Difference between Expectations and Perceptions of Students regarding Service Quality of Public sector HEIs

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Abstract

The aim of the present study is to find the gap between expectations and perceptions of students regarding the service quality of higher education public institutions of Lahore, Pakistan. Paired sample t-test was used to explore the gap between expectation and perception of the students of the higher education of the public institutions of Lahore. Stratified random sampling technique was used to collect the data from the students. The results indicated that there were differences between the expectations and perceptions of the students which relate to Reliability, Responsiveness and Assurance dimension. There was no significant difference between the expectations of Lahore, Pakistan in terms of Assurance and Empathy. Research limitations: The data was only collected from the capital city of the province of Punjab. Moreover, the study focused only on higher education public institutions. The research methodology of this study is different from all the other studies which were conducted on this topic. In this study, we have focused to find the problem that students may face in service quality in higher education public institutions.

Keywords: Service quality, Expectations, Perceptions

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Introduction

This paper consists of five parts; the first part is Introduction, second part relates to Literature Review, third part explains Methodology, fourth part describes the Results and findings of the study, last part is designed to conclude the study and the last sixth part explains limitations of our research.

Change and innovation have been in demand since the inception of human life. But this concept has gained much strength in this century. Especially, globalization has appeared to push this concept and the need for perfection and efficiency has arisen. These changes and developments have affected the lives of people in every aspect; even the educational sector could not escape this revolution. The twenty-first century dawns with a sure promise to be a century of information technology and educational explosion.

Education service field has a critical part in the service sector, as it prepares the professionals to work in all other fields. *Development of societies is possible with high education* is a far known concept. But with the passage of time, the emphasis on education is increasing in the world. Therefore, the quality of education has gained much importance. Dursun, Oskaybas, and Gokmen (2013) considering the importance of quality education as playing a vital role in the development of the country.

Quality, Service and Service Quality

Service quality has drawn the attention of researchers as well as practitioners in all the disciplines including education. The underlying reason behind its importance is the increased performance when seen from the point of quality. An increased focus on quality enhances the level of productivity and minimizes the costs of a business. Quality is a relative term; every customer might have a different criterion for defining quality (Deming, 1982). According to Crosby, "Quality is the conformance to requirements", clearly stated how quality can be measured. According to Juran, quality is "fitness for use".(Suarez, 1992). Pakistan Standards and Quality Control Authority define quality as "conformity to a given requirement or specification of a product or service". According to the American Society for Quality (ASQC) "Quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs."A product is a quality product if it strikes a balance between features and fewer deficiencies.

The concept of quality does not consider products only rather it has a clear manifestation of service also. Product is taken as an outcome of a process; it entails both goods as well as services (Juran & Gryna, 1988). It becomes complex when the item being judged in terms of quality is a service (intangible) rather than a (tangible) product (Hill, 1991). In the case of goods, consumers are having opportunities to use available

tangible cues to make judgments about the quality because of the physical nature of goods. In the case of services, however, it is difficult to evaluate because there are either no or fewer tangible cues (Parasuraman, Zeithaml, & Berry, 1985). For organizations, to get an optimal level of service outcome it is necessary to include strategic planning and decision making (Heskett, 1987). In order to get a thorough understanding of services Gronroos (1990) explains services as a series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between the customer and service employees and/or systems of the service provider, which are provided as solutions to customer problems.

A handful of research has been conducted in order to comprehend the quality of service by customers especially in the domain of marketing. According to Baron (2009), "Service quality is the single most researched area in services marketing to date." The primary reason behind this is the importance of quality that is necessary to compete in the market. The intent of this kind of research is to focus on the gap that exists between the customer's expectations about the quality of service and what is basically received by the customer.

Parasuraman, Zeithaml, and Berry (1985) have defined service quality as "the degree and direction of a discrepancy between consumer's perceptions and expectations in terms of different but relatively important dimensions of service quality which can affect their future purchasing behavior."

This definition and the work of other researchers (Gronroos, 1983) on service quality have paid attention to the consumer. Therefore, to measure the service quality it is important to take into account the customer's point of view and to understand what consumers want and how they evaluate a product (Rao, 2009).

Dimensions of Service Quality

Two dimensions of service quality have been defined by many scholars (for example, Gronroos, 1983). The first one named as "outcome quality" (Parasuraman, Zeithaml, & Berry, 1985) or "technical quality" (Gronroos, 1984) is the outcome or delivery by a specific service which a customer receives. The second dimension is concerned with the process of delivery of service and named as "process quality" (Parasuraman, Zeithaml, & Berry, 1985) and "functional quality" (Gronroos, 1984).

