

Students' Perception of Higher Education Service Quality : An Empirical Study

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Abstract

Purpose : This paper investigated the service quality perceptions of students towards higher education services using the three component model of service quality proposed by Rust and Oliver (1994). It also attempted to diagnose the perceived service quality across various interfaces such as services provided by the placement cell, library, computer labs, faculty/school offices, proctor office, hostel, sports and health centre of an Institution.

Design/Methodology/Approach : The present study is a descriptive study, respondents were selected randomly, and data was collected through a 22-item likert-type structured questionnaire from 250 students. Data was analyzed and interpreted with the help of SPSS software. Hypotheses framed for the research work were tested with the help of *t*-test, chi square, *F*-test to measure the variance and to accept or reject the hypotheses.

Findings : The research results revealed how students assessed service quality. The study also revealed that there is a significant difference in service quality perceptions across various demographic variables; furthermore, the study provided insights into the service quality dimensions that have the greatest influence on student satisfaction and student loyalty.

Practical Implications : The managements of HEIs could use the results of the research to improve the study processes and to increase the students' satisfaction and loyalty.

Originality/Value : The study presented a student-centered perceived service quality valuation and subsequent linkage of the evaluations to student loyalty.

Key words: higher education services, student's demographics, quality

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On account of economic and demographic changes, the Indian higher education system is facing an unmatched transformation in the coming decade. By 2020, India will be the world's third largest economy; India will outpace China as the country with the largest tertiary-age population. The Indian education system has made a significant progress in higher education from past decades. At the State and Central levels, the government with various regulatory and accreditation bodies monitors the higher educational institutions with a vision to ensure quality in educational services. Despite their best of efforts, quality of higher education is struggling to attain the global level of excellence in India (Grubor, 2012). In addition, there is a mushrooming of private institutions in India which even lack the basic infrastructure (Jain, Sahney, & Sinha, 2013). Therefore, quality has become an important driver for socioeconomic development and also, it becomes a competitive weapon for the institutions to attract and serve the students as primary customers.

In the last decade, more than 700 management institutes have been added and every year, new institutions receive approval of the All India Council of Technical Education (AICTE), which is a statutory body to regulate technical education in the country. As domestic industries grew in size and multinationals expanded their

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operations, need arose for trained professionals in different businesses. As a result, the corporate sector started recruiting MBA graduates. All major universities opened up management courses and granted affiliation to the colleges to start the MBA programmes.

Apart from this, the foreign universities have played their own role in the provision of management education in India. Applicants for these programmes are more skeptical and concerned about the quality of education provided by the institutes. Many students have concluded that the quality of service has a significant impact on customer retention, market share, and profitability in the commercial world (Şteliac, 2009). Quality plays a part in academic institutions. Academic institutions have to provide quality services to the students as they evaluate their worth (Cronin Jr. & Taylor, 1992). The previous studies have tried to reveal the important dimensions of service quality in education - the studies examined the impact of service quality dimensions on customer satisfaction. However, a comparative study on the service quality of management education in various groups of institutes is rare (Purgailis, 2012). The present study offers a student-centered perceived service quality evaluation and its subsequent linkages to student satisfaction and loyalty.

Literature Review

Service quality is a concept that has aroused considerable interest and debate in research literature because of the difficulties in both defining and measuring it with no overall consensus emerging on either (Quinn, Lemay, Larsen, & Johnson, 2009). Trivellas and Dargenidou (2009) examined the influence of leadership roles in higher-education service quality. Butt and de Run (2009) identified the service quality components using SERVQUAL in private healthcare sector in Malaysia, and observed an inverse quality relationship in service quality dimensions. Ilhaamie (2010) identified the important service quality dimensions and examined the level of service quality, expectations, and perceptions of the external customers towards the Malaysian public services, and the study found that tangibility was the most important dimension.

Senthilkumar and Arulraj (2011) proposed a model, namely service quality measurement in higher education in India (SQM-HEI) for the measurement of service quality in higher educational institutions. The findings of the study revealed that the SQM-HEI-mediated model argued that placement is the better interactions of the quality of education in India. Furthermore, the model revealed that the quality of education is based on best faculty, excellent physical resources, and a wide range of disciplines offered by an institute. The model proved that placement was the mediated factor for various dimensions of quality education.

Sultan and Wong (2010) explored the critical research issues in terms of service quality in higher education. In the study, the authors identified five critical research agendas in the field of service quality in the higher education sector. Jain, Sinha, and Sahney (2011) stated two important dimensions that determined students' perceptions of service quality in higher education, they were: program quality and quality of life. These two dimensions were further divided into eight sub dimensions, namely : (a) curriculum, (b) industry interaction, (c) input quality, (d) academic facilities, (e) non-academic processes, (f) support facilities, (g) campus, and (h) interaction quality.

