

E-ISSN: 2708-4523

P-ISSN: 2708-4515

Impact Factor (RJIF): 5.61

AJMC 2025; 6(2): 1533-1538

© 2025 AJMC

[www.allcommercejournal.com](http://www.allcommercejournal.com)

Received: 02-08-2025

Accepted: 05-09-2025

**Navpreet Kaur**Research Scholar, Desh  
Bhagat University, Mandi  
Gobindgarh, Punjab, India**Dr. Rajni Saluja**Professor, Department of  
Business Management and  
Commerce, Desh Bhagat  
University, Mandi  
Gobindgarh, Punjab, India**Corresponding Author:****Navpreet Kaur**Research Scholar, Desh  
Bhagat University, Mandi  
Gobindgarh, Punjab, India

## Assessing service quality in higher education institutions through the servqual model: An analysis of students' expectations and perceptions

**Navpreet Kaur and Rajni Saluja****DOI:** <https://www.doi.org/10.22271/27084515.2025.v6.i2q.878>

### Abstract

In today's globalized world, the quality of higher education is a key factor in determining a nation's competitiveness. The primary goal of the education sector is to enhance students' learning and knowledge by delivering high-quality services. This research paper aims to evaluate perceptions and expectations of the students towards service quality in higher education institutions using the SERVQUAL Model. The present study is descriptive and analytical in nature. Multi stage sampling technique was adopted for selecting higher education institutions in Punjab. Six districts from three regions of Punjab were selected on basis of highest literacy rate. From Malwa region, districts Mohali and Ludhiana, from Majha region, districts Pathankot and Amritsar, from Doaba region districts Jalandhar and Hoshiarpur are selected for having highest literacy rate in respective regions. The study targeted only those students who are in the final year students of undergraduate and postgraduate courses of higher education institutions of in the selected districts. For selection of sample of students purposive or judgmental sampling is adopted. Sample size for the study is 600 students. Descriptive statistics such as mean and standard deviation and for hypothesis testing t-test is applied. The study concluded that there is a significant difference between perception and expectation of students for all dimensions of service quality- tangibility, reliability, responsiveness, assurance and empathy. The study recommended that regular SERVQUAL-based surveys to assess gaps between student expectations and perceptions should be conducted.

**Keywords:** SEVQUAL model, students, perceptions, expectations, Punjab

### Introduction

The socio-economic progress of a nation is significantly driven by its higher education institutions. These institutions play a crucial role in developing students' skills, knowledge, abilities, and awareness. The advancement of knowledge within a country largely depends on the quality of its education system, particularly higher education. In today's globalized world, the quality of higher education is a key factor in determining a nation's competitiveness. The primary goal of the education sector is to enhance students' learning and knowledge by delivering high-quality services. When students are satisfied with the quality of services offered by their institutions, they become a source of competitive advantage.

According to Lewis and Booms (1983)<sup>[27]</sup>, service quality measures how well the delivered service meets customer expectations. Grönroos (1984)<sup>[28]</sup> identified two aspects of service quality: functional quality, which concerns how the service is delivered, and technical quality, which relates to the actual outcome of the service. Building on this, Parasuraman, Zeithaml, and Berry (1985)<sup>[29]</sup> proposed a disconfirmation model that compares customer expectations with their perceptions of the service received. This model was later refined in 1988 and 1991 with the development of the SERVQUAL framework (Parasuraman, Zeithaml, & Berry, 1991)<sup>[30]</sup>.

Initially, the SERVQUAL scale included ten dimensions, but after further testing (Parasuraman, Zeithaml, & Berry, 1988)<sup>[31]</sup>, these were condensed into five core dimensions. These five dimensions reliability, responsiveness, assurance, empathy, and tangibles are widely used to evaluate customer expectations and perceptions of service quality (Abu Hasan *et al.*, 2008; Al-Alak & Alnaser; Khodayari & Khodayari, 2011; Zarei *et al.*, 2012; Pakdil & Aydin, 2007)<sup>[32, 33, 34, 35]</sup>.

### The Five SERVQUAL Dimensions are Defined as Follows

- **Reliability:** The ability to deliver promised services accurately and dependably.
- **Responsiveness:** The willingness to assist customers and provide timely service.
- **Assurance:** The employees' knowledge, courtesy, and ability to instill trust and confidence in customers.
- **Empathy:** Providing caring and individualized attention to customers.
- **Tangibles:** The physical appearance of facilities, equipment, personnel, and communication materials.

This research paper aims to evaluate perceptions and expectations of the students towards service quality in higher education institutions using the SERVQUAL Model.

