Annals of Human and Social Sciences
www.ahss.org.pk

RESEARCH PAPER

Nexus between Key Determinants of Service Quality and Students' Satisfaction in Higher Education Institutions (HEIs)

¹Sadia Butt * ² Tahira Umair and ³ Ramshah Tajammal

1. PhD Scholar, Department of Management, Dr Hasan Murad School of Management (HSM), University of Management and Technology, Lahore, Punjab, Pakistan
2. Assistant Professor, Department of Management Sciences, Comsats University Islamabad (CUI), Lahore Campus, Punjab, Pakistan
3. MS Scholar, Department of Finance, Dr. Hasan Murad School of Management (HSM), University of Management and Technology, Lahore, Punjab, Pakistan

| Corresponding Author | F2018051001@umt.edu.pk |

ABSTRACT

This study examined the nexus between key determinants of SQ and SS in HEIs of Pakistan. This study employed cross-sectional design and quantitative approach. Data was obtained from 235 currently enrolled students in HEIs of Pakistan applying random sampling technique through structured SERVQUAL questionnaire. Data was analyzed through SPSS 23.0 applying statistical analysis. Study findings identified critical service quality dimensions relevant to students' satisfaction in HEIs. Results of data analysis revealed that five SQ dimensions were positively correlated with student's satisfaction (SS) in HEIs. While regression analysis results indicated that that only two (2) SQ/SERVQUAL dimensions (Responsiveness and Assurance) had positive significant impact on SS. While, remaining three SERVQUAL dimensions had insignificant impact. Furthermore, the findings are important for policy makers, service providers and management of HEIs for resource allocation decisions and students retention.

| **Keywords:** | Higher Education Institutions (HEIs), Pakistan, Service Quality, SERVQUAL, Student Satisfaction |

Introduction

Unquestionably, higher education (HE) plays a crucial role in elevating an individual's quality of life. On account of mounting demand in HE for quality, HEIs are focusing upon fulfilling expectations and demands/wants of the students (Manik & Siddhartha, 2017; Kalim et al., 2022). Service quality (SQ) is gradually becoming a debatable point among academicians and organizations in current decade (Ahmed et al., 2016). Holistically apprising the service by the consumer is called perceived SQ (Yılmaz & Temizkan, 2022).) In past twenty years, students satisfaction (SS) and service quality (SQ) have arisen as pairing terminologies in the literature on HE globally. SQ is among the vital elements which adds value and it also positively impacts on student's success (Ali et al., 2020; Stankovska et al. (2024). Preeminent service provision is the success tool to survive competition. SQ Plays huge role in different institutes as it maintains student number through capture of educational market (Mulyono et al., 2020).

Service quality (SQ) has been known as a basic elements for consumer's satisfaction (Umair et al., 2023). It is extremely complicated task to set the benchmark to satisfy its customers in a service industry (Butt, 2021). If customers positively perceive the product/service performance, they become satisfied. Customers perceive SQ adequate if service delivery of the company fulfils theirs expectation level (Lidya, 2022; Carolina et al., 2023; Butt & Umair, 2023). Their satisfaction is closely associated with SQ (Yılmaz & Temizkan, 2022). HEIs recognize students as their key customers. Hence, they must pay attention to SQ aspects along with academics to remain competitive (Abd Rashid et al., 2021). Scholars like Kobero and Swallehe (2022) and Twum and Peprah (2020) consider

SQ as significant determinant of the performance which is imperative for positive image of an institution. They also suggested the positive relation between SQ and student's satisfaction (Butt & Yazdani, 2022). Appraising quality from viewpoint of the students is exclusively needed in education services. If students positively experience services of their education institute, there is increased prospect of their stay and retention with it. Quality determinants direct to their satisfaction (Butt, 2020). Students' evaluation regarding service provision of a university can be viewed a tool or techniques for assuring quality. It can be utilized to enhance the quality in academia. SQ evaluation by the students is known as the effectual tool to enhance learning and teaching quality in HEIs (Stankovska et al., 2024).

For provider of education, , to achieve sustained competitive gain , it is vital for them to understand their customer's (student) perception regarding SQ as it results in trust building and satisfaction (Joshi & Chadha, 2016). On account of increasing competitive gain, in academic setting, HEIs have pressure to enhance SQ in order to fulfil market requirements. This is therefore essential to appraise factors which contribute towards students' satisfaction and their loyalty to their universities (Hoque et al., 2023).Due to increase in HEIs, these institutions now provide improved SQ to compete with both international and national counterparts. Researchers also argue that satisfying students is dependent upon SQ provision by the institution (Kalim et al., 2022).In Pakistan context, there is a research gap as only few researches considered SERQUAL to examine service quality (SQ) in HEIs and student's perspective (Shah et al., 2021;Allam,2018; Khurshid et al., 2021; Hassan et al., 2022; Butt & Yazdani, 2022).