Khan, Ahmed, and Nawaz (2011) found that there was a significant relationship between dimensions of service quality, that is, reliability, assurance, responsiveness, and empathy with satisfaction. However, the fifth factor, tangibility, had an insignificant relationship with student satisfaction. Shekarchizadeh, Razil, and Hon- Tat (2011) assessed the service quality perceptions and expectations of international postgraduate students studying in selected Malaysian universities through a gap analysis based on a modified SERVQUAL instrument, and five factors in the form of Professionalism, Reliability, Hospitality, Tangibles, and Commitment were identified. A study by Phadke (2011) found that overall service quality and student satisfaction positively influenced behavioral intentions of students.

Annamdevula and Bellamkonda (2012) explored the determinants to evaluate the service quality in the higher education sector, and developed a new instrument called HiEdQUAL covering various service dimensions taking

students as primary customers. Stimac and Simic (2012) determined the relationship between students' expectations at the time of enrollment in higher-education institutions and their perception of different aspects of educational service quality received.

Min and Khoon (2013) investigated the role of demographic factors, namely gender, age, nationality, and level of study in the evaluation of service quality among international students. Vaz and Mansori (2013) studied the impact of five factors of service quality (responsiveness, reliability, empathy, assurance, tangibility) on students' satisfaction at private universities and colleges, and concluded that tangibility had an influence on satisfaction followed by empathy; responsiveness and assurance had a direct and positive effect on students' satisfaction. Tigga, Pathak, and Kumar (2014) revealed that in order to achieve a strong and successful brand image, B-Schools must align their strategies and resources to deliver as per their stakeholders (students, recruiters, and faculty). Shaari (2014) conducted a study about service quality issues in the off-campus program offered by one of the centres of a university of Malaysia. The study stated that service quality in higher education for off campus students or adult learners was equally important as it was in the mainstream system.

Service quality means different things to different people. Some researchers have argued that there is one underlying dimension and others, such as Parasuraman et al. (1988), argued that there are five major dimensions. The most popular definition of quality related to meeting/exceeding expectations is that there is neither an accepted nor a best definition of quality for every situation (Tam, 2002). Definitions focusing on excellence, conformance to specifications, and fitness for use and loss avoidance have all been severely criticized in the service quality literature (Tam, 2002). Berry et al. (1994) defined quality service as a key component of value, as that is what helps a company to maximize benefits and minimize non-price burdens for customers. The actual credit for the service quality research goes to Parasuraman, Zeithaml, and Berry (Parasuram, Zeithaml, & Berry 1994). The authors, based on qualitative research, formulated a measure of service quality derived from data on a number of services, instead of counting on earlier dimensions of goods quality in the manufacturing sector. The initial results, based on some focus group findings, yielded 10 dimensions of service quality that included tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access, communication, and understanding the customer (Bayraktaroglu & Atrek, 2010). Further empirical scrutiny (Parasuraman, et al., 1988) resulted in a 22-item scale, called SERVQUAL, which measures service quality based on five dimensions namely tangibles, reliability, responsiveness, assurance, and empathy.

In the higher-education domain, the adoption of the quality control concept and practice cannot be implemented directly because of the nature of the business in education and the educational process itself (Colling & Harvey, 1995; Srikanthan & Dalrymple, 2003). Service quality in higher education was measured by HEDPERF (higher education performance). This concept was propounded by Abdullah (2006). He used a 41 items instrument to measure the service quality. Gronroos (1984) presented a new paradigm to explain how a customer perceived service quality. According to him, service quality can be divided into quality dimensions: Technical and functional. Technical quality means 'what' of service, that is, what is offered to a customer. The functional quality dimension focuses on 'how' service is delivered to customers, and it is influenced by the attitude, behavior, appearance, service mindedness, accessibility, courtesy, empathy, and so forth.

In this study, I have adopted the three component model of service quality proposed by Rust and Oliver (1994) who stated that the overall perception of service quality was based on the customers' evaluation of the three dimensions of the service encounter. For the purpose of determining the service quality in higher education, I have slightly modified the three component service quality model proposed by Rust and Oliver (1994) to adjust to the requirements of the present study. The three components and their respective attributes and statements are given as follows:

(1) The Technical Quality (The Outcome Quality/ Service Product): The technical quality refers to what the customer is actually receiving from the service; this is quantifiable and capable of objective measurement. This

measures the product quality offered and it relates to the tangible benefits directly affecting the customers (students) (Gronross, 1984). It comprises of the following elements:

- (i) Quality of teaching - learning process,
- (ii) Food quality in mess/canteen,
- (iii) Placement avenues provided by university,
- (iv) Education fee charged,
- (v) Reputation of the degree,
- (vi) Opportunities for extra-curricular developments.

