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Analyzing Students' Perception and Attitude towards Service Quality Delivery in Higher Educational Institutions of Punjab

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Abstract

Purpose: The purpose of this research paper is to study as to how the PG students perceive the service quality offered by various Higher Educational Institutions (HEI's), located in Punjab state of India. The paper also highlights the effect of demographic factors including academic background and performance on the various dimensions of perceived service quality of the selected HEI's.

Design/methodology/approach: The study uses self-structured questionnaire duly validated and tested for reliability in this research. The service quality dimensions applicable to HEI's were categorized using factor analysis. The modified SERVQUAL model, as applicable to the education sector, was developed and validated. The perception with respect to the quality of service provided was evaluated and compared, by carrying out ANOVA and t-test. Post-hoc analysis tests were conducted to draw further inferences.

Findings: Findings of the research paper are that the demographic factors do affect the perception about service quality being offered by different Higher Educational Institutions in the country. The findings further reinforce the fact that HEIs need to place emphasis on the dimensions of service quality and take into account, more importantly the gender aspect of the demographic factor while maintaining adequate standards of service. Similarly, the service to be offered to the engineering, management and science students has to be outlined differently. Also, the service quality dimensions have to separately define for the students based upon their academic credentials.

Originality: The present research focuses on the service quality being offered by various Higher Educational Institutions in India, which has not been covered in earlier studies. On the basis of factor analysis, the various service quality dimensions as applicable to various HEI's in India have been identified and the effect of the demographic factors and academic performance, on perceived service quality dimensions has been studied and evaluated.

Keywords: Service quality, higher education institutions, universities, demographic factors, India

Introduction

Globalization, in its literal sense, cutting across the barriers between different types of industry, signifies open competition among firms for customers in worldwide markets (Rastogi, 1996). The basis of this competition is quality, cost and performance of their products and services. Globalization implies free trade in products/services offering a wide choice to customers across borderless world. It exerts continuous pressure on competing companies to upgrade quality, reduce costs and develop superior products/services in terms of customer's need and expectations. In order to do so effectively, firms engage themselves in relentless pursuit of productivity and efficiency, technological development and innovation, and creativity and flexibility. In the present state, as the business environment is constantly changing, the demand for adaptability among organizations is also on the rise. Demands of customers, technological development, change in value system and globalization are some of the factors that derive the need for an organization to change and develop (Bruzelius and Skarvad 2004).

The changes in business environment have led to development of new techniques for organizing and managing companies/organizations. These changes have been necessitated due to international competition, and, in that regards, higher education is no exception. Higher education in India is expensive and all consumers want 'good value' for every penny they spend on, be it the classroom experience or beyond. Every student expects that the university, where he or she intends to study, must have the best of infrastructure, highly qualified faculty and the best of facilities.

Service sector, be it any industry or in the higher education institutions, today is fast emerging as a major contributor that fuels the socio-economic growth of a nation. Today, this sector employs much more people, globally, than any other sector and in many countries services are the major contributor to their economy. The universities too fall under service organizations, where most important characteristic separating them neatly from products is the sheer impossibility to separate production from consumption. In India we have approximately 480 universities covering both public and private sector, and in the current scenario as it exists, the Indian Higher Education Sector is facing turbulent times. Entry barriers are being lowered; distance education is being expanded – IGNOU for example has become world's largest university with 3 million students and presence in 35 countries; private universities are mushrooming; and foreign universities are all set to enter India in a big way. The higher education in India will certainly face stiff competition and, as such, only those with quality will not only survive but would also have an edge over the others. The huge growth of students numbers, internationalization of education, urgent need to reduce on government funds and increasing competitive pressures have prompted many universities and other education providers to focus on quality customer service. The Higher Education Institutes (HEIs) that provide good quality service to their customers, who are primarily students, would undeniably be able to improve their standings and be in a better position to stave-off the challenge posted by the foreign universities. The difference in the perception of the students related to the quality of the services provided by different educational institutes is dependent upon students' perceptual construct and their earlier experiences with the institutes, specifically during their under-graduate studies.

Thus, to be able to serve the customers well, it becomes imperative for all higher educational institutes to combine promptness with reliability, and innovating technology with human element. Consequently, it is imperative for the HEIs to uncover what attributes are utilized by the consumers, in this case the students, in their assessment of overall service quality.