Literature Review

Service Quality (SQ) in Higher Education (HE)

In current years, manufacturing and service industries face the pressure on account of increasing consumer's expectations regarding quality. Therefore, organizations are adapting quality management (QM) practices to fulfill promptly the expectations of their consumers (Butt & Yazdani, 2023; Butt & Umair, 2023). Organizations that focus on quality adopt these of quality to improve organizational performance (Butt & Yazdani, 2023a). Service quality (SQ) is a focused assessment that indicates the consumer's perception of delivered service (Ramchandran & Padmanaban, 2014). SQ in educational context is defined as, "The difference between what a student expects to receive and his / her perceptions of actual delivery." (O' Neill & Palmer, 2004). SQ appraisal is growingly significant in HE context to attract the students and retain their returns from the tuition fee (Hoque et al., 2023).

Provision of SQ in HE is critical as it improves students' experiences of learning and level of satisfaction (Kalim et al., 2022). HEIs are paying more attention to enhance their knowledge of service quality in relation with student's satisfaction. Now, students are being considered as key customers of the universities. Therefore, it is imperative for the institutions to understand that education must be treated as a service to remain competitive (Sukhragchaa et al., 2022; Butt & Yazdani, 2022).

Key dynamic factors like globalization, technological advancements and intense competition in market put great responsibility on HEIs to deliver quality of services to satisfy students/ stakeholders. Moreover, socio-economic progress of a country also depends upon the quality of its HEIs. Therefore, HEIs are required to respond proactively to the changing local and global environment to transform youth into valuable human resources (HR) equipped with requisite knowledge/skills (Ahmed et al., 2016). HEIs are introducing improved SQ to enhance performance of their students and attract them (Eshun et al., 2018; Kalim et al., 2022). Even Renown Asian Universities are striving for loyalty and satisfaction of their students .Their research focus is to address issues of quality and try to maintain expected and prevailing SQ (Mulyono et al., 2020).

Application of SURVQUAL in Higher Education (HE) Context

In the marketing area of research, ServQual (SQ Construct) was developed to evaluate consumer's perception regarding SQ (Tran, 2020; Butt, 2021). In the literature, it is recognized as most dominant tool to appraise SQ in context of HE (Khattab, 2018). This instrument comprising of five (5) determinants/ factors is applied for appraising SQ among several diverse sectors (Yılmaz & Temizkan, 2022). It is a tool to analyze and implement the quality in educational system (Mukhtar et al., 2015). It is first developed tool for evaluating SQ (Butt, 2021). Original ServQual instrument developed by Parasuraman et al. (1985) comprised of 10 dimensions which they reduced to 5 (Parasuraman et al., 1988; Butt, 2020). Parasuraman et al. (1985) indented five (5) SERVQUAL dimensions/determinants of SQ (Cahyono et al. 2020) which are presented in table 1.

Table 1
SERVQUAL Determinants / Dimensions of Service Quality

Dimension	Description
Reliability	"The ability to provide the promised service immediately, accurately and satisfactorily."
Empathy	"Ease in establishing relationships, good communication, personal attention, and understanding of individual customer needs."
Tangibles	"Includes physical facilities, equipment, employees and means of communication."
Assurance	"Includes the knowledge, competence, courtesy and trustworthiness of staff, free from danger, risk or doubt."
Responsiveness	"The desire of staff to help customers and provide responsive services."

Source: Cahyono et al. (2020)

Service Quality and Students' Satisfaction in HE Context

Students' satisfaction (SS) is defined as, "The favourability of a student's subjective evaluation of the various outcomes and experiences associated with education" (Elliott & Shin, 2002). In HE context, satisfying their students is crucial as it positively impacts the acquisition of skills and performance (Martínez-Roget et al., 2020; Kalim et al., 2022). Education is equally recognized as investment and consumption of goods/services. Therefore, its consumers (students) have concerns regarding substantial return of their investment in education. Consequently, question of the choice of best institute by the students is crucial (Butt, 2020). In increasingly competitive academic surrounding, HEIs have been growing paying attention to student's satisfaction. Furthermore, researchers also suggest the students as the key consumers of HE because they are engaged in purchasing and selecting the HEIs offered services. Hence, academia argue that SQ is only indicator of performance appraisal of service providers in HE context (Hoque et al., 2023).