(2) The Functional Quality (Customer - Employee Interaction) : The functional quality (process quality) refers to how the technical quality elements of the service are transferred. This aspect refers to the service delivery by the employees (in my case, faculty & staff members) (Gronross, 1984). It comprises of the following:

- (i) Employee behavior instills confidence,
- (ii) Knowledge of faculty & staff,
- (iii) Timely available staff,
- (iv) Personalized attention,
- (v) Employees are willing to help,
- (vi) Customer care response,
- (vii) Complaint handling,
- (viii) Employees provide prompt service,
- (ix) University operating hours,
- (x) Employees have best interest at heart.

(3) The Environment Quality (Service Environment): This refers to the tangible and intangible infrastructure that supports better service delivery, and it comprises of the following:

- (i) Extent of computerization,
- (ii) University location (accessibility),
- (iii) Modern looking equipments,
- (iv) Ambience,
- (v) Understanding of specific needs of customers,
- (vi) Neat & clean campus.

Objectives of the Study

- (1) To compare the students' perceptions of service quality across demographic profiles.
- (2) To identify the gaps across all quality parameters (technical, functional, and environmental) between male and female students.

Research Methodology

(1) Research Design : The present study is a cross sectional descriptive study as it attempts to find the students' perceptions across various aspects of higher education service quality parameters- namely technical quality, functional quality, and environmental quality.

(2) Sampling and Data Collection : For the present study, the data was collected from the respondents (students), through a structured and undisguised questionnaire comprising of 22 closed ended questions in the matrix form. The population area is different management institutes in Bareilly, Uttar Pradesh.

Based on the parameters of interest, an optimum sample size of 250 respondents (students) was selected to fulfill the sample requirements of representation, flexibility, and reliability; the questionnaires were administered personally to the respondents. The survey was conducted during June 2014 to September 2014. Out of 250 respondents, 137 were men and 113 were women ; 70 students were having marketing as their specialization ; 90 students were from the English medium background, and 160 students were from the Hindi medium background ; 69 students were from a rural background, 98 students were from a semi rural background, and 83 students were from an urban background ; 66 students were from low household income group, 123 students were from the medium household income group, and 61 students were from high income group households. Respondents were asked to state their level of agreement for each of the items in the scale using a 5-point scale ranging from '*completely agree*' to '*completely disagree*'.

(3) The Survey Instrument : The survey instrument was adopted from the three component model proposed by Rust and Oliver (1994). This is one of the validated scales existing in the literature for measuring the service quality across wide varieties of industries. Hence, the scale was adopted in this study. However, the scale was modified slightly to suit the present context.

(4) Data Analysis and Method : Data and information gathered from different sources after filtration generated relevant data, which was edited and coded subsequently. The data was analyzed and interpreted with the help of

Table 1. Characteristics of Respondents (N = 250)

Characteristics	Sub categories	Number	%
Gender	Male	137	54.8
	Female	113	45.2
	Total	250	100
Medium of Education	English	90	36
	Hindi	160	64
	Total	250	100
Background	Rural	69	27.6
	Semi Rural	98	39.2
	Urban	83	33.2
	Total	250	100
Household Income	Low	66	26.4
	Medium	123	49.2
	High	61	24.4
	Total	250	100

Table 2. Perception of Service Quality Parameters Across Gender

	Male		Female		t value
Quality Parameters	Mean	SD	Mean	SD	
Technical Quality					
Quality of teaching - learning process	3.26	1.07	3.24	1.26	.104 S
Food quality in mess/canteen	3.43	1.12	3.03	1.30	2.74 S
Placement avenues provided by University	3.40	1.14	3.41	1.34	.042 S
Education fee charged	3.08	1.28	3.02	1.41	.346 NS
Reputation of degree	2.93	1.34	2.92	1.33	.022 NS
Opportunities for extracurricular development	3.08	1.12	3.89	1.21	.053 S
Functional Quality					
Employee behavior instills confidence	3.00	1.15	2.78	1.19	1.57 NS
Knowledge of faculty & staff	3.05	1.08	3.06	1.19	.094 S
Timely available staff	2.89	1.18	3.03	1.19	1.10 S
Personalized attention	3.15	1.05	3.30	1.08	1.21 NS
Employees are willing to help	3.27	1.19	3.27	1.11	.028 NS
Customer care response	3.61	1.06	3.36	1.17	1.89 NS
Complaint handling	3.55	1.14	3.36	1.24	1.36 NS
Employees provide prompt service	2.83	1.36	2.91	1.29	.502 NS
University operating hours	3.18	1.20	3.17	1.04	.032 S
Employees have students’ best interest at heart	3.31	1.25	2.97	1.28	2.28 NS
Environmental Quality					
Extent of computerization	3.12	1.18	3.28	1.20	1.11 NS
University location (Accessibility)	2.97	1.24	2.83	1.39	.880 S
Modern looking equipments	2.70	1.31	2.53	1.24	1.10 NS
Ambience	2.58	1.29	2.63	1.28	.309 NS
Understanding of specific needs of customers	3.14	.98	3.96	1.08	.430 S
Neat & clean campus	2.96	1.10	3.76	.86	.05 S

*Significant at the .05 Level

SPSS software. Hypotheses framed for the research work have been tested with the help of *t* - test, chi square test, and ANOVA to measure the variance and to accept or reject the hypotheses.

