

SERVICE QUALITY AND CUSTOMER SATISFACTION IN HIGHER EDUCATION IN PAKISTAN

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ABSTRACT

Customer service and quality are driving forces in the business community. As higher education institutions strive for better service quality, the assessment of educational service quality is required to provide feedback. This study analyzes the relationship between service quality and its dimensions that lead to customer satisfaction in higher education. The sample was drawn from 22 different universities of Pakistan. The study shows that the customer satisfaction is significantly related to reliability and assurance, whereas responsiveness, empathy and tangibility are less significant.

Keywords: *Customer satisfaction, higher education, service quality, student expectations*

1) INTRODUCTION

Education is defined as the process of receiving or giving systematic instruction, especially at a school or university (Dictionaries, 2013a). It is a process that develops character by imparting intellectual, moral, and social values. It produces knowledge and develops skills that are essential for the economic growth of a nation.

There has been a substantial growth in the number of higher educational institutions of Pakistan during the period 2000-13. There were 32 universities and 13 degree awarding institutions in Pakistan in the year 2000 out of which 14 universities and 8 degree awarding institutions were operating in the private sector (Ahmed & Ali, 2012). In April 2013, the number of public and private sector universities and degree awarding institutions in Pakistan rose to 81 and 66 respectively (HEC, 2013). This high growth increases the need for proper monitoring and evaluation to teach quality education.

This study analyzes the relationship between service quality and its dimensions that lead to customer satisfaction. It determines the dimensions that are considered more valuable and prioritized high by students in Pakistan for assessment of service quality and satisfaction in the higher education.

2) LITERATURE REVIEW

Quality is defined as the standard of something as measured against other things of a similar kind; the degree of excellence of something ... a distinctive attribute or characteristic possessed by someone or something (Dictionaries, 2013b). The quality of a product is its ability to satisfy the needs and expectations of the customer (Bergman & Klefsjo, 2004). According to ISO 9000 and ISO 8402 "quality is the totality of features and characteristics of a product or a service that bear on its ability to satisfy stated or implied needs" (ISO, 2013). Others defined quality as fitness for use (Juran & Gryna, 1988), conformance to requirement (Crosby, 1979), conformance to specification (Gilmore, 1974), meeting and/or exceeding customers' expectation (Parasuraman et al., 1985), performance over expectation (Besterfield, 1999), zero defect (Crosby, 1979), products' or services' ability to perform to their intended function without harmful effect (Taguchi, 1986).

Service oriented businesses often assess their service quality by identifying problems and better assessment of customer expectations and need (Berry et al., 1994). Service quality is about customer's perception of specific dimensions of services such as reliability, responsiveness, assurance, empathy, and tangibility whereas satisfaction is about perception of service quality, product quality, and price as well as situational and personal factors (Zeithaml & Bitner, 2000) (Olaleke, 2010) (Shekhar et al., 2010).

Higher education is the study beyond the level of secondary education at the end of which a degree, diploma, or certificate is awarded (Dictionaries, 2013). Due to the growing complexity of higher education measuring customer satisfaction at an educational is considered a challenge (Cloutier & Richards, 1994) (Quinn et al., 2009). The Task Force on Improvement of Higher Education in Pakistan (Ali & Lakha, 2002) identified issues in the higher education of the country and recommended a number of steps to address them.

Quality in education is defined differently by different researchers (Becket & Brookes, 2008) (Singh et al., 2008) (Allen & Davis, 1991) (Holdford & Patkar, 2003). A summary is given by (Sahney et al., 2003) in the following form:

"... excellence in education (Peters & Waterman, 1982); value addition in education (Feigenbaum, 1951); fitness for purpose (Reynolds, 1986) (Brennan et al., 1992) (Tang & Zairi, 1998); fitness of educational outcome and experience for use (Juran & Gryna, 1988); conformance of education output to planned goals, specifications and requirements (Gilmore, 1974) (Crosby, 1979); defect avoidance in education process (Crosby, 1979); and meeting or exceeding customer's expectations of education (Parasuraman et al., 1985)."

Satisfaction is a state felt by a person who has experienced an outcome that fulfilled his or her expectations (Kotler & Clarke, 1987). Palacio et al. (2002) state that in the higher education field student's expectations start building much earlier than entering into a university. In contrary Carey et al. (2002) believe that the experiences during the university years build students perception (AbuHasan et al., 2008). Gallifa & Batalle (2010) found that student's perceptions could differ in a multi-campus environment. With the increasing competition it is important for institutions to understand the expectations of the students as they are becoming more demanding and selective in their choice of an institute for their studies (Sukwadi et al., 2011). It becomes more important when the institution is trying to attract international students (Rasli et al., 2012).