Literature Review

As the service sector of the global economy grows, the study of services and innovation are becoming increasingly important. Service products, distributed regionally, nationally and globally, are contributing in larger portions to the company revenue streams and these knowledge-intensive business services, aimed at enhancing performance, require reliable methods of measurement, assessment, and improvement (Maglio & Spohrer, 2008). As a result, accurate and reliable instruments that assess service quality are of great interest to companies whose revenues come from service delivery. According to Parasuraman et al. (1988) service quality is the customer's judgment of overall excellence of the service or the difference between customer's expectation and the actual service performed or perceived. Gronroos (1984) defines perceived service quality as a consumption process in which the customer is part of the service process that leads to an outcome or result. The way the customer perceives the service process at the time of the service is more important than the outcome of the service.

Measuring Service Quality

Many researchers have provided lists of quality determinants, that define service quality, but the best known determinants emanate from the work of Parasuraman and his colleagues from USA. They provided five dimensions of service quality, which are tangibles, reliability, responsiveness, assurance and empathy and have used these as the basis for their service quality measurement instrument SERVQUAL (Parasuraman et al, 1988, Zeithaml et al, 1990).Although SERVQUAL was developed within the marketing sector, it also is used in a variety of organizational settings, including libraries and information centers (Kettinger & Lee, 1994; Nitecki, 1996).

Since 1988, although, Parasuraman et al. have made numerous changes to the originally proposed SERVQUAL, some of them in response to problems identified by others, but the researchers have continued to use the same SERVQUAL instruments. In 1997, Van Dyke et al. employed SERVQUAL in an IS context, while Banwet and Dattain 2002 measured IT service quality in a library service, as did Landrum and Prybutok (2004). Still, some researchers question the appropriateness of using SERVQUAL in an IS or IT context; whereas, many others disagree about whether the service quality should be the difference between expected and perceived service. Parasuraman et al. (1988) stated that since service quality depends on the relationship of customer expectations with customer perceptions, it is appropriate to calculate service quality by subtracting expected from perceived service. One then achieves an overall measure of service quality by averaging the scores of all items (Brown, Churchill, & Peter, 1993).

Furthermore, other studies suggested that SERVQUAL has unstable dimensions. For example, Jiang et al. (2002) used four dimensions in their study, while Landrum and Prybutok (2004) used five. Nitecki (1996) proposed a three-dimensional SERVQUAL model, as opposed to the five dimensions proposed by Zeithaml et al in 1990. As we have noted, these issues are all resolved if customer expectations are eliminated from the model. The performance only approach to service quality utilizes five of the seven SERVQUAL dimensions—the five performance dimensions. Cronin and Taylor (1992), called these performance dimensions as only a subset instrument SERVPERF. When they compared SERVPERF to SERVQUAL, their results supported the dissenters: the performance scores alone account for more variation in service quality than performance minus expectations.

Performance alone provides better predictive validity than SERVQUAL which is gap-based (Brady et al, 2001; Cronin & Taylor 1992) and other studies show that performance scores alone exhibit better reliability and validity than difference scores (Babakus & Boller 1992; Brady et al., 2001; Landrum & Prybutok 2004; Landrum et al., 2008). Thus, based upon these

findings, it was proposed to use only performance scores to perform analysis on the five SERVQUAL service quality dimensions, in the present study. Cook and Thompson (2000) investigated the reliability and validity of SERVQUAL instrument in the context of library service. They found that SERVQUAL displayed three responsive dimensions, rather than the five dimensions originally proposed by Parasuraman et al. (1988). As a result, they concluded that responsiveness, empathy, and assurance dimensions overlapped in this particular service domain.

Nitecki and Hernon (2000) used SERVQUAL to assess library services at Yale University and found that among the five dimensions of SERVQUAL, respondents considered reliability the most important and empathy the least important among the five quality dimensions. Badri (2003) made an assessment and application of the SERVQUAL model in measuring service quality in information technology centre. For their research gap they used a larger sample which also differs from other studies that addressed the dimensionality problem of the IT centre-adapted SERVQUAL instruments. Arpita (2011) showed that Indian customers' quality perceptions differ between the two genders and across age categories, with regards to the services offered by different multinational banks, which has helped them in planning their expansion and marketing strategies in Indian subcontinent. In the present study an effort has been made to study the student's perception towards the service quality being offered by the various HEIs in the state of Punjab using the various dimensions of the SERVQUAL, modified for use in the HEIs.