SQ and SS conception are founded on theory of 'disconfirmation'. Satisfaction is an outcome of their (students) perceptions regarding SQ (Teeroovengadum, 2022; Yılmaz & Temizkan, 2022). In researches exploring SQ (ServQul) and SS relation, few pointed out positive association. Likewise, other revealed negative association (Magasi et al., 2022). Understanding viewpoint of students regarding SQ has strategic significance in context of HE. As their satisfaction with provision of SQ is contributing factor in promoting the positive image of their school/institution. It also helps institutes in getting new students (Yılmaz & Temizkan, 2022).

Satisfying its students is key objective of education institutes exclusively for HEIs. Majority of studies have provided support that provision of higher SQ improves satisfaction level of their students. Provision of quality service becomes a crucial identifier in terms of

their retention and loyalty towards the institute (Abd Rashid et al., 2021) .For several HEIs, attraction/retention of their students is key objective now a days. Hence, to remain competitive these institutions are required to focus on innovative ways of service provision for the clients/students (Mulyono et al., 2020). Institutions can satisfy their students through provision of exceptional standards of service. This would facilitate the HE Institutions to obtain sustained competitive gain in current surroundings of HE (Saleem et al., 2017)

The vital benchmarks are determinants of SQ. Universities should concentrate on these determinants, inject them into the system and provide best quality of service delivery (Mukhtar et al., 2015). Research on ServQual and customer satisfaction (CS) reveals that appraising this association may differ. This link is dependent upon factors like culture, context and sector of service (Yılmaz & Temizkan, 2022; Magasi et al., 2022). To achieve the two-fold objectives of SS and loyalty, SQ in education sector is required to be assessed from the viewpoint of both customers and service providers (Rasli et al., 2012). Understanding students 'needs as a stakeholder is vital for provision of service in HE sector. Students are concerned about quality of education and ample academic environment. HEI is required to satisfy these needs with the infrastructure and services it provides to its students (Donlagic & Fazlic, 2015). Previous research studies (Azam, 2018; Banya, 2016; Kajenthiran & Karunanithy, 2015) identified that various factors (like reliability, assurance, empathy, responsiveness) influenced and contributed towards students' satisfaction (Stankovska et al., 2024).

Hyptheses

Following hypotheses are formulated for current study based upon review of literature:

H1: Reliability dimension of service quality (SQ) as perceived by students will positively impact students' satisfaction (SS) in HEIs.

H2: Assurance dimension of service quality (SQ) as perceived by students will positively impact students' satisfaction (SS) in HEIs.

H3: Tangibles dimension of service quality (SQ) as perceived by students will positively impact students' satisfaction (SS) in HEIs.

H4: Empathy dimension of service quality (SQ) as perceived by students will positively impact students' satisfaction (SS) in HEIs.

H5: Responsiveness dimension of service quality (SQ) as perceived by students will positively impact students' satisfaction (SS) in HEIs.
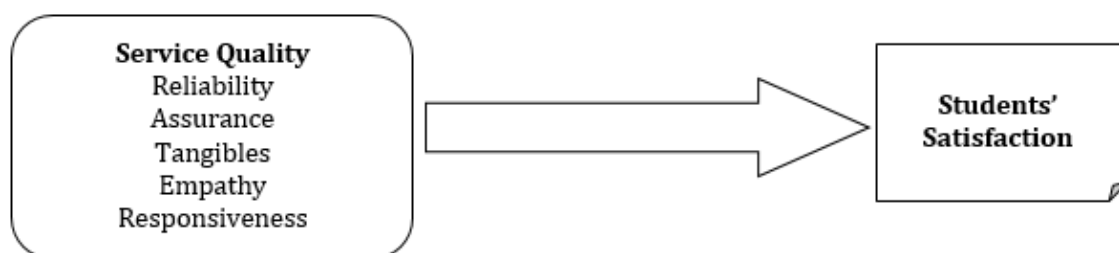

Figure 1. Proposed Research Framework

Material and Methods

Study Design and Sample Size Determination

This study employed quantitative approach and cross sectional design. Under quantitative approach, researchers derive conclusions or results through data analysis and applying statistical techniques (Tajammal & Butt, 2024; Akhtar et al., 2024; Ahmed et al., 2024). Unit of analysis is "student" who is currently enrolled in public/private sector HEI of Pakistan. Data was obtained from 235 respondents (students) in public and private sector HEIs of Pakistan.employing Random sampling technique. Different researchers recommended different criteria for sample size selection. According to Tabachnick and Fidell (2000) recommendations, sample/data set comprising of 200 respondents is considered adequate to conduct quantitative analysis. Additionally, Hair et al. (2009) suggest that parentage of sample size should not be lower than the ratio of '1:5' for its adequacy (Ahmed et al., 2024). Therefore, considering the number of factors, sample size of 235 respondents was adequate for this study. The study respondents were approached by researchers from randomly selected HEIs to fill in survey.