### Objectives of the Study

To study service quality of the higher education institutions perceived by the students on basis of SERVQUAL Model of service quality

### Hypothesis of the Study

- **H<sub>01</sub>:** There would be no significant difference between expectations and perceptions of the students regarding tangibility.
- **H<sub>1a</sub>:** There would be significant difference between expectation and perception of the students regarding tangibility.
- **H<sub>02</sub>:** There would be no significant difference between expectations and perceptions of the students regarding reliability.
- **H<sub>2a</sub>:** There would be significant difference between expectations and perceptions of students regarding reliability.
- **H<sub>03</sub>:** There would be no significant difference between expectations and perceptions of the students regarding responsiveness.
- **H<sub>3a</sub>:** There would be significant difference between expectations and perceptions of students regarding responsiveness.
- **H<sub>04</sub>:** There would be no significant difference between expectations and perceptions of the students regarding assurance.
- **H<sub>4a</sub>:** There would be significant difference between expectations and perceptions of students regarding assurance
- **H<sub>05</sub>:** There would be no significant difference between expectations and perceptions of the students regarding empathy.

- **H<sub>5a</sub>:** There would be significant difference between expectations and perceptions of students regarding empathy

### Research Methodology

The research methodology under the present study is summarized below:

### Universe of the Study

The universe of the study is confined to the final year students of undergraduate and postgraduate courses of higher education institutions of Punjab.

### Research Design

The present study is descriptive and analytical in nature

### Collection of Data

- Primary Data:** To collect primary data, the study employed survey method because data is collected from large number of respondents. The research instruments used for the collection of data self- structured questionnaire. Questionnaire consisted of open as well as close ended questions. Google forms were circulated among the students of higher education institutions in Punjab
- Secondary Data:** The present study make use of secondary data collected from various electronic and non-electronic publications of governmental and non-governmental organizations. National and International journals related to education and higher education were referred to, local and international newspapers were also referred.

### Sample Design

### Sampling Technique

Multi stage sampling technique was adopted for selecting higher education institutions in Punjab. Punjab is divided into three regions- Malwa, Majha, Doaba. 2 districts from each of region selected on the basis of highest literacy rate in the region as per [www.punjabdata.com](http://www.punjabdata.com) as shown in the following table. From Malwa region, districts Mohali and Ludhiana, from Majha region, districts Pathankot and Amritsar, from Doaba region districts Jalandhar and Hoshiarpur are selected for having highest literacy rate in respective regions. The study targeted only those students who are in the final year students of undergraduate and postgraduate courses of higher education institutions of in the selected districts. For selection of sample of students purposive or judgemental sampling was adopted.

**Table 1:** District-wise Literacy Rate of Punjab

Region	District	Literacy Rate
Malwa	Mohali	83.8
	Ropar	82.2
	Ludhiana	82.2
	Fatehgarh Sahib	79.4
	Patiala	75.3
	Moga	70.7
	Faridkot	69.6
	Firozpur	68.9
	Fazilka	68.9
	Bathinda	68.3

	Sangrur	68.0
	Barnala	67.8
	Muktsar	65.8
	Mansa	61.8
Majha	Pathankot	84.6
	Tarn Taran	67.8
	Amritsar	76.3
	Gurdaspur	78.0
Doaba	Hoshiarpur	84.6
	Jalandhar	82.5
	Shahid Bhagat Singh Nagar (Nawan Shahr)	79.8
	Kapurthala	79.1

Source: [www.punjabdata.com](http://www.punjabdata.com)

### Sample Size

Cost and time constraints are important factors for deciding the size of sample. At the same time accuracy of results is very important. To meet the requirements of objectives, a sample of 600 students was considered.

### Sample Size Determination of Students

This sample size can be justified by following two arguments.

First, following formula can be used to determine sample size (Nargundakar, 2003) <sup>[36]</sup>.

$$N = (z)^2 p (1 - p) / d^2$$

Where,

n = Sample Size

Z = Z value from the standard normal distribution for the confidence level desired by the researcher. (for a level of confidence of 95%,  $z = 1.96$ , for a level of confidence of 99%,  $z = 2.575$ )

For this study, we assumed 95 percent confidence level. Then, from the standard distribution table, the Z value is 1.96.

p = estimated proportion of the population that presents the

characteristic (when unknown we use  $p=0.5$ ).

e = Tolerable error. (This can be decided by the researcher. For this study we assumed tolerable error 0.05.

Using above formula, whatever be the value of p, the sample size comes to be 385. This implies that the sample size of 600 is more than enough to estimate the population proportions with 95 percent confidence level and allowing tolerable limit of 0.05.

