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Three Sensitizing Dimensions of Quality, Epistemological Access, and Student Satisfaction

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ABSTRACT

The primary objective of this study is to investigate the impact of epistemological access on the correlation between service quality and student satisfaction across eight universities in Pakistan. The quality of service is evaluated along three dimensions in this study: empathy, responsiveness, and assurance. Research conducted on a global scale reveals that the mostdramatic changes in performance occurred between 2008 and 2018 in the areas above. A total of 1600 students took part in the study by filling out a questionnaire they had created for themselvesusing a 5-point Likert scale. The study used structural equation modeling (SEM) and correlation analysis to examine how mediation affected the connections between variables. According to the research, the level of empathy and responsiveness displayed by service providers are the most important factors in influencing the perception of information accessibility among university students in Pakistan. The study also found that epistemological access is the most important mediator among the three components of service quality and student satisfaction. The research highlights empathy, responsiveness, and assurance as critical elements of high-quality service. Policymakers, leaders, and higher education administrators can benefit greatly from the report's recommendations to prioritize these aspects of service quality.

Keywords: Assurance, Empathy, Epistemological Access, Service Quality, Student Satisfaction, Responsiveness

1. Introduction

After investigating seven different definitions of quality, concluded that "quality as improvement" and "quality as excellence" are the most important (ibnien and Savickien 2015). Although defining Total Quality Management (TQM) precisely is challenging, it can be helpful to think of TQM as a managerial strategy that depends on fundamental principles to achieve highlevels of service quality (Campatelli et al., 2011).

To improve an organization's efficacy, competitiveness, and efficiency, Total Quality Management (TQM) advocates constantly improving service delivery (Al-Tarawneh &Mubaslat, 2011; Zakuan et al., 2012). The implementation of quality control measures is considered mandatory. Although this is important, it must be complemented by external peer review endorsements and initiatives for improvement to strike a healthy balance between internaland external perspectives on quality assurance. Customers, in particular, value consistent effort because they view it as "assurance," a core component of quality. Quality experts believe how information is conveyed and understood is crucial (Stensaker & Harvey, 2010, p. 2). Leaders in higher education must make a final decision on quality assurance, which includes defining the limits of the guiding philosophy and the level of academic freedom to be granted. Brennan and Singh (2011) argue that catering to competing priorities is essential to laying a solid groundwork for quality.

Since current quality control and assurance methods have reached a level of maturity, more creative and well-rounded approaches are required to improve the state of higher education in Pakistan. Quality in higher education needs to be rethought in light of modern realities (Elassy, 2015). Quality control is more commonly understood in Pakistan as a means to guarantee accountability than to advance quality. Consequently, the emphasis is placed on regulating procedures rather than ensuring excellence. Arif, Ilyas, and Hameed (2013, 2017) argue that a middle ground between the two strategies is optimal. They argue that it is counterproductive to replicate the mechanistic concept of control without considering the object of control.

The only way to solve this problem is to learn how college students' diverse needs affect their significant social integration. Researchers have shifted towards a more nuanced approach to measuring service quality to understand better the factors that contribute to students' happiness, such as the ease with which they can access relevant information and the respect with which they are treated. This research aims to determine the significant relationships between three sensitizing dimensions—empathy responsiveness, assurance, and the soft aspect of service quality—and student satisfaction. The researchers have also examined the mediating role of epistemological access to determine if this process positively affects students' happiness.

2. Literature Review

2.1-Dimensional Approach to Measure Quality

Many scholars are committed to finding strategies to improve college students' career competitivenesss(Wang & Dai, 2023)**.** Quality assessment in HEIs is a multifaceted topic that calls for applying a wide range of theoretical frameworks and empirical models. The literature review uncovered that SERVQUAL (service quality) and SERVPERF (Service Performance) aretwo quality assessment metrics widely used by HEIs. SERVPERF is grounded in the perception- only concept developed by Cronin and Taylor (1994), while SERVQUAL is based on the expectancy-disconfirmation paradigm developed by Parasuraman, Zeithaml, and Berry (1988, 1994). It has been found that SERVPERF (Service Performance) is preferable to SERVQUAL