Data Collection Instrument and Analysis Technique

A structured instrument on five (5) point Likert scale was used for collecting respondent (student) data. Research tool comprised of three (3) parts. First part included statements regarding students' profiles. Second part included statements regarding five SERVQUAL dimensions.These measures were adopted from previous researchers (Mwongoso et al., 2015; Donlagic & Fazlic, 2015).While, third part included statements regarding student's satisfaction (SS).These measures were adopted from Roostika (2009) and Butt (2020). Developed research instrument was reviewed and validated by three experts from academia and pilot study was executed based on thirty five (35) respondents from various institutions to identify any ambiguous items. Additionally, Cronbach's Alpha test was applied to check the scale's reliability. After pilot testing questionnaire was circulated for data collection. SPSS 23.0 software was used to conduct analysis and tests like internal consistency, normality, correlation, and regression analysis.

Results and Discussion

Respondents' Profiles

Table 1 presents sample characteristics which showed that sample comprises of 51.9% females and 48.1% males. Similarly, majority of respondents (58.7%) were enrolled in MS/PhD program and studying in private sector HEI (52.8%). Year of study profile indicated that most of respondents were enrolled in 1st year (40.9%) followed by 2nd year (39.6%). Similarly, majority of respondents (58.7%) fall in age bracket of 23-27 year.

Table 1
Sample Characteristics

	Frequency	%		Frequency	%
Gender			*Study Year*		
Male	113	48.1	1st year	96	40.9
Female	122	51.9	2nd year	93	39.6
Total	235	100.0	3rd year	18	7.7
Degree Program			4th year	28	11.9
BS	97	41.3	Total	235	100.0
MS/PhD	138	58.7	*Age Group*		
Total	235	100.0	18-22 year	63	26.8
HEI Sector			23-27 year	139	58.7
Public	111	47.2	28-32 year	27	11.9
Private	124	52.8	Above 32 year	6	2.6

Total	235	100.0	Total	235	100.0

Reliability Statistics

Table 2 depicts scale reliability test results which indicated Cronbach's alpha value greater than 0.70 in all variables/factors. Taber (2018) suggested .6 value of Cronbach's Alpha adequate for scale's reliability (Ahmed et al., 2024). Accordingly to Nunnally (1978), the value (>.70) shows good reliability of construct (Akhtar & Butt, 2022; Butt & Yazdani, 2023), and it is considered within acceptable limit (Umair et al., 2023; Butt & Umair, 2023).

Table 2
Reliability Statistics

Variable	Items	Cronbach's Alpha
Tangibles (Tan)	7	.718
Reliability (Rel)	7	.763
Responsiveness (Res)	6	.794
Empathy (Emp)	6	.767
Assurance (Ass)	6	.802
Student Satisfaction (SS)	6	.879
Overall	**38**	**.921**

Data Normality

Table 3 Shows data normality results which indicated that p-value was not significant (>.05).Hence, data were normally distributed and appropriate for conducting regression analysis.

Table 3
Normality Statistics

Variable	Statistic	df	p-value (Sig.)
Tangibles (Tan)	.058	235	.060
Reliability (Rel)	.053	235	.200
Responsiveness (Res)	.050	235	.200
Empathy (Emp)	.054	235	.092
Assurance (Ass)	.055	235	.078
Student Satisfaction (SS)	.049	235	.200

*Significant at < 0.05

Pearson Correlation Analysis

Table 4 depicts correlations among variables. Overall, there was positive and significant correlation between all variables. Highest correlation existed between Rel and Ass (r=.892, p=.000) followed by Res and SS (r=.816; p=.000). While, most of the variables were moderately correlated. Similarly, lowest correlation was present between Emp and Tan (r=.223; p=.000) followed by Tan and SS (r=.274; p=.000).

Table 4
Pearson Correlations

Sr#	Variable	SS	Tan	Rel	Res	Emp	Ass
1	SS*	1					
2	Tan	.274**	1				
3	Rel	.466**	.472**	1			
4	Res	.816**	.279**	.420**	1		
5	Emp	.336**	.223**	.441**	.321**	1	
6	Ass	.456**	.414**	.892**	.383**	.400**	1

* Students Satisfaction (SS); Tangibles (Tan); Reliability (Rel); Responsiveness (Res); Empathy (Emp); Assurance (Ass)

** Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

This section presents regression analysis (RA) results. It is shown from the table 5 that adjusted R^2 (coefficient of correlation) value is .685.It indicated that 68.5% of the variance in dependent variable (DV) was explained by predictors/independent variables (IVs) of study model.

