

MEASURING SERVICE QUALITY OF PRIVATE COLLEGES IN KOLKATA USING THE SERVQUAL MODEL

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Abstract: Service quality is an important factor in higher education because students evaluate their educational experience not only through academic outcomes but also through the quality of institutional facilities, administrative services, responsiveness, assurance, and individual attention. The SERVQUAL model provides a structured framework for evaluating service quality through five dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. The present study aims to measure service quality in private colleges in Kolkata using the SERVQUAL model. The study is based on primary data collected through a structured questionnaire from 202 students. Snowball sampling was used for data collection. Chi-square analysis was used to examine the association between demographic characteristics and SERVQUAL dimensions, while Pearson correlation analysis was used to assess the relationship between service quality dimensions and student satisfaction. The findings indicate that demographic characteristics are significantly associated with selected SERVQUAL dimensions. The correlation analysis further shows that all five SERVQUAL dimensions have significant positive relationships with student satisfaction. Among the five dimensions, Empathy demonstrated the strongest relationship with overall satisfaction, while Reliability showed the comparatively weakest, although still statistically significant, relationship. The study highlights the importance of maintaining reliable, responsive, professional, and student-centred services in private colleges.

Keywords: Service Quality, SERVQUAL, Private Colleges, Student Satisfaction, Tangibility, Reliability, Responsiveness, Assurance, Empathy, Kolkata.

1. INTRODUCTION

Service quality has become an important consideration in the higher education sector. Students evaluate their college experience not only on the basis of teaching and academic outcomes but also through the quality of infrastructure, administrative services, responsiveness of staff, professional behaviour, and individual attention provided by the institution.

The SERVQUAL model developed by Parasuraman, Zeithaml, and Berry provides a widely recognised framework for measuring perceived service quality through five dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. These dimensions provide a systematic way of understanding how students perceive the services provided by educational institutions.

Private colleges operate in an increasingly competitive educational environment where student satisfaction can contribute to institutional reputation and positive student experiences. Understanding students' perceptions of service quality can therefore help colleges identify areas where services can be strengthened.

The present study focuses on private colleges in Kolkata and uses the SERVQUAL framework to examine students' perceptions of service quality. The study further investigates whether demographic characteristics are associated with the five SERVQUAL dimensions and examines the relationship between service quality and student satisfaction.

2. LITERATURE REVIEW

Gruber, Fuß, Voss, and Gläser-Zikuda (2010) examined student satisfaction in higher education and identified teaching quality, administrative efficiency, and institutional facilities as important contributors to students' experiences. Their findings demonstrate that the quality of services provided by educational institutions is closely connected with student satisfaction.

Shekarchizadeh, Rasli, and Hon-Tat (2011) applied the SERVQUAL approach in the context of international students and highlighted the importance of assurance and responsiveness. Competent assistance and the ability of academic staff to respond effectively to students were identified as important factors in developing trust and satisfaction.

Duarte, Raposo, and Alves (2012) examined the relationship between service quality, student satisfaction, and loyalty. Their findings indicated that service quality positively influences student satisfaction, while satisfaction subsequently contributes to student loyalty.

De Jager and Gbadamosi (2013) examined service quality in higher education using the SERVQUAL model and identified reliability and empathy as important dimensions. Students valued dependable services as well as personalised attention to their individual needs.

Kipnetich and Kipkebut (2015) investigated the relationship between service quality and student satisfaction at universities. The study established a direct relationship between the two variables and emphasised the importance of monitoring service quality to improve students' experiences.

Ali, Zhou, Hussain, Nair, and Ragavan (2016) examined the relationship between service quality, student satisfaction, and loyalty in higher education. Their findings indicated that higher levels of service quality were associated with increased student satisfaction and loyalty.

Hoque et al. (2023) examined the influence of the SERVQUAL dimensions on student satisfaction in private universities. The study highlighted the importance of comfortable facilities, reliable service delivery, responsive staff, faculty competence, and attention to students' needs.

Overall, previous research indicates that service quality is an important component of the higher education experience. The literature particularly supports the relevance of the five SERVQUAL dimensions in understanding student perceptions and satisfaction.

3. OBJECTIVES OF THE STUDY

The study is based on the following objectives:

1. To examine the impact of demographic on service quality dimensions- (Tangibility, Reliability, Responsiveness, Assurance, and Empathy) among students of private colleges in Kolkata.
2. To assess the level of service quality in private colleges with respect to the satisfaction level of students.

4. RESEARCH METHODOLOGY

Research Design

The study follows a descriptive and analytical research design. The descriptive component presents the demographic characteristics and responses of the students, while the analytical component examines the association between demographic characteristics and service quality dimensions and the relationship between service quality and student satisfaction.

Sources of Data

Primary Data

Primary data were collected from students of private colleges in Kolkata using a structured questionnaire prepared through Google Forms.

