

Impact of Service Quality on Student's Loyalty: Evidence from Higher Education Institutions in Pakistan



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Spring 2023**

Majors: MKT
S.No. M16

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FINAL PROJECT/THESIS APPROVAL SHEET

Viva-Voce Examination

Viva Date 13/07/2023

Topic of Research:

*Impact of Service Quality on Student's Loyalty:
Evidence from Higher Education Institutions in
Pakistan*

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ACKNOWLEDGEMENT

I begin by expressing my sincere gratitude to Almighty Allah for the unconditional love and unwavering strength He has bestowed upon me. His presence in my life has guided and empowered me through every challenge. I want to express my gratitude for my supervisor's efforts, Dr. Syed Haider Ali Shah, for his unwavering commitment towards the completion of this dissertation. Without his continuous support, overwhelming attitude, and professional guidance, it would not have been possible to complete this work in such a limited time. Furthermore, I would like to acknowledge the contributions of Dr. Khalil Ullah, Dr. Shahab Aziz, Dr. Amjad, and Dr. Harris Laeeque, whose valuable comments and suggestions have greatly improved the quality of my thesis. I owe my parents for their constant encouragement and for being a constant source of motivation throughout my life. Their encouragement and guidance have been instrumental in shaping my academic journey. Finally, I want to thank my friends for their support throughout my master's degree. Their encouragement and assistance have been invaluable throughout this process.

DEDICATION

I honor my parents by dedicating my work to them, Muhammad Ghaffar Babar Abbasi and Nasreen Naz Abbasi. Their unwavering love, support, and belief in me have been a constant source of strength, especially during times when I doubted myself. I am forever grateful to them for everything they have done for me, and for helping me become the person I am today. This work is a tribute to their sacrifices and dedication, and I hope to make them proud with my achievements.

ABBREVIATION

SS	Student Satisfaction.
SL	Student's Loyalty.
SERVQUAL	Service Quality.
AA	Academic Aspects.
NAA	Non-academic Aspects.
REP	Reputation.
ACC	Access.
PI	Program Issues.
UND	Understanding.
HEIs	Higher Education Institutions.
WOM	Word Of Mouth

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ABSTRACT

Purpose – The goal of this research is to determine whether service quality dimensions using HEDPERF scale results in student’s satisfaction and if student’s satisfaction leads service quality to student’s loyalty through mediation in Higher Education Institutions of Pakistan. Apart from this, it is also intended to find out the service quality dimension that has the largest impact on customer service.

Literature Review – Gives a thorough analysis of the relevant research, theories, and findings that have already been made. It examines the gaps in the literature and points out important areas for additional research, providing insightful information and laying the groundwork for the current study.

Method – An online Google survey was used to collect data, and it asked questions about demographics as well as HEDPERF scale-based service quality dimensions, student’s satisfaction, and student’s loyalty. A total of 382 valid responses were gathered and used to conduct descriptive, correlation, multiple regression, and mediation analyses with the help of SPSS (v26.0) and Hayes Process Macro (v4.2).

Results – It was found that all service quality dimensions, with the exceptions of program issues and understanding, positively and significantly impact student’s satisfaction, while academic aspects is the most significant dimension causing variation in student’s satisfaction followed by reputation. Additionally, it was discovered that student satisfaction mediated student’s loyalty and service quality to significant extent. This study suggests that service quality needs to be given more importance in order for institutions to retain students, build a strong reputation, and gain a competitive advantage in the market.

Key words: SERVQUAL, Reputation, Academic Aspects, HEDPERF, Student’s Loyalty, Higher Education Institutions of Pakistan, Student Satisfaction.

CHAPTER 1

1. INTRODUCTION:

1.1 BACKGROUND:

“The goal of education is to instill critical and in-depth thinking in students. The objective of real education is to develop both intelligence and character.” – *Martin Luther King (1948)*

Higher education institutions of Pakistan have undergone significant changes throughout the recent decades. With the higher education sector expanding so quickly, particularly in the private sector, competition among universities in Pakistan has intensified, leading to greater emphasis on marketing strategies aimed at attracting and retaining students (Ackerman, Schibrowsky, & Practice, 2007). Because of this, it is crucial for universities to offer their students high-quality services in order to win their loyalty. The value of service quality in the educational sector has recently drawn a lot of attention due to its potential impact on student satisfaction and loyalty. In Pakistan, the higher education industry has seen significant changes, with the number of universities and colleges increasing significantly in recent years. The competition in this sector has become intense, and educational institutions are facing new challenges in attracting and retaining students.

There has been extensive research on the service quality concept in various sectors, including banks, healthcare, and tourism. However, there hasn't been much study done on the service quality dimensions and its influence on student loyalty in higher education institutions in Pakistan. Consequently, research is required to determine the significance of service quality and its effects on student loyalty in the higher education sector of Pakistan. SERVQUAL is an important factor in determining student's loyalty in various industries, including the higher education sector (Dabholkar, Shepherd, & Thorpe, 2000). The extent to which an organization meets or surpasses client expectations can be referred to as service quality (Hwang, Choi, & journal, 2019). When referring to higher education, the term "service quality" describes the

standard of the facilities, administrative assistance, academic programmes, and other services that universities and colleges offer to their students.

According to (Setó-Pamies & Excellence, 2012), service quality is a critical factor in developing customer loyalty, which is considered an essential element of business success. According to (Oliver, 1999), in the context of higher education, student loyalty refers to the extent to which a student exhibits repeat-patronage behavior towards their institution, including intentions to continue their studies there and speak positively about it to others. Thus, it is crucial for educational institutions to focus on providing high-quality services that match or are beyond the expectations of the students to increase their loyalty. Moreover, the service quality dimensions HEdPERF, including non-academic aspect, academic aspect, reputation, access, program issues, and understanding, have been identified as crucial factors in determining overall service quality. However, little is known about the specific impact of these dimensions on loyalty of students in higher institutions of Pakistan.

In many industries, the SERVQUAL model is a common paradigm for assessing service quality. Five aspects of service quality make up the SERVQUAL model: tangibility, reliability, responsiveness, assurance, and empathy (Hwang et al., 2019). Tangibility pertains to the physical infrastructure and equipment utilized for delivering the service. Reliability denotes the capability to consistently and precisely provide the service. Responsiveness entails the eagerness to assist customers and offer prompt service. Assurance encompasses the expertise, competence, and trustworthiness of service providers. Empathy signifies the level of care and attentiveness extended towards customers. SERVQUAL is a tool that assesses the difference between customers' expectations and their actual perceptions of service quality.

SERPERF, introduced by (Rumintjap & Wandebori, 2017), is an alternative to SERVQUAL. SERVQUAL primarily concentrates on evaluating customers' perceptions of service quality, without explicitly considering their expectations.

The HEdPERF scale, which stands for Higher Education Performance (HEdPERF) scale, is a

widely used tool for evaluating the quality and performance of HEI's. Developed by researchers, The objective of this scale is to assess students' perspectives regarding the service quality delivered by their respective universities or colleges. The HEdPERF scale encompasses various dimensions, including teaching quality, administrative support, infrastructure, facilities, and student services. It allows students to rate their satisfaction with each dimension on a Likert-type scale, providing valuable insights into the strengths and areas for improvement within the educational institution. The HEdPERF scale has been widely adopted and validated in numerous studies, demonstrating its effectiveness in assessing and monitoring the quality of higher education services (F. J. M. I. Abdullah & Planning, 2006; Silva, Moraes, Makiya, & Cesar, 2017) This scale serves as a valuable tool for institutions to understand student perceptions, enhance their service delivery, and ultimately improve the overall educational experience for students.

Studies investigating the influence of service quality dimensions on student loyalty within the higher education sector have been carried out across different countries, such as the United States, China, and Malaysia. e.g., (Tan & Kek, 2004; Yang, Peterson, & marketing, 2004) However, there is a scarcity of research on this subject within the context of Pakistan.

Consequently, the purpose of this research is to investigate the influence of service quality dimensions on student loyalty in higher education institutions situated in Pakistan. Specifically, the study aims to explore the association between six dimensions of the Higher Education Performance (HEdPERF) scale, namely Non-Academic Aspect, Academic Aspect, Reputation, Access, Program Issues, and Understanding, and student loyalty. Employing a quantitative research design, data will be gathered through a survey administered to students selected from various universities in Pakistan.

1.2 KEY TERM DEFINATION

NAME	DEFINATION	OPERATIONALIZATION
Student's Satisfaction	Student satisfaction is a short-term attitude that is formed by a student's evaluation of their educational experiences.	(Elliott & Healy, 2001)
Service Quality	Service quality is the difference between consumers' expectations of a service and their perceptions of the service's actual performance.	(Aboubakr & Bayoumy, 2022)
Student's Loyalty	Student loyalty is a student's positive attitude towards a higher education institution that is expressed through word-of-mouth recommendations.	(Susilawati, Khaira, Pratama, & Practice, 2021)
Non-Academic Aspects	This factor encompasses essential elements that play a critical role in supporting students to fulfill their academic obligations, particularly focusing on the responsibilities carried out by non-academic staff members.	(F. J. I. j. o. c. s. Abdullah, 2006)
Academic Aspects	The items that describe this factor primarily pertain to the academic responsibilities and duties carried out by faculty members.	(F. J. I. j. o. c. s. Abdullah, 2006)
	This factor measures how important it is	

Reputation	for a higher education institution to project a professional image.	(F. J. I. j. o. c. s. Abdullah, 2006)
Access	This factor measures how important it is for a higher education institution to be approachable, easy to contact, and available.	(F. J. I. j. o. c. s. Abdullah, 2006)
Programmes Issues	This factor measures how important it is for a higher education institution to offer a variety of reputable academic programs with a flexible structure and syllabus.	(F. J. I. j. o. c. s. Abdullah, 2006)

1.3 PROBLEM STATEMENT

This thesis addresses the need to better understand how different dimensions of service quality, such as non-academic aspects, academic aspects, institution's reputation, access, program-related issues, and understanding of student needs (HEdPERF dimensions), impact student loyalty in Pakistani higher education institutions. Student satisfaction and loyalty are essential for the success of educational institutions, but there is a gap in the research on how HEdPERF dimensions specifically impact student loyalty in the Pakistani context. This study aims to investigate the relationships between HEdPERF dimensions and student loyalty, identify the dimensions that contribute most to student satisfaction and loyalty, explore the mediating role of student satisfaction, and examine the moderating effect of student gender in the relationship between HEdPERF dimensions and student loyalty. The findings of this research will provide valuable insights to Pakistani higher education institutions, helping them to improve service quality, increase student satisfaction, and cultivate stronger student loyalty.

