EXPLORING THE IMPACT OF PERCEIVED SERVICE QUALITY ON STUDENTS' CHOICE IN HIGHER EDUCATION INSTITUTES: AN EMPIRICAL RESEARCH

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ABSTRACT

This study investigates perceived service quality in higher education, focusing on dimensions such as administrative quality, physical environment, core educational quality, support facilities, and transformative quality and its impact on students' choice of Higher education institutes. Using a sample of 180 students from The Maharaja Sayajirao University of Baroda and Veer Narmad South Gujarat University, the study reveals significant positive correlations among these dimensions, highlighting the central roles of Core Educational Quality and Physical Environment Quality. Despite these findings, regression analysis shows that socio-demographic factors (Residential Location, Employment Status, Gender, and Age) do not significantly impact perceived service quality. Factor analysis identifies a single underlying factor accounting for the majority of variance in service quality perceptions. The results emphasize the importance of enhancing key service quality dimensions to improve overall perceptions and achieve positive educational outcomes and student satisfaction.

Keywords: Brand Image, Higher Educational Institutes, Brand Equity, Perceived Service Quality, Service attributes.

INTRODUCTION: .

Perceived service quality

Perceived quality refers to the subjective assessment of the quality of a product or service based on individual experiences and expectations

Perceived service quality is defined as the customer's assessment of the overall superiority or excellence of the service (Zeithaml, 1988). According to Parasuraman et al. (1985), the customer's assessment of overall service quality depends on the gap between expectations and perceptions of actual performance levels.

This concept is subjective, as it depends on the individual's expectations and experiences. It involves various dimensions, including tangibles (the physical evidence of the service, such as facilities and equipment), reliability (the ability to perform the promised service dependably and accurately), responsiveness (the willingness to help customers and provide prompt service), assurance (the knowledge and courtesy of employees and their ability to

convey trust and confidence), and empathy (the provision of caring, individualized attention to customers). High perceived service quality can lead to increased customer satisfaction, loyalty, and positive word-of-mouth, ultimately impacting a business's success and competitiveness.

Perceived Service quality in Higher education institutes

Perceived service in higher education institutes (HEIs) is a multifaceted concept that encompasses students' perceptions and evaluations of the quality of services provided by these institutions. This includes various dimensions such as academic services, administrative support, facilities, and the overall student experience. Key aspects of perceived service in HEIs involve academic quality, which refers to the perceived quality of education, including the curriculum, teaching methods, faculty expertise, and academic resources. Administrative services cover the efficiency, responsiveness, and friendliness of administrative staff, as well as the ease of navigating administrative processes like enrolment, registration, and financial aid.

Facilities and infrastructure pertain to the quality and availability of physical infrastructure, such as classrooms, libraries, laboratories, housing, and recreational facilities. Support services include the availability and effectiveness of services like career counselling, academic advising, mental health services, and extracurricular activities. Communication and information focus on the clarity, accessibility, and timeliness of information provided to students, including course materials, institutional policies, and event announcements.

Finally, the overall experience encompasses the general atmosphere and culture of the institution, including inclusivity, safety, and opportunities for personal and professional growth. Understanding and improving perceived service is crucial for HEIs as it significantly influences student satisfaction, retention rates, and the overall reputation of the institution.

REVIEW OF LITERATURE:

Cristina Calvo-Porral, Jean-Pierre Lévy-Mangin, and Isabel Novo-Corti aim to analyze differences in perceived quality in higher education (HE) between a private and a public university center, and to identify key dimensions of perceived quality from the students' perspective. Utilizing a modified SERVQUAL instrument, the study conducted mean comparison and covariance structure analysis to assess these differences. The results indicate that tangibility and empathy are the most influential factors in perceived quality, with notable differences between the two types of institutions. These findings provide HE managers with valuable insights for developing quality enhancement strategies based on actual undergraduate student samples.