Hypotheses Framed

- ➔ **H1**: Perception of service quality parameters is same between male and female students.
- ➔ **H2**: Perception of service quality parameters is same between students from Hindi and English medium background.
- ➔ **H3**: Perception of service quality parameters of students is same across their residential background (rural, semi rural, and urban).
- ➔ **H4**: Perception of service quality parameters of students is same between different household income categories.

Table 3. Perception of Service Quality Parameters Across Medium of Education

Quality Parameters	Hindi Medium Students		English Medium Students		t value
	Mean	SD	Mean	SD	
Technical Quality					
Quality of teaching - learning process	3.24	1.13	3.26	1.23	.180 S
Food quality in mess/canteen	3.28	1.13	3.14	1.34	.913NS
Placement avenues provided by University	3.57	1.17	3.20	1.31	2.56 NS
Education fee charged	3.16	1.25	2.91	1.45	1.54 NS
Reputation of degree	2.92	1.37	2.92	1.29	.002 S
Opportunities for extracurricular development	4.04	.98	3.56	1.32	.021 NS
Functional Quality					
Employee behavior instills confidence	3.01	1.21	2.99	1.09	1.03 NS
Knowledge of faculty & staff	2.95	1.37	2.79	1.29	1.14 NS
Timely available staff	3.25	1.06	3.05	1.23	.026 NS
Personalized attention	3.01	1.22	2.90	1.14	.832 S
Employees are willing to help	3.24	1.01	3.22	1.14	.158 S
Customer care response	3.26	1.16	3.27	1.13	.055 NS
Complaint handling	3.50	1.05	3.45	1.22	.337 S
Employees provide prompt service	3.44	1.20	3.46	1.20	.134 NS
University operating hours	2.73	1.31	3.05	1.32	2.04 NS
Employees have students’ best interest at heart	3.17	1.13	3.18	1.11	.088 NS
Environment Quality					
Extent of computerization	3.07	1.32	3.18	1.23	.712 S
University location (Accessibility)	3.56	1.03	3.06	1.01	.643 S
Modern looking equipments	3.09	1.18	3.34	1.20	1.78 NS
Ambience	2.92	1.28	2.86	1.37	.382 NS
Understanding of specific needs of customers	2.66	1.32	2.54	1.23	.825 NS
Neat & clean campus	2.41	1.24	2.76	1.30	2.34 NS

*Significant at the .05 Level

Analysis and Results

🔗 **Objective 1:** To compare the students' perceptions of service quality across demographic profiles.

🔗 **Hypothesis H1:** Perception of service quality parameters is same between male and female students.

The Table 2 depicts the perception of male and female students across all quality parameters. For technical quality parameters, the opinions of male and female students are significantly different for food quality in canteen & mess, quality of teaching - learning process, placement avenues offered, and opportunities for extracurricular development. For functional quality parameters, the opinions of male and female students are significantly different for knowledge of faculty & staff, timely available staff, and university operating hours. For environmental quality parameters, the opinions of male and female students are significantly different for university location, understanding specific needs of customers (students), and neat & clean campus. Hence, the hypothesis H1 is rejected.

Table 4. Service Quality Perception Among Respondents Across Background : DUNCAN's Mean Test

	Rural (E1)		Semi Rural (E2)		Urban (E3)		E1 Vs E2	E2 Vs E3	E1 Vs E3	F value
Quality Parameters	Mean	SD	Mean	SD	Mean	SD				
Technical Quality										
Quality of teaching - learning process	3.15	1.18	3.29	1.22	3.27	1.133	*	-	-	.299*
Food quality in mess/canteen	3.34	1.08	3.18	1.34	3.18	1.18	-	-	-	.473
Placement avenues provided by university	3.53	1.21	3.41	1.28	3.29	1.24	-	-	-	.753
Education fee charged	3.24	1.19	1.03	1.43	2.93	1.34	-	-	-	1.07
Reputation of degree	3.10	1.22	2.96	1.41	2.74	1.28	*	-	-	1.56*
Opportunities for extracurricular development	3.45	1.10	3.87	1.06	2.98	1.09	-	-	-	1.76
Functional Quality										
Employee behavior instills confidence	3.91	1.37	3.85	1.25	2.88	1.37	-	-	-	.060
Knowledge of faculty & staff	2.88	1.05	2.76	1.26	3.04	1.13	-	-	-	1.53
Timely available staff	3.00	1.11	2.99	1.21	3.18	1.06	-	-	-	.889
Personalized attention	3.04	1.16	2.95	1.30	2.92	1.04	-	-	*	.202*
Employees are willing to help	3.15	1.03	3.21	1.11	3.31	1.06	-	-	-	.477
Customer care response	3.53	1.02	3.18	1.23	3.19	1.09	*	-	*	2.39*
Complaint handling	3.52	1.10	3.49	1.11	3.42	1.17	-	-	-	.160
Employees provide prompt service	3.62	1.16	3.37	1.16	3.42	1.27	-	-	-	.960
University operating hours	2.91	1.37	2.85	1.25	2.88	1.37	-	-	-	.040
Employees have students’ best interest at heart	3.28	1.16	3.03	1.06	3.28	1.14	-	-	-	1.77
Environment Quality										
Extent of computerization	3.15	1.25	2.97	1.25	3.31	1.30	-	*	-	1.99*
University location (Accessibility)	3.11	1.37	3.55	1.25	3.58	1.37	-	-	-	.040
Modern looking equipments	3.10	1.15	3.18	1.26	3.31	1.13	-	-	-	.704
Ambience	3.20	1.17	2.74	1.36	2.88	1.34	-	*	-	2.76*
Understanding of specific needs of customers	2.63	1.32	2.61	1.27	2.59	1.26	-	-	-	.026
Neat & Clean Campus	3.20	1.24	2.33	1.24	2.55	1.25	-	-	*	11.11*