Model and Hypotheses

The study carried out herein considered the moderating effect of the demographic and educational factors like gender, age, course of study and academic performance. The review of literature indicated that the customers differ in their perception of service quality and its dimensions. This difference in perception may be due to some demographic factors or the laid down educational factors. The hypotheses are as the followings:

HT1: There is a significant difference in the perceived Service quality and its various dimensions for the HEIs of Punjab on the basis of gender.

HT2: There is a significant difference in the perceived Service quality and its various dimensions for the HEIs of Punjab on the basis of age.

HT3: There is a significant difference in the perceived Service quality and its various dimensions for the HEIs of Punjab on the basis of their course of study.

HT4: There a significant difference in the perceived Service quality and its various dimensions for the HEIs of Punjab on the basis of their academic performance.

Research Methodology

Instrument Design

The present work is aimed at studying the effect of demographics on the service quality of various HEIs as perceived by the post-graduate students of various universities. The questionnaire, I-SERVQUAL, was developed by modifying the parameters, as laid down in the SERVQUAL to suit the needs of the survey to be conducted for the purpose. The modified parameters are put up, alongside those identified by Parasuraman et al. (1991), in Table 1.

Table 1: Dimensions of Service Quality

SERVQUAL		**I-SERVQUAL**	
Parameter	Meaning	Modified Parameter	Meaning
Faculty	Specialization/Experience	Faculty	Quality of service provided by the faculty members of the university
Tangibles	Appearance/Physical facilities	Facilities	Availability of facilities for academic, Co and extra-curricular activities, sports etc.,
		Tangibles	Quality of facilities and infrastructures on campus
Reliability	Ability to perform promised services.	Reliability	Curriculum and Services as put-up in the prospectus/website are delivered or not
Responsiveness	Willingness to help customers	Delivery	Concerns whether equitable service is provided to all without bias.
Assurance	Trust & confidence		
Empathy	Caring attitude	Attitude	Concerns with the attitude of the administrative staff and faculty

To identify the dimensions of perceived service quality, the instrument was modified to fit the need of the present research. The modified and refined model had 55 items tentatively distributed to cover the six main dimensions of Faculty, Facilities, Tangibles, Attitude, Reliability and Delivery. The service quality as perceived by the students was measured on a five point Likret Scale ranging from 'Strongly disagree' to 'Strongly agree' as a response to the statements in the questionnaire. In order to distinguish between the revised SERVQUAL and the version customized for this study, the latter has been referred to as I-SERVQUAL. Factor analysis was then used to identify the underlying dimensions or structure of relationship among the variables (Gurbinder & Maneek, 2014). These dimensions were nothing but a composite of specific variables, which allowed dimension to be interpreted and described. The initial reliability testing for the dimensions yielded a Cronbach alpha ranging from 0.906 to 0.943 indicating that the modified instrument I-SERVQUAL could be conveniently used by HEIs for measuring service quality. The Cronbach alpha values for the constructs after factor analysis, as per Gurbinder&Maneek (2014), are provided in Table 2.

Table 2: Cronbach's Alpha of Factors Extracted (Gurbinder & Maneek, 2014)

Factor Label	**Cronbach's Alpha**	**Specification of obtained construct**
Attitude, reliability and behavior of faculty	0.950	Reflective
Tangibles	0.888	Reflective
Delivery	0.925	Reflective
Facilities	0.841	Reflective

Sample

Since the purpose of the study was to understand students' perception towards service quality of HEIs, the survey was conducted for the PG students who are studying in various disciplines at the campuses of the three Universities of Punjab, each belonging to a different category. The study used random stratified sampling. One of the participating university was a full-fledged government university, the second a deemed-to-be-university and the third participating university was a private university established under the state act. A self-administered, structured questionnaire was used to collect the data from the students studying in final year at these campuses in various PG courses. More than 1000 questionnaires were distributed to

prospective respondents of the three universities. A total of 600 useable questionnaires were retained for final analysis (200 from each university). Thus, the response rate is 60 percent. This was possible with repeated visits for data collection. The questionnaire for the study had six items related to the respondent's identification data, and included fifty-five items qualifying the proposed six dimensions of service quality. In order to accomplish the objectives, T-test and ANOVA were applied. Post-hoc analysis tests were conducted, wherever applicable, to draw and discuss further inferences.