Table 5
Model Summary

Model	R	R2	Adjusted R2	Std. Error of the Estimate	R2 Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
					Change Statistics					
1	.832a	.692	.685	2.19268	.692	102.720	5	229	.000	2.027

a. Predictors: (Constant), Ass, Tan, Emp, Res, Rel
b. Dependent Variable: SS

Table 6 depicts ANOVA results with p (< .05) indicated that model was significant.

Table 6
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2469.306	5	493.861	102.720	.000b
	Residual	1100.997	229	4.808		
	Total	3570.303	234			

a. Dependent Variable: SS; b. Predictors: (Constant), Ass, Tan, Emp, Res, Rel

Results of table 7 (coefficients of regression) indicated that 68.5% of the variance was explained by the predictors (R^2 =.685, F (5, 229) = 102.720, p<.05). Two of the predictors Res (β = .746, p = .000) and Ass (β = .146, p = 045) had positive significant impact on SS. Remaining three (3) predictors (Tan, Rel, and Emp) were insignificant.

Table 7
Regression Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.933	1.131		.825	.410
	Tan	-.008	.044	-.008	-.186	.853
	Rel	-.004	.078	-.005	-.057	.955
	Res	.746	.041	.747	18.123	.000
	Emp	.034	041	.034	.823	.411
	Ass	.146	072	.164	2.019	.045

Discussions

Correlation and regression analysis were applied to identify critical determinants of SQ which had impact on SS in HEIs of Pakistan. Findings revealed that five (5) SQ dimensions (i.e Tan, Rel, Res, Emp, and Ass) were positively and significantly correlated with SS. These findings are supportive from previous studies on SQ dimensions and SS in HEIs context (like Pedro et al., 2018; Mwiya et al., 2019; Butt, 2020; Kalim et al., 2022).

Regression results indicated that only two (2) SQ dimensions (Responsiveness/Res and Assurance/Ass) had positive significant impact on SS. These results find support from previous research study by Kajenthiran and Karunanithy (2015). While, Azam (2018) findings also identified 'assurance' dimension critical for student's satisfaction. While, remaining three (3) dimensions of SQ (Tan, Emp, Rel) had insignificant impact on SS. Highest impact was contributed by Res (74.6%) followed by Ass (14.6%). These two (2) were the most critical determinants of SQ in present study. While findings of current study are not aligned with results of some earlier researchers. Brura and Din (2021) study revealed that tangibles and reliability had significant impact on student satisfaction. While, responsiveness, assurance and empathy were insignificant.Simplarly, findings are also not aligned with Kundi et al. (2014) who identified significant relation between four SQ dimensions (except empathy) and student's satisfaction.Likewise, Baniya (2016) research findings highlighted responsiveness and empathy as critical factors for SS in HEIs.

Conclusion

This research was conducted with main objective of exploring key determinants of SQ which influence students' satisfaction (SS) in HE context of Pakistan. A structured instrument around SERVQUAL five (5) dimensions was used to examine their impact on SS. Though the findings highlighted that all five SERVQUAL dimensions were correlated to students' satisfaction in HEIs of Pakistan. But regeression results identified that out of five dimensions only two service quality (SQ) dimensions (assurance and responsiveness) had significant and positive effect on student's satisfaction in higher education institutions (HEIs) of Pakistan.While, remaining three SQ dimesnions (tangible. Empathy and reliability) were insignificant. The results showed that responsiveness and assurance factors are more critical from studen's perspective in HEIs in Pakistan and other context of the world.

Study Implications, Limitations and Future Directions

This study has implications for management and policymakers of HEIs as it contributes to identify key drivers/determinants of SS in HE context of Pakistan. As students are the main customers of HEIs and their retention/ satisfaction is vital for service providers/policy makers. Furthermore, identification of key determinants of SQ for SS is crucial for management/policymakers for resource allocation purpose. This study has few limitations. Firstly, future researchers should increase sample size for generalizability of the findings. Secondly, future researchers should test mediating and moderating factors in above framework to examine impact of SQ and SS relation. They may consider the impact of institution image, accreditations, fee structure, culture, perceived value etc. in above relation. Finally, future researchers may use time lagged data and feedback of multiple respondents (students, faculty) in their framework as well.