(service quality) based on the work of Jain and Gupta (2004), Zhou (2004), and Sultan & Wong (2013). However, the SERVQUAL framework has been used to assess service quality (Papanthymou & Darra, 2017). Both scales are equally valid in predicting future service quality (Ibrahim et al. 2012). Several models for evaluating the quality of higher education services have emerged since 2006 (Papanthymou & Darra, 2017). Analytical Hierarchy Process (AHP), Higher Education Quality Assessment Model (HEGAM), Electronic Service Quality scale (E-S-Qual scale), Lean Six Sigma (LSS), Higher Education Service Quality-Hierarchical Model (HESQUAL), and Quality Function Deployment (QFD) are just some of the models that have been discussed. Other Pakistani academic frameworks like PAKSERV (Kashif et al., 2016) and HiEduQual (Latif, Latif, Sahibzada, & Ullah, 2019) have been developed separately. Arif et al. (2013, 2017) have undertaken original research in service quality.

Carlzon (1989) established a theory stating that service encounters, often known as "moments of truth," substantially influence customers' judgments of service quality. Consumer interactions with service providers are crucial, according to Deming (2018), because of their potential to affect consumer satisfaction. In the field of service, researchers have further elaborated on this distinction by using the terms "human ware" and "hard-ware" (Brown & Mazzarol, 2009). The quality of interactions between service providers and customers is called "human-ware" here. Onthe other hand, hardware refers to the physical and structural components of services, such as computers, classrooms, and other buildings, and outdoor leisure places, such as playgrounds. Academics have widely endorsed the ideas discussed above as a viable alternative to the five dimensions of SERVQUAL (Parasuraman et al., 1988).

2.2 Evidence for Three Sensitizing Dimensions

After sifting through the existing literature, we have concluded that three core elements, all essential to the foundation of high-quality discourse, require additional examination to make significant progress. Hasan et al. (2008) looked into how the five aspects of service quality affected student happiness. According to the findings, empathy was the most important predictor of student satisfaction. The aspects of dependability, responsiveness, and assurance followed this. Several subsequent academic studies on the topic have revealed a disconnect between student satisfaction and the five components of service quality—reliability, responsiveness,assurance, empathy, and tangibles. The accompanying table summarizes the study's findings and explains the connection between the three factors and students' emotional health.

Table 1

Three Sensitizing Dimensions of Service Quality

Study	**Context**	**Order use for three sanitizing dimension quality**
Khoo et al. (2016)	Singapore	Responsiveness, Empathy and Responsiveness
Chui et al. (2016)	Malaysia	Empathy, Assurance and Responsiveness
Abari et al. (2011)	Iran	Responsiveness, Empathy & Assurance
Chuah and Ramalu (2011)	Malaysia	Empathy, Assurance and Responsiveness
Hasan et al. (2008)	Malaysia	Empathy, Assurance, Responsiveness
Bozbay et al. (2020)	Turkey	Empathy, Assurance and Responsiveness
Legčević (2009)	Croatia	Empathy, Reliability
Akhlaghi et al. (2012)	Iran	Responsiveness, Assurance and Empathy

Arif & Ilyas (2012)	Pakistan	Assurance, Responsiveness and Empathy
Shaari (2014)	Malaysia	Responsiveness and Empathy
Darawong & Sandmaung (2019)	Thailand	Assurance, Responsiveness, Empathy,
Hooda & Jain (2018)	India	Responsiveness, Empathy and Assurance
Yousapronpaiboo (2014)	Thailand	Responsiveness, Empathy and Assurance
Al-Alak & Alnaser (2012)	Jordan	Assurance, Empathy and Responsiveness
Amal & Pokharel (2019)	Qatar	Assurance, Responsiveness, Empathy

2.3 Epistemological Access

Since its inception in the early 2000s, access to higher education has steadily increased, coinciding with the introduction of privatization policies within the Higher Education Commission (HEC) to keep up with global trends. When it comes to monitoring and assessingthe quality of colleges and universities, the Higher Education Commission (HEC) has been very involved. However, it is worth noting that the emphasis of this regulatory framework is on management concerns rather than theoretical ones. In addition, the applicability of this framework is largely limited to the implementation of Total Quality Management (TQM) principles and practices. So, it is natural to wonder how often college grads achieve the goals for themselves and their careers that they set before starting college.

Quality education, job-market alignment, customer happiness, and service accessibility are just some of the topics that have been studied in relation to education accessibility in Pakistan. Arif et al. (2017) and Farooq et al. (2011) provide two scholarly investigations that exemplify this phenomenon. Based on the previously mentioned research, educational access encompasses more than just physical or formal availability. It also includes epistemological accessibility, which describes using preexisting resources to enable learning experiences with long-lasting positive effects on individuals and communities (Plooy & Zilindile, 2014).

