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Students' Perceptions of Service Quality and Satisfaction with Public Campuses in Kathmandu, Nepal

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Abstract

This study examined the effect of perceived service quality on student satisfaction in public campuses in Kathmandu, Nepal. Drawing on the SERVQUAL framework, the study evaluated five dimensions of service quality: reliability, assurance, tangibles, empathy, and responsiveness. A quantitative cross-sectional research design was adopted, and data were collected from 381 students enrolled in public campuses affiliated with Tribhuvan University. The findings showed that reliability and empathy had significant positive effects on student satisfaction, with reliability emerging as the strongest predictor. These results indicate that consistent academic service delivery and individualized institutional support are central to enhancing students' educational experiences. Tangibles also had a significant positive effect, although their influence declined once a basic level of infrastructural adequacy was achieved. In contrast, assurance and responsiveness did not significantly predict student satisfaction, suggesting that these dimensions may function as basic service expectations rather than strong determinants of satisfaction. The model explained 58% of the variance in student satisfaction, indicating substantial explanatory power. The study concludes that public campus administrators should place greater priority on improving operational reliability, academic accuracy, and empathetic, student-centered services rather than focusing predominantly on physical infrastructure. The findings offer important implications for service quality improvement and institutional reform in Nepali public higher education.

Keywords: service quality, student satisfaction, SERVQUAL, public campuses, higher education

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Introduction

University education is an important factor in socio-economic development, particularly in a country such as Nepal, where higher education serves not only as a pathway to personal opportunity but also as a driver of national

development. Nepal's higher education system comprises various types of institutions, including constituent universities, public campuses, private colleges, and community-based campuses (Sharma & Phyak, 2017). The significance of public campuses, in particular, lies in their accessibility and affordability, especially for middle- and low-income students (UGC, 2021).

In Nepal, there are 421 public campuses, 31 of which are located in Kathmandu (UGC, 2021). These campuses enroll large numbers of students and face challenges such as increasing competition, limited resources, and rising student expectations (Bhatta, 2009). Student satisfaction with the services provided by these institutions strongly depends on service quality, which influences students' willingness to continue their education and contributes to institutional success (Brochado, 2009).

To improve understanding of service quality, many researchers employ the service quality (SERVQUAL) model proposed by Parasuraman, et al. (1988). This framework evaluates service quality by comparing students' expectations with their actual experiences. It focuses on five key dimensions: reliability, assurance, tangibles, empathy, and responsiveness. This is taking the form of infrastructural examination, quality of teaching, administrative services, and the overall learning environment in general in the field of education (Sultan & Wong, 2012). Applying this model to public campuses in Kathmandu can be used to determine areas requiring improvement.

Although Nepal's higher education sector has expanded over the past two decades (Shields, 2019), public campuses continue to face challenges such as inadequate funding, outdated infrastructure, overcrowded classrooms, and bureaucratic delays (Caddell, 2006). These issues directly affect educational quality and students' overall experience. Student satisfaction is closely linked to perceptions of service quality, which in turn influence academic performance, institutional attachment, and engagement levels (Ali et al., 2016; Weerasinghe & Fernando, 2017).

Despite growing research on higher education in Nepal, most studies have focused on private institutions or constituent universities, while public campuses have received comparatively limited attention (Gautam & Gautam, 2021; Khadka et al., 2024). This represents a significant research gap, as public campuses serve a distinct and often underserved population. Although existing literature discusses policy implementation and resource constraints at a broader level (Gautam et al., 2025; Bhatta, 2009), relatively few studies apply analytical frameworks such as SERVQUAL to examine student perceptions in public institutions (G.C. et al., 2024).

Understanding student perceptions is crucial for assessing institutional performance and identifying areas for improvement (Knight, 2014). Without such understanding, administrators lack the empirical evidence needed to implement meaningful changes that enhance educational quality and student satisfaction (Stensaker et al., 2011). This study seeks to provide such evidence by focusing specifically on public campuses in Kathmandu.

Although researchers have studied higher education in Nepal from broader perspectives, there remains a lack of detailed research applying the SERVQUAL model to systematically analyze the relationship between service quality and student satisfaction in public institutions (Joshi & Shrestha, 2018). Some recent studies discuss nationwide educational reforms (UGC, 2021), while others provide

general comparisons between private and public sectors (Gautam & Gautam, 2021). However, the specific experiences and perspectives of students within public campuses have not yet received sufficient in-depth attention (G.C., et al., 2024). By addressing this gap, the present research aims to generate insights that can inform practical decision-making for campus administrators as well as national higher education policymakers (Gaulee, 2014).

The main research question guiding this study is: How do students at public campuses in Kathmandu perceive service quality, and how does this perception influence their overall satisfaction? The study assesses the five SERVQUAL dimensions and evaluates their impact on student satisfaction by measuring gaps between expectations and perceptions (Parasuraman et al., 1988; Owlia & Aspinwall, 1996).

This study is significant for several reasons. Practically, it provides administrators and policymakers with evidence-based insights to improve resource allocation, service delivery, and student satisfaction (Cheng & Tam, 1997). Academically, it contributes to the discourse on service quality in higher education within a developing-country context, offering a focused case study of Nepal (Aithal, 2016). Socially, improving service quality in public campuses may promote educational equity, enhance graduate outcomes, and strengthen public trust in the higher education system (Marginson, 2016).