References

Abd Rashid, N. Z., Ismail, T. N. A. N. T., & Thomas, B. (2021). The correlation between Servqual dimensions and student satisfaction. *Advances in Business Research International Journal*, *7*(2), 7-19.

Ahmed, Q. u. A., Butt, S., & Abdullah, F. (2024). Organizational Sustainability: A Big Data Framework Using Knowledge Sharing and Innovative Work Behavior. Qlantic Journal of Social Sciences, 5(2), 379-390. DOI: https://doi.org/10.55737/qjss.535149464

Ahmed, N., Lulin, Z., & Bajwa, A. A. (2016). Service Quality at Business Schools and its Correlation with Students' Satisfaction and Entrepreneurial Self-Efficacy. *The Online Journal of Quality in Higher Education-January*, *3*(1), 66-78.

Ahmed, R., & Ali, S. I. (2016). Implementing TQM practices in Pakistani higher education institutions. *Pakistan Journal of Engineering, Technology & Science*, *2*(1), 1-26.

Akhtar, Q., Butt, S., & Niaz, M. (2024). Time Series Analysis of Poverty Reduction Indicators: Case of Pakistan, India and Bangladesh. *Qlantic Journal of Social Sciences and Humanities, 5*(2), 170-183. DOI: https://doi.org/10.55737/qjssh.715369415

Akhtar, Q., & Butt, S. (2022). Sequential Mediation between Night Shift and Job Performance in the Context of Pakistan. *International Journal of Management Research and Emerging Sciences*, *12*(4). DOI: https://doi.org/10.56536/ijmres.v12i4.344.

Ali, S. R. O., Shariff, N. A. M., Said, N. S. M. & Mat, K. A. (2020): The effects of service quality dimensions on students' satisfaction: Hedperf model adoption. *Journal Intelek, 15*(1), 69-76.

Allam, Z. (2018). Students' perception of quality in higher education: An empirical investigation. *Management Science Letters*, *8*(5), 437-444.

Azam, A. (2018): Service quality dimensions and students' satisfaction: A study of Saudi Arabian private higher education institutions. *European Online Journal of Natural and Social Sciences, 7*(2), 275-284.

Baniya, R. (2016): Relationship between perception of service quality and students' satisfaction: A case study of a management school. *Journal of Education and Research, 6*(2), 43-64.

Barua, D., & Uddin, M. S. (2021). Service Quality Dimensions of Higher Education Institutions and Students' Satisfaction: Bangladesh Perspective. *Int'l J. Soc. Sci. Stud.*, *9*, 13.

Butt, S., & Umair, T. (2023). Nexus among Online Banking Services, Perceived Value and Consumer's Post-Adoption Behaviour. *Journal of Asian Development Studies*, *12*(4), 1016-1032.

Butt, S., & Yazdani, N. (2023). Implementation of Quality Management Practices and Firm's Innovation Performance: Mediation of Knowledge Creation Processes and Moderating role of Digital Transformation. *Pakistan Journal of Humanities and Social Sciences, 11*(4), 3881–3902. DOI: https://doi.org/10.52131/pjhss.2023.1104.0658

Butt, S., & Yazdani, N. (2023a). Relationship between Execution of Quality Management Practices and Firm's Innovation Performance: A Review of Literature. *Journal of Asian Development Studies*, *12*(3), 432-451.DOI: https://doi.org/10.62345/

Butt, S., & Yazdani, N. (2022). Assessing students' expectations and perceptions gaps regarding service quality of business schools using SERVQUAL model: A comparative study of a public and private sector business school in Pakistan context. *Proceedings 7th International Conference on Banking, Insurance, & Business Management (CBIBM),* P. 203-227. https: / / cbibm. puhcbf. edu. pk/ site_downloads / proceedings / 7th _ cbibm _ 2022 _ Proceedings. Pd

Butt, S. (2021). Impact of E-Banking Service Quality on Customers' Behaviour Intentions Mediating Role of Trust. *GMJACS*, *11*(2), 21-21.

Butt, S. (2020). Service quality assessment and student satisfaction in business schools: Mediating role of perceived. *MOJEM: Malaysian Online Journal of Educational Management*, 9 (1), 58-76.

Cahyono, Y., Purwanto, A., Azizah, F. N., & Wijoyo, H. (2020). Impact of Service Quality, University Image and Students Satisfaction towards Student loyalty: Evidence from Indonesian Private Universities. *Journal of Critical Reviews*, *7*(19).