1.4 RESEARCH GAP ANALYSIS

Many studies have examined the relationship between service quality and student satisfaction in higher education institutions (Farahmandian, Minavand, Afshardost, & Management, 2013; Malik, Danish, & Usman, 2010), However, there is a lack of empirical research in the Pakistani context that specifically investigates the mediating role of student satisfaction on the relationship between service quality and student loyalty. The moderating role of gender in this relationship has also been largely ignored.

This study aims to fill this research gap by examining the mediating role of student satisfaction and the moderating effect of gender on the association between service quality and student loyalty in Pakistani higher education institutions. The study will use the HEdPERF scale to measure service quality, student satisfaction, and student loyalty.

The findings of this study will contribute to the current body of literature by providing valuable insights into the mechanisms by which service quality impacts student loyalty in the Pakistani context. The study will also take into account the distinct cultural and contextual factors inherent in Pakistan's higher education system.

1.5 RESEARCH QUESTIONS:

Grounded on the recognized problem statement and the objective of the study, to gather the necessary information for this study, we have formulated the following research question which will be answered:

RQ1: How do non-academic aspects of SERVQUAL, such as infrastructure, administrative services, and access to resources, impact student's satisfaction in HEIs in Pakistan?

RQ2: How do academic aspects of service quality, including teaching quality, coursework, assessment and evaluation, and program outcomes, affect student satisfaction

in HEIs in Pakistan?

RQ3: To what extent does the reputation of a higher education institution in Pakistan influence student satisfaction?

RQ4: How does access to resources, support services, and facilities influence student's satisfaction in HEIs in Pakistan?

RQ5: What is the specific program-related issues, such as curriculum relevance, course offerings, and faculty support, that impact student's satisfaction in HEIs in Pakistan?

RQ6: How does the understanding of student needs by the institution impact student's satisfaction in HEIs in Pakistan?

RQ7: Does student gender moderate the relationship between HEdPERF dimensions and student loyalty in HEIs of Pakistan?

RQ8: To what extent does student satisfaction mediate the relationship between HEdPERF dimensions and student loyalty in HEIs in Pakistan?

These research questions will guide our data collection and analysis efforts, and we aim to draw conclusions regarding the influence of service quality on student satisfaction and loyalty within Pakistan's educational sector.

1.6 RESEARCH OBJECTIVES:

The main goal of this study is to investigate the impact of service quality factors, both academic and non-academic, on student satisfaction and loyalty in higher education institutions in Pakistan. We also want to investigate how gender influences this relationship.

To achieve this goal, we have set the following objectives:

ξ To examine the impact of HEdPERF dimensions, including non-academic aspects, academic aspects, institution's reputation, access, programme-related issues and understanding of student needs, on student's loyalty in HEIs in Pakistan.

ξ To identify the specific HEdPERF dimensions that contribute the most to student's

satisfaction and loyalty in HEIs in Pakistan.

ξ To investigate the mediating role of student's satisfaction in the relationship between HEdPERF dimensions and student's loyalty in HEIs in Pakistan.

ξ To explore the moderating effect of student gender on the relationship between HEdPERF dimensions and student's loyalty in HEIs in Pakistan.

By understanding how these different dimensions of SERVQUAL impact satisfaction and loyalty of students, HEIs can make informed decisions to improve their services and increase student loyalty.

1.7 SIGNIFICANCE OF THE STUDY:

The significance of this research is threefold. First, the findings can provide higher education institutions (HEIs) in Pakistan with valuable insights into the importance of SERVQUAL dimensions in fostering student loyalty. By identifying the specific dimensions that have the greatest impact on student satisfaction and loyalty, HEIs can strategically allocate resources to enhance those areas, leading to an improved overall reputation and competitive advantage.

Second, this study contributes to the existing literature on service quality and student loyalty by offering empirical evidence from an understudied context. While there have been some studies on this topic within the higher education sector, the research gap in the context of Pakistan needs further investigation. This study fills that gap and offers valuable insights to scholars and practitioners interested in this field.

Third, policymakers in the education sector can benefit from the insights provided by this study. By highlighting the importance of service quality in enhancing student satisfaction and loyalty, policymakers can develop effective policies and guidelines that encourage institutions to prioritize SERVQUAL improvements, ultimately benefiting students.

In conclusion, the significance of this research lies in its potential to advance the understanding of service quality dimensions and their impact on student loyalty within the higher education sector in Pakistan. Furthermore, it has the capacity to inform decision-making processes at institutional and policy levels, leading to positive outcomes for students and the education sector as a whole.

CHAPTER 2

2. Literature Review

INTRODUCTION

The literature review chapter provides a comprehensive overview of the existing research on the impact of SERVQUAL on student satisfaction in higher education institutions. It explores relevant theories and models, examines previous studies, identifies gaps in the literature, and establishes the theoretical framework for the current study. This chapter sets the foundation for the research methodology and data analysis, while highlighting the importance of investigating service quality and customer satisfaction in the educational sector.

2.1 IMPORTANCE OF EDUCATIONAL SECTOR

The educational sector in Pakistan plays a significant role in the development and progress of the country. Education is widely recognized as a key driver of social and economic advancement. Access to quality education empowers individuals, promotes social mobility, and contributes to the overall well-being of society. Numerous studies emphasize the importance of the educational sector in Pakistan. For instance, the (Barro & finance, 2013) highlights that investing in education leads to improved human capital, increased productivity, and higher economic growth. Moreover, research by (Psacharopoulos & Patrinos*, 2004) underscores the positive impact of education on poverty reduction and income inequality. Education equips individuals with knowledge, skills, and competencies that are essential for employment, entrepreneurship, and sustainable economic development (Hanushek & Woessmann, 2012) Furthermore, education plays a vital role in fostering democratic values, social cohesion, and national integration. The educational sector contributes to building an informed and engaged citizenry, which is essential for participatory democracy and social harmony (Rumintjap &

Wandebori, 2017) Additionally, education promotes cultural preservation, cultural understanding, and cultural exchange

According to my research, the educational sector is crucial because it can produce skilled human capital and deliver high-quality instruction, both of which can aid in the nation's economic development. Because education increases human capital and productivity, research has shown that there is a positive relationship between education and economic growth. (Islam, Ghani, Kusuma, Theseira, & Issues, 2016) Furthermore, education can contribute to reducing poverty and improving social and economic mobility (Carnoy, Hallak, & Caillods, 1999) However, to achieve these benefits, it is essential to guarantee that the education offered is of the highest quality and pertinent to the demands of the economy.

Since education is a fundamental right and a major factor in both economic growth and poverty reduction, it plays a crucial role in the development and progress of Pakistan. However, there are obstacles that must be overcome in order to guarantee that education is of high quality and available to everyone. By improving the quality of education and developing skilled human capital, Pakistan can realize its potential for economic growth and development.

2.2 SERVICE QUALITY

Service quality means overall excellence and satisfaction experienced by customers when interacting with a company or receiving its services. It is a crucial aspect for businesses as it directly impacts customer loyalty, retention, and ultimately, the bottom line. Service quality is a multidimensional construct that encompasses a variety of factors, including reliability, responsiveness, assurance, empathy, and tangibles.

Reliability refers to the consistency and dependability of the service offered. This means that customers can expect the same level of service every time they interact with the organization.

Responsiveness refers to the promptness and willingness to assist customers. This means that customers should be able to get help when they need it, and that employees should be helpful

and courteous. Assurance refers to the knowledge and courtesy of employees that foster confidence and trust. This means that employees should be knowledgeable about the products or services they are selling, and that they should be able to answer customer questions in a clear and concise way.

Empathy refers to the ability to understand and address customer needs and concerns. This means that employees should be able to put themselves in the customer's shoes and try to see things from their perspective. Tangibles encompass the physical aspects associated with service delivery. This includes things like the physical appearance of the facilities, the equipment used, and the appearance of the employees. Achieving high service quality requires organizations to align processes, train employees effectively, and continually monitor and improve their service standards. By prioritizing service quality, companies can build trusting connections with customers and gain a market advantage (Aboubakr & Bayoumy, 2022)

2.3 IMPORTANCE OF SERVICE QUALITY IN EDUCATIONAL SECTOR

SERVQUAL in the educational sector has a significant impact on attracting and retaining students, enhancing their learning experience, and ensuring overall satisfaction. Numerous studies emphasize the significance of service quality in the educational context. For instance, (Annamdevula & Bellamkonda, 2016) found that SERVQUAL positively influences student's satisfaction and loyalty. Similarly, (Martha-Martha & PRIYONO, 2018) highlighted the positive relationship between SERVQUAL in HEIs and student loyalty. Moreover, (Nadiri, Kandampully, & Hussain, 2009) emphasized the impact of quality of service on students' perceptions of the institution's image and reputation. A study by (Wright, O'Neill, & Development, 2002) demonstrated that service quality influences student perceptions of the educational experience and their overall satisfaction. Furthermore, Zeithaml, (Ramya, Kowsalya, Dharanipriya, & Development, 2019) emphasized the importance of service quality dimensions such as responsiveness, assurance, empathy, and tangibles in the educational

context. These dimensions contribute to students' perception of the quality of services of institution, thereby influencing their satisfaction and loyalty. Overall, ensuring high service quality is paramount for educational institutions to meet the needs as well as expectations of students, enhance their educational experience, and foster long-term loyalty and positive reputation within the educational sector.

2.4 STUDENT'S SATISFACTION

Student satisfaction refers to the contentment and fulfillment experienced by students in relation to their educational experience. It encompasses their overall happiness with various aspects of the institution, including academic programs, faculty, support services, campus facilities, and social environment. Satisfaction of students is a crucial sign of the quality of education and the effectiveness of an institution in meeting the needs and expectations of its students. Numerous studies have emphasized the importance of satisfaction of students in relation to retention, academic performance, and positive word-of-mouth recommendations ((Elliott & Healy, 2001; Rehman, Woyo, Akahome, & Sohail, 2022). Factors influencing student satisfaction include the quality of teaching, course content, access to resources, timely feedback, and supportive relationships with faculty and staff. Additionally, a well-maintained campus environment, availability of extracurricular activities, and opportunities for personal and professional development contribute to overall student satisfaction (Kim, Ng, & Kim, 2009). By prioritizing and addressing the factors that contribute to student satisfaction, educational institutions can create a positive and rewarding experience for their students, ultimately leading to improved outcomes for both the institution and its students.