Different dimensions and critical factors determining the quality and excellence in higher education have emerged in the last couple of decades (Harvey & Green, 1993), (Owlia & Aspinwall, 1996), (Srikanthan & Dalrymple, 2003), (Owlia & Aspinwall, 1996), (Srikanthan & Dalrymple, 2003), (Sahney et al., 2006), (Jain et al., 2013). Lehtinen & Lehtinen (1991) proposed three dimensions of service quality. Parasuraman et al. (1985) developed a multiple items scale for measuring service quality, which are reliability, responsiveness, assurance, empathy, and tangibility. In context of dimensions, the HEdPERF (Higher Education Performance) measure (Abdullah, 2005), (Abdullah, 2006a), (Abdullah, 2006b) and the PHED (Public Health Education) measure (Sultan & Wong, 2012) may be considered as comprehensive scales as these measures include a broad range of service attributes (41 and 67 respectively). Brochado (2009) examine performance of five alternative measures of service quality in the

higher education sector and conclude that SERVPERF and HEDPERF present the best measurement capability. Oldfield & Baron (2000) view *service quality in higher education from an organizational perspective and suggest that instead of focusing on what is important for students institutions should pay attention to what their students want*. Similarly, Joseph et al. (2005) point out that the traditional approach of service quality in higher education relies on the input from academics and administrators instead of the input from the students themselves.

Using SERVQUAL instrument Smith et al. (2007) found that the most important dimension for all customers in an IT department of a HEI was Reliability. Sultan & Wong (2010) proposed eight dimensions and related attributes and empirically tested the performance-based higher education service quality model. They suggested that the higher education managers should prioritize the dimensions and factors, and concentrate their efforts in order to further improve the quality of services. Table 1 shows different service quality dimensions suggested by different researchers in literature.

3) SERVICE QUALITY AND PERFORMANCE OF HEI

There are three major areas for measuring institutional performance; innovative learning, research excellence, and personal and professional development. With the realization of providing high quality services in developing educational curricula and administrative process the management and measurement of service quality has become an issue of great importance (Shekarchizadeh et al., 2011) (Al-Alak & Alnaser, 2012). Performance evaluation is another such area. Considering students as customers and the recipients of the service it is them who should measure the quality of the output of the provider, the instructor, whereas it the instructor who as provider should be responsible of the quality assurance of the service (Henard & Roseveare, 2012).

It is becoming difficult for higher institutions to maintain and enhance competitive advantages in their own target market (Cubillo-Pinilla et al., 2009). They should study the factors that enable them to attract and retain students (Markovic, 2005). It is also important for them to actively monitor the quality of services and safeguard the interest of stakeholders through the fulfilment of their real needs and wants (Zeshan, 2010) (Al-Alak, 2009) (Al-Alak & Alnaser, 2012). Thapa (2011) suggests the need to

apply principles of Total Quality Management (TQM) to improve overall quality of education.

Table 1: Quality Constructs as Indicated by Other Researchers

AUTHORS	SERVICE QUALITY DIMENSIONS
Parasuraman, Zeithaml and Bery 1985 (Parasuraman et al., 1985)	Tangibility
	Reliability
	Responsiveness
	Competence
	Access
	Courtesy
	Communication
	Credibility
	Security
	Understanding
	Standards of organizations
	Assessment and feedback
Entwistle and Tait 1990 (Entwistle & Tait, 1990)	Teacher’s enthusiasm and methodology
	Relevance and interest of the material to students
	Teacher’s interest in individual students
	Explanation of study material
	Difficulty, pace and quantity of workload
	Willingness for class involvement
	Physical quality
	Interactive quality
Lehtinen and Lehtinen 1992 (Lehtinen & Lehtinen, 1991)	Corporative quality
	Quality of education
	Teaching
Hampton 1993 (Hampton, 1993)	Social life-personal
	Campus facilities
	Effort to pass courses
	Social life-campus
	Student advising
	Faculty
	Reputation
LeBlanc and Nguyen 1997 (LeBlanc & Nguyen, 1997)	Physical evidence
	Administration
	Curriculum

AUTHORS	SERVICE QUALITY DIMENSIONS
	Responsiveness
	Access to facilities
	Technical quality
	Functional quality
Grönroos 1984 (Grönroos, 1984)	Reputational quality
	Institution image
	Student expectations
	Perceived quality of non-human resources
Kristensen, Martensen and Grønholdt 2000 (Kristensen et al. 2000)	Perceived quality of human resources
	Perceived value
	Students' satisfaction
	Students' loyalty
	Non-academic aspects
	Academic aspects
Abdullah 2006 (Abdullah, 2006a)	Reputation
	Access
	Program issues
	Understanding
	Recognition
	Quality of instruction and interaction with faculty
Pereda, Airey and Bennett 2007 (Pereda et al., 2007)	Sufficiency of resources
	Quality of faculty
	Tangibility
	Reliability
Brochado 2009 (Brochado, 2009)	Responsiveness
	Assurance
	Empathy

4) CRITICAL FACTORS OF QUALITY SERVICE

Based on successful or unsuccessful experiences a customer forms an opinion about the service quality by using same criteria to assess quality regardless of the type of service (Parasuraman et al., 1985). The following five dimensions may be used as judgment criteria by clients (Badri et al., 2005).

