Empirical Investigation of Service Quality and Students' Satisfaction in Higher Education

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Abstract

Higher educational institutions are able to gain students trust by treating them in equitable manner, handling their complaints in caring manner. Students' lives undergo a series of interrelated occurrence that persuades and overlies the student satisfaction. Thus, the main intention of this research was to comprehend the role of services quality in satisfaction of students with the value provided by their institutions, in return of what they have invested. This study also analyzes the difference between the satisfaction level of students of public and private universities towards quality of services. A standardized questionnaire to measure the higher education performance named HEdPERF, originally designed by Firdaus (2006) was administered to 190 business education students of private and public sector universities of Lahore city. The Research revealed that student satisfaction is more dependent upon the availability of resource person and resources. Results of study also showed a significant difference between satisfaction of students of public and private universities towards provision of quality services. This research suggested that universities should improve service quality on continuous basis.

*Keywords:*higher education, performance, student satisfaction, service quality, university

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Introduction

Customer satisfaction depicts a scenario when any exchange fulfills the expectations and needs of its users. It refers to comply with the prospects of customers by providing quality services and good regarding the price paid by them. In other words, customer satisfaction measures if supply of services and goods surpasses customer expectations. Oliver (1997) defines satisfaction as the customers' accomplishment response. Hasan, Ilias, Rahman, and Razak, (2008) states that satisfaction is a condition sensed by a person who goes through an outcome or performance that meets his/her expectations. In fact customer satisfaction, which is a business or marketing phenomenon mostly used in commercial mode, is now frequently employed in education. The commercialization of education has been fairly a recent trend that stems from the educational reform over the last two decades (Borgohain, 2016). It may profusely be expressed as progression of ownership and management of educational organizations or institutions whose main motive is earning profits in relations to the investments made. Many researchers argue about the positive and negative impacts of commercialization in education but with the start of 21st century, privatization, internationalization and expansion of higher education is being established.

The concepts of customer satisfaction and service quality are interconnected. As Devasagayam, Stark, and Valestinl (2013) refer satisfaction as a dynamic and ongoing process which occurs during the consumption of products and services, it refers that students of higher education may seek satisfaction when they fully utilize the services provided by their institutions. Provision of quality services is obligatory for organizations to maximize the students' satisfaction. Service quality according to Sultan and Wong (2012) may be defined as the entirety of attributes, features, characteristics and traits of a service of product that endures the capability of satisfying affirmed or oblique needs. Service quality is always contextual that is why several researchers have failed to agree on one definition of service quality (Khodayari&Khodayari, 2011; Biedenbach&Marell, 2010; Wang & Lo, 2002).

Universities in the world today are projected to seek and nurture modern knowledge to provide appropriate leadership and endeavor to endorse quality and social justice. For gaining success, the ideas of service quality and satisfaction of students has got sizeable considerations in public private sector universities. According to Malik, Danish, and Usman (2010), the provision of quality services in higher

education institutions is a vital feature regarded for inviting and retaining the students, which ultimately leads towards achieving excellence at higher education level. HEIs must prove steady sensitivity and compassion to the students' emerging needs and market requirements. In twenty first century where market is very competitive, student think that it is the service quality that matters most when it comes for making choices to have association with universities. Higher education institutions (HEIs) are gazed as service industry, in view of the fact that the endeavor of HEIs is to provide students with high quality learning experiences. Yeo (2008) narrates that service quality in the institutions of business education is exceedingly complex as it summarizes the institutional and psychological upshots.

Business education is regarded as a service and students of business education are considered being the customers (Cuthbert, 1996). The impression of students of business education as customers has been extremely disparaged (Fotaki& Prasad, 2015; Docherty, 2015; Bay & Daniel, 2008). According to Eagle and Brennan (2007), the use of market-place metaphors can do nothing but harm the educational process. Regardless of such criticism on the notion of students as customers, HEIs have the accountability to be aware of the fundamental aspects of student satisfaction so that they can figure out their own strengths and weaknesses. Alves and Raposo (2009) lay emphasis on the realization of steadfast reliable scales which may be utilized to make comparisons among assorted HEIs which require the differentiation and improvement strategies for measuring services quality.