2.5 STUDENT'S LOYALTY

Student loyalty refers to the degree of commitment and allegiance that students exhibit towards

an educational institution. It encompasses their willingness to continue their education at the same university, recommend it to others, and actively engage in its activities and programs. Building student loyalty is crucial for educational institutions as it leads to increased student retention, positive word-of-mouth marketing, and a strong sense of community. Factors that contribute to student loyalty include academic quality, support services, campus culture, and perceived value. When students perceive high academic quality, including knowledgeable faculty, relevant curriculum, and challenging coursework, they are more likely to develop a sense of loyalty (Carini, Kuh, & Klein, 2006). Additionally, institutions that provide comprehensive support services, such as counseling, career guidance, and extracurricular opportunities, can enhance students' overall experience and foster loyalty. A positive campus culture that promotes inclusivity, student involvement, and a strong sense of belonging is essential for encouraging students to be loyal (Martha-Martha & PRIYONO, 2018). Finally, when students perceive that their educational investment provides them with tangible benefits, such as improved job prospects or personal growth, their loyalty towards the institution is further strengthened. By prioritizing these factors and fostering student loyalty, educational institutions can create a supportive and thriving environment that contributes to the long-term success of both students and the institution as a whole.

2.6 SCALES TO MEASURE SERVICE QUALITY

Various scales are commonly employed to gauge service quality across various industries, including the educational domain. One prominent scale, SERVQUAL, has been widely recognized for assessing customer perceptions and expectations across dimensions such as reliability, assurance, tangibles, empathy, and responsiveness (Hwang et al., 2019) Another scale, known as HEdPERF, specifically focuses on evaluating quality of service HEIs. HEdPERF encompasses dimensions such as teaching quality, administrative quality, campus

quality, interaction quality, and image quality, making it particularly applicable in the context of higher education (Silva et al., 2017) In addition to SERVQUAL and HEDPERF, the E-S-QUAL scale is employed to gauge electronic service quality in technology-mediated educational environments, considering factors such as efficiency, fulfillment, system availability, privacy, and responsiveness (Parasuraman, Zeithaml, & Malhotra, 2005). Furthermore, the Student Satisfaction Inventory (SSI) is a widely utilized scale that captures student satisfaction across diverse dimensions, including academic quality, faculty support, campus facilities, and student services (Schreiner, Nelson, & Practice, 2013) These scales serve as valuable tools for measuring and enhancing service quality in the educational sector, enabling institutions to identify areas for improvement and elevate student satisfaction and loyalty.

2.7 SERVQUAL VS HEDPERF

SERVQUAL and HEDPERF are two of the most widely used scales for measuring service quality in the higher education sector. Both scales use multiple dimensions to assess service quality, but they have some key differences. SERVQUAL measures service quality based on five dimensions: reliability, responsiveness, assurance, empathy, and tangibles. HEDPERF, on the other hand, was specifically developed to measure service quality in higher education and measures service quality based on six dimensions: academic aspects, non-academic aspects, reputation, access, program issues, and understanding of student needs.

Several studies have compared the two scales and found that HEDPERF is a more appropriate scale for measuring service quality in the higher education sector. For example, a study by Abdullah (2006) found that HEDPERF was a more reliable and valid scale for measuring service quality in the higher education sector compared to SERVQUAL.

Therefore, for my research on the impact of service quality on student loyalty in Pakistani higher education institutions, I chose to use HEDPERF. This is because HEDPERF is specifically designed for measuring service quality in HEIs and includes dimensions that are highly relevant to my research topic. (F. J. I. j. o. c. s. Abdullah, 2006; Aboubakr & Bayoumy, 2022; Hwang et al., 2019; Silva et al., 2017)

2.8 HEDPERF

In 2005, Abdullah developed the HEdPERF (Higher Education PERFormance) measurement scale in Malaysia. This scale was designed to evaluate service quality in the context of higher education, as the author believed that current generic scales may not be appropriate for this use. HEIs (higher education institutions) can use the HEdPERF scale to understand students' perspectives and make improvements to the services they provide.

The HEdPERF scale is based on the SERVPERF model, which equates service quality with performance. The scale consists of 41 service performance items, 13 of which are adapted from the SERVPERF scale. These items are divided into six dimensions, covering different aspects of service quality: Academic aspects, Non-academic aspects, Reputation, Access, Program-related issues, Understanding of student needs. Each item on the HEdPERF scale is rated by respondents using a 5-point Likert scale. A score of 1 indicates "Strongly disagree," while a score of 5 indicates "Strongly agree."

HEDPERF is a valuable tool for measuring quality of service in the educational sector due to its comprehensive approach and student-centric focus. According to a study by (Kettinger & Lee, 2005), service quality assessment in the educational sector should consider multiple dimensions, including teaching quality, facilities, administrative processes, and student support services. HEDPERF aligns with this recommendation by incorporating these dimensions into its evaluation framework. Furthermore, a study by (Kettinger & Lee, 2005) emphasizes the significance of student satisfaction in educational settings. By utilizing HEDPERF, institutions

can gauge student satisfaction levels and identify areas for improvement, enhancing the overall educational experience. This approach has been shown to contribute to student retention and positive institutional reputation (Lizzio, Wilson, & Simons, 2002). Thus, by using HEDPERF, educational institutions can obtain valuable insights, implement targeted improvements, and foster a culture of continuous quality enhancement (Lizzio et al., 2002)

By using the HEdPERF scale and its questionnaire, HEIs can gain valuable insights into students' perceptions of service quality. This allows them to identify areas for improvement and take targeted actions to enhance their overall service delivery in higher education.

2.9 HEDPERF DIMENSIONS

Six structural factors/dimensions make up the Higher Education Performance (HedPERF) measurement scale. The HEDPERF scale includes six elements that are essential for assessing the level of quality of service in higher education institutions. The first dimension, Non-Academic Aspect, focuses on the essential role played by non-academic staff in supporting students' study obligations. The second dimension, Academic Aspect, assesses the responsibilities and effectiveness of academic staff in providing quality education. The third dimension, Reputation, highlights the significance of projecting a professional image and maintaining a positive standing among stakeholders. The fourth dimension, Access, assesses how simple it is to reach different resources and services and how convenient it is to use them. Programme Issues, the fifth dimension, emphasizes the value of providing reputable academic programmes with adaptable structures and syllabi. Understanding is the institution's understanding of the unique needs of students in terms of counselling and health services is captured by the final dimension. These factors work together to create a thorough framework for assessing and improving service quality in higher education institutions.

Several studies have utilized the HEDPERF scale to measure quality of service in HEIs. For

example, in a study conducted by (Muhammad, Kakakhel, Shah, & Studies, 2018) in Malaysia, the researchers employed the HEDPERF scale and confirmed its high reliability and validity. They found that the scale effectively captured the six dimensions of service quality in higher education. Similarly, (Muhammad et al., 2018) conducted a study in Pakistan and employed the HEDPERF scale to assess quality of service in HEIs. The findings of their study supported the reliability of the scale in measuring service quality, as the six dimensions were validated. Additionally, (Ramzi et al., 2022) conducted a study in Saudi Arabia and utilized the HEDPERF scale to evaluate quality of service in higher education. The study confirmed the presence of the six dimensions, highlighting the scale's reliability and validity for measuring quality of service in this context. These studies collectively demonstrate the wide applicability of the HEDPERF scale in assessing service quality across different higher education settings. Overall, the HedPERF scale provides a comprehensive and reliable measure of quality of service in HEI's, with its six dimensions covering various aspects of service quality.

2.10 THEORITICAL FRAMEWORK

2.10.1 Student Attrition Theory

Student Attrition Theory, also known as student dropout theory, offers valuable insights into the factors influencing students' decisions to leave educational programs prematurely. Student Attrition Theory is highly relevant to the investigation of the impact of SERVQUAL on student loyalty in HEIs in Pakistan. According to (Tarmizi, Mutalib, Hamid, Rahman, & Science, 2019), a prominent scholar in the field, student attrition is influenced by factors such as integration, social support, and a sense of belonging within the academic environment. In the context of my research, service quality provided by higher education institutions can significantly contribute to these factors. For instance, effective and responsive academic and administrative support services can enhance students' sense of integration and social support, leading to increased loyalty and a higher likelihood of staying in their academic programs. This

is supported by research conducted by (Roksa & Calcagno, 2010), who found that social integration and access to support services were key factors in student persistence. Furthermore, the study by (Tight & Education, 2020) highlighted the influence of perceived academic support on student retention in a similar context. Therefore, by examining the relationship between SERVQUAL and student's loyalty, my research will shed light on the practical implications of Student Attrition Theory and contribute to the development of strategies and interventions aimed at improving student retention rates in Pakistani higher education institutions.

2.10.2 Student Retention Theory

Student Retention Theory provides a comprehensive framework for understanding the factors that influence student persistence and retention in higher education. According to (Tight & Education, 2020), one of the seminal contributors to this theory, student motivation and goal commitment are crucial predictors of retention. Students who have clear goals and strong intrinsic motivation are more likely to persist in their academic programs. Furthermore (Tarmizi et al., 2019) emphasized the importance of integration and social support in the academic environment as key factors influencing student retention. When students feel connected to their peers, faculty, and the overall institutional community, they are more likely to persist. Studies have provided empirical evidence supporting the key tenets of Student Retention Theory. For example, (Pedler, Willis, Nieuwoudt, & Education, 2022) found that student involvement in academic and social activities was positively associated with retention. Additionally, (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006) demonstrated that engagement in high-impact educational practices, such as undergraduate research or internships, contributed to higher retention rates.

In the context of my research, the quality of services provided by HEIs plays a critical role in influencing student loyalty. As suggested by (Burke & University, 2019), institutional policies,

campus climate, and support services are key factors that can affect student retention. When students perceive the services offered by their institution to be of higher quality, they are more chances of them to develop a sense of satisfaction and loyalty towards the institution, leading to increased retention rates. This aligns with research conducted by (Silva et al., 2017) who found that SERVQUAL in HEIs positively influences student's loyalty. By investigating the link between service quality and student's loyalty within the framework of Student Retention Theory, my research will provide valuable insights into improving student retention strategies in Pakistani higher education institutions.

2.11 HYPOTHESIS DEVELOPMENT

Non-Academic Aspects

Non-academic aspects of SERVQUAL in higher education institutions encompass various factors such as infrastructure, administrative services, and support systems. These aspects play a crucial role in shaping student satisfaction and loyalty. A study by (Ramli, Zain, Campus, Chepa, & Bharu, 2018) highlighted the significance of infrastructure quality, including well-equipped classrooms and modern facilities, in enhancing student satisfaction. Furthermore, efficient administrative services, such as timely response to student queries and effective handling of administrative tasks, have been found to positively impact student satisfaction (Hayat et al., 2014) Additionally, support systems such as career services, counseling, and extracurricular activities contribute to a holistic student experience and influence their loyalty towards the institution (Kuo, Walker, Belland, Schroder, & Learning, 2013)

H1: Service Quality with respect to Non-academic aspects has positive impact on customer satisfaction.