One of the most common complaints leveled at the field of inclusive higher education is that it places too much value on monetary and human resources. To address these criticisms, an epistemological lens can be used to investigate the various theoretical frameworks underlying the idea of quality in higher education (Mullar, 2014; Omar & Chaudhary, 2019) and develop solutions to issues relating to student access and satisfaction with university infrastructure.

2.4 Customer Satisfaction

There is no need to delve further than customer satisfaction to learn about customers' wants and needs. The answers to the questions as mentioned earlier are instrumental in establishing the standards by which service quality is evaluated (Alves & Raposo, 2007; Telford & Masson, 2005). Brennan and Singh (2011) used a "personal compass" in their research to show that raising quality levels also raises customers' happiness. The development of self-awareness is crucial not only for an individual's emotional intelligence but also for a business's perceptiveness.

The question of how much weight to give to the various stakeholder groups' definitions and evaluations of quality arises as a central one in the context of quality planning in highereducation. Students, faculty, and administrators are all considered customers in the higher

education system, and their input is valuable (Arif et al., 2013; 2017). Is there data to suggest a link between how competitive a university is and its graduates' ability to find work after graduation? This is a scholarly question because most people think of quality as faultless. It could be argued that students should do better than expected under the current conditions. In light of the historically high unemployment and student loan debt rates, how many schools do you think would pass this test? Is it reasonable to assume that this reflects a failure by quality planners and managers to address students' genuine requirements? The lack of flavor in everything forces us to look for its missing ingredient.

Educationists have made significant strides in the last two decades toward framing highereducation as a service and improving its quality by returning attention to its original goals of teaching and learning (Arif & Ilyas, 2012; El-Khawas, 2013). However, those responsible for establishing a quality control framework blame the lack of creativity and innovation in HEIs for their inability to effect change. The adage "the customer is always right" has become inextricablylinked to the workings of markets. However, there is widespread disagreement among academicsabout this view. Mark (2013) argues that students' happiness in the classroom has nothing to do with the importance of academic freedom. Scholarly works by Arif et al. (2017) are excellent examples of articles that explore the importance of managing expectations from various angles. Most academics believe loyalty is about more than just how you feel inside. The former is generally considered a major factor that motivates people, while the latter can have positive or negative results depending on the specifics (Gruber, Voss, & Gläser-Zikudu, 2010).

2.5 Research Questions

The following inquiries were posed to investigate the intricate interplay among soft attributes of service quality, epistemological access, and student satisfaction.

- Among the three enlightening dimensions, which is perceived by students in public and private universities in Pakistan as more favorable for epistemological access?
- Does epistemological access mediate between service quality and student satisfaction?

2.6 Conceptual Framework

Morrow (1994, 2009) and Muller (2014) provide the theoretical underpinnings for this research because they stress the epistemological importance of students' access to relevant information. This evaluation considers the students' ability and motivation to use the facilities and materials to which they have access. Omar and Chaudhary (2019) conducted research in Pakistan and concluded that students who are viewed as customers are more likely to engage in purposeful learning when higher education institutions provide high-quality services, including effective management and teacher efforts. Previous research has narrowed in on just three modifiable aspects of service quality (Chuah and Ramalu 2011;Chui and bin Ahmad 2016; Shaari 2014 ; Yousapronpaiboo 2014). In order to gauge students' levels of contentment with their schoolwork, Arif and coworkers (2013, 2017) designed prototypes. In the following chapters, we will examine the conceptual model in greater detail.