Second, as this research used multivariate techniques to test the proposed hypotheses, a sample size of 600 respondents is most appropriate for this study.

### Statistical Tools and Techniques

Descriptive Statistics such as mean and standard deviation are applied to for measuring expectations and perceptions of students for various dimensions of service quality-tangibles, reliability, responsiveness, assurance and empathy. For hypothesis testing, t-test is applied.

### Results and Discussions

The hypothesis are tested for significant difference between expectations and perceptions of the students on basis of dimensions of SERVQUAL- tangibility, reliability, responsiveness, assurance and empathy.

**Table 2:** Descriptive Statistics associated with expectation and perception of the students

Dimensions	Variables	N	Mean	Standard Deviation	Standard Error Mean
Tangible	Expectation	600	4.4434	0.34	0.03
	Perception	600	3.3143	0.48	0.02
Reliability	Expectation	600	4.413	0.27	0.04
	Perception	600	3.341	0.62	0.02
Responsiveness	Expectation	600	4.333	0.37	0.03
	Perception	600	3.474	0.54	0.02
Assurance	Expectation	600	4.623	0.37	0.03
	Perception	600	3.657	0.49	0.03
Empathy	Expectation	600	4.238	0.38	0.04
	Perception	600	3.458	0.57	0.03

Source: Researcher's Calculations

Table 2 shows mean and standard deviation for perception and expectation of students for the dimensions of service quality.

**Table 3:** Difference in Expectation and Perception among Students for Tangible Dimension

Pair	Mean	Standard Deviation	Std. Error Mean	T	Df	Sig.
Expectation and Perception	1.4	0.479	0.032	41.38	599	.000*

Source: Researcher's Calculations

\*p value<.05

As per Table 3, alternative hypothesis of  $H_{1a}$ : There would be significant difference between expectation and perception of the students regarding tangibility is accepted.

It implies that there is significant difference between expectations and perceptions of students regarding tangibility.

Table 5.6 presents the results of the paired samples *t*-test on tangibles, the first dimension of the SERVQUAL model, and reveals a statistically significant difference between students' expectations and perceptions. This finding clearly indicates that students' expectations regarding various tangible aspects such as classroom and lecture hall, campus buildings and infrastructure, library and laboratory facilities,

modern technological equipment and staff and faculty professional appearance decline after enrolling in the institution. The results therefore underscore the need for a prompt and comprehensive improvement of these tangible features to better align institutional offerings with student expectations and perceptions.

**Table 4:** Difference in Expectation and Perception among Students for Reliability Dimension

Pair	Mean	Standard Deviation	Std. Error Mean	T	Df	Sig.
Expectation and Perception	0.947	0.635	0.042	25.23	599	0.000*

Source: Researcher's Calculations

\*P value < .05

As per table 4 alternative hypothesis of  $H_{2a}$ : There would be significant difference between expectations and perceptions of students regarding reliability is accepted. It implies that there is significant difference between expectations and perceptions of students regarding reliability. The lack of reliability for students can be attributed to the variation in

the perception on classes and lectures not as per schedule, inaccurate and untimely information, lack of consistency in teaching quality for courses, error prone administrative services, promises regarding scholarships, placements etc. not fulfilled.

**Table 5:** Difference in Expectation and Perception among Students for Responsiveness Dimension

Pair	Mean	Standard Deviation	Std. Error Mean	T	Df	Sig.
Expectation and Perception	0.6139	0.419	0.032	19.36	599	0.000*

Source: Researcher's Calculations

\*p value < .05

As per table 5 alternative hypothesis of  $H_{3a}$ : There would be significant difference between expectations and perceptions of students regarding responsiveness is accepted. It implies that there is significant difference between expectations and perceptions of students regarding responsiveness.

Differences between the expected and perceived levels of responsiveness for the students can be attributed to several factors. The findings clearly indicate an inability to meet the expected standards of teaching performance. Another major issue within this dimension concerns the extent to which teachers demonstrate concern in addressing students'

academic problems. The results reveal noticeable gaps between the expected and experienced levels on this factor, highlighting teachers' limited promptness in responding to students' requests and issues. Furthermore, this dimension also encompasses the degree of teachers' accessibility during office hours and the efficiency of administrative staff in handling students' complaints and grievances. The consistently negative gap between perception and expectation scores on the responsiveness dimension raises concerns about both academic and administrative attentiveness within the institution.