Academic aspects

Academic aspects of SERVQUAL focus on the teaching and learning experiences within higher education institutions. The quality of teaching, including faculty competence, instructional methods, and course content, significantly influences student satisfaction and loyalty. A study conducted by (Aslam, Rehman, Imran, Muqadas, & Sciences, 2016) emphasized the positive impact of faculty competence and expertise on student satisfaction. Course-related factors, such as clear learning objectives, relevant and up-to-date content, and effective assessment methods, also contribute to student satisfaction (Sebastianelli, Swift, & Tamimi, 2015). Moreover, the availability of resources and facilities, such as well-equipped libraries and advanced technologies, enhances the academic experience and contributes to student loyalty (Koni, Zainal, & Ibrahim, 2013).

H2: Service Quality with respect to Academic aspects has positive impact on customer satisfaction.

Reputation

The reputation of higher education institutions plays a vital role in attracting and retaining students. A positive institutional reputation reflects the quality and prestige associated with the institution, which can significantly influence student satisfaction and loyalty. Studies have shown that institutional reputation positively affects student satisfaction and loyalty (Bakrie, Sujanto, Rugaiyah, & Studies, 2019; Hwang et al., 2019). Reputation acts as a signal of the institution's academic excellence, faculty expertise, and career prospects, creating a sense of confidence and trust among students.

H3: Service Quality with respect to Reputation has positive impact on customer satisfaction.

Access

Access to resources, facilities, and support services is essential for student's satisfaction and loyalty in HEIs. Adequate access to libraries, laboratories, computer facilities, and extracurricular activities can enhance the overall student experience. Accessible support services such as academic advising, career counseling, and student clubs contribute to student satisfaction and engagement. Numerous studies have recognized the importance of access to resources and support services in enhancing student satisfaction and loyalty globally (Arambewela & Hall, 2007; Arambewela, Hall, & logistics, 2009)

H4: Service Quality with respect to Access has positive impact on customer satisfaction.

Program issues

Program-related issues such as curriculum relevance, course offerings, faculty support, and internship opportunities significantly influence student satisfaction and loyalty. A well-designed and up-to-date curriculum, with courses aligned to industry demands, enhances student satisfaction and prepares them for future career prospects. Faculty support and mentoring play a crucial role in student satisfaction and engagement (Bao, Selhorst, Moore, & Dilworth, 2019; Wise, Chang, Duffy, & Del Valle, 2004) Internship opportunities provide practical exposure and contribute to students' professional development, positively impacting their satisfaction and loyalty.

H5: Service Quality with respect to Program Issues has positive impact on customer satisfaction.

Understanding

Understanding and addressing student needs is a crucial aspect of SERVQUAL in HEIs. Institutions that actively seek feedback, listen attentively to students' concerns, and take appropriate actions to address their needs create a supportive and responsive environment. Effective communication channels, regular student surveys, and engagement platforms are essential tools for gaining insights into students' expectations and experiences. By demonstrating an understanding of student needs, institutions can tailor their services and support mechanisms to better meet the diverse needs of their students, ultimately leading to increased satisfaction and loyalty (Santos, Marques, Justino, & Mendes, 2020)

H6: Service Quality with respect to Understanding has positive impact on customer satisfaction.

Service Quality and Student's Loyalty

Service quality plays a crucial role in fostering student's loyalty within educational institutions. When students perceive that the services provided by an institution meet or exceed their expectations, they are more likely to develop a sense of loyalty and commitment towards that institution. Service quality encompasses various dimensions, including responsiveness, reliability, assurance, empathy, and tangibles. Institutions that excel in these areas create a positive and supportive environment, leading to increased student satisfaction and loyalty. A study by (Purgailis & Zaksa, 2012) explored the relationship between SERVQUAL and student loyalty in the context of higher education. The findings revealed a significant positive association between SERVQUAL dimensions and student loyalty. Specifically, factors such as faculty competence, administrative support, and infrastructure were identified as crucial determinants of student loyalty.

Another study conducted by (Dangaiso, Makudza, & Hogo, 2022) examined the impact of

SERVQUAL on student loyalty in the context of e-learning. The results demonstrated that SERVQUAL dimensions, including system quality, information quality, and instructor support, significantly influenced student loyalty towards online learning platforms. The study highlighted the importance of providing a seamless and engaging online learning experience to foster student loyalty. Moreover, a research study by (Dangaiso et al., 2022) investigated the mediating role of student satisfaction in the relationship between SERVQUAL and student loyalty. The findings revealed that service quality positively impact student satisfaction, which, in results, significantly impacted student's loyalty. The study highlighted how important it is to consistently provide high-quality services in order to increase student satisfaction and promote lifetime loyalty. Service quality plays an important role in shaping student loyalty within educational institutions. By prioritizing various dimensions of service quality, institutions can create a positive and supportive environment that leads to higher student satisfaction and loyalty. Understanding and meeting students' expectations through reliable and responsive services contribute to building a strong bond between students and the institution, ultimately resulting in long-term loyalty and positive word-of-mouth recommending to others.

H7: Service Quality has a direct positive influence on student's loyalty

Service Quality, Student Satisfaction and Student's Loyalty:

Service quality, student satisfaction, and student loyalty are all interconnected factors that play a significant role in the success of educational institutions. Service quality refers to the extent to which an organization provides excellent services to its customers. This includes aspects such as responsiveness, reliability, assurance, empathy, and tangibles. Student satisfaction refers to the extent to which students' expectations are met or exceeded by the services they receive from an educational institution. Student loyalty refers to the extent to which students are likely to continue to attend an educational institution or recommend it to others. When

educational institutions consistently deliver high-quality services, it leads to increased student satisfaction. This, in turn, leads to increased student loyalty, as students are more likely to continue attending an institution that they are satisfied with.

There is a clear causal relationship between service quality, student satisfaction, and student loyalty. By focusing on providing high-quality services, educational institutions can improve student satisfaction and loyalty, which can lead to long-term success. Satisfied students have more chances to develop loyalty towards the institution, exhibiting a willingness to continue their education there and recommend it to others. This loyalty strengthens the institution's reputation, attracts new students, and enhances overall performance. Number of researches have emphasized the positive correlation between SEVQUAL, student's satisfaction, and student's loyalty in higher education (Annamdevula & Bellamkonda, 2016; Borishade, Ogunnaike, Salau, Motilewa, & Dirisu, 2021; Latif, Bunce, & Ahmad, 2021). These results underline the significance of emphasizing service quality in educational institutions to promote student satisfaction and loyalty.

H8: Student's Satisfaction has a mediating effect on the relationship between Service Quality and Student's Loyalty

Moderating effect of gender

In addition to SERVQUAL, student's satisfaction, and student loyalty, the moderating effect of gender should also be considered when examining these relationships. Gender can influence individuals' perceptions, expectations, and evaluations of service quality, ultimately affecting their satisfaction and loyalty. Research suggests that gender differences exist in how individuals evaluate service quality and their subsequent satisfaction levels. For example, males and females may prioritize different aspects of service quality and have varying thresholds for what constitutes satisfactory service. Understanding these gender differences is essential for

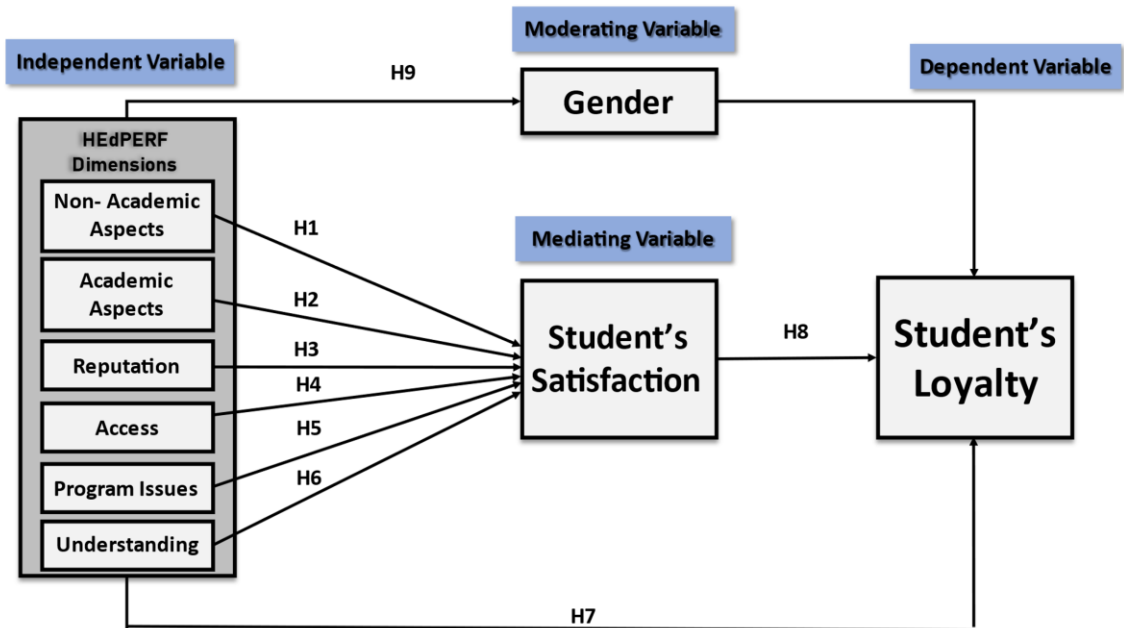
educational institutions to tailor their services and strategies accordingly, ensuring they meet the specific needs and expectations of both male and female students. By considering the moderating effect of gender, educational institutions can implement gender-responsive policies and practices that enhance service quality, customer satisfaction, and ultimately student loyalty (Kanwal, Rehman, Asif, & Technology, 2020; Tarhini, Hone, & Liu, 2014). This comprehensive approach acknowledges and accommodates the diverse perspectives and experiences of all students, contributing to a more inclusive and satisfying educational environment.

H9: Gender has a moderating effect on the relationship between Service Quality and Student's Loyalty

Student satisfaction may play a mediating role in the relationship between service quality dimensions and student loyalty. This means that student satisfaction may explain the relationship between service quality and student loyalty. The impact of service quality on student loyalty may vary based on student gender. This means that the relationship between service quality and student loyalty may be different for male and female students.