- **Tangibility:** the appearance of physical facilities, equipment, personnel and communication materials.

- **Reliability:** the ability to perform the promised service dependably and accurately.
- **Responsiveness:** the willingness to help customers and to provide prompt service.
- **Assurance:** the knowledge and courtesy of employees and their ability to convey trust and confidence.
- **Empathy:** the provision of caring, individualized attention to customer.

**Higher Education
Quality Service Factors
(Independent Variable)**

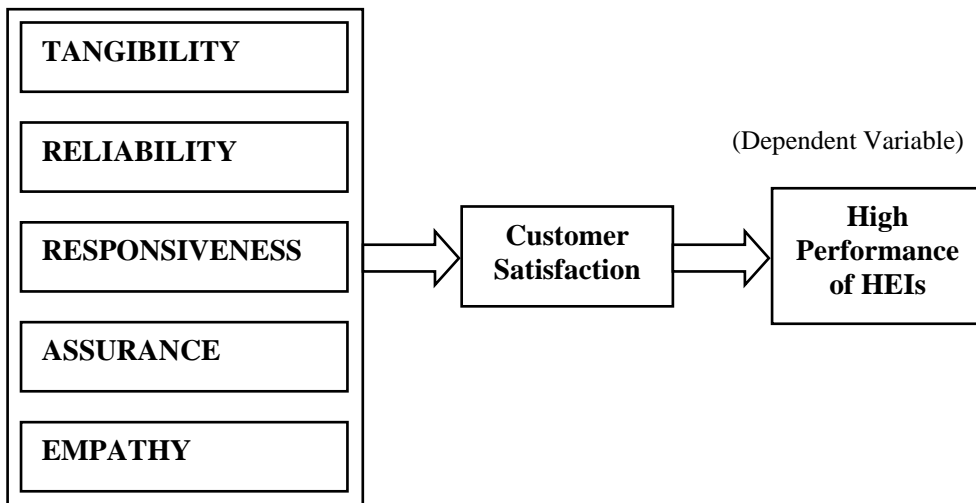


Figure 1: Higher Education Service Quality Model

5) PROBLEM IDENTIFICATION & RESEARCH QUESTIONS

The objective of this research is to find critical service quality dimensions that contribute most to the satisfaction of the students of the higher educational institutions in Pakistan. The research question thus formed is: "What would be the effect on the overall quality of service of an HEI if the quality of tangible services, reliability of services, responsiveness of services, assurance in services, and empathy in services is improved."

The following hypotheses are developed based on the above research question:

- H1: Tangibility: An increase in the quality of tangible services increases customer satisfaction.
- H2: Reliability: An increase in the reliability of services increases customer satisfaction.
- H3: Responsiveness: An increase in the responsiveness of services increases customer satisfaction.
- H4: Assurance: An increase in the quality of assurance in services increases customer satisfaction.
- H5: Empathy: An increase in the quality of empathy in services increases customer satisfaction.

6) RESEARCH FRAMEWORK AND METHODOLOGY

6.1) Profile of the Respondents

Figure 1 shows the reference model where customer satisfaction is the dependent variable whereas tangibility, assurance, responsiveness, reliability, and empathy are the dimensions of service quality.

The target sample was the students at undergraduate and graduate levels of different programs studying both in private and public HEIs. These educational institutes are chartered and regulated by Higher Education Commission of Pakistan (HEC) (HEC, 2013) and hence are a representative sample.

Two-stated sampling technique was used. Firstly, institutes were selected by assigning quota of 20% to each province (Sekaran & Bougie, 2010). By assigning the percentage (quota) to each province then we have 8 universities from Punjab, 8 from Sindh, 1 from Baluchistan and 5 from Khyber-PakhtunKhwa. Then we used convenience sampling to administer the research questionnaire. A total of 113 responses were received.

This study used questionnaire developed by AbuHasan et al. (2008) to obtain the data needed. The questionnaire is divided into three sections. First is about demographics that include age, province, university (optional), program/course, and status (enrolled or Alumni). The second section contains questions related to the five dimensions of service quality, namely tangibility, assurance, empathy, reliability, and

responsiveness, using Likert scale from 1 for strongly disagree to 5 for strongly agree. The last section is about the customer satisfaction.