This article will review and analyze the literature on service quality in the education sector. While using the Parasuraman model of service quality, a gap will be predicted that may exist between students' expectations and perceptions of service quality in higher education institutions of Lahore.

Review of Literature

Customer expectations are beliefs about service delivery that function as standards or reference point against which performance is judged (Bitner, Faranda, Hubbert, & Zeithaml, 1997). Customers form perceptions when they assess the equality of the product. Moreover, perceptions may vary from time to time; therefore, companies must review it continuously (Zeithaml & Bitner, 1997). The gap between expectations and perceptions can be identified by measuring service quality.

Measuring Service Quality

As soon as a person has some knowledge or information about a particular object, an attitude is established about that object or concept as a result of the overall evaluation (Athiyaman, 1997). To measure such attitudes related to the perception of product or service quality, different tools have been developed (Dursun, Oskaybas, & Gokmen, 2013). Gronroos, (2007) presented a model named "total perceived service quality." This model focused on the comparison between the customer's expectation and experience of the service. The most widely used multiple-item scale for measuring consumer's perception of service quality is SERVQUAL, developed by Parasuraman, Zeithaml and Berry (1988).

Establishment of the SERVQUAL Model

Attributes of services distinguish them from goods; the three documented characteristics by Parasuraman et.al of service are intangibility, heterogeneity, and inseparability. Services are intangible because the user cannot touch the service as services are performances, rather than objects. Though to provide the service, the service provider may use several types of equipment, tools or instruments to facilitate the provision of service, but the service itself cannot be counted, measured or inventoried. Heterogeneity can be considered as an inherent part of services. Performance of services is subject to change with respect to the service provider, service consumer and time of delivering service. Inseparability takes into account the unavoidable nature of the relationship between service production and consumption (Parasuraman, Zeithaml, & Berry, 1985). Due to such unique attributes, there is no quantitative scale available to measure the extent and degree of effectiveness of services. Parasuraman, Zeithaml and Berry (1985) concluded that service quality is the difference between what consumers expect from service when they were not a user with what they perceive from service during its use.They found that consumer's perceptions about quality can be used to asses and evaluate the quality of services by using the techniques of focus group and interview sessions. Thus, firstly 97 items(10 Dimensions Scale) was established. This was then reduced to34 items (7 Dimensions Scale) and lastly, 22 items (5 Dimensions Scale)was postulated to measure Service Quality named "SERVQUAL"(Parasuraman, Zeithaml, & Berry, 1988). However SERVQUAL has an increased focus on service delivery and it does not consider the outcome of the encounter of service (Buttle, 1994).

Conceptual Model of Service Quality-Gap Analysis

As the perceived quality is subjective in nature (Rust & Oliver, 1994), the existing literature has concentrated on this. Athiyaman (1997) refers to perceived service quality as the overall evaluation of a product or service about its good or bad attributes.

The SERVQUAL model presented by Parasuraman, Zeithaml, and Berry (1985) has also focused on "perceived service quality" which is the difference between customer's expectations and perceptions. This relationship results in the satisfaction level of the customer which is high if perceived service is greater than expected service and vice versa (Dursun, Oskaybas, & Gokmen, 2013).

Berry, Zeithaml, and Parasuraman (1990) defined five dimensions as:

Tangibility: All the physical items that can be observed by human senses.

Reliability: Service provider has the ability to provide service in the same way, it was promised. Reliability is a major factor so that the user can have trust in the quality.

Responsiveness: Provision of service at the exact time of need and the availability of staff to help the customers sharply.

Assurance: Familiarity of employees with the service so that they are in a position to deliver trust to customers.

Empathy: Understanding of needs and individualized response while taking interest and showing personal care.

The gaps in the model of service quality

Gap 1: Gap between actual customer's expectations and the management's thinking of customer's expectations.

Gap 2: Gap between customer service standards and management's findings of customer's expectations.

Gap 3: Gap between actual service performance and set performance standards.

Gap 4:Gap between the organization's external communication about its service quality and actual service performance (Parasuraman, Zeithaml, & Berry, 1988).

