possibilities for peer collaboration. These factors have been demonstrated to strongly contribute to student satisfaction levels, with

peer collaboration having the greatest impact. As a result, the study indicated that having a blended learning environment is vital for student satisfaction at Kyambogo University.

(3) The study found that a blended learning environment can moderate the association between service quality and student satisfaction. The path coefficient indicates that a blended learning environment moderates the association between service quality and student satisfaction ($\beta$=0.064, t=2.204, p=0.028). This demonstrates that using a blended learning environment improves the impact of service quality on student satisfaction. This shows that students in a blended learning environment, which includes both online and face-to-face instructional methods, are more satisfied when their educational institution provides high-quality services. The integrated learning setting reinforces the positive impact of service quality on student satisfaction. To summarize, educational institutions seeking to improve student satisfaction should consider creating and improving blended learning environments. These surroundings not only increase student satisfaction but also accentuate the benefits of good service quality. Thus, concentrating on both service quality and a blended learning environment framework can result in considerable improvements in student satisfaction at Kyambogo University.

## 5.3 Recommendations

For student satisfaction to be boosted at Kyambogo University, several recommendations were made based on the conclusions of the study;

(1) Kyambogo University should provide consistent and trustworthy services to students, including timely delivery of course materials, accurate administrative processes, and dependable support. The institution should also invest in frequent staff training programs to improve their response to student needs and questions; in this context, training should

focus on effective communication, timely resolution of student complaints, and proactive problem-solving. The institution should provide high-quality physical resources such as well-maintained classrooms, up-to-date technological equipment, and numerous library resources, as regular modifications and enhancements to facilities and resources can considerably increase student satisfaction. Although empathy was not a significant determinant of student satisfaction in this study, it is still a beneficial attribute. As a result, the university would perform empathy training on staff to guarantee that they can properly comprehend and handle student issues. Regularly assessing the effectiveness of service quality dimensions and making required adjustments would assist the university in identifying areas for development and ensuring the institution's continued competitiveness in providing high-quality education services. By focusing on these areas, educational institutions can improve student satisfaction, resulting in improved educational outcomes and a more favourable student experience.

(2) Kyambogo University can employ instructional practices that enable individualized learning experiences, such as tailoring lessons to students' various needs, preferences, and learning styles. It may also use digital resources such as forums for discussion, shared documents, virtual meeting spaces, and platforms to enhance peer collaboration. The institution would also provide flexible learning alternatives, allowing students to interact with course materials and engage in learning activities at their own pace and convenience. Kyambogo University may improve student satisfaction by implementing effective learner-centered instruction, collaborating with peers, and creating a well-designed blended learning environment. This holistic approach will help students have a more engaged, supportive, and enjoyable educational experience.

(3) To enable a blended learning environment, Kyambogo University should provide high-speed internet, reliable learning management systems (LMS), and up-to-date software for students and faculty. It should ensure that service quality is constant in both online and offline locations, including fast replies to requests, reliable access to course materials, and efficient administration. The institution should provide comprehensive training for lecturers on how to effectively develop and deliver blended learning courses. This training should include best practices in online pedagogy, digital tool utilization, and student engagement in a blended learning environment. Orientation programs for students to help them navigate the blended learning environment should be established, including training on how to use the LMS, access digital materials, and manage online coursework. This emphasis on service quality and a blended learning environment will result in considerable increases in student satisfaction, ultimately contributing to better educational outcomes and a more fulfilling student experience.

### 5.4 Limitations and Suggestions for Further Research

Like many other investigations, this study had limitations. This study used a single source of data to investigate whether service quality and the blended learning environment influence student satisfaction. The study examined the research constructs utilizing student responses. This was cost-effective, but universities have numerous stakeholders, including administrative personnel and university policymakers; therefore, future research should include a diverse range of respondents to gain a more comprehensive understanding of service quality and blended learning environment. Second, the available literature on the moderating effect of blended learning environment on service quality and student satisfaction is limited; nonetheless, during the COVID-19 epidemic, blended learning gained prominence. This therefore calls for further investigations to examine the

moderating role of blended learning environment on student satisfaction, this field of research still has conceptual and empirical potential for scholarly work.