Connie Chairunnisa's study aims to explore the influence of brand image and the quality of education services on consumer satisfaction. Using a survey method and path analysis technique with a sample of 244 respondents, the study reveals significant findings: (1) brand image positively influences customer satisfaction by 66.7%, (2) the quality of education services positively influences customer satisfaction by 71.4%, and (3) both brand image and education service quality together positively influence customer satisfaction by 78.1%. To enhance customer satisfaction, the faculty should address customer expectations and complaints while continually improving the quality of education services.

María de la Cruz Del Río-Rama, José Álvarez-García, Nam Kwon Mun, and Amador Durán-Sánchez conducted a study to validate an explanatory model on how perceived service quality influences student loyalty in higher education, mediated by perceived value, expectations, and satisfaction. Using exploratory and confirmatory factor analysis along with structural equation modeling (SEM), the study found that service quality and student satisfaction are key to improving student loyalty, offering competitive advantages to educational institutions. The research highlights that service quality, expectations, and perceived value are crucial for student satisfaction, providing insights into the interplay between these variables and their impact on loyalty.

Kaur & Bhalla in their study attempted to examine the quality of higher education in Punjab from students" perspective. A self-administered questionnaire containing 32 statements related to perception of students towards quality of higher education has been used to collect the data. The results depicted that students view infrastructure

as an important factor followed by placement services, education environment, extracurricular activities, academic facilities, support services and academic staff. Among selected factors, students in general were not satisfied with placement services and academic facilities provided by their institutions.

Sapri, Kaka, & Finch (2009) conducted a study to identify the students' perceptions with respect to teaching facilities offered at Higher Education Institutes. The study concluded that teaching and learning delivery; support services facilities; accommodation and social facilities; course administration; teaching and learning facilities; teaching and learning service environment were the service quality dimensions perceived by the students. The teaching and learning delivery were considered as the most important factor by students.

Narang in his paper attempted to measure perceived service quality of management institutes from students" perspective. For this, data was collected from 214 students of three public institutes in state of Uttar Pradesh using 28 items modified SERVQUAL scale Named EduQUAL. The results of EFA triggered five dimensions of service quality i.e. academics, learning outcomes, personality development, responsiveness and physical facilities. Further in order of importance students placed academics at number one rank, followed by personality development (rank II), learning outcomes (rank III), physical facilities (rank IV) and responsiveness (rank V).

RESEARCH OBJECTIVES:

- Based on review of literature identifying the dimensions of Perceived service quality of higher educational institutes.
- To investigate interrelationship between perceived service quality dimensions in higher educational institutes
- To examine the impact of socio – demographic characteristics on overall service attributes of higher educational institutes
- To determine the relative importance of factors contributing to perceived service quality in higher educational institutes.

RESRARCH METHODOLOGY:

To ensure that research design is consistent with research objectives a sample of students from 2 universities of Gujarat, The Maharaja Sayajirao University of Baroda and Veer Narmad South Gujarat University was considered. These universities were chosen for studying their perceived quality of service due to their prominent standing in the Indian educational landscape. Both universities are well-regarded for their comprehensive academic programs, diverse student populations, and significant contributions to research and development. They represent a blend of traditional and modern educational practices, making them ideal choice for assessing service quality.

Secondly, a questionnaire was framed for collecting data from students which comprises of different sections like demographic details and service attributes dimensions relevant in higher educational institutes like perceived price, administrative quality, physical environment quality, core educational quality, support facilities quality and transformative quality.

The Google link of the questionnaire was shared with around 210 students. However, 180 students responded to the Google link questionnaire. The final data analysis of 180 respondents is presented in the study. From among the total students surveyed, majority of the students belonged to Vadodara and Surat. Finally, different statistical techniques were applied to the data and results were interpreted accordingly.

Responses were elicited on a five-point Likert scale where "1 = strongly disagree and 5 = strongly agree" which was given by authors (Gabbott and Hogg,1998; Teas and Grapentine,1996; Lemon,2001)). The scale was designed to measure consumers' perceptions of service attributes dimensions in higher education, including perceived price, administrative quality, physical environment quality, core educational quality, support facilities quality and transformative quality. Pilot test was conducted locally, on 50 students before administering the final draft of the questionnaire to the targeted respondents. Some minor changes were made in the first draft of the questionnaire to improve the accuracy of the responses. Cronbach's Alpha was applied to check the internal consistency of scales and all scales showed satisfactory scores ranging between 0.709 to 0.918.