These hypotheses will be tested using a survey of students from higher education institutions in Pakistan. The results of this study will provide valuable insights into the factors that contribute to student loyalty in Pakistani higher education institutions.

2.12 CONCEPTUAL FRAMEWORK



The hypothesis being tested in this research are summarized below:

H1: Service Quality with respect to Non-academic aspects has positive impact on customer satisfaction.

H2: Service Quality with respect to Academic aspects has positive impact on customer satisfaction.

H3: Service Quality with respect to Reputation has positive impact on customer satisfaction.

H4: Service Quality with respect to Access has positive impact on customer satisfaction.

H5: Service Quality with respect to Program issues has positive impact on customer satisfaction.

H6: Service Quality with respect to Understanding has positive impact on customer satisfaction.

H7: Service Quality has a direct positive influence on student's loyalty

H8: Student's Satisfaction has a mediating effect on the relationship between Service Quality and Student's Loyalty

H9: Gender has a moderating effect on the relationship between Service Quality and Student's Loyalty

CHAPTER 3

3. RESEARCH METHODOLOGY

INTRODUCTION

This chapter will go through the approach used to examine how service quality affects a student's loyalty in Pakistan's educational system. The demographics, sample size, study instrument, data collecting, data processing, and similar topics are covered in this chapter.

3.1 RESEARCH DESIGN

As per (Bougie & Sekaran, 2019), research design can be described as a structured framework or blueprint that guides the process of collecting, measuring, and analyzing data in order to address specific research questions. To accomplish the research objectives in this study, a positivist approach was adopted. There are now two approaches of conducting research. We use the **cause & effect research design** for this particular research. Both qualitative and quantitative techniques are used in these methods. as primary data are the foundation of this study. Consequently, the study was cross-sectional and quantitative. It is crucial for researchers to have a clear understanding and make informed decisions regarding the research approach, strategy, level of researcher involvement, study setting, unit of analysis, and temporal aspects of their research. The subsequent sections will explore and discuss the decision-making process related to these aspects.

3.2 RESEARCH APPROACH

This study focuses on examining the impact of SERVQUAL dimensions using (HEdPERF) scale on student's loyalty and the role of student satisfaction as a mediator and their age as a moderator in this process. The research adopts a **quantitative approach**, utilizing data collected from a large and representative group of respondents. Data collection is conducted through structured questionnaire, primarily using numerical formats. The data obtained can be analyzed using statistical techniques, enabling the quantification of the sample data and the generation of generalized results applicable to the entire population. This research approach allows for hypothesis development, theory testing, and the establishment of correlations between selected variables. The selection of a quantitative approach is justified by its efficiency and effectiveness. It is efficient in terms of quick administration and analysis, facilitating the collection of precise responses within a short timeframe. Additionally, its effectiveness lies in the ability to generate generalized results that can be applied to a broad population and replicated in different areas.

3.3 RESEARCH STRATEGY

Various strategies commonly used in research include questionnaires, experiments, case studies, action research, grounded theory, and ethnography (Bougie & Sekaran, 2019). In this research, a one-time survey or questionnaire method is employed as the means of data collection from the sample, aiming to understand and describe their behavior. **Surveys** allow for the collection of both quantitative and qualitative data to address various research questions. They also enable researchers to gather data using Likert scales, which enhances the significance of the results and facilitates more useful analysis (Story & Tait, 2019). The survey in this study can be conducted online, making it easily accessible to a larger audience and thereby increasing the efficiency of data collection.

3.4 RESEARCH INSTRUMENT

An adoptive **structured questionnaire** has been used as a data collection tool to gauge how respondents perceive the variables of interest. The data can be gathered in a variety of ways. Since the current study is quantitative, a structured questionnaire with a 5-point Likert scale was used as the instrument for data collection. For the purpose of gathering primary data, the current study has used a structured questionnaire that has been tested and validated. Data were gathered using a structured questionnaire that was adapted from prior research. Questions of HEdPERF dimensions have been adopted from (Silva et al., 2017)

3.5 EXTENT OF RESEARCHER INTERFERENCE

The classification of a study as correlational or causal depends on the level of researcher interference. In a correlational study, minimal or no interference is introduced in natural settings (Bougie & Sekaran, 2019). In this research, a correlational study design is employed, where data is collected in a natural environment without any external influencers or manipulation of variables. This research is a **correlational study** conducted in an unaltered natural environment, where no external factors or modifications to variables were introduced.

3.6 STUDY SETTING

Research conducted in a natural environment, without any artificial arrangements or interventions, is considered to be conducted in non-contrived settings. On the other hand, research conducted with artificial arrangements, such as field experiments or manipulations to derive causal effects, is said to be conducted in contrived settings (Bougie & Sekaran, 2019) In this research, a **non-contrived field study** method is employed, as the aim is to conduct a descriptive study and explore correlations between different variables. The research is

conducted in a natural setting, without any artificial manipulations, to observe and analyze the relationships between the variables of interest.

3.7 UNIT OF ANALYSIS

The unit of analysis in a research study refers to the entity or level at which data is collected for analysis, such as individuals, groups, dyads, or organizations (Bougie & Sekaran, 2019) The determination of the unit of analysis depends on the nature of the information collected and its relevance for analysis. In this research, the focus is on gathering data related to students' perceptions of various metrics to measure service quality in the educational sector of Pakistan, their satisfaction with a particular institute, and their loyalty. Since these variables vary from one individual to another, the unit of analysis in this study is the **individual**.

3.8 TIME HORIZON

A study may be carried out longitudinally or cross-sectionally. To answer research questions, data is gathered in a cross-sectional study at a single point in time, while a longitudinal study involves the examination of a phenomenon multiple times to assess changes in behavior over time (Bougie & Sekaran, 2019). The current study is cross-sectional in design, with data collected over the course of a single survey that was distributed over a month, specifically from March 23rd, 2023, to April 23rd, 2023. The focus of this research is not to investigate changes in behavior over time but rather to analyze the impact of SERVQUAL in the educational sector on students' satisfaction and students' loyalty. Therefore, a **cross-sectional study** is more appropriate for this research.

3.9 POPULATION

A classification of peoples, occasions, and other items related to an area of interest is known as a population (Flick, 2015). The target population of this research were university students of Bachelor's and Master's program as well as those students who have recently graduated in past two years. Approximate population finalized for this study has been 382 respondents.

3.10 SAMPLE SIZE

A crucial component of research is choosing the right sample size or observations to make. Without a sufficient sample size, the data collected might not be accurate, and the conclusions drawn might not be generalizable. **382 respondents** (students) from universities in Islamabad made up the sample for the current study. The final sample size was determined using Morgan's table (Chaokromthong & Sintao, 2021)

3.11 SAMPLING TECHNIQUE

Given the online nature of the survey, respondents from universities of Islamabad in Pakistan were allowed to participate. However, only individuals who currently enrolled or recently graduated were eligible to complete the questionnaire. This approach improved sampling efficiency compared to allowing irrelevant responses. **Non-probability sampling** was utilized, where members of the population did not have an equal chance of being selected (Bougie & Sekaran, 2019). Within non-probability sampling, **judgment sampling** was employed as not everyone is currently enrolled or recently graduated, making it difficult for most people to provide the necessary information for this research.

Initially, family, friends, and other easily accessible individuals from the population were invited to complete the questionnaire. They were then requested to pass it on to their friends, creating a snowball effect (Scheffler, 2018). Additionally, the survey was posted on relevant

Facebook groups such as “Comsats University Islamabad – Students Corner,” “NUST University Islamabad” and “Quaid e Azam University Islamabad” to attract more respondents. This **convenience sampling** approach was chosen for its convenience, but it has the disadvantage of not providing an equal chance for every member of the population to be included in the study. Between March and April 2023, 450 answers were received in total, of which 68 responses were deemed invalid. The remaining 382 responses from individuals who are currently enrolled or recently graduated within the past two years were considered valid for analysis.

3.12 DATA COLLECTION PROCEDURE

To study and evaluate the factors influencing student’s loyalty, a **survey methodology** was employed to collect data. An online survey was administered to gather responses from various universities of Islamabad in Pakistan. The target population included individuals who are currently enrolled in undergraduate or graduate programs in these universities or have recently graduated in the past two years. Research suggests that negative experiences tend to be remembered for a longer period of time compared to positive experiences (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Therefore, a two-year timeframe was chosen to ensure that respondents could recall both their negative and positive service quality experiences while answering the survey questions. Setting a specific timeframe helps to obtain more accurate results by enhancing participants’ ability to recall their experiences.

3.13 DATA ANALYSIS TECHNIQUES

Following the completion of data collection, data analysis was started with the aid of several tests to complete the analysis process.

IBM SPSS Statistics version 26.0 was used to analyze the statistical data. To ensure the research instrument accurately and reliably measured the variables, validity and reliability tests were performed (Sekaran & Bougie, 2016). For validity, a Bivariate Spearman Correlation test was employed to assess how well the developed instrument measured the intended variables. Cronbach's Alpha test, on the other hand, was used to assess the reliability, consistency, and stability of the instrument in measuring a concept.

After confirming the validity and reliability of the measures, we conducted a bivariate Spearman correlation test to explore the relationships between each independent variable and the mediating variable, as stated in the hypotheses. The choice of Spearman correlation over Pearson correlation was based on two factors: first, Spearman correlation is more suitable for ordinal variables like those present in this study, whereas Pearson correlation is typically used for continuous variables (Ong & Puteh, 2017); second, Spearman correlation is not limited to strict linear relationships, making it more appropriate when there is no clear linear pattern observed. It should be noted that using Spearman correlation for linear data has little impact, but using Pearson correlation for non-linear data can yield significant differences. Given that the survey questions were based on a Likert scale, Spearman correlation was deemed more suitable for this study.

The relationship between the dependent variable and numerous independent variables was also investigated using a regression analysis (Ong & Puteh, 2017). Regression analysis is valuable as it helps identify the most influential factors contributing to the dependent variable while also allowing for predictions of the dependent variable's outcomes based on multiple independent variables. Overall, these statistical techniques were used to analyze the data, evaluate relationships, and identify significant factors influencing the dependent variable in the study.

3.13.1 Correlation Analysis

Correlation analysis is a statistical tool that measures the strength and direction of the relationship between two or more variables. It can be used to determine whether there is a significant relationship between the variables, and to quantify the strength of that relationship.

3.13.2 Regression Analysis

Regression analysis is a statistical method that also measures the relationship between two or more variables. However, regression analysis focuses on the significance of the relationship, rather than the strength of the relationship. Regression analysis can be used to predict the value of one variable based on the value of another variable.