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# APPENDICES

## Appendix A

Self-Administered Questionnaire on Service Quality and Student Satisfaction moderated by Blended Learning Environment at Kyambogo University

Educational Planning and Management

Kyambogo University

June, 2023

Dear Sir/Madam,

I am a Kyambogo University student pursuing a Master of Education in Policy, Planning, and Management. I am now conducting research on "service quality and student satisfaction moderated by the blended learning environment at Kyambogo University". You have been selected to take part in this study because you will provide valuable information on your experiences as a Kyambogo University student. Please respond meticulously to the study items; the information collected is solely for academic purposes. Participation is entirely optional and essential to the success of this study. The information provided will be treated with utmost confidentiality. Thank you in advance for accepting to participate in my study.

Yours faithfully

……

Grace Kauta

Section A: Background Variable (BV)

BV1. Gender 1) Male 2) Female

BV2. Age group in years 1) up to 30 2) 30 but below 40 3) 40 and above

BV3. Education level 1) Diploma 2) Post Graduate Diploma 3) Bachelor

BV4. What is your current academic year at Kyambogo University a) First Year b) Second Year c) Third Year

Section B: Student Satisfaction (SS)

This part, which is broken up into four categories, includes the following items related to student satisfaction: university environment and attractiveness, instructor factor, program factor, and administrative student services.

UEA University Environment and Attractiveness

Please rate the following statements based on your experience with student satisfaction at the University using a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| UEA.1 | I am satisfied with the physical appearance of the university campus | | | | | |
| UEA.2 | It is easy to gain access to university resources through the library | | | | | |
| UEA.3 | The lecture rooms and computer laboratories are accessible and user friendly | | | | | |
| UEA.4 | I am likely to recommend the University to prospective students | | | | | |
| UEA.5 | The eating places are hygienic and the students are given quality food | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| UEA.6 | I am likely to continue pursuing my studies at the University | | | | | |
| UEA.7 | I am satisfied with the rooms at the university in terms of their comfort, technology resources, and overall suitability for effective learning | | | | | |
| UEA.8 | I receive adequate administrative support and guidance such as assistance with enrolment, course registration, and other administrative processes | | | | | |

IF Instructor Factor

Please rate the following statements based on your experience with instructors/ lecturers at the University using a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| IF.1 | The lecturers are friendly in their interactions with students inside and outside the lecture rooms | | | | | |
| IF.2 | The lecturers are knowledgeable and have expertise in the subject matter they teach | | | | | |
| IF.3 | The lecturers are accessible and approachable outside class hours for discussion or clarification on course content | | | | | |
| IF.4 | The lecturers contribute to my overall satisfaction with the educational experience at the university | | | | | |
| IF.5 | The lecturers explain course content material and concepts well, ensuring clarity and understanding among the students | | | | | |
| IF.6 | The marking system employed by the lecturers is fair and unbiased in evaluating student performance | | | | | |

PF Program Factor

Please rate the following statements based on your experience with program factor at the University using a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| PF.1 | I find the program of study I enrolled in interesting and engaging | | | | | |
| PF.2 | The program of study provides me with intellectual stimulation, encourages critical thinking, and expands my knowledge in the field | | | | | |
| PF.3 | The amount of study required for the program of study and the grades or academic outcomes I have achieved are sufficient | | | | | |
| PF.4 | The program of study contributes to my academic development, such as enhancing my skills, knowledge, and understanding of the subject matter | | | | | |
| PF.5 | The program of study offers a sufficient workload in terms of coursework, assignments, and projects required for my course | | | | | |
| PF.6 | The sequence of topics presented in my study program flow logically allowing a smooth progression of learning and understanding | | | | | |
| PF.7 | The program of study is preparing me for real-world applications or future academic pursuits in the study discipline | | | | | |