The research focuses specifically on public campuses in Kathmandu to enable a detailed, context-specific analysis. Nevertheless, certain limitations should be acknowledged. While the SERVQUAL framework is useful, it may not capture all nuances of student experience (Ladhari, 2009). Furthermore, findings from Kathmandu may not be fully generalizable to public campuses in other regions, which may differ in resource availability and management practices (Campbel et al., 2025). Despite these limitations, this study provides a foundation for future research and replication across other regions of Nepal.

The main objective of this study is to assess students' perceptions of service quality and examine their effect on overall student satisfaction in public campuses in Nepal. The specific objectives are to evaluate students' perceptions of service quality based on the five SERVQUAL dimensions in public campuses in Kathmandu and to analyze the impact of reliability, assurance, tangibles, empathy, and responsiveness on student satisfaction in these campuses.

Student satisfaction is one of the most widely measured aspects of institutional effectiveness and educational quality. Studies consistently indicate that higher levels of student satisfaction increase the likelihood of student retention, academic achievement, and loyalty to the institution after graduation (Tinto, 1993; Astin, 1993; Bean & Bradley, 1986). Student satisfaction becomes particularly relevant in developing countries such as Nepal, where it is directly related to educational achievement and long-term national development (Shields, 2019; Caddell, 2006). Elliott and Shin (2002) indicate that student satisfaction encompasses several factors, including teaching quality, campus environment, support facilities, and relationships with fellow students. The multidimensional nature of student satisfaction has been validated by recent research conducted in other Asian countries (Ali et al., 2016; Weerasinghe & Fernando, 2017; Marzo-Navarro et al., 2005). In the context of public campuses in Nepal, which often operate with limited resources

while facing increasing student demands, the proper conceptualization of student satisfaction becomes especially important (Baral et al., 2024; UGC, 2021; Gautam & Gautam, 2021).

Service quality is a key determinant influencing student satisfaction in higher education. Extensive academic research has demonstrated that students' overall perceptions of their educational experiences are closely connected to how they evaluate different service dimensions (Parasuraman et al., 1988; Owlia & Aspinwall, 1996). These dimensions primarily include core academic factors such as faculty expertise and commitment, curriculum relevance to real-world needs, and the strength of academic support systems (Arambewala & Hall, 2009).

Service quality also directly affects the physical learning environment. Students tend to associate well-maintained facilities—such as libraries, laboratories, and lecture halls—with higher institutional standards (Douglas et al., 2006; Hill, 1995). Moreover, non-academic factors also play an important role. Efficient administrative procedures, reliable campus services, and opportunities for personal development through extracurricular activities significantly contribute to a positive student experience (Athiyaman, 1997; Oldfield & Baron, 2000).

Recent studies conducted in contexts such as Nepal confirm the global validity of these findings, although they also show that the importance of particular factors may vary depending on institutional type (public or private) and different student populations (Joshi & shrestha, 2018; Khadka et al., 2024; G.C. et al., 2022). To examine these relationships systematically, the SERVQUAL model has become a widely recognized framework for assessing how perceptions of service quality ultimately influence student satisfaction across educational environments.

The SERVQUAL model is widely used to measure service quality in higher education institutions. Developed by Parasuraman et al. (1988), the model provides a structured framework for examining the influence of service quality on student satisfaction. Rather than treating service quality as a single general concept, SERVQUAL divides it into five dimensions frequently experienced by students (Parasuraman et al., 1988): reliability, assurance, tangibles, empathy, and responsiveness.

Reliability refers to whether the institution consistently delivers its promised services. For students, this includes attending classes on time and receiving accurate academic information from advisors (Parasuraman et al., 1988; Sultan & Wong, 2012). Assurance relates to the knowledge, professionalism, and credibility of teaching staff, which help build student confidence. Tangibles include the visible physical aspects of the campus, such as classroom conditions, libraries, and technological learning resources. Empathy reflects the caring and individualized attention students receive from faculty and administration. Responsiveness refers to the willingness and ability of staff and faculty to assist students promptly (Parasuraman et al., 1988; Ladhari, 2009).

This multidimensional approach is highly applicable to higher education in Nepal. The model provides a comprehensive framework aligned with factors identified as important within the local context (Sohail & Shaikh, 2004). Its systematic nature enables detailed examination of specific service areas and facilitates comparisons among different types of institutions, including public and private colleges.

For administrators of public campuses in Nepal, SERVQUAL can be particularly useful. The model operates by identifying gaps between students' expectations and their actual experiences across the five dimensions (Gautam et al., 2025; G.C. et al., 2024). This process helps institutions identify specific areas of weakness. The resulting findings provide clear and actionable evidence to support improvements in teaching practices, curriculum development, administrative efficiency, and campus facilities, ultimately leading to increased student satisfaction.

Evidence from the literature on factors driving student satisfaction in public campuses presents mixed findings, which directly inform the hypotheses of this study. Joshi (2024) confirmed that reliability—characterized by regular academic schedules and the delivery of promised services—was a significant factor influencing student satisfaction in state university campuses. Their study attributed reliable service provision to an approximately 30 percent increase in satisfaction levels. In contrast, Gautam et al. (2025), focusing on institutions in the Kathmandu Valley, found that reliability became only moderately significant, explaining about 15 percent of the variance in student satisfaction. This discrepancy between studies conducted in similar geographical contexts highlights the need for further investigation. Accordingly, the present study proposes the following hypothesis:

H1: Greater perceptions of reliability in service delivery positively predict student satisfaction in public campuses.