Secondary Data

Secondary information was obtained from research papers, academic journals, books, and other relevant published sources relating to service quality, SERVQUAL, higher education, and student satisfaction.

Sampling Technique and Sample Size

Sample Size, Sampling Technique and Data Collection: The study consisted of 202 respondents who were students of private colleges in Kolkata. Snowball sampling was used for collecting primary data, wherein the questionnaire was initially circulated among accessible student respondents through WhatsApp and subsequently shared with other eligible students. A structured questionnaire was used, consisting of demographic questions and statements covering the five SERVQUAL dimensions Tangibility, Reliability, Responsiveness, Assurance, and Empathy measured using a five-point Likert scale.

Statistical Tools

Chi-square To examine the impact of demographic on service quality dimensions- (Tangibility, Reliability, Responsiveness, Assurance, and Empathy) among students of private colleges in Kolkata

Pearson Correlation Analysis To assess the level of service quality in private colleges with respect to the satisfaction level of students.

Hypotheses of the Study

To achieve the research objectives, the following hypotheses were formulated:

Hypothesis 1

H₀₁: There is no significant impact of demographic on service quality dimensions- (Tangibility, Reliability, Responsiveness, Assurance, and Empathy) among students of private colleges in Kolkata

H₁₁: There is a significant impact of demographic on service quality dimensions- (Tangibility, Reliability, Responsiveness, Assurance, and Empathy) among students of private colleges in Kolkata

Hypothesis 2

H₀₂: There is no significant level of service quality in private colleges with respect to the satisfaction level of students.

H₁₂: There is a significant level of service quality in private colleges with respect to the satisfaction level of students.

5. RESULTS AND DISCUSSION

5.1 Demographic Profile

Demographic Variable	Category	Number of Respondents	Percentage (%)
Age Group	Below 20	36	17.8
	20–22	70	34.7
	23–25	74	36.6
	Above 25	22	10.9
	Total	202	100.0
Gender	Male	62	30.7
	Female	137	67.8
	Prefer not to say	3	1.5
	Total	202	100.0
Course	Undergraduate	103	51.0
	Postgraduate	82	40.6
	Professional	17	8.4
	Total	202	100.0

5.2 OBJECTIVE 1: CHI-SQUARE ANALYSIS

Objective: To examine the association between demographic characteristics and the five SERVQUAL dimensions of service quality among students of private colleges in Kolkata.

The Chi-square test of independence was conducted at a 5% level of significance. A p-value below 0.05 indicates a statistically significant association, while a p-value greater than 0.05 indicates that a statistically significant association was not established.

Table 1: Chi-square Analysis of Age Group and SERVQUAL Dimensions

SERVQUAL Dimension	Chi-square Value (χ^2)	Significance Value (p)	Result
Tangibility	28.633	0.004	Significant
Reliability	22.243	0.035	Significant
Responsiveness	21.495	0.044	Significant
Assurance	20.242	0.063	Not Significant
Empathy	17.612	0.128	Not Significant

Interpretation

The results indicate that Age Group has a significant association with Tangibility, Reliability, and Responsiveness, as their p-values are below 0.05. However, no statistically significant association was established between Age Group and Assurance or Empathy.

Table 2: Chi-square Analysis of Gender and SERVQUAL Dimensions

SERVQUAL Dimension	Chi-square Value (χ^2)	Significance Value (p)	Result
Tangibility	20.689	0.008	Significant
Reliability	14.160	0.078	Not Significant
Responsiveness	18.636	0.017	Significant
Assurance	14.417	0.072	Not Significant
Empathy	16.088	0.041	Significant

Interpretation: Gender was significantly associated with Tangibility, Responsiveness, and Empathy, as their p-values were below 0.05. However, the associations between Gender and Reliability and between Gender and Assurance were not statistically significant.

Decision: The null hypothesis for Objective 1 is rejected for the statistically significant relationships and is not rejected for the relationships where $p > 0.05$. Therefore, demographic characteristics are associated with selected SERVQUAL dimensions, but the association is not significant across all five dimensions.

Conclusion: The findings indicate that students' perceptions of certain service quality dimensions vary according to demographic characteristics. Age Group was significantly associated with Tangibility, Reliability, and Responsiveness, while Gender was significantly associated with Tangibility, Responsiveness, and Empathy. However, Assurance did not show a significant association with either demographic variable. Overall, the findings suggest that demographic characteristics are relevant to selected aspects of perceived service quality in private colleges in Kolkata.

OBJECTIVE 2: CORRELATION ANALYSIS

Objective: To assess the relationship between the SERVQUAL dimensions of service quality and student satisfaction in private colleges of Kolkata.

Pearson correlation analysis was conducted to examine the relationship between the five SERVQUAL dimensions and student satisfaction. The analysis included overall satisfaction, positive student experience, fulfilment of expectations, and willingness to recommend the college.