*Significant at the .05 Level

👉 **Hypothesis H2:** Perception of service quality parameters is same between students from Hindi and English medium background.

The Table 3 depicts the perception of Hindi medium and English medium students across all quality parameters. For technical quality parameters, the opinions are significantly different for quality of teaching - learning process and reputation of degree. For functional quality parameters, the opinions vary significantly for personalized attention, timely available staff, and complaint handling. For environmental quality parameters, the opinions vary significantly for extent of computerization and university location. Hence, the hypothesis H2 is rejected.

👉 **Hypothesis H3:** Perception of service quality parameters of students is same across their residential background (rural, semi rural, and urban).

Table 5. Service Quality Perception Among Students of Three Income Groups (I1=Low Income, I2=Medium Income, I3=High Income) : DUNCAN'S Mean Test

	11)		12		13	I1 Vs I2	I2 Vs I3	I1 Vs I3	F value	
	Mean	SD	Mean	SD	Mean	SD				
Technical Quality										
Quality of teaching - learning process	3.12	1.18	3.34	1.25	3.23	1.25	-	-	-	.770
Food quality in mess/canteen	3.46	1.13	3.32	1.21	2.93	1.26	-	*	*	4.71*
Placement avenues provided by University	3.45	1.32	3.39	1.18	3.38	1.30	*	-	-	.070
Education fee charged	3.04	1.35	2.96	1.31	3.16	1.40	*	-	-	.655
Reputation of degree	2.92	1.30	3.05	1.33	2.76	1.35	-	-	-	1.34
Opportunities for extracurricular development	3.32	.97	3.42	1.21	2.87	1.06	-	-	-	1.89
Functional Quality										
Employee behavior instills confidence	3.65	1.34	3.53	1.28	2.98	1.09	-	-	-	1.65
Knowledge of faculty & staff	2.80	1.17	2.92	1.19	2.89	1.15	-	-	-	.218
Timely available staff	3.03	1.08	3.03	1.15	3.10	1.18	-	-	-	.148
Personalized attention	3.04	1.04	2.81	1.23	3.09	1.20	-	-	-	1.77
Employees are willing to help	3.34	1.05	3.11	1.05	3.30	1.10	-	-	-	1.31
Customer care response	3.39	1.12	3.35	1.18	3.08	1.11	-	-	-	2.02
Complaint handling	3.50	1.07	3.61	1.09	3.29	1.19	-	*	-	2.35*
Employees provide prompt service	3.56	1.15	3.42	1.21	3.42	1.22	-	-	-	.344
University operating hours	2.80	1.36	2.81	1.35	3.00	1.28	-	-	-	.742
Employees have students' best interest at heart	3.56	.96	3.10	1.18	3.02	1.08	*	-	*	5.17*
Environment Quality										
Extent of computerization	3.06	1.33	3.23	1.16	3.04	1.37	-	-	-	.752
University location (Accessibility)	3.76	.98	3.65	1.54	3.38	1.24	-	-	-	.874
Modern looking equipments	3.16	1.31	3.07	1.18	3.39	1.24	-	-	-	1.98
Ambience	3.06	1.17	2.84	1.32	2.85	1.42	-	-	-	.639
Understanding of specific needs of customers	2.48	1.24	2.68	1.22	2.60	1.37	-	-	-	.514
Neat & Clean Campus	2.75	1.25	2.44	1.31	2.71	1.26	-	*	-	1.82*