3.14 CONSTRUCTION OF THE QUESTIONNAIRE

Before making the questionnaire available to respondents, it underwent a review process by six individuals who provided valuable feedback. Their input helped identify problems related to question understanding and meaning. Through thorough discussions, the questionnaire was revised, and the wording of certain questions was amended to enhance clarity.

The measurement scales used in the research for different variables were adapted from previously published literature. There were 8 sections in the survey. The subject was introduced, the respondent was given permission to participate, and general demographic data about them, including their educational and professional background, were gathered in the first section. This information helped gain a better understanding of the sample. Multiple applicable options were provided for answering these questions.

Sections two to seven focused on each of the six independent variables of the HEdPERF scale: non-academic aspects, academic aspects, reputation, access, program, issues and understanding. Section eight consisted of items related to the mediating variable – student's

satisfaction, and items pertaining to student's loyalty. All questions in the survey, except for the email address, were mandatory. The email address field was kept non-mandatory to ensure confidentiality in case respondents preferred to remain anonymous.

CHAPTER 4

4. DATA FINDINGS AND ANALYSIS

INTRODUCTION

The results and analysis of the data gathered using the structured questionnaire have been covered in this section. The reader will have a complete understanding of the entire body of data, how it was organized, where it was gathered, and the backgrounds of all relevant individuals by the end of this section.

4.1 RELIABILITY

Before proceeding with further analysis, a reliability analysis was conducted to make sure of questionnaire's consistency and stability. Cronbach's Alpha is a commonly used metric for assessing the internal consistency of variable items and determining scale reliability, was employed for this purpose Cronbach's Alpha ranges from 0 to 1, with a threshold of 0.7 considered acceptable for social science scales (Abdel & Rady, 2018).

Each variable, represented by multiple items, underwent a reliability analysis using Cronbach's Alpha. The results of this analysis, presented in Table 9, indicate that all the variables have Cronbach's Alpha values above 0.7. The reliability statistics, as indicated by the values of Cronbach's alpha, are highly satisfactory for this study. These values clearly show a strong level of reliability and consistency in the questionnaire, which was a key tool used in the research. The Cronbach's alpha values are very close to 1, which underscores the reliability of the questionnaire and the dependable responses provided by the respondents.

Reliability Statistics		
Variable	Cronbach's Alpha	No of Items
Academic Aspects	.833	9
Non-Academic Aspects	.832	12
Reputation	.869	9
Access	.806	7
Program Issues	.757	2
Understanding	.949	2
Customer Satisfaction	.954	6

4.2 DESCRIPTIVE FREQUENCIES

To make the data easier to understand, the researcher grouped the collected information into categories based on the respondent's gender, age, degree level, and status. The sample size was made up of a number of these groups, and only respondents who answered these questions as expected were included in the study.

Please Specify your Gender?					
		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	231	60.0	60.0	60.0
	Female	151	40.0	40.0	100.0
	Total	382	100.0	100.0	
Total		382	100.0		

Educational Level?					
		Frequency	Percent	Valid Percent	Cumulative Percent
	Bachelors	240	62.8	62.8	62.8
	Masters	101	26.5	26.5	89.3
	Recently Graduated	41	10.7	10.7	100.0
Total		382	100.0		

University Name?					
		Frequency	Percent	Valid Percent	Cumulative Percent
	QAU	61	16.0	16.0	16.0
	NUST	100	26.2	26.2	42.2
	IST	11	2.9	2.9	45.1
	Comsats	199	52.0	52.0	97.1
	PIEAS	11	2.9	2.9	100
Total		382	100.0		

Demographics		Frequencies	Percentages	Cumulative Percentage
Age	Less than 25 years	317	83	83
	25 – 35 years	65	17	100
Status	Full Time Students	297	78	78
	Part Time Students	84	22	100

4.3 CORRELATION ANALYSIS

The degree of the relationship between two variables is referred to as correlation. The correlation is high or strong when there is a strong relationship between two variables. In contrast, a weak relationship results in a low correlation, which shows that the variables are not strongly correlated. The process of examining the strength of a relationship using the data at hand is known as correlation analysis. The correlation coefficient, which has a value between -1 and +1, indicates how strong the relationship is. If the correlation is negative, as in the case of -1, it means that as one variable goes down, the other goes up. On the other hand, a positive correlation value, such as +1, shows that as one variable rises, the other rises as well. The strength and direction (positive or negative) of the relationship between two variables can be evaluated using correlation analysis. The correlation analysis for this study was carried out with SPSS v26. To examine the strength and direction of the relationship between the two variables, Spearman's bivariate correlation was specifically used.

		AA	NAA	REP	ACC	PI	UND	SS	SL
AA	Correlation Coefficient	1.000	0.628**	0.578**	0.532**	0.646**	0.656**	0.716**	0.664**
	Sig. (2-tailed)	.	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N		382	382	382	382	382	382	382
NAA	Correlation Coefficient		1.000	0.622**	0.624**	0.663**	0.589**	0.744**	0.689**
	Sig. (2-tailed)		.	0.000	0.000	0.000	0.000	0.000	0.000
	N			382	382	382	382	382	382
REP	Correlation Coefficient			1.000	0.624**	0.670**	0.723**	0.638**	0.571**
	Sig. (2-tailed)			.	0.000	0.000	0.000	0.000	0.000
	N				382	382	382	382	382
ACC	Correlation Coefficient				1.000	0.684**	0.609**	0.725**	0.628**
	Sig. (2-tailed)				.	0.000	0.000	0.000	0.000
	N					382	382	382	382
PI	Correlation Coefficient					1.000	0.685**	0.705**	0.691**
	Sig. (2-tailed)					.	0.000	0.000	0.000
	N						381	382	382
UND	Correlation Coefficient						1.000	0.675**	0.535**
	Sig. (2-tailed)						.	0.000	0.000
	N							382	382
SS	Correlation Coefficient							1.000	0.878**
	Sig. (2-tailed)							.	0.000
	N								382

- o Correlation is significant at the 0.00 level(2-tailed).
- o Correlation is significant at the 0.01 level(2-tailed).
- o Correlation is significant at the 0.05 level(2-tailed).

***=0 % sig level, **=5 % sig level, *=10% sig level

The table shows that all correlations are highly significant, with p-values less than 0.01. The first six hypotheses, which concern the relationship between service quality and customer satisfaction, were all supported. There are significant and strong positive correlations between academic aspects and student satisfaction ($r=0.716$, $p<0.01$), non-academic aspects and student satisfaction ($r=0.744$, $p<0.01$), reputation and student satisfaction ($r=0.738$, $p<0.01$), access and student satisfaction ($r=0.725$, $p<0.01$), program issues and student satisfaction ($r=0.705$, $p<0.01$), and understanding and student satisfaction ($r=0.675$, $p<0.01$).

Furthermore, SERVQUAL, including academic aspects, non-academic aspects, reputation, access, program issues and understanding, also has a strong direct impact on student loyalty. There are significant and high positive correlations between academic aspects and student loyalty ($r=0.664$, $p<0.01$), non-academic aspects and student loyalty ($r=0.689$, $p<0.01$), reputation and student loyalty ($r=0.671$, $p<0.01$), access and student loyalty ($r=0.628$, $p<0.01$), program issues and student loyalty ($r=0.692$, $p<0.01$), and understanding and customer loyalty ($r=0.535$, $p<0.01$).

Finally, there is a very strong positive and significant correlation between student satisfaction and student loyalty ($r=0.878$, $p<0.01$). These findings indicate that an increase in service quality, including academic aspects, non-academic aspects, reputation, access, program issues and understanding, leads to an increase in student satisfaction. Similarly, when student satisfaction improves, it also results in increased student loyalty.

4.4 REGRESSION ANALYSIS:

Due to the large number of independent variables, a multiple linear regression analysis was conducted to examine the effects of service quality variables on student satisfaction. The mediating variable, customer satisfaction, was used as the dependent variable, while the six HEDPERF variables were treated as independent variables.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.605 ^a	.592	.585	.51589
a. Predictors: (Constant), Academic Aspects, Non-Academic Aspects, Reputation, Access, Program Issues, Understanding				

R-squared is a statistical measure that is often used in linear regression analysis to assess how well a theoretical model fits the data. SPSS adjusts the R-squared value when working with small sample sizes to account for any irregularities. In our study, which had an appropriate sample size of 382, the R-squared and adjusted R-squared values were very similar. R is a measure of linear correlation between two variables. The value of R for this study was 0.605, which indicates a strong correlation between the dependent variable (student loyalty) and the independent variables (academic aspects, non-academic aspects, reputation, access, program issues, and understanding). R-squared indicates the percentage of variance in the dependent variable that can be explained by the independent variables. In this study, R-squared was 0.592, which means that the HEDPERF service quality variables can explain 59.2% of the variance in student satisfaction. Adjusted R-squared is a modified version of R-squared that takes into account the sample size. In this study, adjusted R-squared was 0.585, which indicates that the theoretical model fits the data well.

In summary, the results of this study suggest that the HEDPERF service quality variables can explain a significant amount of the variance in student satisfaction. This finding has important implications for higher education institutions, as it suggests that they can improve student satisfaction by focusing on improving the quality of their services.

4.5 ANOVA:

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.534	3	1.845	9.581	.000 ^b
	Residual	56.993	296	.193		
	Total	62.527	299			
a. Dependent Variable: AVGCS						
b. Predictors: (Constant), AVGAA, AVGNAA, AVGREP, AVGACC, AVGPI, AVGUND						

This model's significance level is.000, which is less than.05, indicating that it is extremely well-fitted by itself.

Item Statistics

	Mean	Std. Deviation	N
AVGAA	2.3607	.51666	382
AVGNAA	2.4247	.53486	382
AVGREP	2.4933	.57978	382
AVGACC	2.1365	.59793	382
AVGPI	2.2572	.47879	382
AVGUN	2.3399	.52173	382
AVGCS	2.2392	.45730	382

4.6 COEFFICIENTS:

Model	Coefficient Beta (β)	t-value	Significance
AA	0.343	5.872	0.000
NAA	0.202	4.763	0.000
REP	0.223	4.983	0.000
ACC	0.185	3.580	0.000
PI	0.054	0.946	0.536
UND	0.037	0.675	0.501

Independent Variables: AA, NAA, REP, ACC, PI, UND

Dependent Variable: CS

The beta value for academic aspects (AA) is 0.343, which means that a one-unit increase in academic aspects will lead to a 0.343-unit increase in customer satisfaction. This indicates that there is a strong positive relationship between academic aspects and customer satisfaction. The beta value for non-academic aspects (NAA) is 0.202, which means that a one-unit increase in non-academic aspects will lead to a 0.202-unit increase in customer satisfaction. This also indicates that there is a strong positive relationship between non-academic aspects and customer satisfaction. The beta values for reputation (0.223) and access (0.185) are also positive, which means that they are positively correlated with customer satisfaction. However, these relationships are not as strong as the relationships between academic aspects and non-academic aspects and customer satisfaction. The beta values for programme issues (0.054) and understanding (0.037) are very low, which means that they have a very small impact on customer satisfaction. This suggests that programme issues and understanding are less important factors in determining customer satisfaction.