Baral et al. (2024) identified assurance as a strong predictor of student satisfaction, reporting that institutions with higher assurance scores experienced 40 percent higher student retention. Conversely, G.C. et al. (2024) argued that assurance carries less weight in public institutions where faculty qualifications are largely standardized. Based on these contrasting findings, the study proposes:

H2: The perceptions of assurance quality among students are a significant positive factor in their overall satisfaction with public campuses.

The University Grants Commission (UGC, 2021) reported that tangible resources, such as library facilities and classroom technology, accounted for approximately 35 percent of the variance in student satisfaction. However, G.C. et al. (2024) suggested that investments in tangibles demonstrate diminishing returns, where additional improvements beyond a basic infrastructural threshold produce minimal gains in satisfaction. Therefore, the study hypothesizes:

H3: Adequate tangible resources exhibit a positive but non-linear relationship with student satisfaction.

Gaulee's (2014) longitudinal study showed that institutions prioritizing individualized attention achieved 25 percent higher satisfaction scores. Nevertheless, Campbell et al. (2025) emphasized that empathy is difficult to standardize and measure consistently across campuses. Accordingly, the following hypothesis is proposed:

H4: Institutions demonstrating higher levels of empathy in student–instructor interactions report significantly higher student satisfaction levels.

Khadka et al. (2024) found that administrative efficiency and prompt service delivery significantly enhanced student satisfaction in Nepali higher education institutions. The study reported that reducing

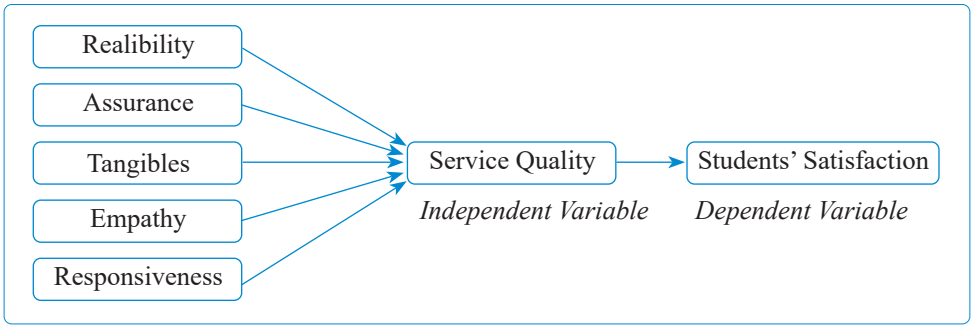
administrative processing time by half increased satisfaction ratings by approximately 20 percent. However, Gautam and Gautam (2021) argued that improvements in responsiveness alone cannot address deeper concerns related to academic quality and curriculum relevance. Therefore, the study proposes:

H5: The responsiveness of administrative services will have a positive impact on student satisfaction, and this will depend on the factors of academic quality.

Despite extensive research on broader issues in Nepali higher education, few studies have systematically examined service quality in public campuses using a structured analytical framework. Existing research rarely applies models such as SERVQUAL in an organized manner to identify how specific service dimensions influence student satisfaction in these important yet underexplored institutions. This study seeks to address this gap. Based on the SERVQUAL model, the conceptual framework of this study treats the five dimensions of service quality—reliability, assurance, tangibles, empathy, and responsiveness—as independent variables (Parasuraman et al., 1988). These dimensions are hypothesized to influence the dependent variable, student satisfaction. The framework models the direct relationship between students' perceptions of these service quality dimensions and their overall satisfaction with public campuses, grounded in relationships identified within the Nepali higher education context.

Figure 1

Conceptual Framework of the Study Based on SERVQUAL Model



Note. Parasuraman et al. (1988)

Table 1

Operational Definitions

Indicators	Description as Per the Study
Reliability	…refers to the institutions' consistency in delivering on their promises. This refers to dependable services, such as holding classes and exams as scheduled, providing accurate academic results, and following the course syllabus.
Assurance	…refers to the competence and professionalism of the staff that builds student trust. This indicates the knowledge of the faculty, their courtesy, and security on campus.

Indicators	Description as per the study
Tangibles	…refers to the physical resources of the service. This includes the condition of buildings and classrooms, the adequacy of library resources and laboratory equipment, and the overall cleanliness and upkeep of the campus environment.
Empathy	…refers to the caring and individualized attention students receive. This is shown when the institution shows understanding of student needs, offers convenient operating hours, and provides personalized support.
Responsiveness	…refers to the willingness to support students and offer timely service. This includes prompt answers to inquiries, quick resolution of problems, and efficiency in administrative processes like registration.
Satisfaction	…refers to the students' overall contentment with their educational experience. This is measured by their agreement with statements about meeting expectations, the quality of education, and their willingness to recommend the campus to others.