Carolina, T., Mursito, B., & Sarsono, S. (2023). The Influence of Service Quality, Perceived Value, and Customer Satisfaction on the Loyalty of KRL Commuter line Solo-Jogja *International Journal of Economics, Business and Accounting Research (IJEBAR), 7*(1), 1-9.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, *16*(3), 297-334.

Đonlagić, S., & Fazlić, S. (2015). Quality assessment in higher education using the SERVQUALQ model. *Management: journal of contemporary management issues*, *20*(1), 39-57.

Elliott, K. M., & Shin, D. (2002). Student satisfaction: An alternative approach to assessing this important concept. *Journal of Higher Education policy and management*, *24*(2), 197-209.

Eshun, E. F., Badu, A. K., & Korwu, P. (2018). Impact of Service Quality on Students¡ Satisfaction in a Ghanaian Public Tertiary Institution. *International Journal of Learning and Development*, *8*(3), 97-112.

Hoque, U. S., Akhter, N., Absar, N., Khandaker, M. U., & Al-Mamun, A. (2023). Assessing service quality using SERVQUAL model: An empirical study on some private universities in Bangladesh. *Trends in Higher Education*, *2*(1), 255-269.

Hair, J. J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis (7th, 2009).*

Hassan, N., Zaidi, S. S. Z., & Jafri, M. (2022). Students' perceptions of service quality. A comparative study of public and private sector universities in Pakistan. *KASBIT Business Journal, 15*(1), 35-56.

Joshi, P., & Chadha, S. K. (2016). Measuring service quality perception of students in business schools. *International Journal of Services and Operations Management*, *25*(4), 479-507.

Kajenthiran, K. & Karunanithy, M. (2015): Service quality and student satisfaction: A case study of private external higher education institutions in Jaffna, Sri Lanka. *Journal of Business Studies,* 1(2), 46-64.

Kalim, U., Tran, P. Q. B., Bibi, S., & Khamphouvong, L. (2022). Impact of Academic and Non-Academic Service Quality on International Students Satisfaction in Chinese Universities. *Journal of Education and Learning*, *11*(6), 86-95.

Khattab, F. (2018). Developing a service quality model for private higher education institutions in Lebanon. *J. Mgt. Mkt. Review*, *3*(1), 24-33.

Khurshid, N., Khurshid, J., Zaheer, S., Asad, S., & Mehmood, S. (2021). Study on service quality and student satisfaction : the competitive dimension of the physical infrastructure of Pakistani universities. *Elementary Education Online, 20*(1), 2159–2169.

Kobero, W., & Swallehe, O. (2022). The Effects of Service Quality on Customer Satisfaction in Higher Learning Institutions in Tanzania. *Open Journal of Business and Management*, *10*(3), 1373-1391.

Kundi, G. M., Khan, M. S., Qureshi, Q., Khan, Y., & Akhtar, R. (2014). Impact of service quality on customer satisfaction in higher education institutions. *Industrial Engineering Letters*, *4*(3), 23-28.

Lidya, L. O. (2022). Analisis Pengaruh Faktor-Faktor Kualitas Pelayanan dan Teknologi Informasi terhadap Kepuasan Pelanggan Jasa Transportasi Pada KRL Commuter Line Jabodetabek (Studi Kasus Pada Mahasiswi Reguler Khusus Feb Universitas Pancasila). *JIMP: Jurnal Ilmiah Manajemen Pancasila, 2*(1), 12–19.

Magasi, C., Mashenene, R. G., & Dengenesa, D. M. (2022). Service Quality and Students' Satisfaction in Tanzania's Higher Education: A Re-examination of SERVQUAL Model. *International Review of Management and Marketing*, *12*(3), 18-25. https://doi.org/10.32479/irmm.13040.

Manik, E., & Siddharta, I. (2017). The impact of academic service quality on student satisfaction (pp. 1–6). International Conference on Accounting, Management, Economics and Social Sciences (May 2017). MPRA Paper. Retrieved from https://mpra.ub.uni-muenchen.de/80878/

Martínez-Roget, F., Freire Esparís, P., & Vázquez-Rozas, E. (2020). University student satisfaction and skill acquisition: Evidence from the undergraduate dissertation. *Education Sciences*, *10*(2), 29.

Mukhtar, U., Anwar, S., Ahmed, U., & Baloch, M. A. (2015). Factors effecting the service quality of public and private sector universities comparatively: an empirical investigation. *Researchers World*, *6*(3), 132-142.

Mulyono, H., Hadian, A., Purba, N., & Pramono, R. (2020). Effect of service quality toward student satisfaction and loyalty in higher education. *The Journal of Asian Finance, Economics and Business*, *7*(10), 929-938.