ASS Administrative Student Services

Please rate the following statements based on your experience with administrative student services provided at the University using a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| ASS.1 | The placement services at the university are effective in assisting students with internship, job placement, and career opportunity | | | | | |
| ASS.2 | The registration assistance provided by the university facilitates a smooth and efficient enrolment process for me | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| ASS.3 | I am satisfied with the recreational sports facilities and activities offered by the university for student's physical well-being and leisure | | | | | |
| ASS.4 | The services provided by the students' guild are useful and supportive in enhancing my overall student experience | | | | | |
| ASS.5 | I am satisfied with the student lounge facilities provided by the university for socializing, studying and relaxation | | | | | |
| ASS.6 | I am satisfied with the student health services offered by the university such as medical care, counselling and mental health support | | | | | |
| ASS.7 | The halls of residence are comfortable , well-maintained and conducive for my living needs | | | | | |
| ASS.8 | The university intervenes and provides support in addressing risky behaviours such as drug use, or other harmful activities among students | | | | | |
| ASS.9 | The university provides support to students in terms of resources, mentorship, and initiatives tailored to their specific needs and challenges | | | | | |
| ASS.10 | The university provides effective support services for disabled and handicapped students for equal access to education and campus facilities | | | | | |
| ASS.11 | The university provides support to students from disadvantaged backgrounds such as scholarships, financial aid, or specialized assistance | | | | | |
| ASS.12 | I feel safe and secure on campus | | | | | |
| ASS.13 | I use the digital services provided by the university such as e-library resources, audio-visual resources, or digital platforms for my academic and research needs | | | | | |
| ASS.14 | I am satisfied with the transportation services offered by the university, including shuttle services, and parking facilities | | | | | |
| ASS.15 | I am satisfied with the availability and quality of student support services offered by the university such as counselling services, career guidance, and academic tutoring | | | | | |

Section C: Service Quality (SQ)

This section presents items on service quality and is divided into five sections: tangibility of services, reliability of services, responsiveness of staff, service assurance, and service empathy.

ST Service Tangibility

Please rate the following statements based on your experience with service tangibility at the University using the scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| ST.1 | The university is fitted with state-of-the-art facilities that can be used to develop students' interests and talent | | | | | |
| ST.2 | The university has equipment for the significant learning process | | | | | |
| ST.3 | The university has a hygienic environment | | | | | |
| ST.4 | The university facilities are clean and well maintained | | | | | |
| ST.5 | The university environment is conducive to learning and studying | | | | | |
| ST.6 | The lecturers dress well and appear professional and neat | | | | | |
| ST.7 | The lighting conditions in the lecture rooms at the university are sufficient in terms of visibility and creating a conducive learning environment | | | | | |
| ST.8 | The university amenities such as restrooms, and outdoor space are well-maintained in terms of cleanliness and functionality | | | | | |
| ST.9 | The university buildings appear appealing in terms of their architectural design, and cleanliness | | | | | |

RS Reliability of Services

Please rate the following statements based on your experience with the reliability of services at the University using a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| RS.1 | The university staff always give students the right guidance about the course | | | | | |
| RS.2 | The class schedules are timely | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| RS.3 | The faculty staff are always available for consultations | | | | | |
| RS.4 | The university has good communication channels used to share important information like deadlines and announcement | | | | | |
| RS.5 | The administrative processes and procedures at the university are reliable | | | | | |
| RS.6 | The university support staff e.g. the helpdesk and administrative personnel are responsive and prompt in addressing your queries and concerns. | | | | | |
| RS.7 | The registration process at the university is reliable and effective | | | | | |
| RS.8 | The university keeps records accurately ensuring reliable student information, grades, and course enrolment data | | | | | |
| RS.9 | I am satisfied with the university's reliability in providing services on time, such as administrative tasks, prompt academic support and efficient facility maintenance | | | | | |

RS Responsiveness of Staff

Please rate the following statements based on your experience with the responsiveness of staff at the University using a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| ROS.1 | The university provides clarity and completeness of information regarding academic matters like course requirements, and program information | | | | | |
| ROS.2 | I face difficulty in getting timely access to required academic services like registration, enrolment, and advising | | | | | |
| ROS.3 | The university staff is accessible and available for academic consultations and discussions | | | | | |
| ROS.4 | The lecturers ensure students understand the subject | | | | | |
| ROS.5 | Phone calls and messages are promptly answered by the university staff. | | | | | |
| ROS.6 | The university personnel are available to help students in addressing their concerns when needed | | | | | |
| ROS.7 | The lecturers solve immediate problems that students encounter during their studies | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| ROS.8 | The administrative staff of the university promptly solves the problems of the students who may face academic matters | | | | | |
| ROS.9 | The channels of communication provided by the university for students to raise complaints or express their concerns are accessible | | | | | |

SA Service Assurance

Please rate the following statements based on your experience with service assurance at the University using a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| SA.1 | The lecturers are competent in delivering their courses and providing academic guidance | | | | | |
| SA.2 | The university has credible and accurate rules regarding academic policies, requirements, and procedures | | | | | |
| SA.3 | The university staff inspires confidence in your ability to succeed academically | | | | | |
| SA.4 | There are accurate security measures and protocols to ensure the safety and well-being of students and staff | | | | | |