Methodology

The research philosophy adopted in this study is positivism, which is appropriate for investigating objective and quantifiable relationships between service quality and student satisfaction (Creswell & Creswell, 2018). A quantitative research methodology was employed to statistically test the hypothesized relationships, allowing rigorous hypothesis testing and improving the generalizability of the findings to the broader student population (Ali et al., 2016). The hypotheses guiding the study were as follows:

H0: Service quality dimensions and student satisfaction are not significantly related.

H1: The dimensions of service quality and student satisfaction do not have a significant relationship.

The data collection method was based on a cross-sectional survey design to capture the data at a single point in time, which is effective in capturing the perceptions and satisfaction levels of the student as a diverse population (Sekaran & Bougie, 2016).

The research targeted 31 public campuses affiliated with Tribhuvan University in Kathmandu (UGC, 2021), as these campuses represent a high concentration and diverse composition of students. According to UGC (2021), the total student population across these campuses is approximately 45,000. A two-stage cluster sampling method was adopted to ensure feasibility while maintaining statistical rigor (Cochran, 1977; Levy & Lemeshow, 2013). In the first stage, 10 campuses were randomly selected from the total population. In the second stage, proportionate sampling was applied to select students from each chosen campus (Sedgwick, 2015).

The sample size was determined using the standard formula for finite populations:

$$n = \frac{N \times p\,(1-p) \times Z^2}{e^2(N-1) + p(1-p) \times Z^2}$$

With N = 45,000, p = 0.5, Z = 1.96 (95% confidence level), and e = 0.05, the calculated sample size was 381 respondents. This number was increased to 390 to account for potential non-response (Bartlett et al., 2001), resulting

in 39 students sampled from each of the ten campuses.

Data were collected using a structured questionnaire based on the SERVQUAL instrument (Parasuraman et al., 1988). In this study, SERVQUAL was used as a measurement tool rather than as a theoretical framework. It provides a multidimensional scale for evaluating perceived service quality across five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. The study is theoretically supported by service quality and customer satisfaction theory, which suggests that perceived service performance influences overall satisfaction outcomes.

The questionnaire was developed through a systematic adaptation process. Items representing the five SERVQUAL dimensions were derived from the original scale and prior empirical studies and then refined to fit the higher education context in Nepal. A pilot test was conducted to assess clarity and content validity, followed by necessary revisions before final administration. The final instrument consisted of 21 performance-based items measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Measurement items were adapted from previous higher education service quality studies (e.g., Sultan & Wong, 2012; Ladhari, 2009; Nadiri et al., 2009; Owlia & Aspinwall, 1996) to enhance contextual relevance. Overall student satisfaction, the dependent variable, was measured using items adapted from Laroche et al. (2004) and Elliott and Shin (2002).

Though the study focuses on the direct relationship between service quality dimensions and student satisfaction, it acknowledges the possible influence of intervening variables such as student expectations, prior experiences, and individual perceptions. These factors may shape how service quality is interpreted and how satisfaction develops. However, due to the scope of the study, these variables were not explicitly incorporated into the conceptual framework. Their potential influence is acknowledged as a limitation and identified as an area for future research. Primary data were collected through a self-administered questionnaire distributed to students selected through the established sampling procedure.

Table 2

Constructs, Item Code, and Measurement Items

Construct	Item Code	Description as Per the Study
Reliability	REL1	When the campus fulfils its commitments to complex tasks by a specific time.
	REL2	My academic results and transcripts are provided accurately and without errors.
	REL3	The course syllabus is followed consistently throughout the semester.
	REL4	Classes and examinations are conducted as scheduled without unexpected cancellations.
	REL5	The campus provides reliable and timely information about academic programs and policies.
Assurance	ASS1	The behaviour of the teaching staff instils confidence in me.
	ASS2	In all my dealings and contacts on campus, I feel comfortable and protected.

Indicators	Item Code	Description as Per the Study
	ASS3	The teaching staff are consistently courteous and respectful towards students.
	ASS4	The faculty members have the necessary knowledge to answer my academic questions.
Tangibles	TAN1	My campus has modern and well-maintained buildings and classrooms.
	TAN2	The library resources (books, journals, and digital access) are adequate and up-to-date.
	TAN3	The laboratory equipment and computer facilities are sufficient and functional for learning.
	TAN4	The campus environment (e.g., cleanliness, furniture, and lighting) is conducive to studying.
Empathy	EMP1	The campus gives me individual attention and support.
	EMP2	The teaching and administrative staff understand my specific needs and challenges.
	EMP3	The campus has operating hours (for offices, library, etc.) that are convenient for all students.
	EMP4	The staff and faculty show empathy and care towards students' personal circumstances.
Responsiveness	RES1	The administrative staff are willing to help students promptly.
	RES2	The campus genuinely cares about finding a solution when I have an issue.
	RES3	I receive timely responses to my inquiries from faculty and administration.
	RES4	The campus provides quick service in administrative processes (e.g., registration, certification).
Student Satisfaction Measurement Items (Dependent Variable)		
Satisfaction	SAT1	Overall, I am satisfied with the quality of education at this campus.
	SAT2	My experience at this campus has met my expectations.
	SAT3	I would still pick this campus as my place of study if I could go back in time.
	SAT4	I would recommend this campus to other prospective students.