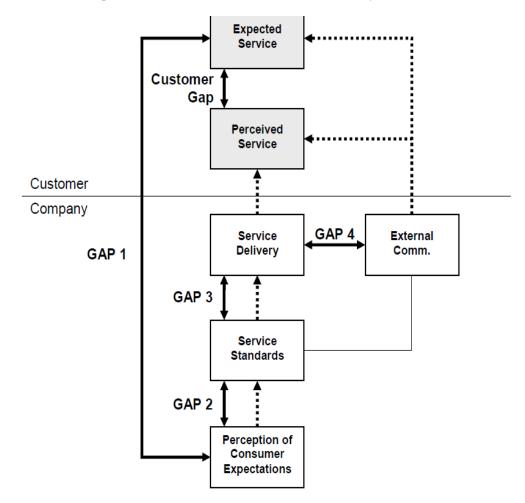


Figure1: Gaps model of service quality (Parasuraman & Zeithaml, 2006)

Quality of Education

Evaluation of the quality of university education is considerably more important than other services because the future of the nation is depending on the quality of education. In this regard, increased effort is being put in European countries to performance assessment of higher education institutes (HEI) (Petruzzellis, D'Uggento, & Romanazzi, 2006). Teachers' intellectual ability and teaching techniques have the most crucial impact on the evaluation of course outcome and learning (Edström, 2008). Later on study by (Sudharani & Ravindrana, 2012) found that students' satisfaction towards their higher education institute, infrastructure, image, cost, and personnel. However, they also concluded that except cost the rest of the four dimensions influence the satisfaction level of students. SERVQUAL Model has been used by many researchers to evaluate the quality of service of educational institutions (Akhlaghi, Amini, & Akhlaghi, 2012). Higher Education Institutes that are unable to provide the desired balance between students' expectations and perception are more vulnerable to have a bad effect on its reputation and deteriorating number of students' enrollments (Long, Ibrahim, & Kowang, 2014).

Perceived Service Quality in Higher Education Institutes

In case of University of Bari of Turkey, it was found that universities are in an immense need to concentrate on the quality of teaching and non-teaching activities to maintain and sustain an entrepreneurial approach within the competitive environment. Stratified random sampling technique was used to interview students (Petruzzellis, D'Uggento, & Romanazzi, 2006)

According to the study based on SERVQUAL Model (Ilias, Hasan, Rahman, & Yasoa, 2008), there are no significant differences between determinants of service quality on the basis of demographic features (gender, race, semester and age) of graduate level students. In the study of (Palli & Mamilla, 2012) results showed that among the five dimensions of SERVQUAL of private as well as public sector universities, responsiveness is the most prevalent dimensions with whom students are not significantly satisfied. An Iran on study showed that among the five dimensions of SERVQUAL the highest gap between perceptions and expectations is found in responsiveness while the lowest is in the case of reliability (Akhlaghi, Amini, & Akhlaghi, 2012).

Perceived Service Quality of HEI in Pakistan

A study (Malik, Danish and Usman, 2010) on both public and private universities of Gujranwala Division, Pakistan, demonstrated that among the sample of 240 business (both graduation and masters level) students are overall satisfied with the Tangibility, Assurance, Reliability and Empathy but they are not significantly satisfied with most of the administrative services. Parking facility, labs, and cafeteria services. However, with the passage of time, the more modified versions of SERVQUAL are now found in Literature as by Ijaz, et al., (2011) in which a sample of 501 students from four public sector business schools was taken. Structural Equation Modeling (SEM) was used to analyze the level of student satisfaction and service quality. Results indicated students are satisfied with service quality dimensions.

Hypotheses

- H1: There is a significant difference between the expectation and perception of the studentstowards the service quality of education.
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- H1: "There is a significant difference between the expectation and perception of the students regarding the service quality of education".
- H1a: "There is a significant difference between the expectation and perception of the students regarding the Tangibility dimension of service quality of education".
- H1b: "There is a significant difference between the expectation and perception of the students regarding the Reliability dimension of service quality of education".
- H1c: "There is a significant difference between the expectation and perception of the students regarding the Responsiveness dimension of service quality of education".
- H1d: "There is a significant difference between the expectation and perception of the students regarding the Assurance dimension of service quality of education".
- H1e: "There is a significant difference between the expectation and perception of the students regarding the Empathy dimension of service quality of education".

Research Methodology

Self-administered structured questionnaires were used to get the data from the students of graduation, masters, and MPhil of the higher education institutions of Lahore. Questionnaires include the following information:

Section 1 comprises demographics of the name of institutions, qualification, nature of the institution, number of teachers in the institution and number of the Ph.D. teachers in the institution.Section two is designed to measure the expectation of students for the service quality of the education of the higher public institution of Lahore and section three is developed to measure the perception of students of services delivered to them.