Many authors in their studies argued that satisfaction of students is a crucial gauge of service quality in business education institutions (Arif, Ilyas, & Hameed, 2013; Tam, 2001). Finney and Finney (2010) conferred that there may exist more than one relationship between service provider and client, this argument also highlights that for satisfying students/customers, the organizations/universities need to make great efforts. Students need to be considered as co-producer of their learning instead of just letting those receiving services from the universities. For the said reason universities should get feedback on continuous basis for the purpose of measuring the satisfaction level of students with the services offered by the institutions. Feedback must contain all the dimensions including academic as well as administrative, and over all general satisfaction. Students evaluate services provided on the basis of their perceived image of the university and their prior expectation from that image of university. Quacquarelli (2010) confers that Eminent satisfaction of students will have an absolute positive

impact on students' motivation level as one student satisfied with services may cause to bring more admission in that university. Feedback is crucial everywhere but it is more vital in business education institutions as students are charged fees much higher as compared to other degrees and programs.

Students' satisfaction is believed requisite by Banwet and Datta (2003) because satisfaction escorts towards loyalty and trust. Besides, familiarization with students' needs assists HEIs to develop the plans for providing such services which can be helpful in satisfying the specific needs of students (Krachenberg, 1972). The determinants of students' satisfaction are: i) teaching, ii) administrative support, iii) empathy, and iv) overall satisfaction. It submits that to seek students' satisfaction, it is obligatory to provide quality teaching and administrative support to them. Empathy from institution side also leads to the trust and loyalty of students towards universities and teachers. Students' perceived overall satisfaction increases if teaching, and administrative services are provided by the universities with quality, expediency, and constancy.

Literature shows that students' satisfaction level differs when it is evaluated for diverse aspects and features of service quality (Alves &Raposo, 2007; Aldemir&Gülcan, 2004; Abouchedid& Nasser, 2002; Aldridge & Rowley, 1998; Anderson & Sullivan, 1993). Customer loyalty is one of the foremost indicators of quality and success of business (Klefsjö, Bergquist, &Garvare, 2008; Lin & Tsai, 2008). In the context of Higher Education, it is about positive behavior of students, and dispersal of positive words of mouth. As argued by Brown and Mazzarol (2009), perceived image, perceived quality of 'human ware' (e.g., people and process) and 'hardware' (e.g., infrastructure and tangible service elements) play an imperative position in perception of total quality and predicting student loyalty which is generated by student satisfaction with services provided.

HEdPERF model focus the quality of services in higher education by ascertaining the determinants of service quality in HEIs. According to HEdPERF service quality provided by HEIs has five dimensions, which are (i) Academic aspects, (ii) non-academic aspects, (iii) program issues, (iv) reputation, and (v) access. Academic services are defined as the services provided by teachers including courses and content. Academic services generally comprise of instructional quality, instructional methods, curriculum/content, competent and skilled teaching staff, etc. which contribute in the excellence of academic performance and achievement of students. Non-academic services may be defined as the services provided by the administrative bodies/units of university, such

as libraries, laboratories, rector office, registrar, dormitories, sports, health, hostels, faculty and admin offices etc. Students seek satisfaction if non-academic services are also provided properly as well as academic ones. Solution of program issues is one of the performance factors of HEIs which must be sorted out on priority bases. Reputation is of prime importance which attracts the students to take admission in well-reputed universities because it is considered for the HEIs to gain eminent position in society on the bases of provision of quality services to its customers. Access, being one of the most important factors of students' satisfaction refers to the convenience in availability and approachability of students to the logistics, faculty, administration offices, rector/HODs, libraries etc. In luminosity of the connotation of student satisfaction in business education institutions, (Abdullah, 2006a) designed a scale, named HEdPERF; especially measure the service quality in education institutions. As it is already discussed above that student satisfaction should be measured from different angles.

Hypotheses

Based upon the literature cited above and conceptual framework, following hypotheses were developed.

H_{01}: Academic aspect of service quality positively influences the student satisfaction.

H_{02}: Non-Academic aspect of service quality positively influences the student satisfaction.

H_{03}: Program issues positively influences the student satisfaction.

H_{04}: Reputation positively influences the student satisfaction.

H_{05}: Access positively influences the student satisfaction.