In summary, the results of this study suggest that the academic aspects, non-academic aspects, reputation, and access are the most important factors in determining customer satisfaction in higher education. Programme issues and understanding are less important factors, but they can still have a small impact on customer satisfaction.

Regression analysis's t-value expresses our degree of confidence in a coefficient's capacity to predict the dependent variable. A higher t-value denotes greater predictability of the coefficient, whereas a lower t-value denotes lower predictability of the coefficient. When the t-value is 0, the sample's findings strongly support the null hypothesis. Four of the t-values in our research's regression analysis were high (AA t-value=5.872, NAA t-value=4.763, REP t-value=4.983, and ACC t-value=3.580), two were low (PI t-value=0.946 and UND t-value=0.675). This indicates that the coefficients for the majority of variables were very confident in their ability to predict the dependent variable. A coefficient must have a t-value above +2 or below -2 in order to be deemed a strong predictor. Academic aspects, non-academic aspects, reputation, and access all have t-values that are above this range among the variables examined, indicating that they are powerful predictors of customer satisfaction. However, when it comes to programming problems and comprehension, their t-values, which are close to zero and fall within the range of +2 to -2, are 0.946 and 0.675, respectively. This suggests that there is little trust in programme problems and understanding as a predictor of student's satisfaction.

According to the analysis, the academic dimension has the highest beta coefficient, coming in at 0.343. This suggests that it is the factor that most strongly affects increasing the degree of student's satisfaction. Because it directly affects students' learning outcomes and overall educational experience, academic aspect is the most crucial component of service quality in the educational sector. With a beta value of 0.223, the reputation dimension is the second most important factor in determining customer satisfaction, closely followed by non-academic aspects with a beta value of 0.202. Reputation is an important factor because it affects how stakeholders, including students, perceive an institution's quality, credibility, and trustworthiness. Facilities, student support services, extracurricular activities, and the overall campus environment are just a few examples of the non-academic factors that are crucial in enhancing the overall student experience and satisfaction.

Understanding is considered less important because it focuses interpreting course material,

which is primarily the responsibility of the individual student rather than a direct measure of the institution's service quality and programme issues aspect may be considered less important because it pertains to administrative and logistical aspects rather than directly impacting the students' learning experience or outcomes.

4.7 MEDIATION ANALYSIS – HAYES PROCESS MACRO

The Hayes Process Macro (v4.2) in SPSS is a statistical tool that can be used to examine the mediating role of a variable in a causal model. In this case, the Hayes Process Macro was used to examine the mediating role of customer satisfaction between the independent variables (academic aspects, non-academic aspects, reputation, access, program issues, and understanding) and the dependent variable (student loyalty). This macro, created by Andrew F. Hayes, enables the investigation of mediating factors. Model 4 of the process macro was chosen to carry out the mediation analysis because it is consistent with the theoretical framework of this study. The mean value of all independent variables was calculated to represent service quality (SQ), as the Hayes Process Macro only analyses one independent variable at a time. Following that, the interaction between service quality and brand loyalty and customer satisfaction was evaluated. Table summarizes the outcomes of the mediation analysis.

Relationship	Variables	R-square	p-value
IV>MV	SQ>SS	0.7340	0.0000
IV, MV>DV	SQ, SS>SL	0.7923	0.0000
	SQ >SL	0.2147	0.0371
	SS>SL	0.8974	0.0000
IV>DV	SQ>SL	0.5896	0.0000

Mediation Analysis

According to the results, variations in service quality (an independent variable) account for about 73.4% (R-square=0.7340) of the variation in customer satisfaction (the mediator). This

translates to a 0.734-unit increase in student satisfaction for every one-unit increase in service quality. Given that $p < 0.01$ ($p = 0.0000$), the association between customer satisfaction and service quality is highly significant. In addition, they jointly account for 79.23% of the variance when the effects of service quality (an independent variable) and student satisfaction (a mediating variable) on student loyalty (a dependent variable) are taken into account. According to the analysis, the relationship between student satisfaction and loyalty has a p-value of 0.0000, whereas the relationship between service quality and loyalty has a p-value of 0.0371. Although the p-value for the relationship between service quality and student loyalty is higher than that for the relationship between student satisfaction and loyalty, it is still significant (p-value 0.05). According to the positive R-square values, an increase in service quality leads to a 0.8974-unit increase in student loyalty while an increase in student satisfaction causes a 0.2147-unit increase. (p-value = 0.0000, p 0.01) The association between service excellence and student loyalty is highly significant. Additionally, the positive R-square value of 0.5896 indicates that an increase in service quality of one unit is associated with a loyalty increase of 0.58 units among students.

In a mediation analysis, we can look at the direct effect and the indirect effect, which is mediated by another variable (student's satisfaction), of an independent variable (service quality) on a dependent variable (student loyalty). Without taking into account the importance of customer satisfaction, the direct effect measures the impact of service quality on student loyalty. On the other hand, the indirect effect, which uses customer satisfaction as a mediator, assesses the impact of service quality on student loyalty. We look at the indirect effect and check if the effect's bootstrap upper and lower bounds cross zero to see if mediation is significant. There is a significant mediation effect if there is no zero crossing. Results from the mediation analysis can be found for both the combined total effect, which includes both the direct and indirect effects, and the separate direct and indirect effects. These findings help us comprehend the distinct roles that customer satisfaction and service quality play in describing student loyalty.

Table 13 provides the findings of the analysis of the total, direct, and indirect effects of mediation.

Relationship	Mediation	Effect	Lower Bound	Upper Bound	p-value
SQ>SS>SL	Total effect	1.4372	1.2381	1.3884	0.0000
	Direct effect	0.2139	0.0132	0.3862	0.0365
	Indirect effect	1.2456	0.8740	1.4368	No zero crossing

Total Effect, Direct Effect and Indirect Effect

As there is no zero-crossing between the upper and lower bounds, the p-values in Table 13 show that the independent variables have a significant indirect effect on the dependent variable in the presence of a mediator. Additionally, there is a significant direct influence of the independent variables on the dependent variable (p-value=0.0365).

Looking at the effects column, we can see that the indirect effect (effect=1.2456) has a larger variance in student loyalty than the direct effect (effect=0.2139). This suggests that when customer satisfaction serves as a mediator, the relationship between service quality and student loyalty is strengthened. The fact that both indirect effects are favorable and statistically significant suggests that customer satisfaction mediates the link between service excellence and student loyalty to some extent.

4.8 HYPOTHESIS RESULTS

Hypothesis	Statement	Accepted/Rejected
H1	Service Quality with respect to Non-academic aspects has positive impact on customer satisfaction.	Accepted
H2	Service Quality with respect to Academic aspects has positive impact on customer satisfaction.	Accepted
H3	Service Quality with respect to Reputation has positive impact on customer satisfaction.	Accepted
H4	Service Quality with respect to Access has positive impact on customer satisfaction.	Accepted
H5	Service Quality with respect to Program issues has positive impact on customer satisfaction.	Rejected
H6	Service Quality with respect to Understanding has positive impact on customer satisfaction.	Rejected
H7	Service Quality has a direct positive influence on student's loyalty	Accepted
H8	Student's Satisfaction has a mediating effect on the relationship between Service Quality and Student's Loyalty	Accepted
H9	Gender has a moderating effect on the relationship between Service Quality and Student's Loyalty	Accepted

CHAPTER 5

5. DISCUSSION, CONCLUSION & RECOMMENDATIONS

5.1 DISCUSSION

This study contributes to the existing knowledge by examining the factors that influence student's satisfaction and student's loyalty among students of higher education institutions of Pakistan. The study validates the relationship between the variables of HEDPERF dimensions and student's satisfaction as well as student's loyalty. The research specifically focuses on service quality dimensions which are relevant in the context of Pakistan, highlighting the positive and significant impact of academic aspects, non-academic aspects, reputation, access on student's satisfaction. However, the relationship between program issues, understanding and student's satisfaction was found to be insignificant. Further research could explore this finding and investigate the role of program issues, understanding in special circumstances where it may be more relevant.

The study's results emphasize the importance of prioritizing SERVQUAL in higher education institutions of Pakistan. Students assigned greater weightage to service quality indicating that universities need to focus on enhancing their service standards. Additionally, the research identifies customer satisfaction as a significant mediator between SERVQUAL and student's loyalty. This highlights the vital role of student's satisfaction in fostering students' loyalty.

Furthermore, the study reveals that program issues and understanding, while not directly associated with students' satisfaction, indirectly influences students' loyalty through its mediation by customer satisfaction. This suggests that program issues and understanding are important factors in achieving student's loyalty among university students. The research also identifies academic aspects, reputation, non-academic aspects and access as the most

influential factors contributing to student's satisfaction and, consequently, student's loyalty.

5.2 CONCLUSION

In conclusion, based on the discussion above, it can be said that student's loyalty in the higher institutions of Pakistan is influenced by student's satisfaction and service quality. Therefore, it is essential for universities to prioritize service quality alongside other factors in order to foster student's loyalty. To achieve this, universities should establish strong relations with their students. By focusing on satisfying students, universities can cultivate a loyal students base in the face of intense competition which can spread positive words of mouth and refer others to their university. The research findings emphasize the crucial role of student's satisfaction as a mediator between service quality and student's loyalty. Thus, to create student's loyalty, universities must strive to enhance student's satisfaction and improve the overall quality of their services. Furthermore, it was observed that gender moderates the relationship between service quality and student loyalty, with females assigning greater importance to service quality. When satisfied, females tend to engage in more positive word-of-mouth communication.