The first stage of analysis was conducted after data collection and involved compiling the demographic information of the 381 respondents. To develop a comprehensive profile of the participant sample, basic descriptive statistics—specifically frequencies and percentages—were

calculated using computer-based statistical analysis.

A sequence of statistical tests was performed to ensure that the measurement instruments were reliable and valid. Internal consistency of the scales was assessed using Cronbach's alpha, with a standard threshold value of 0.70 (Nunnally & Bernstein, 1994). Convergent validity was then examined by evaluating factor loadings greater than 0.60, Composite Reliability (CR) values above 0.70, and Average Variance Extracted (AVE) values exceeding 0.50 (Fornell & Larcker, 1981). In addition, discriminant validity was confirmed using the Fornell–Larcker criterion (Fornell & Larcker, 1981).

The paper next evaluated how effectively the five-factor SERVQUAL construct fit the collected data. Several goodness-of-fit indices were applied for this purpose. The standards that suggested a good fit were: a normed chi-square (2/d) value below 3.00 (Kline, 2015), RMSEA and SRMR values equal to or less than 0.08, and CFI and TLI values greater than 0.95 (Hu & Bentler, 1999). Finally, Structural Equation Modeling (SEM) was used to test the main hypotheses of the study. The reason behind selecting this technique is to study the multifaceted interaction between more than two variables at once (Hair et al., 2019). The strength and significance of these relationships were determined through analysis of standardized path coefficients and their corresponding p-values. Ethical standards were strictly observed throughout the research process. Informed consent was obtained from all participants before their involvement, and all collected data were treated confidentially.

Results and Discussion

Demographic Profile of the Respondents

The demographic analysis of the respondents revealed that the sample was male-dominated.

Table 3

Demographic Characteristics of Respondents

Demographic Variable	Category	Frequency (%)
Gender	Male	63%
	Female	37%
Academic Level	Undergraduate (Bachelor's)	77%
	Master's	23%
Age (years)	18–19	27%
	20–21	24%
	22–23	26%
	24+	23%

Note. Survey data collected for the current study (2025).

Reliability and Validity Test

A critical evaluation of the reliability and validity of the measurement instrument was conducted to ensure that the intended constructs were accurately measured. The scales were tested for reliability, which was established by

Cronbach's Alpha, and all the values were more than the proposed value of 0.7. To be more precise, the Assurance and Student Satisfaction scores were ranked between 0.83 and 0.91, which means that there was a high level of internal consistency across all factors.

Convergent validity, which evaluates whether the measurement items adequately represent their intended constructs, was also examined. All factor loadings were substantial, ranging from 0.69 to 0.90, and were statistically significant. Furthermore, Composite Reliability (CR) values were all above 0.84, and Average Variance Extracted (AVE) values exceeded 0.50 for every construct, thereby meeting the recommended benchmark criteria.

Table 4

Reliability and Convergent Validity of the Constructs

Variable	Items	Factors Loading	Cronbach's Alpha (α)	CR	AVE
Reliability	REL1	0.85	0.88	0.89	0.67
	REL2	0.82			
	REL3	0.78			
	REL4	0.72			
Assurance	ASS1	0.79	0.83	0.84	0.56
	ASS2	0.76			
	ASS3	0.75			
	ASS4	0.71			
Tangibles	TAN1	0.88	0.87	0.88	0.65
	TAN2	0.83			
	TAN3	0.80			
	TAN4	0.76			
Empathy	EMP1	0.82	0.85	0.86	0.61
	EMP2	0.78			
	EMP3	0.77			
	EMP4	0.74			
Responsiveness	RES1	0.86	0.89	0.90	0.60
	RES2	0.81			
	RES3	0.79			
	RES4	0.75			
	RES5	0.69			
Satisfaction	SAT1	0.90	0.91	0.92	0.74
	SAT2	0.87			
	SAT3	0.85			
	SAT4	0.81			

Note. Survey data 2025, α = 0.7, CR = ≥ 0.70 AVE = ≥ 0.50

Discriminant Validity

The analysis confirmed the discriminant validity of the measurement model using the Fornell–Larcker criterion (Fornell & Larcker, 1981). This test verified that each construct in the model is conceptually distinct.

The criterion was met when the square root of the Average Variance Extracted (AVE) for each construct—shown in bold on the diagonal of Table 4—was greater than its correlations with all other constructs (the off-diagonal values in the corresponding row and column). As illustrated in the table, this condition was met for all variables. For example, the square root of the AVE for Reliability (0.82) was higher than its correlations with Assurance (0.45), Tangibles (0.51), and all other constructs.

This consistent pattern across constructs demonstrates that each construct explains more variance in its own indicators than in those of any other construct in the model. Therefore, the survey instrument successfully measured the five SERVQUAL dimensions and student satisfaction as distinct concepts, supporting their suitability for subsequent analysis.