Table 3: Correlation Between SERVQUAL Dimensions and Overall Student Satisfaction

SERVQUAL Dimension	Correlation (r)	Significance (p)	Result
Tangibility	0.662	< 0.001	Significant Positive
Reliability	0.572	< 0.001	Significant Positive
Responsiveness	0.671	< 0.001	Significant Positive
Assurance	0.656	< 0.001	Significant Positive
Empathy	0.734	< 0.001	Significant Positive

Interpretation: All five SERVQUAL dimensions demonstrated statistically significant positive relationships with overall student satisfaction at the 0.001 level. Empathy showed the strongest relationship with overall satisfaction ($r = 0.734$), indicating that individual attention, understanding, and care towards students are strongly associated with their satisfaction. Responsiveness also demonstrated a strong positive relationship ($r = 0.671$), followed by Tangibility ($r = 0.662$) and Assurance ($r = 0.656$). Reliability showed the comparatively weakest relationship ($r = 0.572$); however, the relationship remained statistically significant. The analysis also indicated strong positive relationships between the SERVQUAL dimensions and other satisfaction measures, with Empathy demonstrating a correlation of $r = 0.746$ with willingness to recommend the college and $r = 0.741$ with positive student experiences.

Decision: Since all correlation coefficients are statistically significant at $p < 0.001$, the null hypothesis (H_{02}) is rejected and the alternative hypothesis (H_{12}) is accepted.

Conclusion: The findings demonstrate that all five SERVQUAL dimensions have significant positive relationships with student satisfaction. Among the dimensions, Empathy demonstrated the strongest relationship, highlighting the importance of personalised attention and understanding students' needs. Reliability showed the comparatively weakest relationship but remained statistically significant. Overall, the findings indicate that higher perceived levels of service quality are associated with higher levels of student satisfaction.

MAJOR FINDINGS OF THE STUDY

The study found that demographic characteristics are significantly associated with selected SERVQUAL dimensions. Specifically, Age Group was significantly associated with Tangibility, Reliability, and Responsiveness, whereas Gender was significantly associated with Tangibility, Responsiveness, and Empathy. However, Age Group did not show statistically significant associations with Assurance and Empathy, while Gender did not show significant associations with Reliability and Assurance. The study further found that all five SERVQUAL dimensions demonstrated statistically significant positive relationships with student satisfaction. Empathy recorded the strongest relationship with overall satisfaction ($r = 0.734$), followed by Responsiveness ($r = 0.671$) and Tangibility ($r = 0.662$). Assurance also showed a significant positive relationship with satisfaction ($r = 0.656$), while Reliability recorded the comparatively weakest relationship ($r = 0.572$), although it remained statistically significant. Overall, the findings indicate that students value not only physical facilities and reliable services but also timely assistance, professional behaviour, and personalised attention.

IMPLICATIONS OF THE STUDY

Implications of the Study

The findings have several implications for private colleges in Kolkata. Colleges should maintain and improve their physical facilities and technological infrastructure, as Tangibility showed a significant positive relationship with student satisfaction. Institutions should also ensure consistent and dependable academic and administrative services, as Reliability, although comparatively weaker, remained significantly related to satisfaction. Furthermore, colleges should focus on prompt responses to student concerns, as the strong relationship between Responsiveness and satisfaction indicates that students value timely assistance from faculty and administrative staff. Institutions should also maintain high standards of professionalism, competence, and communication to strengthen students' confidence in faculty and staff. Finally, the strong relationship between Empathy and satisfaction highlights the importance of personalised attention and understanding students' academic and individual needs. Adopting a student-centred approach can therefore contribute to creating more positive educational experiences.

6. CONCLUSION

The study concludes that service quality is significantly associated with student satisfaction in private colleges in Kolkata. The Chi-square results show significant associations between demographic characteristics and selected SERVQUAL dimensions, while the correlation analysis confirms significant positive relationships between all five SERVQUAL dimensions and student satisfaction. Empathy emerged as the strongest dimension, followed by Responsiveness, Tangibility, Assurance, and Reliability. Overall, the findings highlight the importance of personalised attention, prompt assistance, dependable services, and professional support in enhancing students' educational experience.

LIMITATIONS OF THE STUDY

The study is limited to private colleges in Kolkata and 202 respondents, which may restrict the generalisability of the findings. The use of snowball sampling and self-reported responses may introduce sampling and response bias. As the study is cross-sectional, perceptions may change over time. Additionally, Chi-square and correlation analysis identify associations and relationships but do not establish causality.

SCOPE FOR FUTURE RESEARCH

Future research may extend the study by including a larger sample covering a greater number of private colleges across Kolkata and other cities. Researchers may also compare private and government institutions to identify differences in perceived service quality.

Further studies could incorporate additional factors such as academic performance, institutional loyalty, student retention, perceived value, and institutional reputation. Longitudinal research could also examine how students' perceptions of service quality change throughout their academic journey.

Future researchers may additionally employ advanced statistical techniques such as regression or structural equation modelling to examine predictive or causal relationships between service quality and student satisfaction.

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