Five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5) was used to collect the students' responses". For this study, 220 questionnaires were distributed among the different students of the selected higher public education institutions of the Lahore. 169 questionnaires get back out of which 7 questionnaires were rejected due to incomplete data reporting, thus comprising of 162(73%) useable responses. Researchers chose public higher education institutions of medical, engineering and commerce of the Lahore District of Punjab, Pakistan to collect the data from the students. The population of the study distributed among three strata Stratified random sampling technique was used to distribute the questionnaires among the students of higher education institutions of Lahore.

Cronbach's α statistical technique was used to measure the reliability of the overall data and the reliability of each dimension of the expectation and perception. Paired sample t-test was used to find out the gap between the expectation and perception of the students of higher education public institutions of Lahore.

Results

The objective of thisstudy was to find out the gap between the expectations and perceptions of higher public education institutions' students towards the service quality of education. For this purpose, data were collected from students of public institutions. A sample of this study comprises 58 students from commerce, 44 students from medical and 60 students from engineering public institutions. Out of total respondents, 106 (65.4%) were from undergraduate, 24 (14.8%) from master classes and 32 (19.8%) from M.Phil classes. Most of the institutions, 102 (63%) have the teachers more than 50. Just 6 (3.7%) institutions had the number of teachers less than 15. The following table provides a detailed descriptive analysis of the demographic information of the respondents.

Institution	Number	Percentage
Business	58	35.5
Medical	44	27.2
Engineering	60	37.0
Qualification		
Graduation	106	65.4
Master	24	14.8
MPhil	32	19.8
No. of Teachers		
Less than 15	6	3.7
16-30	24	14.8
31-50	30	18.5
More than 50	102	63.0
No. of Ph.D. Teachers		
Less than 10%	54	33.3
11-20%	42	25.9
21-40%	30	18.5
More than 40%	36	22.2

Table 1

The proportion of Students according to Institutions

Results of mean and standard deviation for each dimension of expectation and perception provided in table 2.

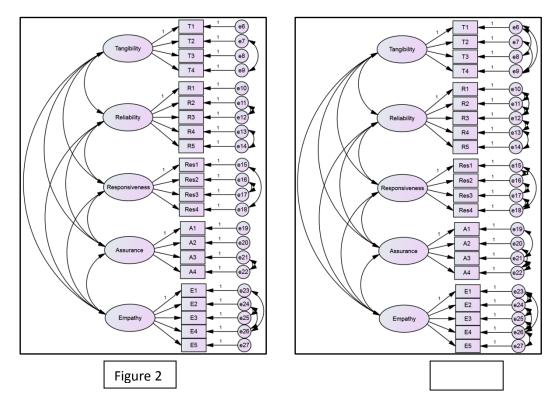
Mean standard deviation of each variable and results of correlation among variables given in table 2. Mean value (3.85) of "Tangibility" dimension of expectation was highest while mean value (3.33) of Empathy dimension was the lowest. The statistics of Cronbach's alpha (α) indicated that estimated α of tangibility, reliability, responsiveness, assurance and empathy in expectation were .755, .834, .846, .733, .804 and in perception were .742, .846, .799, .801 and .762 respectively. The value of (α) was above the threshold value (George, 2003).

Table	2
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		Expectation		Perception		
Variable	Mean	SD	(α)	Mean	SD	(α)
Tangibility	3.85	.92	.755	3.55	.87	.742
Reliability	3.75	.98	.834	3.32	.97	.846
Responsiveness	3.52	.87	.846	3.42	.93	.799
Assurance	3.44	.89	.733	3.40	.96	.801
Empathy	3.33	.93	.804	3.29	.86	.762

Confirmatory Factor Analysis:

"Measurement model specifies how the observed variable impacts the latent, composite and unobserved variables (Hair et al., 2010)". Figure 1 and 2 indicates the best fit model where loading of each item of all five dimensions are above the threshold value. Researchers have used modification indices to fit the model and No. of fit matrices have used to analyze the fitness of the model.



Measurement Model of Expectation Measurement Model of Perception

Table 3

GFI	TLI	CFI	AGFI	CMIN/Df	RMSEA	PCLOSE
.905	.92	.88	.870	2.257	.057	.754
			Summar	y of Expectation	Model	
Table	4					
GFI	TLI	CFI	TLI	CMIN/Df	RMSEA	PCLOSE
.921	.931	.90	.941	2.785	.042	.712
Summary of Percention Model						

Summary of Perception Model

Paired Sample T-test

Researchers have used Paired sample T-test to explain the difference between expectation and perception of students towards service quality. This test has been used because once the response was collected from a student about expectation towards service quality of public institutions and then again the response was collected from the same students regarding the perception of the service quality of education delivered to him/her.