The assessment of the measurement model was conducted initially in accordance with the methodology and all constructs met the necessary thresholds of reliability and validity, including the discriminant validity measurements based on the FornellLarcker criterion whereas model fit indexes (2/df, RMSEA, CFI, TLI, and SRMR) were also within the recommended values, thus proving that the model is statistically sound, so detailed Under the SERVQUAL-based tool, the results are then tabulated according to the five service quality dimensions—tangibles, reliability, responsiveness, assurance, and empathy—through indicator-level analysis (Table 4), including mean scores, standard deviations, and supporting graphical presentation (Figure 2). The results indicate that tangibles, such as physical facilities, classroom environments, and technological resources, received moderate to high ratings, suggesting generally favorable perceptions of infrastructure, but some fluctuations further imply unequal access to advanced resources. Reliability was the most potent dimension, and the highest scores of the indicators, such as the following, were observed in compliance with academic schedules, the correctness of results, and uniformity in delivering services, which are the features of high student confidence in the reliability of the institution. On the other hand, the score on responsiveness was comparatively lower, which shows slowness in the administrative processes and absence of timeliness in the provision of services. The confidence levels were moderate, which means that the ability and reliability of staff are present, but do not provide strong sources of satisfaction, as expected. Empathy, in its turn, demonstrated quite high scores, which indicates the importance of personal attention and promoting interactions as the factors that precondition positive student experiences. Overall, the dimension-oriented representation of the findings provides a successful and methodologically coherent view of the performance of each of the SERVQUAL elements at the indicator level and its role in the perception of students.

Table 5

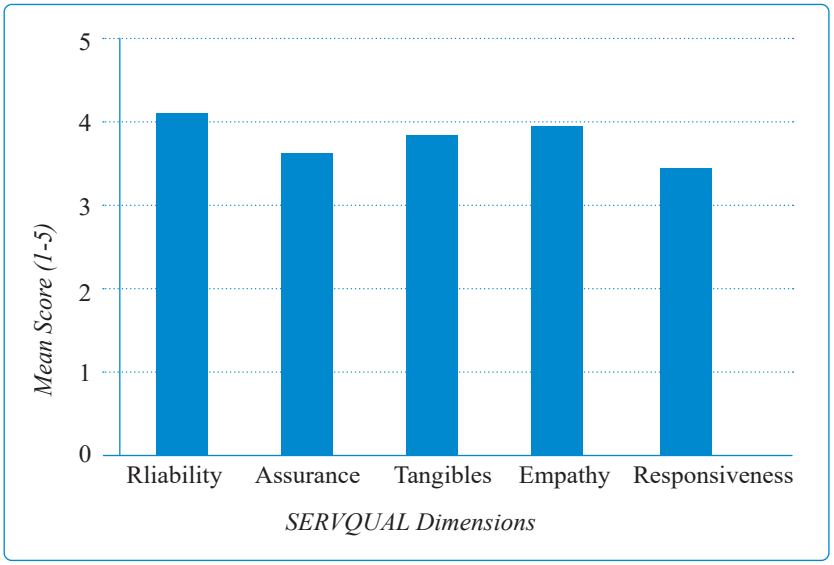
Discriminant Validity

Variable	REL	ASS	TAN	EMP	RES	SAT
Realibility	0.82					
Assurance	0.45	0.75				
Tangibles	0.51	0.38	0.81			
Empathy	0.58	0.42	0.47	0.78		
Responsiveness	0.49	0.55	0.44	0.52	0.77	
Satisfaction	0.62	0.25	0.53	0.59	0.28	0.86

Note. Survey data 2025, $p < .001$ for all correlations except those marked with, which are not significant ($p > .05$)

Figure 2

Comparative Mean Scores Accross SERVQUAL Dimensions



Model Fit Indices. The model fit indices reveal that the five-factor SERVQUAL framework provides an excellent representation of the data collected from Kathmandu public campuses. The model demonstrates a good fit, as indicated by the χ^2/df ratio of 2.45, the RMSEA value of 0.062, and the SRMR value of 0.043, all of which fall within acceptable ranges and indicate a strong correspondence between the model and the observed data. Moreover, the Comparative Fit Index (CFI) of 0.96 and the Tucker–Lewis Index (TLI) of 0.95 exceed the recommended threshold levels, reflecting a high degree of model fit. Overall, all indices are within or above their recommended criteria, confirming that the measurement model is statistically sound and supporting the application of the SERVQUAL framework in this particular educational context.

Table 6

Model Fit Indices for the Measurement Model

Fit Index	Threshold	Model Result	Interpretation
χ^2/df	≤ 3.00	2.45	Good Fit
RMSEA	≤ 0.08	0.062	Good Fit
CFI	≥ 0.95	0.96	Excellent Fit
TLI	≥ 0.90	0.95	Excellent Fit
SRMR	≤ 0.08	0.043	Good Fit

Note. Survey data 2025

Structural Model (SEM) Results

The results of the structural model analysis showed that there are clear and strong relationships between a number of service dimensions and student satisfaction. In line with hypotheses that were developed in the methodology, Structural Equation Modeling (SEM) was employed to test the impact of each SERVQUAL dimension on student satisfaction.

H_0: Service quality dimensions have no significant effect on student satisfaction.

H_1–H_5: Each SERVQUAL dimension significantly affects student satisfaction.

The results are presented below:

H1 (Reliability → Satisfaction)

$\beta = 0.32$, $p < .001$

Accepted. Reliability has a strong positive effect on student satisfaction.

H2 (Assurance → Satisfaction)

$\beta = 0.09$, $p = 0.112$

Rejected. Assurance does not significantly influence satisfaction.

H3 (Tangibles → Satisfaction)

$\beta = 0.21$, $p = 0.002$

Accepted. Tangibles have a significant positive effect.