H_{06}: There is a difference between satisfaction level of students of public and private sector universities.

Research Methodology

The target population of this research was the students doing Masters in Business Administration (MBA) in universities (listed with HEC) of Lahore including public and private sector universities. Reason behind choosing only MBA student as population was that, as this research was about to measure satisfaction level of student acquiring higher education in business studies.

For data collection, self-administered questionnaire was utilized. In view of Oppenheim (1992), questionnaire is considered more consistent

and reliable tool than interviews because of less bias of researcher's own opinion over the respondents to which interview technique is very susceptible. For quantitative studies, questionnaires are regarded as the most appropriate method for data collection (Bryman& Cramer, 2009; Blaikie, 2000).

The scale to measure higher education performance i.e. HEdPERF was originally designed by Firdaus in 2005; initially it consisted of 41 items. In his further investigation through confirmatory factor analysis in 2006, items were reduced to 38 and named it as modified HEdPERF. This research adopts modified HEdPERF. To measure the level of satisfaction among the students this research adopts a questionnaire from national vocational training institute Taiwan 2008 that comprises of 20 items. This research uses self-administered survey questionnaire for collection of data. Blaikie (2000) and Bryman, and Cramer (2009) suggested that use of questionnaire is more suitable mean for studies that or measuring, quantifying concepts so that they can present some numerically data to the world. This study instrument contains total 58 questions/items that measure student's satisfaction in higher especially in business education. Data was collected from a sample of 190 students.

Data Analysis

Before going towards further analysis, adopted instrument was tested for reliability. For this purpose, tools were administered with 50 respondents and Cronbach's alpha value was calculated.

Table 1
Reliability of Scales

Instrument /Variable	Cronbach's Alpha
HEdPERF Questionnaire	0.87
Non-academic aspects	0.92
Academic aspects	0.89
Reputation	0.85
Access	0.88
Program issues	0.81
Customer Satisfaction	0.89

Reliability test shows the value of Cronbach's Alpha α=0.87 for HEdPERF questionnaire consists of 38 items. For individual variables, Cronbach's alpha value is also not less than the acceptable value that is

0.7. Coming towards the second instrument that was used to measure student satisfaction show the alpha value α=0.89 which evidently shows that questionnaire used for measuring the responses was consistent and reliable.

Table 2
Regression Analysis on the Prediction of Students' Satisfaction

Hypotheses	R	R^2	Adjusted R^2
1	.476	.227	.222
2	.940	.883	.881
3	.981	.962	.961
4	.989	.977	.977
5	.996	.992	.992

a. Predictors: (Constant), Non-academic aspect

b. Predictors: (Constant), Academic aspect

c. Predictors: (Constant), Program issue

d. Predictors: (Constant), Reputation

e. Predictors: (Constant), Access

f. Dependent Variable: satisfaction

Table 2 illustrates the model summary for regression analyses for hypotheses framework. For H_{01}, the value R^2=.227 depicts that satisfaction is almost 23% explained by 'non-academic aspects' of service quality. R^2=.883 shows that satisfaction is 88% explained by 'academic aspects', R^2=.962 confers that satisfaction is 96% explained by 'program issues', R^2=.977 shows that satisfaction is nearly 98% being explained by 'reputation' of organization whereas R^2=.992 explains that satisfaction is 99% being explained by 'access' aspects of service quality.

Table 3
Effect of Service Quality on Students' Satisfaction

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.959	1	1.959	52.171	.000[b]
Residual	6.685	178	.038		
Total	8.645	179			
Regression	7.631	2	3.816	666.356	.000[c]
Residual	1.013	177	.006		
Total	8.645	179			
Regression	8.317	3	2.772	1489.666	.000[d]
Residual	.328	176	.002		
Total	8.645	179			
Regression	8.449	4	2.112	1894.790	.000[e]
Residual	.195	175	.001		
Total	8.645	179			
Regression	8.579	5	1.716	4546.841	.000[f]
Residual	.066	174	.000		
Total	8.645	179			

a. Dependent Variable: satisfaction
b. Predictors: (Constant), Non-academic aspect
c. Predictors: (Constant), Academic aspect
d. Predictors: (Constant), Program issue
e. Predictors: (Constant), Reputation
f. Predictors: (Constant), Access

Above mentioned results of table 3 showed that every dimension of service quality has positive impact on student satisfaction. It explains that student satisfaction is being influenced by every aspect of the service quality. So universities and degree awarding institutes are here by suggested to make sure that they are ensuring all the aspects of service quality. Non-Academic Aspect of service quality got the lowest score. That depicts the students are least concerned with administrative support and most concerned about the other aspects.