IBM SPSS Statistics – Trial Subscription Package was used to analyze the final collected data. To begin with the analysis part, descriptive statistics, average means, factor loading, correlation among various service attribute dimensions and multiple regression were calculated.

Demographic profile of respondents

Category	Sub-category	Frequency	Percentage
Age	17 to 20 years	152	84.4%
	21 to 23 years	27	15.0%
	Above 23 years	1	0.6%
Gender	Male	76	42.2%
	Female	104	57.8%
Employed	Yes	11	6.1%
	No	169	93.9%
Pursuing	Graduation	164	91.1%
	Post-Graduation	16	8.9%
Living on or off Campus	On Campus	59	32.8%
	Off Campus	121	67.2%
Residential Location	Rural	42	23.3%
	Urban	138	76.7%
Total		**180**	**100.0%**

The dataset offers a demographic snapshot of 180 individuals, predominantly young, with 84.4% aged 17 to 20 years, 15.0% aged 21 to 23 years, and a mere 0.6% above 23 years. The gender distribution leans towards females, who make up 57.8% of the sample, compared to 42.2% males. Employment figures reveal that a significant majority, 93.9%, are not employed, while only 6.1% have jobs. Regarding their academic pursuits, 91.1% are undergraduate students, and 8.9% are pursuing postgraduate education. In terms of living arrangements, 67.2% live off-campus, with 32.8% residing on campus. Additionally, 76.7% of the participants come from urban areas, while 23.3% are from rural regions. This profile outlines a young, predominantly urban student body, with more females than males and a majority living off-campus.

DATA ANALYSIS AND INTERPRETATION:

Table 1: Reliability Analysis

Constructs	Cronbach's Alpha Value	No. of Items
Attitude and Behaviour (Administrative Quality)	.918	5
Administrative Process	.817	4
Support Infrastructure	.914	5
Learning Setting	.811	6
General Infrastructure	.915	3
Attitude and Behaviour (Core Educational Quality)	.709	6
Curriculum	.874	5
Pedagogy	.910	4
Competence	.912	4
Core Cells and Committees	.817	5
Other facilities	.916	5
Transformative Quality	.913	8

The provided values indicate the reliability analysis of various factors related to educational and administrative quality, assessed through Cronbach's alpha coefficients and the number of items for each construct. High reliability is observed across most constructs, suggesting consistent and dependable measures.

 "Attitude and Behavior (Administrative Quality)" and "Support Infrastructure" exhibit excellent reliability with alpha values of .918 and .914 respectively, across five items each. "Administrative Process" and "Pedagogy" also show strong reliability, with coefficients of .817 and .910 over four items. "Learning Setting" and "Attitude and Behavior (Core Educational Quality)" have lower reliability scores of .811 and .709 over six items each, indicating room for improvement in these areas. "General Infrastructure" and "Core Cells and Committees" both display high reliability with alpha values of .915 and .817 over three and five items, respectively. "Curriculum" and "Competence" demonstrate robust reliability with coefficients of .874 and .912, each over five and four items, respectively. "Other Facilities" is highly reliable with an alpha of .916, although the number of items is not specified. Lastly, "Transformative Quality" shows excellent reliability with an alpha of .913 over eight items.

Overall, the reliability analysis indicates that the measures for these constructs are generally consistent and reliable, though certain areas such as "Learning Setting" and "Attitude and Behavior (Core Educational Quality)" might benefit from further refinement to enhance their reliability.