Results and Discussion

Demographics and Academic Details

The characteristics of the students who responded to the I-SERVQUAL questionnaire are presented in Table 3. In terms of the gender, there were a total of 58.67% male students who participated in the survey and remaining 41.33% were females.

A total 73% of the respondents were less than 25 years of age, whereas, only 27% of them belonged to an age group of more than 25 years, implying that most of the respondents were fairly young.

From the point of view of the course of study undertaken by the respondents, an equal percentage of students (33.33%) were doing their post-graduation in engineering, science and management, respectively. In terms of the academic performance of the students, who were in the final year of their respective program, it was observed that majority of them, 51.17% had an average percentage score till their pre-final year term. Only 16.33% of the respondents were having below average academic performance and more than 32% of the respondents had performed admirably in their respective academic discipline. This implies that the respondent's data is slightly skewed towards students with above average performance.

Table 3: Characteristics of Respondents

		Frequency	**Percentage**
Gender	Male	325	58.67
	Female	275	41.33
Age	Less than or equal to 25 years	438	73.00
	More than 25 years	162	27.00
Postgraduate Course of study	Engineering (Group 1)	200	33.33
	Science (Group 2)	200	33.33
	Management (Group 3)	200	33.33
Academic performance (Marks)	Less than 60% (Group 1)	98	16.33
	Between 60 to 75% (Group 2)	307	51.17
	Between 75 to 85% (Group 3)	131	21.83
	More than 85% (Group 4)	64	10.67

Difference in the Perceived Service Quality and its Dimensions for the HEIs of Punjab on the Basis of Gender of the PG Students

In order to find out the difference in the perception of the male and female PG students of the three universities of Punjab, an independent t-test was performed. The results of the t-test analysis are presented in Table 4.

Table 4: t-test for the difference in the perceived service quality and its dimensions for PG students of HEIs of Punjab on the basis of gender

Group Statistics						
Dimension	**Gender**	**N**	**Mean**	**St. Dev**	**t-value**	**p**
Faculty	Male	323	34.91	7.01	2.51**	.0126
	Female	275	36.34	6.92		
Facilities	Male	323	52.21	10.05	0.21	.8333
	Female	275	52.03	10.84		
Tangibles	Male	323	30.15	5.93	0.10	.9182
	Female	275	30.20	5.94		
Attitude	Male	323	38.49	8.27	1.43	.1798
	Female	275	39.46	8.39		
Reliability	Male	323	17.50	4.07	3.10**	.003
	Female	275	18.49	4.03		
Delivery	Male	323	20.41	4.84	1.68	.0946
	Female	275	21.08	4.92		
Service Quality	Male	323	193.67	34.50	1.36	.1763
	Female	275	197.61	36.57		

*** 0.05 level of significance*

As can be observed from the table, the t-value is greater than the table value for only faculty and reliability dimensions of the service quality, indicating that the perception of male and females vary significantly only for these dimensions. This also indicates that the service quality perception by both males and females for the other four dimensions of facilities, tangibles, attitude and delivery is indistinguishable.

Thus, the first hypothesis HT1 pertaining to the significant difference based on gender was accepted only for the faculty and reliability dimensions. The finding is consistent with the result by Joseph and Joseph (1998) and Ham and Hayduk (2003), which also presented similar findings, however, this result contradicts with the results portrayed by Soutar and McNeil (1996), which shows a significant difference between gender and service quality.

Difference in the Perceived Service Quality and its Dimensions for the HEIs of Punjab on the Basis of Age of the PG Students

Table 5 depicts the t-test analysis results based on the age, of the PG students of the three universities of Punjab, for service quality and its dimensions.

The data was analyzed for PG students split into two groups viz. having age less than or equal to 25 years and with age more than 25 years.