After checking data for all the assumptions of linear regression and found satisfactory results, regression analysis was conducted for whole model. To test the hypothesis H_{01} that is Service quality positively influences the student satisfaction linear regression was tested.

Table 4
Regression Analysis on Students' Satisfaction

Model	R	R Square	Adjusted R^2	SEE	Durbin-Watson
1	.718[a]	.516	.513	.15335	2.442

a. Predictors: (Constant), HerdPERF

b. Dependent Variable: satisfaction

Table 4 provides R an R^2 values, R=.718 represents the simple correlation which indicates a high degree of correlation. Durbin Watson value is within the best fitting range (1.5-2.5) which fulfills the assumption of regression. The R^2=.516 indicates that .516% the total variation in satisfaction can be explained by service quality.

Table 5
 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.458	1	4.458	189.576	.000[b]
	Residual	4.186	178	.024		
	Total	8.645	179			

a. Dependent Variable: satisfaction
b. Predictors: (Constant), HerdPERF

In table 5, ρ <.05 indicates that the regression model predicts 'satisfaction' significantly well (i.e. it is good fit for data).

Table 6
Coefficients

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.192	.283		.677	.000
HerdPERF	.950	.069	.718	13.769	.000

To analyze the impact of service quality in higher education on student satisfaction, regression analysis was used. Findings point out that student satisfaction is almost 52% being explained by service quality that

means universities or degree awarding institutes having service orientation used to have more satisfied students the other competitor organizations. Service quality influences the satisfaction of student by 52% that means it is the most influential indicator of student satisfaction. Significance value .000 shows that the regression model is highly significant.

To test the sixth hypothesis, means values of satisfaction level of students of public and private universities were compared.

Table 7

Comparison of Public and Private Sector University Students' Satisfaction

Nature of Organization	N	Mean Value
Public	57	3.07
Private	133	4.1

Table 7 shows Mean value of satisfaction from public universities M_1=3.07 and mean value of satisfaction from private universities M_2=4.1. It is clear from table that there is a difference between mean values of satisfaction level of the students of private universities and public sector universities. Mean value shows that students of public sector universities are less satisfied as compared to the students of private sector universities.

Conclusions

The main objective of this research study is to ascertain the association between services quality and students' satisfaction in public and private sector business schools operating in Lahore. This research was also aimed at understanding the aspects of services quality in higher educational institutions with which students are more concerned and the aspects that are needed to be more focused by administration of the universities. Research model was found significant as the significance value is lesser than .05 and it has ability to predict the students satisfaction. R^2 is 0.52 which shows that 52 % of the variation in student satisfaction is being explained by this model.

The research revealed that student satisfaction is more dependent upon the availability of resource person and resources. Then the importance of academic aspects and the positive dealing of their problems by resource persons and support staff were rated as second priority by the students. Role of administrative staff like registrar and

examination office got the lowest score. Research findings support the result of previous studies like (Anderson & Sullivan, 1993; Douglas, McClelland & Davies, 2008). Therefore a causal relationship between these two constructs exists. The results suggest that service quality paradigm is a creator of student satisfaction. Hence resource persons and staff of the university should emphasize to improve the excellence of quality of education and relevant facilities in universities and degree awarding institutes.

Results also disclose that there is a gap existed between student's satisfaction level among private sector student and public sector universities' students. Compare means test statistics indicate that there is a noteworthy variance between satisfaction level of student enrolled in public and private universities.

This research also claims and suggested as many of the scholar believes that organizations/universities should improve service quality on continuous basis, as suggested by students. The institution will eventually face the shortcomings or difficulties due to lack of knowledge/awareness about the competitive nature of attracting students and measuring services quality (Angell, Heffernan, &Megicks, 2008). Consequently, a marketing strategy to the higher education perspective may bestow significant outcomes.

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