Perceived Service Quality Dimensions

The perceived quality of service in higher educational institutes encompasses several critical dimensions identified through a thorough review of the literature. These dimensions include administrative quality, which pertains to the efficiency and effectiveness of administrative processes and personnel in facilitating students' academic journeys. Physical environment quality is another significant dimension, comprising various subcomponents such as support infrastructure, learning settings, and general infrastructure. Support infrastructure refers to the availability and quality of resources that aid students' academic activities, such as libraries and technological tools. Learning settings involve the classrooms, laboratories, and other educational spaces that directly impact students' learning experiences. General infrastructure encompasses the overall campus facilities, including buildings, recreational areas, and accommodation. Core educational quality focuses on the curriculum, faculty expertise, and teaching methodologies that directly influence students' academic outcomes. Support facilities, such as counseling services, career guidance, and extracurricular opportunities, play a crucial role in enhancing students' overall educational experience. Lastly, transformative quality refers to the institute's ability to foster personal growth, critical thinking, and lifelong learning among students. Together, these dimensions provide a comprehensive framework for assessing and enhancing the quality of service in higher educational institutions, ensuring a holistic approach to student satisfaction and educational excellence.

Correlations among Perceived Service Quality Dimensions

Constructs		Administrative Quality	Physical Environment Quality	Core Educational Quality	Support Facilities Quality	Transformative Quality
Administrative Quality	Pearson Correlation	1	.583**	.609**	.442**	.557**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	180	180	180	180	180
Physical Environment Quality	Pearson Correlation	.583**	1	.791**	.522**	.613**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	180	180	180	180	180
Core Educational Quality	Pearson Correlation	.609**	.791**	1	.573**	.751**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	180	180	180	180	180
Support Facilities	Pearson Correlation	.442**	.522**	.573**	1	.577**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	180	180	180	180	180
Transformative Quality	Pearson Correlation	.557**	.613**	.751**	.577**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	180	180	180	180	180

The correlation analysis among the perceived service quality dimensions reveals significant positive relationships between the constructs, with all correlations significant at the 0.01 level (2-tailed).

Administrative Quality shows moderate positive correlations with all other dimensions: Physical Environment Quality (.583), Core Educational Quality (.609), Support Facilities Quality (.442), and Transformative Quality (.557), indicating that improvements in Administrative Quality are associated with enhancements in these areas.

Physical Environment Quality exhibits strong correlations with Core Educational Quality (.791) and Transformative Quality (.613), as well a moderate correlation with Support Facilities Quality (.522), suggesting that a better physical environment is closely related to both the core educational experience and transformative outcomes, while also moderately linked to support facilities.

Core Educational Quality has strong correlations with both Transformative Quality (.751) and Physical Environment Quality (.791), and a moderate correlation with Support Facilities Quality (.573), highlighting the central role of core educational aspects in influencing transformative outcomes and the overall environment.

Support Facilities Quality shows moderate correlations with all other dimensions: Administrative Quality (.442), Physical Environment Quality (.522), Core Educational Quality (.573), and Transformative Quality (.577), indicating that support facilities play a significant, though not dominant, role across various service quality aspects.

Finally, Transformative Quality demonstrates strong correlations with Core Educational Quality (.751) and Physical Environment Quality (.613), along with moderate correlations with Administrative Quality (.557) and Support Facilities Quality (.577), emphasizing the importance of core education and physical environment in achieving transformative outcomes.

Overall, the significant positive correlations indicate that improvements in one dimension of perceived service quality are likely to be associated with enhancements in other dimensions.

Variables Entered/ Removed

Model	Variables Entered	Variables Removed	Method
	Residential location, Employed, Gender, Age[b]		Enter

. Dependent Variable: Perceived Quality of Service

. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
	.137	.01	-.00	.6029	.01	.84		17	.50

. Predictors: (Constant), Residential location, Employed, Gender, Age)

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.22		.30	.84	.500
Residual	63.61	17	.36		
Total	64.83	17			

. Dependent Variable Perceived Quality of Service

. Predictors: (Constant), Residential location, Employed, Gender, Age

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.37	.46		9.38	.00
Gender	-.03	.09	-.02	-.35	.72
Age	-.14	.12	-.09	-1.19	.23
Employed	-.24	.18	-.09	-1.31	.19
Residential location	-.06	.10	-.04	-.60	.54

. Dependent Variable: Perceived Quality of Service Average

The statistical analysis examines how four predictors—Residential Location, Employment Status, Gender, and Age—affect the perceived quality of service. The model summary shows a very weak correlation (R = 0.137) and a very low R Square value (0.019), indicating that these variables explain only 1.9% of the variance in perceived quality of service. The Adjusted R Square is negative (-0.004), suggesting the model does not improve with the inclusion of these predictors. The ANOVA results show that the model is not statistically significant (F = 0.843, p = 0.500), meaning the predictors do not collectively explain the variability in the dependent variable.