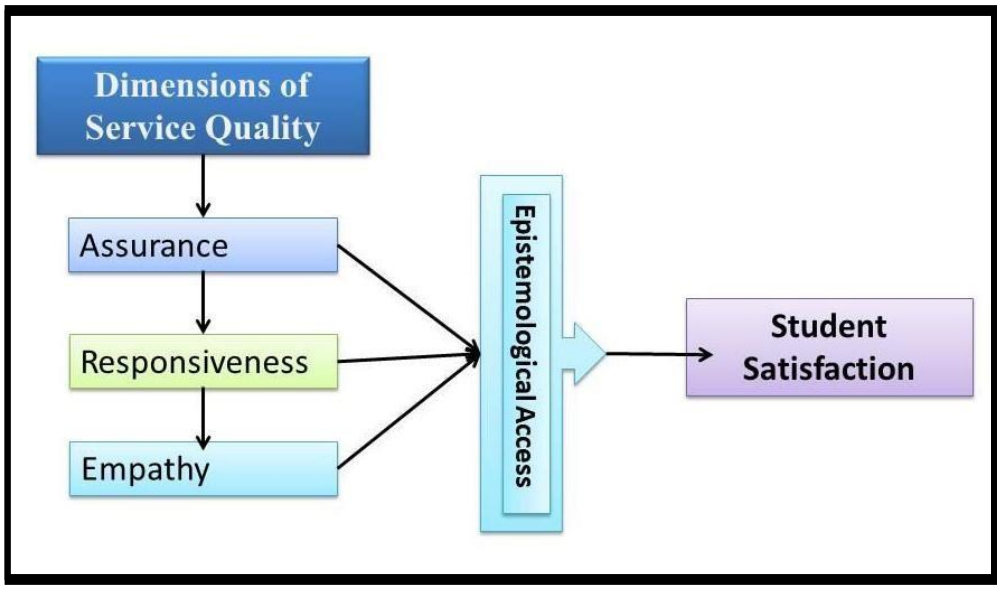

Fig 1. Conceptual Framework of the Study

3. Method

3.1 Research Design

This research study utilized a quantitative approach within the post-positivist paradigm. The investigation employed a correlational research design to explore the relationship between various variables and discern the nature of their interactions. Statistical control was applied to obtain accurate estimations of the degree of association between the variables (Becker et al., 2016). Additionally, the established relationship allowed the researchers to formulate predictionsabout future outcomes (Cresswell & Creswell, 2017)

3.2 Population and Sampling

Students from both public and private universities in Punjab and the Islamabad Capital Territory were included in the study. These students had completed the first 2.5 years of their undergraduate education. The Higher Education Commission (HEC) lists 189 universities in Pakistan on its official website as of June 13th, 2018. Punjab, a province in Pakistan, hosted the largest number of these institutions (61 altogether). A multistage sampling strategy was used to attain a sample that fairly represents the population. Eight colleges and universities acrossLahore, Rawalpindi, and Islamabad were randomly chosen for this study. Two faculties, Information Technology and Business Administration, were chosen randomly from each institution because of their widespread presence and large student enrollment to guarantee the sample's representativeness. Only institutions meeting the criteria of Category W4 established bythe Higher Education Commission (HEC) were included in the study. Only enrolled studentswho gave their written consent were included in the study. Overall, 1,770 surveys were submitted, but only 1,600 were considered usable for further analysis. One hundred studentswere chosen from each department in the sixth semester.

3.3 Materials

In order to gather information for this study, the researchers used a questionnaire they created, which consisted of 35 questions. The survey had two parts and used a 5-point Likert scale. The first step in this research process was collecting basic demographic information about the undergraduate student body. This information included students' ages, genders, and average GPAs. The second section included a quality measurement scale with 22 items, with 7 items each representing empathy, responsiveness, and assurance as distinct service quality dimensions. In addition to the five items mentioned earlier, the study also included eight items that gauged participants' views on how easily they could access particular bodies of knowledge. Multiple pilot studies were conducted to establish the reliability and validity of the instruments, and any necessary adjustments were made to improve the quality of the items for use in subsequent studies of the same type (Babbie, 2016; Bryman, 2016).

4. Data Analysis

The information was scrubbed, organized, and filed using SPSS version 21's statistical tools. Descriptive statistics like means, percentages, and standard deviations were computed in the first stage of the study. After that, we did some inferential reasoning at the intermediate level. Factor analysis, correlation analysis, regression analysis, and mediation analysis were just some of the advanced statistical methods used in the study. These analyses were performed using suitable statistical software. The following sections detail the various steps that were taken in thisdirection:

4.1 Confirmatory Factor Analysis

The questionnaire items assessing the level of epistemic access to higher education were treated to a typical factor analysis process, utilizing principal axis factoring as the initial extraction method, followed by varimax rotation to enhance interpretability. Consistent with the results reported by Widaman (1990) and Fava & Velicer (1996), factor analysis revealed significant factor loadings. In addition, the researchers calculated Cronbach's Alpha to examine the internal consistency of the data and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy to evaluate the sample size.