*Significant at the .05 Level

Table 6. Gap Analysis : Technical Quality Parameters

Technical Quality Parameters	Male Students			Female Students		
	Perceived	Expected	Gap	Perceived	Expected	Gap
Quality of teaching - learning process	2.6165	4.3008	-1.6843	3.8696	4.0087	-1.1391
Food quality in mess/canteen	2.9549	4.1880	-1.2331	2.9391	4.0957	-1.1566
Placement avenues provided by university	3.0677	4.5338	-1.4661	3.4261	4.7478	-1.3217
Education fee charged	3.7068	4.9023	-1.1955	3.0522	4.5478	-1.4959
Reputation of degree	3.0376	4.3985	-1.3609	3.6261	4.8333	-1.2072
Opportunities for extracurricular development	2.9549	4.1880	-1.2331	3.0522	4.5478	-1.4946
Mean	3.14438	4.44212	-1.36217	3.21914	4.55448	-1.30263

Table 7. Gap Analysis : Functional Quality Parameters

Functional Quality Parameters	Male Students			Female Students		
	Perceived	Expected	Gap	Perceived	Expected	Gap
Employee behavior instills confidence	3.0000	4.5714	-1.5714	3.5826	4.8947	-1.3121
Knowledge of faculty & staff	3.2556	4.4887	-1.2331	2.6609	4.0087	-1.3478
Timely available staff	3.9699	4.3233	-1.3534	3.6435	4.8348	-1.1913
Personalized attention	2.8195	4.4135	-1.594	3.8174	4.9652	-1.1478
Employees are willing to help	2.9323	4.2556	-1.3233	3.2870	4.6522	-1.3652
Customer care response	3.5263	4.6090	-1.0827	3.0609	4.0783	-1.0174
Complaint handling	2.9474	4.3385	-1.3911	3.6000	4.8957	-1.2957
Employees provide prompt service	3.6541	4.5639	-0.9098	3.6609	4.7913	-1.1304
University operating hours	2.9549	4.1880	-1.2331	2.9391	4.0957	-1.1566
Employees have best interest at heart	3.3083	4.7368	-1.4285	2.9913	4.0261	-1.0348
Mean	3.23683	4.44887	-1.3120	3.32436	4.52427	-1.19991

Table 8. Gap Analysis: Environmental Quality Parameters

Environmental Quality Parameters	Male Students			Female Students		
	Perceived	Expected	Gap	Perceived	Expected	Gap
Extent of Computerization	3.1805	4.2174	-1.0369	3.0870	4.2174	-1.1304
University location (Accessibility)	2.8872	4.1913	-1.3041	2.7913	4.8913	-2.1000
Modern looking equipments	2.9248	4.6870	-1.7622	4.2783	4.6870	-1.4087
Ambience	2.8722	4.6860	-1.8138	3.4870	4.6870	-1.2000
Understanding of specific needs of customer	3.0376	4.8783	-1.8407	3.4174	4.8783	-1.4609
Neat & Clean Campus	2.934	4.086	1.152	3.165	4.543	1.378
Mean	2.972717	4.457667	-1.10095	3.371	4.534	-0.87033

Table 9. Comprehensive: Gap Analysis

	Male Students		GAP	Female Students		GAP
	Perceived	Expected	ANALYSIS	Perceived	Expected	ANALYSIS
Technical	3.14438	4.44212	-1.36217	3.21914	4.55448	-1.30263
Functional	3.23683	4.44887	-1.3120	3.32436	4.52427	-1.19991
Environmental	2.972717	4.457667	-1.10095	3.371	4.534	-0.87033

The Table 4 denotes the service quality perception factors across students from different backgrounds, that is, between rural and semi rural, semi rural and urban, and between rural and urban. Across all quality parameters (technical, functional, and environmental), there is a significant difference in the opinions of rural and semi-rural students for quality of teaching-learning process and reputation of degree. The difference is significant between semi rural and urban students for extent of computerization and ambience. The opinions of rural and urban students significantly vary for customer care response, personalized attention, and neat & clean campus. Hence, the hypothesis H3 is rejected.

👉 **Hypothesis H4 :** Perception of service quality parameters of students is same between different household income categories.

The Table 5 denotes the service quality perception factors across different income profiles (i.e. between I1, I2, and I3). Across all quality parameters (technical, functional, and environmental), there is a significant difference in the opinions of students from the low-income and medium income groups about education fee charged and placement avenues offered. Opinions of students from medium income and high income groups significantly vary for food quality, neat & clean campus, and complaint handling. Opinions of students from low income and high income groups significantly vary for food quality in mess and canteen and employees have the best interest of students at heart. Hence, the hypothesis H4 is rejected.

✎ **Objective 2:** To identify the gap across all quality parameters (technical, functional, and environmental) between male and female students.

The Table 6 depicts the comparative gap analysis of male and female students for technical quality parameters. It is clear from the Table 6 that for male students, gap is higher for quality of the teaching - learning process followed by placement avenues offered. For female students, the gap is higher for education fee charged, followed by opportunities for extracurricular development.