**Table 6:** Difference in Expectation and Perception among Students for Assurance Dimension

Pair	Mean	Standard Deviation	Std. Error Mean	T	Df	Sig.
Expectation and Perception	0.667	0.592	0.0353	21.2	599	0.000*

Source: Researcher's Calculations

\*p value < .05

As per table 6 alternative hypothesis of  $H_{4a}$ : There would be significant difference between expectations and perceptions of students regarding assurance is accepted. It implies that there is significant difference between expectations and perceptions of students regarding assurance. The difference between students' expectations and perceptions on the assurance dimension highlights the

institution's ineffectiveness in delivering quality education. It further indicates that faculty members' subject knowledge is not up to the expected standard, campus safety and security measures are inadequate, and the relationship between staff and students lacks congeniality. Moreover, concerns regarding academic integrity and fairness also contribute to the negative perception within this dimension.

**Table 7:** Difference in Expectation and Perception among Students for Empathy Dimension

Pair	Mean	Standard Deviation	Std. Error Mean	T	Df	Sig.
Expectation and Perception	0.77	0.615	0.0368	21.32	599	0.000*

Source: Researcher's Calculations

\*p value < .05

As per table 7 alternative hypothesis of  $H_{5a}$ : There would be significant difference between expectations and perceptions of students regarding empathy is accepted. It implies that there is significant difference between expectations and perceptions of students regarding empathy.

dimensions of service quality- tangibility, reliability, responsiveness, assurance and empathy. The students do make comparisons of dimensions of service quality as indicated by SERVQUAL Model such as tangibility, reliability, assurance, empathy, responsiveness for rating and ranking the higher educational institutions.

## Conclusions

The study concluded that there is a significant difference between perception and expectation of students for all

## Recommendations

- Regular SERVQUAL-based surveys to assess gaps

between student expectations and perceptions should be conducted.

- Data-driven decision-making to prioritize areas needing improvement should be used.
- Student participation in quality assurance processes through feedback forums and student representation in policy discussions should be encouraged.