Table 2: ***Results of KMO & Bartlett Tests***

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.928
Bartlett's Test of Sphericity	Approx. Chi-Square	2.722
	df	820
	Sig.	.000

Five components were extracted using the Scree plot. Cronbach's Alpha was used to determine the internal consistency of each subscale (factor), and all factors had alphas greater than 0.6, meeting or above the minimum criterion suggested by Wang (2003). Several dimensions of universities' pursuit of excellence had high Cronbach's coefficient values, including assurance (0.670), responsiveness (0.672), empathy (0.773), epistemological access (0.816), and student satisfaction (0.843). Table 3 provides detailed information about the five criteria, and AppendixA provides even more details.

Table 3: ***Confirmatory Factor Analysis***

No	Factors	Alpha	KMO	Bartlett's Test of Sphericity
1	Assurance	.670	.777	1.438
2	Responsiveness	.672	.662	2.982
3	Empathy	.773	.763	3.343
4	Epistemological Access	.816	.826	5.351
5	Student Success	.843	.811	3.154

4.3 Pearson Product Moment Correlation

The investigation of the association between the research variables employed Pearson product-moment correlation (Gürler, 2015). The researchers used a correlation analysis to assess the connections between students' satisfaction levels with their education and the university's efforts to ensure service quality (measured along three dimensions: assurance, responsiveness, and empathy). Most of the investigated factors showed moderate to strong positive correlations. The following sections provide further clarification:

Table 4: Correlation matrix

Variables	1	2	3	4	5
Assurance	1				
Responsiveness	0.434**	1			
Empath	0.545**	0.534**	1		
Epistemological Access	0.524**	0.627**	0.683**	1	
Student Satisfaction	0.422**	0.485**	0.771**	0.683**	1

4.4 Multiple Linear Regression

The correlation analysis suggests that the assurance dimension (AD), responsiveness dimension (RD), and empathy dimension (ED) of service quality at universities are the independent variables in the previously established conceptual framework of five variables. Epistemological access and academic achievement were found to have a statistically significant beneficial relationship. Therefore, multiple linear regression was carried out using a methodical approachto identify credible predictors of epistemic access to higher education and student performance. Each dependent variable now has two separate models due to this procedure.

In order to investigate the comparative predictability of the three components of service quality that elicit sensitivity, namely empathy (ED), responsiveness (RD), and assurance (AD), all three were applied as predictors regarding the dependent variable of epistemological access. Three models were developed to evaluate how well three aspects of service quality might be predicted. The study found that the empathy component is the best predictor of knowledge acquisition. The efficacy also benefits from a blend of responsiveness, assurance, and empathy. The accompanying sections detail these models**.**

Table 5: Step-wise Regression Analysis (Dependent Variable: Epistemological access)

No	Model	β	t-value	p-value
1	(Constant)		17.750	.000
	Empathy	.683	37.330	.000
2	(Constant)		4.599	.000
	Empathy	.486	24.852	.000
	Responsiveness	.368	18.793	.000
3	(Constant)		.715	.475
	Empathy	.422	19.967	.000
	Responsiveness	.338	17.211	.000
	Assurance	.148	7.444	.000

1. *Multiple Regression Analysis (Student Satisfaction as Dependent Variable)*

Student satisfaction was used as the dependent variable, while the three factors that sensitize service quality and epistemological access were used as independent variables to compare their predictability. Three models were built, confirming that empathy is the lone dimension that can predict the satisfaction levels of university students in Pakistan. Furthermore, it has been discovered that employing both epistemological access and assurance in conjunction with it generates favorable consequences. Notably, management's responsiveness was not found to have a significant predictive association in this study. The models are described in detail in the next section.

Table 6: ***Stepwise Regression (Student Satisfaction as Dependent Variable)***

No	Model	β	t-value	p-value
1	(Constant)		4.689	.000
	Empathy	.771	48.443	.000
2	(Constant)		-1.258	.208
	Empathy	.571	27.828	.000
	Epistemological Access	.294	14.314	.000
3	(Constant)		.840	.401
	Empathy	.594	27.705	.000
	Epistemological Access	.312	14.800	.000
	Assurance	-.065	-3.560	.000

4.5 Structure Equation Modeling (SEM)

An exploratory factor analysis using the Varimax rotation method was run on all of the questionnaire's questions to determine the constructs' psychometric validity. Both confirmatory factor analysis and the scree plot agreed with the study's finding of five components. The factor loadings of all items that made it into the study were greater than 0.5. In addition, eigenvalues of 0.03 or below were used to derive the five components. Quality dimensions, perceived epistemological access, and service quality satisfaction are the outcomes gleaned from the conceptual framework's analysis of the combined factors.