Table 5: T-test for the difference in the perceived service quality and its dimensions for PG students of HEIs of Punjab on the basis of age

Group Statistics						
Dimension	**Age**	**N**	**Mean**	**St. Dev**	**t-value**	**p**
Faculty	Less than or equal to 25 years	437	35.76	6.99	1.07	.2853
	More than 25 years	161	35.07	7.02		
Facilities	Less than or equal to 25 years	437	52.27	10.65	0.60	.5671
	More than 25 years	161	51.72	9.76		
Tangibles	Less than or equal to 25 years	437	30.27	5.97	0.69	.489
	More than 25 years	161	29.90	5.83		
Attitude	Less than or equal to 25 years	437	39.05	8.62	0.59	.5717
	More than 25 years	161	38.62	7.52		
Reliability	Less than or equal to 25 years	437	17.96	4.04	0.032	.9577
	More than 25 years	161	17.94	4.20		
Delivery	Less than or equal to 25 years	437	20.75	4.95	0.22	.8243
	More than 25 years	161	20.65	4.7		
Service Quality	Less than or equal to 25 years	437	196.06	36.32	0.69	.5096
	More than 25 years	161	193.90	33.19		

*** 0.05 level of significance*

As can be observed from the table, the t-value is less than the table value for all the dimensions of the service quality, indicating that the perception does not vary with the age of the students. Thus, the second hypothesis HT2 pertaining to the significant difference based on age of the students was rejected. This is consistent with the finding Ham and Hayduk (2003) that found no relationship between age and service quality.

Difference in the Perceived Service Quality and its Dimensions for the HEIs of Punjab on the basis of Course of Study of the PG Students

Table 6 depicts the Analysis of Variance (ANOVA) based on the course of study of the PG students for service quality and its dimensions for the HEIs of Punjab. There were equal number of students enrolled in the masters programs in engineering, management and sciences.

Table 6: ANOVA for the difference in the perceived service quality and its dimensions for PG students of HEIs of Punjab on the basis of course of study

ANOVA						**Sig.**
Dimension	**Course of study**	**Sum of squares**	**Df**	**Mean square**	**F**	
Faculty	Between groups	347.590	2	173.795	3.578**	0.029
	Within groups	28995.470	597	48.569		
	Total	29343.060	599			
Facilities	Between groups	1512.070	2	756.035	7.119**	0.001
	Within groups	63397.555	597	106.194		
	Total	64909.625	599			
Tangibles	Between groups	222.723	2	111.362	3.191**	0.042
	Within groups	20831.250	597	34.893		
	Total	21053.973	599			
Attitude	Between groups	614.250	2	307.125	4.477**	0.012
	Within groups	40950.215	597	68.593		
	Total	41564.465	599			
Reliability	Between groups	297.223	2	148.612	9.172**	0.000
	Within groups	9673.470	597	16.203		
	Total	9970.693	599			
Delivery	Between groups	370.110	2	185.055	7.950**	0.000
	Within groups	13896.850	597	23.278		

	Total	14266.960	599			
Service Quality	Between groups	17176.973	2	8588.487	6.955**	0.001
	Within groups	737210.700	597	1234.859		
	Total	754387.673	599			

*** 0.05 level of significance*

It can be observed from the table that the calculated value of F is more than the table value for all the dimensions of service quality. Following up on the results of F-value analysis, post-hoc analysis was carried out to identify the differences in the perception of service quality dimensions based upon the course of study. Table7 shows the results of the multiple comparisons using the post-hoc analysis. Group 1 in the table represents the engineering stream PG students, whereas the groups 2 and 3 represents science and management students, respectively.

Table 7: Post-hoc multiple comparisons for the difference in the perceived service quality dimensions for PG students on the basis of course of study

Dependent Variable	**(I) course of study**	**(J) course of study**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**
Faculty	1 (Engineering)	2	-.0950	.69691	.892
		3	***-1.6600****	.69691	.018
	2 (Sciences)	1	.0950	.69691	.892
		3	***-1.5650****	.69691	.025
	3 (Management)	1	***1.6600****	.69691	.018
		2	***1.5650****	.69691	.025
Facilities	1	2	-1.4200	1.03050	.169
		3	***-3.8450****	1.03050	.000
	2	1	1.4200	1.03050	.169
		3	***-2.4250****	1.03050	.019
	3	1	***3.8450****	1.03050	.000
		2	***2.4250****	1.03050	.019
Tangibles	1	2	-.1600	.59070	.787
		3	***-1.3650****	.59070	.021
	2	1	.1600	.59070	.787
		3	***-1.2050****	.59070	.042
	3	1	***1.3650****	.59070	.021
		2	***1.2050****	.59070	.042
Attitude	1	2	-1.3500	.82821	.104
		3	***-2.4750****	.82821	.003
	2	1	1.3500	.82821	.104
		3	-1.1250	.82821	.175
	3	1	***2.4750****	.82821	.003
		2	1.1250	.82821	.175