Mwiya, B., Siachinji, B., Bwalya, J., Sikombe, S., Chawala, M., Chanda, H., & Kaulungombe, B. (2019). Are there study mode differences in perceptions of university education service quality? Evidence from Zambia. *Cogent Business & Management*, *6*(1), 1579414.

Mwongoso, A. J., Kazungu, I., & Kiwia, R. H. (2015). Measuring Service Quality Gap in Higher Education Using SERVQUAL Model at Moshi University College of Cooperative and

Business Studies (MUCCoBS). Implications for Improvement. *International Journal of Economics, Commerce and Management*, *3*(6), 298-317.

Nunnally, J. C. (1978). *Psychometric Theory 2nd edition (New York: McGraw).*

O'Neill, M. A., & Palmer, A. (2004). Importance-performance analysis: a useful tool for directing continuous quality improvement in higher education. *Quality assurance in education*, 12(1), 39-52.

Parasuraman, A., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *1988*, *64*(1), 12-40.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of marketing*, *49*(4), 41-50.

Pedro, E., Mendes, L., & Lourenço, L. (2018). Perceived Service Quality and Students' Satisfaction in Higher Education: The influence of Teaching Methods. *International Journal for Quality Research*, *12*(1), 165-192.

Ramachandran, k.K. & Padmanaban, D. (2014).Indian Management Education: Service Quality Perspective. *In Proceedings of Annual Tokyo Business Research Conference*, 15-16 December, Waseda University, Japan.

Rasli, A., Shekarchizadeh, A., & Iqbal, M. J. (2012). Perception of service quality in higher education: Perspective of Iranian students in Malaysian universities. *International Journal of Academic Research in Management (IJARM)*, *1*(1), 10-25.

Roostika, R. (2009). *The role of customer value within the service quality, customer satisfaction and behavioural intentions relationships: An empirical examination in the Indonesian higher education sector* (Doctoral dissertation, Faculty of Business and Enterprise, Swinburne University of Technology).

Saleem, S. S., Moosa, K., Imam, A., & Khan, R. A. (2017). Service quality and student satisfaction: the moderating role of university culture, reputation and price in education sector of pakistan. *Iranian Journal of Management Studies (IJMS), 10*(1), 237-258.

Shah, Z. A., Ali, S. B., Burney, S., & Azhar, K. A. (2021). Student-Perceived Service Quality in Management Science MS, PhD Programs of Tier 1 Business Schools in Karachi. *Multicultural Education*, *7*(6), 693-701.

Stankovska, G., Ziberi, F., & Dimitrovski, D. (2024). Service Quality and Student Satisfaction in Higher Education. *Education in Developing, Emerging, and Developed Countries: Different Worlds, Common Challenges*, 153.

Sukhragchaa, A., Tuvshintur, L., & Sed, B. (2022). Exploring Drivers of Service Quality in Higher Education: Periods in the Pandemic in Mongolia. *Journal of Positive School Psychology*, 10300-10310.

Tabachnick, B. G., & Fidell, L. S. (2000). *Computer-assisted research design and analysis.* Allyn & Bacon, Inc.

Taber, K. S. (2018). The use of cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273–1296. https://doi.org/10.1007/s11165 016-9602-2

Tajammal, R., & Butt, S. (2024). Precarious Tightrope between External Debt and Economic Growth: A Comparative Analysis of Bangladesh and Sri Lanka. *Journal of Asian Development Studies*, *13*(2), 76–90. https://doi.org/10.62345/jads.2024.13.2.6

Teeroovengadum, V. (2020). Service quality dimensions as predictors of customer satisfaction and loyalty in the banking industry: moderating effects of gender. *European Business Review*, *34*(1), 1-19.

Tran, V.D. (2020). Assessing the Effects of Service Quality, Experience Value, relationship Quality on Behavioral Intentions. *Journal of Asian Finance, Economics and Business, 7*(3), 167-175.

Twum, F. O., & Peprah, W. K. (2020). The impact of service quality on students' satisfaction. *International Journal of Academic Research in Business and Social Sciences*, *10*(10), 169-181.

Umair, T., Amir, H., Bilal, K., & Butt, S. (2023). Moderating Role of Corporate Image on Service Quality and Customer Satisfaction: Evidence from Healthcare (Laboratory Franchises in Pakistan). *Journal of Asian Development Studies*, *12*(3), 497-511.

Yılmaz, K., & Temizkan, V. (2022). The Effects of Educational Service Quality and Socio-Cultural Adaptation Difficulties on International Students' Higher Education Satisfaction. *SAGE Open*, *12*(1), 21582440221078316.