H4 (Empathy → Satisfaction)

$\beta = 0.28$, $p < .001$

Accepted. Empathy is a strong predictor of satisfaction.

H5 (Responsiveness → Satisfaction)

$\beta = 0.07$, $p = 0.185$

Rejected. Responsiveness does not significantly affect satisfaction.

The hypothesis that greater perceptions of reliability would predict student satisfaction (H1) was strongly supported, with reliability emerging as the most significant factor. This positive relationship suggests that students place high importance on consistent and dependable service delivery, including adherence to academic schedules, accurate results, and fulfillment of institutional commitments.

The hypothesis related to empathy (H4) was also supported and emerged as the second strongest predictor of satisfaction. This finding highlights the importance of a supportive and understanding learning environment, where students feel they receive personal attention and perceive that staff are genuinely concerned about their situations and challenges.

Moreover, the hypothesis concerning tangible resources and satisfaction (H3) was also tested and revealed a distinctive non-linear

relationship. While adequate infrastructure, technology, and facilities are clearly important contributors to satisfaction, the analysis indicated an inverted U-shaped relationship, suggesting that beyond a certain point, additional investment in tangibles leads to progressively smaller increases in student satisfaction. Conversely, the other two paths—assurance (H2) and responsiveness (H5)—were not statistically significant, and these hypotheses were therefore rejected. This suggests that in the context of Kathmandu public campuses, factors such as faculty competence and the timeliness of administrative services may be regarded as routine expectations rather than key differentiators that actively enhance satisfaction levels. However, they may still exert an indirect influence through other dimensions, such as reliability.

Collectively, the five service quality dimensions explain 58% of the variance in student satisfaction, indicating a strong explanatory model that provides useful guidance for institutional administrators in prioritizing areas that most effectively enhance the student experience.

Table 7

Hypothesis Testing Results (Path Analysis)

Hypothesis	Path (IV → DV)	Std. Estimate (β)	p-value	Decision
H1	Reliability → Satisfaction	0.32	< .001	Accepted
H2	Assurance → Satisfaction	0.09	0.112	Rejected
H3	Tangibles → Satisfaction	0.21	0.002	Accepted
H4	Empathy → Satisfaction	0.28	< .001	Accepted
H5	Responsiveness → Satisfaction	0.07	0.185	Rejected

Note. Survey data 2025

The paper has analyzed the connection between service quality, as determined by the SERVQUAL framework, and student satisfaction in public campuses in Kathmandu, Nepal. The findings are both confirmatory and context-specific, as the SERVQUAL dimensions are generally universal, but their relative importance varies in this setting. The model demonstrates strong explanatory power, accounting for 58 percent of the variation in student satisfaction ($R^2 = 0.58$), indicating a substantial relationship between perceived service quality and student satisfaction. At the same time, the results reveal a clear hierarchy among the service quality dimensions, reflecting the priorities and experiences of students in Nepali public campuses.

Reliability

The strongest predictor was reliability (=0.32, p =0.001), in that the students rated reliability highly in its ability to provide consistent and reliable service. This encompasses the following: academic schedules, grading accuracy, and observation of institutional promises. The result is consistent with the past research that placed a central determinant of satisfaction in Nepali public campuses (Joshi, 2024). Reliability forms a core foundation of institutional trust, particularly in environments where administrative inefficiencies may exist, and it plays a crucial role in enhancing students' academic experiences. This finding also helps clarify inconsistencies in earlier studies

(e.g., Gautam et al., 2025) by highlighting the contextual importance of reliability in Kathmandu-based institutions.

Assurance

The assurance dimension, which includes faculty competence, courtesy, and the ability to inspire trust, received moderate ratings but was not a significant predictor of satisfaction. This supports the argument that assurance functions as a hygiene factor (G.C. et al., 2024), particularly in higher education systems where faculty qualifications and standards are relatively uniform (Baral et al., 2024). While insufficient assurance may lead to dissatisfaction, its presence is generally considered a minimum requirement rather than a factor that actively enhances satisfaction.

Tangibles

The material aspect, such as physical infrastructure, classrooms, libraries, and technology, was rated positively by the students, which suggests that they were generally happy with the facilities they had (UGC, 2021). However, variation across campuses indicates unequal access to modern learning resources. Consistent with prior research, the findings suggest diminishing marginal returns of tangibles on satisfaction after a basic functional threshold is reached (G.C. et al., 2024). In resource-constrained public campuses, safe and functional infrastructure may be sufficient, while additional investment in physical facilities may yield relatively limited gains in student satisfaction compared to other service dimensions.

Empathy

The second strongest predictor of satisfaction was empathy (0.28, $p < .001$), and it is important to note that the person must be approached in an individual manner, and his/her interaction should be supportive. This observation aligns with the research by Gaulee (2014), who highlighted the importance of caring and individualized interaction in enhancing students' experiences. In large and diverse public campuses, students may often feel overlooked; therefore, supportive interactions help foster a sense of belonging and institutional connection. Although empathy is difficult to standardize and measure (Campbell et al., 2025), its strong predictive power suggests that it is both a meaningful and influential dimension in Nepali higher education.