Reliability	1	2	***-1.0450****	.40254	.010
		3	***-1.7100****	.40254	.000
	2	1	***1.0450****	.40254	.010
		3	-.6650	.40254	.099
	3	1	***1.7100****	.40254	.000
		2	.6650	.40254	.099
Delivery	1	2	***-.7200***	.48247	.136
		3	***-1.9050****	.48247	.000
	2	1	.7200	.48247	.136
		3	***-1.1850****	.48247	.014
	3	1	***1.9050****	.48247	.000
		2	***1.1850****	.48247	.014
Grand total	1	2	-4.7900	3.51406	.173
		3	***-12.9600****	3.51406	.000
	2	1	4.7900	3.51406	.173
		3	***-8.1700****	3.51406	.020
	3	1	***12.9600****	3.51406	.000
		2	***8.1700****	3.51406	.020

Based on observed means.
The error term is Mean Square(Error) = 1234.859.
**. The mean difference is significant at the .05 level.*

It can be observed from the Table-8 that there is a significant difference in the 'faculty' dimension of service quality as perceived by students of group 1 and 3, and similarly a significant difference is perception is observed for the students of group 2 and 3. This indicates that the PG students of Engineering and Management stream, and Science and Management streams perceive the faculty dimension of service quality differently. However, there is no significant difference in the perception of the students of group 1 and 2, i.e. Engineering and Science stream students, indicating that these students have similar perception, when it comes to service quality being offered by the faculty of the university.

Table 8: ANOVA for the difference in the perceived service quality and its dimensions for PG students of HEIs of Punjab on the basis of academic performance

ANOVA						**Sig.**
Dimension	**Course of study**	**Sum of squares**	**Df**	**Mean square**	**F**	
Faculty	Between groups	938.714	3	312.905	6.566	0.000
	Within groups	28404.346	596	47.658		
	Total	29343.060	599			
Facilities	Between groups	1737.819	3	579.273	5.465	0.001
	Within groups	63171.806	596	105.993		
	Total	64909.625	599			
Tangibles	Between groups	349.331	3	116.444	3.352	0.019
	Within groups	20704.642	596	34.739		
	Total	21053.973	599			
Attitude	Between groups	874.638	3	291.546	4.270	0.005
	Within groups	40689.827	596	68.272		
	Total	41564.465	599			
Reliability	Between groups	163.133	3	54.378	3.304	0.020
	Within groups	9807.560	596	16.456		

	Total	9970.693	599			
Delivery	Between groups	311.771	3	103.924	4.438	0.004
	Within groups	13955.189	596	23.415		
	Total	14266.960	599			
Service Quality	Between groups	21629.551	3	7209.850	5.864	0.001
	Within groups	732758.122	596	1229.460		
	Total	754387.673	599			

*** 0.05 level of significance*

A similar trend, to that of the perception of faculty dimension, is also observed for the other dimensions viz. 'facilities', 'tangibles', 'attitude' and 'delivery' excluding the reliability dimension. This indicates that the science and engineering stream PG students perceive all the service quality dimensions except the 'reliability' dimension in a similar manner. The perception of the management students is different from that of the science and engineering stream students for all dimensions except, reliability, where there is a significant difference in the perception of group 1 and 2, and group 1 and 3, while there is no significant difference in the perception of students belonging to group 2 and 3. This indicates that science and management students have the similar perception about the reliability dimension of service quality.

Hence, the hypothesis HT3 for significant difference based on the course of study of the PG students has been accepted for all the service quality dimensions. Thus the science and engineering students perceive service quality, more or less, in a similar manner in comparison to the management students. This study, thus in a sense, tends to agree that students are inclined to be more critical of their evaluation of service quality as they become more experienced (in the study students are PG students), as suggested by Oldfield and Baron (2000). Also the findings are in close agreement to the research conducted by O'Neill (2003), who looked upon the time factor which influences the rating on service quality by suggesting that the expectations rise with age, which in the end affects the perceptions of the previous service.