## References

1. Adinegara GNJ, Putra PSE, *et al.* Assessment of service quality in higher education: case study in private university. *International Journal of Business and Management Invention*. 2016;5(9):82-88.
2. Agarwal P, Verma A, Malhotra SK, *et al.* An analysis on perceived service quality and students' satisfaction of e-learning during COVID-19 in higher education institution. *The Online Journal of Distance Education and e-Learning*. 2021;9(3):[pages not provided].
3. Alemu A, *et al.* Assessing service quality in tertiary education using adapted SERVQUAL scale. *Cogent Education*. 2023;10(2):2259733.
4. Asad Ilyas A, Nasir H, Hussain F, Malik MR, Munir S, Sarwar Z, *et al.* Evaluating business schools' service quality using SERVQUAL model. *Journal of Basic and Applied Scientific Research*. 2013;3(5):710-716.
5. Borishade TT, Ogunnaike OO, Salau O, Motilewa BD, Dirisu JJ, *et al.* Assessing the relationship among service quality, student satisfaction and loyalty: the Nigerian higher education experience. *Heliyon*. 2021;7:e07590.
6. Kobero W, Swallehe O, *et al.* The effects of service quality on customer satisfaction in higher learning institutions in Tanzania. *Open Journal of Business and Management*. 2022;10:1373-1391.
7. Cherian M, Mathew B, *et al.* Service quality in higher education institutions for better marketability: a SERVQUAL analysis in Karnataka. *International Journal of Management*. 2020;11(5):2421-2433.
8. Dugenio-Nadela C, Cañeda DM, Tirol SL, Samillano JH, Pantuan DJM, Piañar JC, *et al.* Service quality and student satisfaction in higher education institution. *Journal of Human Resource and Sustainability Studies*. 2023;11:858-870.
9. Goumair O, Aoula ES, Souda SB, *et al.* Application of the SERVQUAL model for the evaluation of service quality in Moroccan higher education: public engineering school as a case study. *International Journal of Higher Education*. 2020;9(5):223-232.
10. Hajdari S, *et al.* Measuring service quality in higher education using SERVQUAL model: evidence from an Albanian public faculty. *International Journal of Economics, Commerce and Management*. 2019;VII(8):[pages not provided].
11. Hoque US, Akhter N, Absar N, Khandaker MU, Mamun AI, *et al.* Assessing service quality using SERVQUAL model: an empirical study on some private universities in Bangladesh. *Trends in Higher Education*. 2023;2:255-269.
12. Kanakana MG, *et al.* Assessing service quality in higher education using the SERVQUAL tool. *Proceedings of the International Conference on Industrial Engineering and Operations Management*. 2014;Bali, Indonesia:1-9.
13. Khan SK, Siddiqui TA, Rais M, *et al.* Assessing the relationship among service quality dimensions in higher education institution and student satisfaction by applying the SERVQUAL model. *PJER*. 2021;4(4):[pages not provided].
14. Khattab F, *et al.* Developing a service quality model for private higher education institutions in Lebanon. *Journal of Management and Marketing Review*. 2018;3(1):24-33.
15. Magasi C, Mashene RG, Dengenesa DM, *et al.* Service quality and students' satisfaction in Tanzania's higher education: a re-examination of SERVQUAL model. *International Review of Management and Marketing*. 2022;12(3):18-25.
16. Malik ME, Danish RQ, Usman A, *et al.* The impact of service quality on students' satisfaction in higher education institutes of Punjab. *Journal of Management Research*. 2011;2(2):E10.
17. Otaibi SAA, Yusof SM, Ismail WKW, *et al.* Service quality and student satisfaction in higher education institutions in Saudi Arabia. *International Journal of Management*. 2020;11(7):648-665.
18. Raju MS, Bhaskar NU, *et al.* Service quality in higher education: a review and conceptual model. *International Journal of Science Technology and Management*. 2017;6(2):[pages not provided].
19. Rolo A, Alves R, Saraiva M, Leandro G, *et al.* The SERVQUAL instrument to measure service quality in higher education: a case study. *SHS Web of Conferences*. 2023;160:01011.
20. Schijns JMC, *et al.* Measuring service quality at an online university: using PLS-SEM with archival data. *Tertiary Education and Management*. 2021;27:161-185.
21. Saleem M, Hussain Ch A, Ahmad S, *et al.* Identification of gaps in service quality in higher education. *Bulletin of Education and Research*. 2017;39(2):171-182.
22. Shafiq M, Lasrado F, Islam A, *et al.* Service quality scale development for higher education institutions: the Asian context. *Journal of Quality and Technology Management*. 2018;15(1):37-55.
23. Thapa M, *et al.* Impact of service quality on student satisfaction: a case study of public sector higher secondary institution. *The Batuk*. 2022;8(1):1-15.
24. Vetri Selvi MV, Ponniah VM, *et al.* Student satisfaction on service quality (SERVQUAL) in Indian management education: empirical evidence from the state of Sikkim. *International Journal of Research in Business Studies*. 2019;4(2):[pages not provided].
25. Wider W, Tan FP, Tan YP, Lin J, Fauzi MA, Wong LS, *et al.* Service quality (SERVQUAL) model in private higher education institutions: a bibliometric analysis. *Social Sciences & Humanities Open*. 2024;9:100805.
26. Yousapronpaiboon K, *et al.* SERVQUAL: measuring higher education service quality in Thailand. *Procedia - Social and Behavioral Sciences*. 2014;116:1088-1095.
27. Lewis J. *The pursuit of happiness: Family and values in Jefferson's Virginia*. Cambridge University Press; 1983.
28. Grönroos C. A service quality model and its marketing implications. *European Journal of marketing*. 1984 Apr 1;18(4):36-44.
29. Parasuraman A, Zeithaml VA, Berry LL. A conceptual model of service quality and its implications for future research. *Journal of marketing*. 1985 Sep;49(4):41-50.
30. Parasuraman A, Berry LL, Zeithaml VA. Refinement

- and reassessment of the SERVQUAL scale. *Journal of retailing*. 1991 Dec 1;67(4):420.
31. Parasuraman AB, Zeithaml VA, Berry L. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. 1988. 1988 Jan;64(1):12-40.
  32. Hasan HF, Ilias A, Rahman RA, Razak MZ. Service quality and student satisfaction: A case study at private higher education institutions. *International business research*. 2008 Jul;1(3):163-75.
  33. Khodayari F, Khodayari B. Service quality in higher education. *interdisciplinary Journal of Research in Business*. 2011 Sep;1(9):38-46.
  34. Zarei A, Arab M, Froushani AR, Rashidian A, Ghazi Tabatabaei SM. Service quality of private hospitals: The Iranian Patients' perspective. *BMC health services research*. 2012 Feb 2;12(1):31.
  35. Pakdil F, Aydın Ö. Expectations and perceptions in airline services: An analysis using weighted SERVQUAL scores. *Journal of Air Transport Management*. 2007 Jul 1;13(4):229-37.
  36. Nargundkar S, Priestley JL. Assessment of evaluation methods for binary classification modeling. *InProceedings of the Decision Sciences Institute National Conference* 2003 Nov (pp. 1-6).