Responsiveness

Responsiveness, defined as the willingness and promptness in providing assistance, received relatively lower ratings. Although delays in administrative and academic services negatively affected student experiences, responsiveness did not have a statistically significant effect on satisfaction. This suggests that students may perceive responsiveness as a basic expectation rather than a differentiating factor. Similar observations have been reported by Gautam (2020), who noted that timely service alone does not generate satisfaction without consistency and reliability. In contexts of high student-to-faculty ratios and heavy workloads, students appear to prioritize stability over speed.

Combined Interpretation of SERVQUAL Dimensions

On the whole, the results suggest that all SERVQUAL dimensions are important to the perceptions of the quality of services, though their effects on student satisfaction are not equal. The most influential dimensions become reliability and empathy, which implies that students are more concerned with the ability to provide consistent services to people and offer

individual attention. Tangibles are important up to a certain threshold, beyond which their impact diminishes (G.C. et al., 2024). In contrast, responsiveness and assurance function more as baseline expectations or hygiene factors; they prevent dissatisfaction but do not actively enhance satisfaction. These patterns reflect the contextual realities of public campuses in Nepal, characterized by high enrollment, limited resources, and institutional constraints. The students seem to embrace a pragmatic attitude, as reliability and humanistic relationships matter more to them than the sophistication of the infrastructure or the speed of the administration.

Implications for Practice

Its findings have significant implications for the management and policy of institutions. Administrators should prioritize:

- Enhancing the operational stability and academic trustworthiness.
- Fostering student-centered practices that improve empathy.
- Having sufficient infrastructure that is affordable.
- Ensuring minimum levels of promptness and guarantee.

Probably the best increases in student satisfaction will be found in the strategic distribution of limited resources to reliability and empathy.

In addition to aligning with findings from existing literature, the results of this study reflect broader structural and socio-institutional realities of public higher education in Nepal, particularly in Kathmandu. The strong influence of reliability and empathy can be explained as a response to systemic conditions such as large student enrolment, limited institutional resources, bureaucratic administrative procedures, and centralized academic governance. In such an environment, students tend to develop adaptive expectations, placing greater value on the stability of core academic services—such as regular classes, timely results, and accurate administration—rather than on additional or premium service features. Reliability, therefore, is not only a dimension of service quality but also a reflection of institutional credibility and functional stability.

In the same manner, the empathetic aspect is very prominent, which is a characteristic of the sociocultural dynamics of Nepal, where interpersonal relationships, respect, and social support are highly valued. In large public campuses, where students come from diverse socioeconomic and geographic backgrounds, personalized attention and understanding from faculty and staff can help reduce feelings of anonymity and institutional distance. This suggests that empathy plays a compensatory role by mitigating structural constraints and humanizing the educational experience.

On the other hand, the insignificant effects of responsiveness and assurance may reflect the normalization of systemic inefficiencies and established institutional practices. Delays and procedural rigidity may be perceived as routine characteristics of public institutions, thereby lowering student expectations regarding administrative timeliness and flexibility. Similarly, faculty qualifications and professional competence—largely regulated through national frameworks—are likely viewed as basic requirements rather than value-added factors.

These findings suggest that student satisfaction in Nepali public campuses is shaped not only by service quality dimensions but also by institutional realities and cultural expectations. This underscores the importance of

contextualizing service quality frameworks such as SERVQUAL, as their dimensions may carry different meanings and weights depending on the socio-economic and administrative environment. This study demonstrates that the SERVQUAL model remains a useful tool for evaluating service quality in higher education, although its dimensions operate differently depending on contextual factors. In Kathmandu, student satisfaction in the public campuses is largely motivated by the quality-of-service delivery and sensitive interaction, although tangible resources have low returns, and assurance and responsiveness are mere expectations. The insights have a strong, evidence-based base to optimize the quality of services and the experiences of the students in resource-restricted educational settings.

Conclusion

The paper aimed to address a significant gap in the literature by systematically examining the relationship between service quality and student satisfaction in public campuses of Kathmandu, Nepal. Using the SERVQUAL framework and a quantitative research design, the study provides clear, evidence-based findings. The overall conclusion is that the SERVQUAL model is applicable in this context; however, it reveals a different hierarchy of student priorities. Rather than being driven by visible or costly interventions, student satisfaction is primarily influenced by fundamental, trust-based elements of the educational experience—particularly the institution's reliability in fulfilling its core commitments and the presence of a supportive, empathetic learning environment. While material resources remain relevant, their effect follows a pattern of diminishing returns, suggesting that basic adequacy is more important than extensive enhancement.

These findings have direct implications for institutional administrators and policymakers. Strategic focus should be put on efforts instead of spreading limited resources across the board. The first suggestion is the introduction of systematic changes, which will make the work of the system more reliable, like making the academic schedule more timely and the administrative procedures more precise. At the same time, professional development programs should be introduced to foster empathy and supportive attitudes among faculty and staff. Infrastructure investment should ensure a functional baseline, after which greater emphasis should be placed on improving service consistency and interpersonal engagement. The fact that assurance and responsiveness are non-significantly different is a surprise, and as such, they might be baseline expectations in this context, which should be followed up qualitatively to determine the causal reasons behind this. In conclusion, the research paper finds that a reliable and nurturing learning atmosphere is the best channel towards improving student satisfaction and, hence, the general standard and fairness of the common higher education in Nepal.

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