Difference in the Perceived Service Quality and its Dimensions for the HEIs of Punjab on the basis of Academic Performance of the PG Students

The data as obtained from the survey was split into four groups on the basis of the academic performance of the PG students, as shown in Table-3. ANOVA was carried out to find out the effect on various dimensions of service quality as perceived by PG students belonging to different groups based upon their academic performance. Table-8 depicts the results of one-way ANOVA test among the differently performing groups of PG students for various service quality dimensions. Subsequent to this post-hoc analysis was carried out to find out the difference in perception of service quality dimensions based upon the academic performance of the students. For the purpose the students were grouped into four categories as shown in Table 3. The group 1 has students with marks less than 60%. The group 2 and group 3 has students with marks lying in the 60 to 75% range and 75-85% range, respectively. The groups 4 has students with marks more than 85%. Table-10 shows the results of the multiple comparisons using the post-hoc analysis.

It can be observed from the Table 9 that there is a significant difference in the 'faculty' dimension of service quality as perceived by students of group 1 and 2, and similarly a significant difference is perception is observed for the students of group 1 and 3, and groups 1 and 4. However, there is no significant difference in the perception of the students belonging to groups 2 and 3. This means that the perception of the students of group 1(marks less than 60%) is different from all the other students, and similarly the perception of the students of group 4(marks more than 85%) is also different from the other students. However, the students with

marks lying in the range 60 to 75% and 75 to 85% perceive the 'faculty' dimension of service quality share similar perception.

Table 9: Post-hoc multiple comparisons for the difference in the perceived service quality dimensions for PG students on the basis of academic performance

Dependent Variable	(I) academic performance	(J) academic performance	Mean Difference (I-J)	Std. Error	Sig.
Faculty	1	2	***-1.8655****	.80097	.020
		3	***-2.4693****	.92202	.008
		4	***-4.8294****	1.10949	.000
	2	1	***1.8655****	.80097	.020
		3	-.6038	.72045	.402
		4	***-2.9639****	.94863	.002
	3	1	***2.4693****	.92202	.008
		2	.6038	.72045	.402
		4	***-2.3601****	1.05284	.025
	4	1	***4.8294****	1.10949	.000
		2	***2.9639****	.94863	.002
		3	***2.3601****	1.05284	.025
Facilities	1	2	***-2.9948****	1.19449	.012
		3	***-3.5188****	1.37502	.011
		4	***-6.5807****	1.65460	.000
	2	1	***2.9948****	1.19449	.012
		3	-.5240	1.07441	.626
		4	***-3.5859****	1.41471	.012
	3	1	***3.5188****	1.37502	.011
		2	.5240	1.07441	.626
		4	-3.0619	1.57011	.052
	4	1	***6.5807****	1.65460	.000
		2	***3.5859****	1.41471	.012
		3	3.0619	1.57011	.052
Tangibles	1	2	***-1.9469****	.68384	.005
		3	***-1.5609****	.78719	.048
		4	***-2.5794****	.94725	.007
	2	1	***1.9469****	.68384	.005
		3	.3860	.61510	.531
		4	-.6325	.80991	.435
	3	1	***1.5609****	.78719	.048
		2	-.3860	.61510	.531
		4	-1.0185	.89888	.258
	4	1	***2.5794****	.94725	.007
		2	.6325	.80991	.435
		3	1.0185	.89888	.258