All statistical analyses were conducted according to Hair et al. The factor loadings of individual items and their reliability ratings prompted more investigation, and a z-test of the crucial ratios was used to establish the significance of routes. Following the procedure outlined by Mulaik et al. (1989), the Relative Normed Fit Index (RNFI) was calculated. All of the analyzed routes were found to be statistically significant at the p .05 level.

Composite reliability (CR) was calculated using the method described by Fornell and Larcker (1981), and it was found that all five constructs were reliable enough, with a CR value of 0.7. Convergent validity was proven by determining that the AVE of all five constructs was more than 0.05. Please see Appendix A for further information.

The researchers used IBM's AMOS software version 24 to examine the collected data. The relationship between the three sensitive features of quality and student satisfaction was analyzed using a structural equation model (SEM), and it was discovered that epistemological access moderated this relationship. Hair et al., (2009) criteria for well-fitting models served as our guide. Root Mean Square Error of Approximation (RMSEA), Probability of RMSEA less than orequal to 0.05 RMSEA 0.05, Minimum Expected Cross-Validation Index (MECVI), and Comparative Fit Index (CFI) were calculated. The degrees of freedom were also used to construct the chi-square statistic (2/df).

Table 7: ***Construct Validity Goodness of Fit***

Model	NF	RFI	IFI	TLI	CFI	RMSEA
Default model	.885	.870	.902	.889	.902	.057

In order to generate good fit model values, we used already prescribed values given by Hair et al. (2009). These included chi-square/degrees of freedom (χ2/gl), CFI, GFI, PCFI, PGFI, RMSEA, and MECVI.

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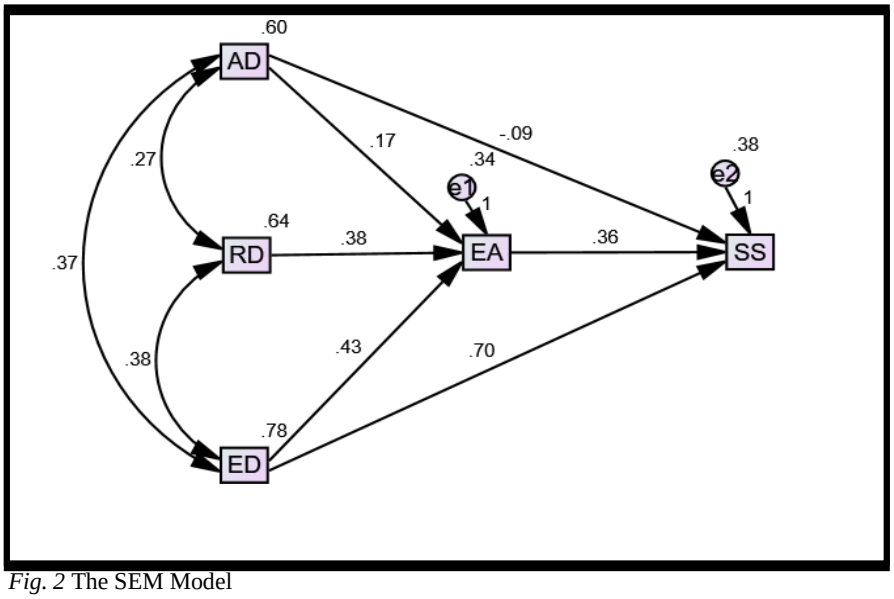

Fig. 2 The SEM Model

Table 8: Model Fit Summary

Model	CMIN	DF	P	CMIN/DF	RMR	GFI	AGFI	CFI	RMSEA	RMR
Default model	.002	1	.963	.002	.000	1.000	1.00	1.000	.000	.000

As can be seen in the diagram, a thorough multivariate regression analysis was conducted. The model summary reveals that GFI, CFI, and AGFI are all larger than 0.05, whereas RMR and RMSEA are less than 0.05. As Hu and Bentler (1999) suggested, these results indicate a promising fit. The direct and indirect effects of the factors were evaluated using a bootstrap sample size of 5000. Table 10 shows the specific outcomes. For additional findings, please refer to Appendix B.