The results of the test showed thatthere was the difference between expectation and perception of the students in three paired which relate to Reliability, Responsiveness and Assurance dimension and there was no difference between expectation and perception of the students towards service quality of higher education of the public institutions of Lahore in Assurance and Empathy dimension. The following table is showing that there was a difference between expectation and perception of the student's intangibility, Reliability, Responsiveness, and Assurance dimensions.

In pairs of these dimensions the P-value is less than α so we can reject the H0 and conclude that there is significant difference between expectation and perception of the students towards service quality of higher education delivered to them by the public higher institutions of Lahore and in remaining pairs the P-value is greater than α so we cannot reject the H0 and conclude that there is no significant difference between expectation and perception of the students towards service quality to the students towards service quality of higher education.

The mean, Std. Deviation, Std. Error Mean and Sig. (2-tailed) of each pair of expectation and perception is giving in the following table.

Dimensions of Service Quality	Paired	Mean	Std.	Std. Error	Sig.
			Deviation	Mean	(2-tailed)
	Paired 1	.09877	1.30555	.10257	.33706
True il iliter	Paired 2	.13580	1.21842	.09573	.05794
Tangibility	Paired 3	20988	1.36246	.10705	.05165
	Paired 4	.12346	1.68577	.13245	.35267
	Paired 5	13580	1.45963	.11468	.02380
	Paired 6	11111	1.34672	.10581	.29524
Reliability	Paired 7	06173	1.42162	.11169	.05812
	Paired 8	34568	1.62405	.12760	.00748
	Paired 9	00000	1.31876	.10361	1.00000

Table 5		
Dutur I Coursel	т	

Responsiveness	Paired 10	.01235	1.30450	.10249	.90427
	Paired 11	.00000	1.47863	.11617	1.00000
	Paired 12	22222	1.39208	.10937	.04382
	Paired 13	07407	1.39900	.10992	.0133
	Paired 14	.23457	1.33999	.10528	.02726
Assurance	Paired 15	10000	1.53451	.12131	.04110
	Paired 16	01235	1.32340	.10398	.90563
	Paired 17	06173	1.23455	.09700	.52542
Empathy	Paired 18	.14815	1.25219	.09838	.13406
	Paired 19	.14815	1.30403	.10245	.71820
	Paired 20	.08642	1.47187	.11564	.45597
	Paired 21	02469	1.40960	.11075	.82386

Discussion

This study has explored the gap between expectation and perception of students towards service quality of higher education institutions by using the SERVQUAL model, which was presented by Parasuraman and Zeithml in 1988. The results indicated that gap exists between expectation and perception of student's intangibility, reliability, responsiveness, and assurance dimensions of SERVQUAL model. These results are in line with previous researches (Akhlaghi, Amini, & Akhlaghi, 2012; Ijaz, A., Irfan, S., Shahbaz, S., Awan, M., & Sabir, M., 2011; Palli & Mamilla, 2012). This gap shows that the expectation of students for service quality of institutions are more than they perceive during their study. These results show that students of public institutions want that their institutions have the latest IT facilities, their teachers have updated, and modern and practical knowledge of their respective fields, the classroom should be facilitated with modern equipment. They also want that institutions train them for market and also conduct the oncampus interview. But public institutions are not able to provide the facilities to students according to their expectations. This negative gab makes them dissatisfy (Bigné, et al., 2003). Thus, it is the need of the time that management of higher institutions takes corrective actions to eliminate the gap between expectation and perception in all dimensions. In the results of these actions, the student will perceive good service quality of education and become satisfied with institutions (Narang, 2012).

Conclusion

This study indicated a difference between expectation and perception of the students regarding the service quality of education delivered them by the higher public education institutions of Lahore. Results of this study showed that public institutions demand the attention and kindness of top management and government to take corrective action for removing the gap between expectation and perception of students regarding the service

quality of education institution. This study also concluded that education institutions have to improve their teaching methods, faculty, a method of assessment, and link with industry, physical and academic facilities. So, students of these institutions are able to serve society more significantly.

Limitations and Recommendations

This research is conducted only on the 162 students of public institutions of Lahore, this type of research could also be conducted on the students of private education institutions. This research captures only the students of Lahore city of Punjab, Pakistan; it could be conducted on the complete education sector of Pakistan so that the results could be more generalizable. This construct can also be used in other developing and developed countries as well. Since there are few studies in the literature review, it leaves more room for further research in this domain.

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