5.3 RECOMMENDATIONS

The fundamental objective of this research is to advocate practical recommendations rather than merely research-oriented work. Higher education institutions should prioritize the enhancement of academic aspects, including teaching quality and curriculum design, to provide a high-quality educational experience. Second, strengthening institutional reputation through effective branding and communication strategies can enhance the perceived value of the institution. Third, addressing program issues such as streamlining administrative processes and providing timely resources and support services can improve student satisfaction. Fourth, gaining a deeper understanding of student needs through surveys and engagement activities can guide institutions in tailoring their services accordingly. Finally,

considering gender as a moderator, institutions should implement gender-specific initiatives to create an inclusive environment and support the unique needs of male and female students. By implementing these recommendations, institutions can improve service quality, student satisfaction, and ultimately cultivate a loyal student community, contributing to their long-term success and sustainability.

5.4 RESEARCH IMPLICATIONS

This study underscores the importance of addressing various dimensions of SERVQUAL, including academic aspects, non-academic aspects, reputation, access, program issues, and understanding. HEIs should recognize the significance of providing excellence in these areas to foster student loyalty. By ensuring robust academic programs, well-rounded non-academic support services, a strong institutional reputation, easy accessibility, effective program management, and a deep understanding of student needs, institutions can enhance service quality and ultimately cultivate student loyalty.

Secondly, the research highlights the crucial role of student's satisfaction as a mediator in the HEDPERF dimensions and student's loyalty relationship. It is essential for institutions to prioritize and measure student satisfaction, allowing them to identify areas of improvement and tailor their services accordingly. Implementing feedback mechanisms, surveys, and regular communication channels can facilitate a better understandability of student's satisfaction levels and enable institutions to address concerns and enhance the overall educational experience.

Moreover, gender is identified as a moderator in the relationship between HEDPERF dimensions, service quality, and student loyalty. This implies that the impact of service quality on loyalty may differ based on gender. Higher education institutions should consider gender-related factors and tailor their services and programs to meet the specific needs and

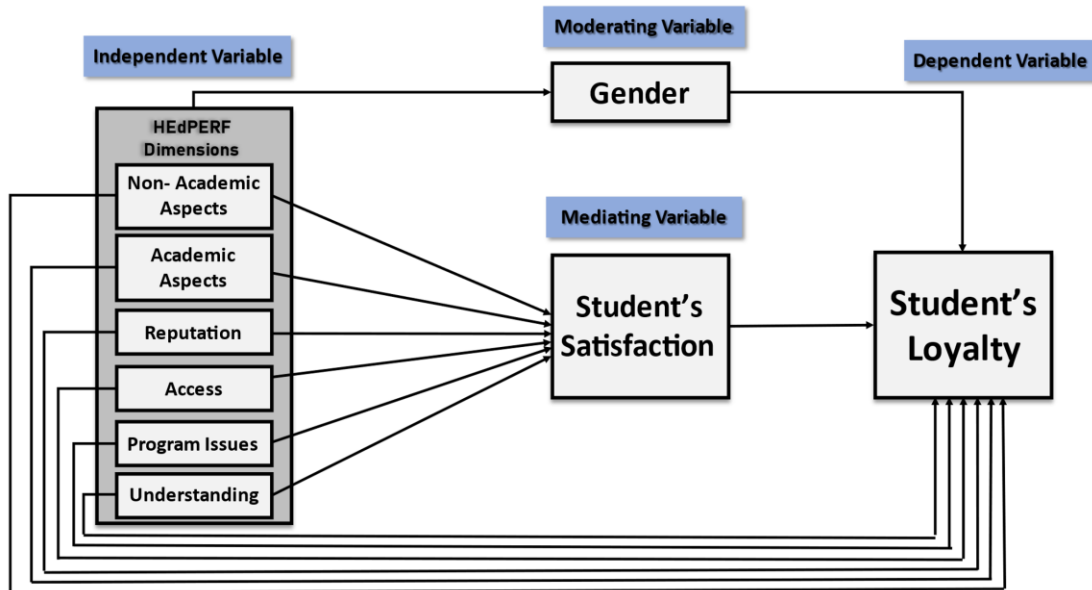
preferences of male and female students. Recognizing and addressing potential gender-related disparities can contribute to a more inclusive and supportive educational environment.

5.5 LIMITATIONS & FUTURE RESEARCH

Like any study, this research has certain limitations that need to be acknowledged. Firstly, the sample used in this study was obtained through non-probability sampling and the snowball effect, which resulted in a large sample size but a majority of respondents being males. Future studies should aim for a more balanced representation of both males and females to ensure a more accurate portrayal of the population.

Secondly, this study focused on student's satisfaction as a mediator between service quality and student's loyalty. However, there are other factors that could potentially influence student's loyalty, such as university's image or word of mouth. Future research should consider exploring these additional factors to provide a more comprehensive understanding of student's loyalty in higher educational institutions of Pakistan.

Since this study has investigated the impact of service quality as a whole on student's loyalty. Each dimension of HEDPERF scale impact is student's satisfaction and then student satisfaction impact on student's loyalty. Further research can be conducted that can also check the impact of each HEDPEF dimensions individually on Student's loyalty too having conceptual framework like that:



Furthermore, although the SERVQUAL variables included in the model accounted for a substantial amount of the variance in student's satisfaction (59.2%), there may be other factors that contribute to student's satisfaction, such as fees or university image. It would be valuable for future research to investigate the impact of these factors on customer satisfaction in the context of higher educational institutions of Pakistan.

Overall, even though this study offers insightful information, it is important to acknowledge its limitations and promote further research to address these gaps and provide a more comprehensive understanding of the factors influencing student's satisfaction and student's loyalty in the higher educational institutions of Pakistan.

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APPENDIX - QUESTIONNAIRE

INTRODUCTION

Dear Participant,

I am a Business Administration student at Bahria University and currently working on my Master's thesis focusing on the impact of Service Quality on Student's Loyalty in Higher Education Institutions of Pakistan. The aim of this research is to examine how different dimensions of service quality influences student's satisfaction and loyalty. Your valuable input is crucial for the success of this study, and I kindly request you to complete the questionnaire provided.

The survey will only require 5-10 minutes of your time. Please be assured that all information provided will be treated confidentially and no third parties will have access to your data. Should you require any further clarification, feel free to contact me at xainbabar@gmail.com.

Thank you for your participation in advance.

Sincerely,

Zain Babar

General Information

- a. Your email: _____ (non-mandatory question)
- b. Gender
 - Male
 - Female
- c. Age
 - 18-25 years
 - 25-35 years
 - 35+ years

- d. What is your current educational level?
- Bachelor's degree
 - Master's degree
 - Recently graduated (within past 2 years)
 - Graduated more than 2 years ago
- e. What is the name of your university?
- QAU
 - NUST
 - IST
 - Comsats
 - PIEAS
- f. What is your current student status?
- Full-time student
 - Part-time student

Scale:

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Academic Aspects (Soares-Silva, Moraes, Makiya, & Cesar, 2017)

		SA	A	N	DA	SDA
		1	2	3	4	5
AA1	Teaching staff are knowledgeable and can answer my course-related questions.					
AA2	Teaching staff treat me with care and courtesy.					
AA3	Teaching staff are responsive to my requests for assistance.					
AA4	Teaching staff show genuine interest in solving my					

	problems.					
AA5	Teaching staff have a positive attitude towards students.					
AA6	Teaching staff communicate effectively in the classroom.					
AA7	Teaching staff provide feedback on my progress.					
AA8	The time available for consulting teaching staff is adequate and convenient.					
AA9	Teaching staff are highly qualified and experienced in their respective fields.					

Non-Academic Aspects (Soares-Silva et al., 2017)

		SA	A	N	DA	SDA
		1	2	3	4	5
NA1	The institution's clerical staff sincerely helps solve problems.					
NA2	The institution's clerical staff provides individual attention.					
NA3	Questions and complaints are dealt quickly and effectively					
NA4	The clerical staff is never too busy to take my requests for assistance					
NA5	The clerical staff keeps accurate records that can be referred to					

NA6	Promises made by the clerical staff to do something within a certain time are kept.					
NA7	The working hours of administrative services are convenient					
NA8	The clerical staff has a positive attitude towards their work and students.					
NA9	The clerical staff communicates well with the students					
NA10	The clerical staff is knowledgeable about systems and procedures.					
NA11	I feel secure in my relationship with the institution.					
NA12	Services are provided within expected deadlines.					

Reputation (Soares-Silva et al., 2017)

		SA	A	N	DA	SDA
		1	2	3	4	5
REP1	The institution has a professional appearance and image.					
REP2	Student housing facilities and equipment provided are adequate and necessary.					
REP3	Academic facilities are adequate and necessary.					
REP4	The institution executes programs of excellent quality					
REP5	Recreational facilities are adequate and necessary.					
REP6	Class sizes allow for personal classroom assistance.					
REP7	The institution location is ideal, and the layout and appearance of campuses are excellent					

REP8	The institution provides highly respected programs.					
REP9	Graduates from the institution are easily employable					

ACCESS (Soares-Silva et al., 2017)

		SA	A	N	DA	SDA
		1	2	3	4	5
ACC 1	Students are treated equally and respectfully.					
ACC 2	Students have the freedom to express their opinions.					
ACC 3	Clerical staff respects the confidentiality of disclosed information.					
ACC 4	Easy telephone access to clerical staff.					
ACC 5	Institution supports the creation of student organizations.					
ACC 6	Institution values student feedback for service improvement.					
ACC 7	Standardized and simple procedure for service provision.					

Program Issues (Soares-Silva et al., 2017)

		SA	A	N	DA	SDA
		1	2	3	4	5
PI 1	Institution offers diverse programs with multiple specialties.					
PI 2	Programs at the institution have flexible structures and study plans.					

Understanding (Soares-Silva et al., 2017)

		SA	A	N	DA	SDA
		1	2	3	4	5
UND 1	Excellent counseling service provided by the institution.					
UND 2	Adequate and necessary health care services offered by the institution.					

Student's Satisfaction (Annamdevula & Bellamkonda, 2016)

		SA	A	N	DA	SDA
		1	2	3	4	5
SS1	I am satisfied with Quality of Equipment & facilities					
SS2	I am satisfied with Quality of Services					
SS3	I am satisfied with Quality of Support Services					
SS4	I am satisfied with Overall Maintenance					
SS5	I am satisfied with Quality of Admin Services					
SS6	I am satisfied with Quality of Academic Services					

Student's Loyalty (Annamdevula & Bellamkonda, 2016)

		SA	A	N	DA	SDA
		1	2	3	4	5
SL1	I feel proud to study in this University					
SL2	I care about the university					
SL3	I will refer this university to my Friends/Family					
SL4	I prefer to study Higher Studies in this University					

✚ What improvements or changes would you suggest to enhance student satisfaction at your university?

✚ Have you experienced any issues or challenges during your time at your university. If yes, please elaborate

thesis

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