Table 9: Hypothesis testing for direct and indirect effects

No.	Hypothesis	β	SE	Decision
H1	AD → EA	.148***	.020	Not rejected
H2	RD → EA	.338***	.022	Not rejected
H3	ED → EA	.422***	.021	Not rejected
H4	EA→ SS	.312***	.022	Not rejected
H5	AD → SS	-.065***	.020	Not rejected
H6	ED → SS	.594***	.022	Not rejected
H7	ED → EP → SS	.132***	.010	Not rejected
H8	RD → EP → SS	.106***	.011	Not rejected
H9	AD → EP →SS	.046***	.007	Not rejected

The findings validate the accuracy of each operational premise. There is a notable association between the three sensitization categories and students' subjective well-being. Furthermore,

epistemic availability plays a crucial role in mediating the connections between service quality and various other characteristics that impact the overall pleasure of students.

5. Discussion

The management must consider the crucial aspect of service quality when formulating strategic objectives. Meanwhile, stakeholders express their apprehensions regarding the potential for improvement that the strategy presents and how it would manifest for them (Nadiri et al., 2009). The significance of students as customers cannot be understated (Sadeh & Garkaz, 2015), given that students not only provide financial compensation in the form of tuition fees but also dedicate a substantial amount of time and energy towards obtaining their degree. Furthermore, it should be noted that attaining this academic degree serves as a means to an end, with the ultimategoal being acquiring knowledge and competencies essential for pursuing a desired profession, career path, and way of life. The notion of the epistemological realm of higher education holds the potential to fulfill the aspirations of students. Existing literature substantiates that if students are not content with their academic performance, they tend to underestimate the caliber of services rendered by the university (Omar & Chaudhary, 2019; Xiao & Wilkins, 2015).

According to Cova and Dalli (2009), quality pertains to the customers' experience, while service quality is measured by their immersion in the experiential context. The university provides various services encompassing experiential and phenomenological aspects, as Vargoand Lusch (2008) described. These services are emotionally charged experiences in an intense, emergent, unstructured, interactional, and uncertain environment, as noted by Ng and Forbes (2009, p.). Hence, it is imperative to acknowledge the occurrence of both peaks and troughs while documenting the current destiny of the establishment. Recent research has emphasized "human-ware" soft aspects, such as empathy and assurance, as opposed to hardware, such as infrastructure, as Woodall, Hiller, and Resnick noted in 2014.

Maintaining favorable customer relationships with front-line personnel has consistently posed a challenging and notable obstacle in achieving customer contentment (Huda & Akhtar, 2010). Arif et al. (2013, 2017) have reported that students, viewed as customers, have registered more grievances concerning management than faculty and teaching staff. The level of responsiveness of the service indicates the degree of service quality. According to Douglas, Douglas, McClelland, and Davies (2015), the most crucial aspects of service quality are responsiveness, communication, and access to authentic information.

The establishment of quality standards in any Higher Education Institution (HEI) is a product of consensus among its stakeholders and is subject to verification through specific accountability measures. It is widely acknowledged that quality cannot be imposed but must be developed through a collaborative effort. The replication of best practices is a common occurrence. However, quality ultimately arises through competition and the application of optimal efforts. The quality of an organization can be determined by the collective quality of its crucial stakeholders. In higher education, the key stakeholders are a university's students, faculty, and administration, who collectively ensure that all parties' efforts are effectively utilized. Despite the persistent presence of conflict in the environment, one must question its inherent nature and consider what it should ideally entail. Amidst numerous conditional statements and uncertainties, certain valuable concepts successfully reach their intended destination, namely the concept of "quality."

According to Chong and Ahmed's (2015) assertion, service quality is a crucial determinant of a university's competitive advantage, as evidenced by its ranking and program accreditations. According to Seyfried and Pohlenz's (2018) assertion, the effectiveness of quality activities in a university is indicated by positive feedback and ratings from both students and faculty. The university's top management is considered a key driver of quality assurance efforts, and their contribution is of utmost importance. Latif, Latif, Sahibzada, and Ullah (2019) have posited that leadership is a crucial quality component in higher education, in line with the findings of Arif et al. (2017).