SE Service Empathy

Please rate the following statements based on your experience with service empathy at the University using a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| SE.1 | The university staff(faculty, administrative personnel, and support staff) are friendly and approachable in addressing my concerns | | | | | |
| SE.2 | The University staff genuinely understand my needs and concerns | | | | | |
| SE.3 | I receive personalized attention from the University staff | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| SE.4 | The University staff go out of their way to assist me with my academic or personal concerns | | | | | |
| SE.5 | I am comfortable discussing my academic or personal challenges with the staff of the University | | | | | |
| SE.6 | The university staff listens to my concerns and provide guidance or solutions | | | | | |

**SECTION D: Blended Learning Environment (BLE)**

This sub-section is divided into four parts namely collaboration with peers, interaction with instructors, access to resources, and learner-centered instruction.

CP Collaboration with Peers

Please rate the following statements based on your experience with collaboration with peers at the university. Use a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| CP.1 | I frequently collaborate with my peers in online discussions and group projects | | | | | |
| CP.2 | I believe that working together with my peers in online tasks improves my academic performance | | | | | |
| CP.3 | I find it easy to communicate and coordinate with peers for group assignments in the online setting | | | | | |
| CP.4 | The technological tools provided in a blended learning environment facilitate collaboration | | | | | |

II Interaction with Instructors (lecturers)

Please rate the following statements based on your experience with interaction with lecturers at the university. Use a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| II.1 | My lecturers provide clear instructions and explanations in the online environment | | | | | |
| II.2 | The lecturers effectively use various digital tools such as Google meet, zoom) and technologies to enhance interaction and communication | | | | | |
| II.3 | The lecturer provides clear and organized online course | | | | | |
| II.4 | The lecturer provided additional resources and materials to supplement the online course content and enhance the learning experience | | | | | |

AR Access to Resources

Please rate the following statements based on your experience with access to resources at the university. Use a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| | | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| AR.1 | I have access to digital resources such as e-books, online articles, and multimedia materials | | | | | |
| AR.2 | Physical resources such as textbooks, and supplementary materials are readily accessible when needed | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| AR.3 | The lecturer provides clear instructions on how to access and use the digital resources available in the course | | | | | |
| AR.4 | The digital learning platform allows me to easily retrieve and review past discussions and course materials | | | | | |
| AR.5 | The digital learning platform offers user-friendly search and navigation features to locate specific resources | | | | | |

LCI Learner-centred Instruction

Please rate the following statements based on your experience with learner-centred instruction at the University. Use a scale where in this case, 1 represents Strongly Disagree, 2 Disagree, 3 Not Sure, 4 Agree, and 5 Strongly Agree.

| LI | Learner-centred instruction | SD | D | NS | A | SA |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| LI.1 | The blended learning environment allows me to set my own learning goals and objectives | | | | | |
| LI.2 | I am encouraged to take responsibility for my own learning process in a blended learning environment | | | | | |
| LI.3 | The blended learning activities promote active participation in the learning process | | | | | |
| LI.4 | I have opportunities to discuss and share my ideas and perspectives with peers in a blended learning environment | | | | | |
| LI.5 | The lecturer values and respects my prior knowledge and experiences in the blended course | | | | | |

**APPENDIX B: Introductory Letter**


**KYAMBOGO UNIVERSITY**

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**SCHOOL OF EDUCATION**

***Department of Educational Planning and Management***


Date: 16th August 2023

**TO WHOM IT MAY CONCERN**

Dear Sir/Madam

**RE: KAUTA GRACE- 20/U/GMED/13007/PE**

This is to attest that Kauta Grace- 20/U/GMED/13007/PE is a student of the Department of Educational Planning and Management, School of Education, Kyambogo University. She is carrying out research as one of the requirements for the award of the Master of Education in Policy Planning and Management. Accordingly, she needs data and any other information on the topic titled:

**"Service quality, blended learning and student satisfaction at Kyambogo University"**

Any assistance accorded to her is highly appreciated. She is strictly under instructions to use the data and any other information gathered for research purposes only.

KYAMBOGO UNIVERSITY P. O. BOX 1, KYAMBOGO 16 AUG 2023 HEAD OF DEPARTMENT EDUCATION PLANNING & MANAGEMENT

Thank you.

Assoc. Prof. George Wilson Kasule

**HEAD OF DEPARTMENT**