The reliability of the instrument was tested through Cronbach Alpha. An alpha value of 0.70 or more is considered to be a good measure of consistency (Nunnally, 1988). All reliability alpha coefficients are above 0.70 as shown in Table 2.

Table 2: Reliability Results

Variable Type	Variable Name	Number of Items	Test (alpha)
Dependent Variable	Customer Satisfaction	6	0.908
Independent Variable			
1	Tangibility	16	0.810
2	Assurance	9	0.854
3	Reliability	7	0.799
4	Responsiveness	7	0.812
5	Empathy	7	0.743

7) RESULTS AND DISCUSSION

7.1) Profile of the Respondents

The demographics information includes gender, age and province and is given in Table 3. From the 113 respondents in the study, 41.6% are male and 58.4% are female. Among them 79.6% are between the age group 20-25 years. The table also shows that the respondents are fairly distributed among the four provinces of Pakistan.

Table 3: Profile of Respondents

Variables		Frequency	Percent
Gender	Male	47	41.6
	Female	66	58.4
Age	20-25	90	79.6
	26-30	18	15.9
	31-35	4	4.4
Province	Punjab	34	30.1
	Sindh	31	27.4
	KPK	28	24.8
	Baluchistan	20	17.7

7.2) Relationship between Service Quality Dimensions and Customer Satisfaction

Table 4 shows that reliability and assurance have strong relationship with customer satisfaction, which is followed by responsiveness, tangibility and empathy. The relationship between assurance and customer satisfaction is $r = 0.485$ which indicates the strongest relationship. While reliability ($r=0.479$) and responsiveness ($r=0.439$) have moderate relationship towards customer satisfaction, tangibility ($r=0.328$) and empathy ($r=0.253$) have weak relationship.

Table 4: Correlation Results

	Tangibility	Reliability	Responsiveness	Assurance	Empathy	Customer Satisfaction
Tangibility	1					
Reliability	0.581**	1				
Responsiveness	0.472**	0.586**	1			
Assurance	0.567**	0.606**	0.651**	1		
Empathy	0.427**	0.462**	0.497**	0.550**	1	
Customer Satisfaction	0.328**	0.479**	0.439**	0.485**	0.253**	1

Table 5 shows that R Square = 0.305 (adjusted R square = 0.272), It means that 30.5% of the variance in customer satisfaction are explained by the

five service quality dimensions. As shown in Table 6 the value of $F=9.378$ is significant at 0.000. This shows that model is significant.

From the result shown in Table 7 tangibility (unstandardized coefficient $B=-0.043$ at significance of 0.815 at $T=-0.235$), responsiveness (unstandardized coefficient $B=0.196$ at significance of 0.186 with $T=1.330$) and empathy (unstandardized $B=-0.140$ at significance of 0.341 with $T=-0.956$) are insignificantly related with customer satisfaction. Reliability has unstandardized coefficient $B=0.336$ at significance of 0.017 with $T=2.427$ and assurance has unstandardized coefficient $B=0.380$ at significance of 0.021 with $T=2.334$. It means that reliability and assurance are significantly related with customer satisfaction. Hence H1, H3, and H5 are rejected whereas H2 and H4 are accepted.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.552	0.305	0.272	0.72771

Table 6: ANOVA

Model	Sum of Squares	df	Mean Square	F	Significance
1Regression	24.832	5	4.966	9.378	0.000
Residual	56.664	107	0.53		
Total	81.496	112			

a) Predictors: (Constant), Empathy, Tangibility, Responsiveness, Reliability, Assurance

b) Dependent Variable: Customer Satisfaction

Table 7: Significance Values of the Hypotheses

Model	Unstandardized Coefficients		Standardized Coefficient Beta	T	Sig.	Decision
	B	Std. Error				
1(Constant)	0.821	0.531		1.547	0.125	
H1 Tangibility	-0.043	0.181	-0.025	-0.235	0.815	Rej.
H2 Reliability	0.336	0.138	0.276	2.427	0.017	Acc.
H3 Responsiveness	0.196	0.147	0.151	1.330	0.186	Rej.
H4 Assurance	0.380	0.163	0.286	2.334	0.021	Acc.

H5 Empathy	-0.140	0.147	-0.096	-0.956	0.341	Rej.
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sig. = Significance, Acc. = Accepted, Rej. = Rejected

8) CONCLUSION AND FUTURE WORK

In this research customer service quality dimensions that lead to customer satisfaction in the higher education sector of Pakistan were studied. The dimensions analyzed were: tangibility, reliability, responsiveness, assurance and empathy. The sample was drawn from 22 different universities spread across the four provinces of Pakistan. The study shows that the customer satisfaction is significantly related to reliability and assurance, whereas responsiveness, empathy and tangibility are less significant. Hence in order to improve the students' satisfaction the higher educational institutions of Pakistan need to focus on these dimensions.

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