The coefficients table reveals that none of the individual predictors are significant: Gender (p = 0.723), Age (p = 0.234), Employment Status (p = 0.191), and Residential Location (p = 0.547). This indicates that changes in these predictors do not have a meaningful impact on perceived quality of service.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.84
Bartlett's Test of Sphericity	Approx. Chi-Square	503.34
	df	1
	Sig.	.00

Communalities

	Initial	Extraction
Administrative Quality	1.00	.58
Physical Environment Quality	1.00	.73
Core Education Quality	1.00	.82
Support Facilities	1.00	.55
Transformative Quality	1.00	.72

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	3.42	68.48	68.48	3.42	68.48	68.48
	.57	11.43	79.91			
	.45	9.13	89.04			
	.37	7.51	96.56			
	.17	3.43	100.00			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component 1
Administrative Quality	.76
Physical Environment Quality	.85
Core Educational Quality	.91
Support Facilities	.74
Transformative Quality	.85

Extraction Method: Principal
Component Analysis.
. 1 components extracted.

Calculation of Mean

Descriptive Statistics

	N	Minimum	Maximum	Mean
Administrative Quality	18	1.0	5.0	3.389
Physical Environment Quality	18	1.0	4.9	3.576
Core Education Quality	18	1.2	4.9	3.878
Support Facilities	18	1.0	5.0	3.288
Transformative Quality	18	1.00	5.00	3.6458
Valid N (listwise)	18			

The analysis begins with the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. The KMO value of 0.841 is excellent, indicating adequate sampling for factor analysis. Bartlett's Test is significant (Chi-Square = 503.346, df = 10, Sig. = 0.000), suggesting sufficient correlation among variables.

Communalities after extraction show Administrative Quality (0.587), Physical Environment Quality (0.733), Core Education Quality (0.829), Support Facilities (0.550), and Transformative Quality (0.725), indicating the proportion of variance each variable shares with the extracted factor.

The Total Variance Explained table shows one principal component with an eigenvalue of 3.424, accounting for 68.481% of the total variance, making it a good representation of the data. Other components have eigenvalues less than 1, contributing minimally to the variance.

The Component Matrix indicates high loadings for all variables on the extracted component: Administrative Quality (0.766), Physical Environment Quality (0.856), Core Educational Quality (0.911), Support Facilities (0.742), and Transformative Quality (0.851). This suggests a common underlying factor.

Descriptive statistics for 180 responses reveal mean scores: Administrative Quality (3.3890), Physical Environment Quality (3.5767), Core Education Quality (3.8785), Support Facilities (3.2883), and Transformative Quality (3.64583). These scores reflect moderate to high satisfaction, with Core Education Quality scoring highest.

DISCUSSION AND CONCLUSION

The research demonstrates significant positive correlations among perceived service quality dimensions, indicating that improvements in one dimension are likely to be associated with enhancements in others. Core Educational Quality and Physical Environment Quality show the strongest correlations, highlighting their pivotal role in influencing overall service quality and transformative outcomes. However, regression analysis reveals that socio-demographic variables (Residential Location, Employment Status, Gender, and Age) do not significantly affect perceived service quality, accounting for only a small portion of the variance.

Factor analysis confirms the presence of a single underlying factor that explains the majority of variance in service quality perceptions, with all dimensions showing high loadings on the factor. Descriptive statistics reveal moderate to high satisfaction levels, with Core Educational Quality receiving the highest ratings.

In conclusion, while demographic factors are not significant predictors, focusing on enhancing key dimensions of service quality, especially Core Educational Quality and Physical Environment Quality, can significantly improve

overall perceptions of service quality. This reveals the importance of prioritizing these areas to achieve positive educational outcomes and high student satisfaction leading to enhanced brand image.

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