Attitude	1	2	***-1.9253****	.95866	.045
		3	-1.7072	1.10354	.122
		4	***-4.7411****	1.32793	.000
	2	1	***1.9253****	.95866	.045
		3	.2181	.86229	.800
		4	***-2.8158****	1.13540	.013
	3	1	1.7072	1.10354	.122
		2	-.2181	.86229	.800
		4	***-3.0339****	1.26012	.016
	4	1	***4.7411****	1.32793	.000
		2	***2.8158****	1.13540	.013
		3	***3.0339****	1.26012	.016
Reliability	1	2	-.7460	.47065	.114
		3	-.9233	.54178	.089
		4	***-2.0344****	.65195	.002
	2	1	.7460	.47065	.114
		3	-.1773	.42334	.675
		4	***-1.2885****	.55742	.021
	3	1	.9233	.54178	.089
		2	.1773	.42334	.675
		4	-1.1112	.61866	.073
	4	1	***2.0344****	.65195	.002
		2	***1.2885****	.55742	.021
		3	1.1112	.61866	.073
Delivery	1	2	-.8041	.56142	.153
		3	***-1.4791****	.64627	.022
		4	***-2.6397****	.77768	.001
	2	1	.8041	.56142	.153
		3	-.6751	.50498	.182
		4	***-1.8356****	.66492	.006
	3	1	***1.4791****	.64627	.022
		2	.6751	.50498	.182
		4	-1.1605	.73797	.116
	4	1	***2.6397****	.77768	.001
		2	***1.8356****	.66492	.006
		3	1.1605	.73797	.116
Grandtotal	1	2	***-10.2826****	4.06820	.012
		3	***-11.6586****	4.68302	.013
		4	***-23.4047****	5.63523	.000
	2	1	***10.2826****	4.06820	.012
		3	-1.3760	3.65923	.707
		4	***-13.1221****	4.81820	.007
	3	1	***11.6586****	4.68302	.013
		2	1.3760	3.65923	.707
		4	***-11.7461****	5.34748	.028

	4	1	***23.4047****	5.63523	.000
		2	***13.1221****	4.81820	.007
		3	***11.7461****	5.34748	.028

Based on observed means.
The error term is Mean Square (Error) = 1229.460.
** The mean difference is significant at the .05 level.*

A very similar trend to that of the perception of 'faculty' dimension, is also observed for the two other dimensions viz. 'facilities' and 'tangibles' dimensions of service quality. On observing the post-hoc results for the 'attitude', it is seen that there is a significant difference in the perception of the students belonging to groups 1 and 2, group 1 and 4, group 2 and 4, and groups 3 and 4. It is only for the groups 1 and 3, and groups 2 and 3, thus they tend to perceive the 'attitude' dimension in a similar manner. In general it can be said that most of the students, irrespective of their academic performance have different views with regards to the 'attitude' dimension of service quality. For the 'reliability' and 'delivery' dimension of service quality it is observed that there is a significant difference in the perception for group 1 and 4 and group 2 and 4. This indicates, as earlier observed, that the students of group 1 and group 4 tend to perceive the service quality dimensions very differently, whereas, on comparative basis, it can be said that the students of groups 2 and 3 more or less think alike. Thus, it can be concluded that the students with very less marks and very high marks tend to perceive service quality very differently from the students who have average or above average academic performance, who more or less perceive the service quality dimensions in a very similar manner.
Hence, the hypothesis HT4 for significant difference based on the academic performance of the PG students is accepted for all the service quality dimensions.

Conclusion

The results highlighted a significant difference in the perception of service quality and its dimensions, for the higher educational institutes of Punjab, for most of the demographic and educational factors envisaged in the study. The perception of the male and female students varied significantly for the faculty and reliability dimensions of service quality, which also meant that the service quality perception on the basis of gender for the other four dimensions of facilities, tangibles, attitude and delivery was indistinguishable. As opposed to the gender, there was no significant difference in the perceived service quality dimensions on the basis of the age of students.
On observing the educational factors it can be concluded that there was a significant difference in the perception of all the service quality dimensions on the basis of course of study, as well as the academic performance of the PG students. It is concluded that the science and engineering students perceive service quality, more or less, in a similar manner and differently from the management students. This is evident also as the students in engineering and science streams have different way of analysing things as compared to the management students. On the basis of the academic performance of the students, it is also be inferred that the students with below average performance and those on the other extreme, with exceptional performance, tend to perceive service quality very differently, whereas, the PG students who have average or above average academic performance, more or less perceive the service quality dimensions in a very similar manner.
Thus, on the basis of this study it can be concluded that the service quality is indeed a very important component of the higher educational institutions. The findings further reinforce the fact that HEIs need to place emphasis on all the dimensions of service quality and take into account, more importantly the gender aspect of the demographic factor while maintaining

adequate standards of service. Similarly, the service to be offered to the engineering, management and science students has to be outlined differently. Also the HEIs must look into providing different services to the students with outstanding academic performance and to those who are relatively average in their studies. The management of these institutes must periodically assess and monitor the service quality in their institutions and recognize its importance in development and maintenance of their relationship with their students.

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