The Table 7 depicts the comparative gap analysis of male and female students for functional quality parameters. It is clear from the Table that for male students, the gap is higher for personalized attention, employee behavior instills confidence ; while female students perceive higher gaps for factors like employees are willing to help and knowledge of faculty & staff. Males have higher service expectations for factors like employees have students' best interest at heart and customer care response. Female students have higher service expectations for personalized attention and complaint handling.

The Table 8 depicts the comparative gap analysis of male and female students for environmental quality parameters. Males have a higher gap for modern-looking equipments, ambience, and understanding specific needs. Females have a higher gap for university location (accessibility) followed by understanding the specific needs of customers (students).

The Table 9 describes the gaps perceived by male and female business students for technical, functional, and environmental quality parameters. It is clear from the Table 9 that across all quality parameters, gaps are more for male students. Both male and female students were found to be more sensitive towards technical and functional quality parameters as the gaps are higher in this area.

Managerial Implications

The study provides insights into the service quality dimensions that have the greatest influence on student satisfaction and student loyalty. The management of higher-education institutions could use the results of the research to improve the study process and to increase the student satisfaction and loyalty. The research results can also help in framing appropriate policies with respect to admission, teaching - learning processes, and placements. This study provides an opportunity to marketers of higher-education programs to identify the critical areas in the services offered so as to fine-tune their respective marketing and branding strategies. It also suggests that marketers should always try to minimize the gap between perceived and expected service across all quality parameters.

Conclusion

Service delivery and customer delight is probably one of the most contemporary issues gripping the higher-education industry across the world (Arokiasamy, 2012). Quality in the higher-education service sector has

gained paramount importance in last couple of years. The thrust on efficient customer service has increased manifolds with the onset of competition from private players (O'Neil & Palmer, 2004). Service industries are playing an increasingly important role in the overall economy. The present study makes a systematic effort to measure the perception factors of the business students about the quality of services offered by management institutes. It also studies the impact of demographic variables like gender, educational background (English or Hindi medium), residential background (rural, semi rural, urban), household income (low, medium, high) on service quality perception factors. It is observed in the study that perception factors are significantly influenced by demographic variables. This study provides an opportunity to marketers of higher education programs to identify the critical areas in the services offered so as to fine tune their respective marketing and branding strategies (Nadiri, Kandampully, & Hussain, 2009). It also suggests that marketers should always try to minimize the gap between perceived and expected service across all quality parameters.

Limitations of the Study and Scope for Further Research

As the study was conducted in the vicinity of Bareilly ; hence, the findings cannot be generalized for pan - India. As this study is confined to only MBA students, generalizing from these findings in relation to students from other disciplines could be misleading. The study only includes regular students. Hence, the findings cannot be generalized to students pursuing their courses through the distance learning mode.

Marketers of higher-education services should try to manage the service expectations in a realistic manner, and they should never try to set expectations based on false/unrealistic promises (Stukalina, 2014). Future research can also focus on the perceptions of service quality from other stakeholders (such as internal customers, government, industries, etc.) Future research may consider analyzing the service quality perceptions of students of other courses. Furthermore, the research can be conducted in other regions of the country, and it may also incorporate other service providers and more variables to combine them into a meaningful and integrated model to get a better understanding of service quality perceptions.

References

- Abdullah, F. (2006). The development of HEDPERF: A new measuring instrument of service quality for the higher education sector. *International Journal of Consumer Studies*, 30 (6), 569-581. doi: 10.1111/j.1470-6431.2005.00480.x
- Annamdevula, S., & Bellamkonda, R. S. (2012). Development of HiEdQUAL for measuring service quality in Indian higher education sector. *International Journal of Innovation, Management and Technology*, 3(4), 412-416.
- Arokiasamy, A. R. A. (2012). Service quality in higher education: A concept paper. *International Journal of Information, Business & Management*, 4 (2), 134-150.
- Bayraktaroglu, G., & Atrek, B. (2010). Testing the superiority and dimensionality of SERVQUAL vs. SERVPERF in higher education. *Quality Management Journal*, 17 (1), 47-59.
- Butt, M.M., & de Run, E.C.D. (2009). Private healthcare quality: Applying a SERVQUAL model. *International Journal of Health Care Study*, 23 (7), 658-673. DOI : <http://dx.doi.org/10.1108/09526861011071580>
- Colling, C., & Harvey, L. (1995). Quality control- assurance and assessment- the link to continuous improvement. *Quality Assurance in Education*, 3 (4), 30-41.