5.1 Implications

The development of culturally sensitive measures for service quality is imperative. In this regard, Kashif, Ramayah, and Sarifuddin (2016) have introduced PAKSERV, a tool designed to evaluate Pakistani university students' satisfaction and loyalty levels. This research is noteworthy for incorporating a culturally specific metric for evaluating service quality and an additional dimension of epistemological accessibility. The PPAKSERV framework has emphasized the significance of interpersonal aspects of service quality, such as sincerity and personalization. Additionally, this research has confirmed the importance of responsiveness and empathy in service delivery's "human-ware" component.

According to Kohoutek's research in 2014, universities may attempt to ensure quality at a micro level to address customer concerns regarding interpersonal quality during a service encounter. Identifying transformative quality is challenging, as the factors facilitating quality enhancement vary across different temporal and spatial dimensions. According to Cardoso, Rosa, and Stensaker (2016), the overall evaluation of service quality results from multiple positive interactions and cannot be solely attributed to a single service aspect.

The quality assurance procedure is characterized by a high degree of bureaucracy, which does not align with academic freedom or teacher autonomy principles. As a result, it may negatively affect both individual and organizational behavior. According to Harvey and Stensaker's (2008) perspective, quality assurance is recognized for enhancing transparency in university decision-making processes. This, in turn, can lead to improved academic quality, benefiting both students and faculty. The design of the quality framework must be developed considering the cultural and psychological requirements of the stakeholders, while also aligning with the values of theacademic community and society. It is imperative that the framework is created with an original approach. As mentioned earlier, the agenda is motivated by the recognized apprehensions regarding the educational achievements specified in a particular academic curriculum, as stated by Stensaker in 2014. Additional investigation is required to ascertain how these standards of excellence are manifested within the regional context.

Service quality measurement and the management and governance of higher education institutions are undergoing significant changes. Scholars are currently exploring innovative methodologies to investigate diverse facets of higher education governance to improve existing practices. As mentioned earlier, the investigation constituted a comparable endeavor, as Manatos, Sarrico, and Rosa (2017) suggested devising a comprehensive, systematic, and holistic framework for scrutinizing quality management practices within higher education.

6. Conclusions

This study's findings support the dynamic hypothesis, suggesting that the three perceived service quality variables enhance epistemic access. In addition, the combined factors of perceived service quality and epistemic access significantly impact student happiness. Epistemological access and student happiness result from the soft dimensions of service quality, namely empathy, responsiveness, and assurance. Of these factors, empathy assumes a paramount significance in influencing both epistemological access and student pleasure. The study's findings demonstrate the presence of direct and indirect interactions among the five latent components. Furthermore, the structural equation modeling (SEM) framework highlights the role of epistemic access as a mediating factor in the relationship between the three dimensions of service quality and student satisfaction

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Appendix A: Regression Weight and Discriminant Validity

Constructs	Factor Loadings Range	Alpha	CR	AVE
Assurance	0.515-0.753	0.670	0.7	0.5
Responsive	0.522-0.887	0.672	0.8	0.6
Empathy	0.619-0.839	0.770	0.8	0.5
Epistemology access	0.691-0.751	0.816	0.8	0.5
Student Satisfaction	0.682-0.851	0.843	0.8	0.5

Appendix B: Covariance Tables

			Estimate	E.	C.R.	P
F5	<-->	F3	.365	025	14.487	***
F5	<-->	F2	.342	031	11.099	***
F1	<-->	F4	.326	031	10.558	***
F5	<-->	F4	.750	040	18.587	***
F5	<-->	F1	.351	029	12.160	***
F1	<-->	F2	.168	028	5.923	***
F2	<-->	F3	.497	.042	11.886	***
F1	<-->	F3	.206	.028	7.374	***
F2	<-->	F4	.255	.036	7.119	***
e26	<-->	e29	.612	.042	14.478	***
e28	<-->	e29	.910	.046	19.909	***
e27	<-->	e28	.797	.044	18.173	***
e26	<-->	e27	.681	.043	16.028	***
e26	<-->	e28	.654	.043	15.076	***
e18	<-->	e19	.219	.043	5.152	***
e38	<-->	e39	.557	.032	17.651	***
e33	<-->	e34	.122	.023	5.218	***
e34	<-->	e35	.333	.028	11.844	***
e27	<-->	e29	.594	.041	14.486	***
e31	<-->	e32	.260	.034	7.545	***
e36	<-->	e37	.201	.027	7.321	***