- Cronin Jr., J. J., & Taylor, S. A. (1992). Measuring service quality: Re-examination and extension. *Journal of Marketing*, 56(3), 55-68. DOI: 10.2307/1252296
- Gronroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.
- Grubor, A. (2012). The challenges of service quality at higher education institutions. *Economic Themes*, 50(4), 615-631.
- Ilhaamie, A.G.A. (2010). Service quality in Malaysian public service: Some findings. *International Journal of Trade Economics & Finance*, 1(1), 40-45.
- Jain, R., Sahney, S., & Sinha, G. (2013). Developing a scale to measure students' perception of service quality in the Indian context. *TQM Journal*, 25(3), 276-294. DOI : <http://dx.doi.org/10.1108/17542731311307456>
- Jain, R., Sinha, G., & Sahney, S. (2011). Conceptualizing service quality in higher education. *Asian Journal on Quality*, 12(3), 296-314. DOI : <http://dx.doi.org/10.1108/15982681111187128>
- Khan, M.M, Ahmed, I., & Nawaz, M.M (2011). Students' perspective of service quality in higher learning institutions: An evidence based approach. *International Journal of Business and Social Science*, 2(11), 159-168.
- Min, S., & Khoon, C.C. (2013). Demographic factors in the evaluation of service quality in higher education: International students' perspective. *International Review of Management and Business Research*, 2(4), 994-1010.
- Nadiri, H., Kandampully, J., & Hussain, K. (2009). Students' perceptions of service quality in higher education. *Total Quality Management & Business Excellence*, 20(5), 523-535. DOI:10.1080/14783360902863713
- O'Neill, M.A., & Palmer, A. (2004). Importance-performance analysis: A useful tool for directing continuous quality improvement in higher education. *Quality Assurance in Education*, 1(1), 39-52. DOI : <http://dx.doi.org/10.1108/09684880410517423>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multi-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994). Reassessment of expectations as a comparison standard in measuring service quality. *Journal of Marketing*, 58, 111-124.
- Phadke, S.K. (2011). Consequences of service quality linkage – An insight from an empirical investigation in higher education. *Indian Journal of Marketing*, 41(8), 11-19.
- Purgailis, Z. (2012). Impact of perceived service quality on student loyalty in higher education institutions. *Journal of Business Management*, 4(6), 138-152.
- Quinn, A., Lemay, G., Larsen, P., & Johnson, D. M. (2009). Service quality in higher education. *Total Quality Management & Business Excellence*, 20(2), 139-152. DOI:10.1080/14783360802622805
- Rust, R. T., & Oliver, R. L. (1994). Insights and managerial implications from the frontier. In R. T. Rust & R. L. Oliver (Eds.), *Service quality: New directions in theory and practice*. Thousand Oaks, CA: Sage.
- Senthilkumar, N., & Arulraj, A. (2011). SQM-HEI – Determination of service quality measurement of higher education in India. *Journal of Modelling in Management*, 6(1), 60-78. doi : <http://dx.doi.org/10.1108/17465661111112502>
- Shaari, H. (2014). Service quality in Malaysian higher education: Adult learners' perspective. *International Journal of Business and Social Science*, 5(1), 86-90.

- Shekarchizadrh, A., Rasil, A., & Hon- Tat, H. (2011). SERVQUAL in Malaysian universities: Perspectives of international students. *Business Process Management Journal*, 17 (1), 67-81. DOI : <http://dx.doi.org/10.1108/14637151111105580>
- Srikanthan, G., & Dalrymple (2003). Developing alternative perspectives for quality in higher education. *The International Journal of Education Management*, 17 (3), 126- 136. DOI : <http://dx.doi.org/10.1108/09513540310467804>
- Şteliac, N. (2009). Quality and service quality management in higher education. *Review of Management & Economic Engineering*, 8 (4), 119-134.
- Stimac, H., & Šimić, M.L. (2012). Competitiveness in higher education: A need for marketing orientation and service quality. *Economics & Sociology*, 5 (2), 23-34.
- Stukalina, Y. (2014). Identifying predictors of student satisfaction and student motivation in the framework of assuring quality in the delivery of higher education services. *Business Management & Education*, 12 (1), 127-137. DOI: 10.3846/bme.2014.09
- Sultan, P., & Wong, H.Y. (2010). Service quality in higher education – A review and research agenda. *International Journal of Quality and Service Sciences*, 2 (2), 259-272. DOI : <http://dx.doi.org/10.1108/17566691011057393>
- Tam, M. (2002). Measuring the effect of higher education on university students. *Quality Assurance in Education*, 10 (4), 223-228. DOI : <http://dx.doi.org/10.1108/09684880210446893>
- Tigga A. E., Pathak P., & Kumar R.V. (2014). Branding of B-schools by understanding the expectations of their three major stakeholders. *Indian Journal of Marketing*, 44 (10), 7 - 23.
- Trivellas, P., & Dargenidou, D. (2009). Leadership and service quality in higher education: The case of the Technological Educational Institute of Larissa. *International Journal of Quality and Service Sciences*, 1 (3), 294-310. DOI : <http://dx.doi.org/10.1108/17566690911004221>
- Vaz, A., & Mansori, S. (2013). Malaysian private education quality : Application of SERVQUAL model. *International Education Studies*, 6 (4), 164-170.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60 (2), 31 -46. DOI: 10.2307/1251929