

DRIVERS OF STUDENT SATISFACTION IN HIGHER EDUCATION: EVIDENCE FROM MULTI- DIMENSIONAL SERVICE QUALITY CONSTRUCT

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ABSTRACT

The current economic environment, the decline in government funding, entry of private players, establishment of new institutions, increase in competition and internationalization of education has transformed higher education institutions into business organizations that are competing for resources and students. Recognizing this, most of the higher education institutions are trying hard to achieve quality and it has become the most significant goal for them. However, in present time of competition students' satisfaction and students' perception of institutional services must be prioritized by higher education institutions. The present study attempts to examine the effect of perceived service quality dimensions on student satisfaction in the context of higher education. We use data from post graduate students of commerce and management in six universities of Punjab, by using a self-administered modified questionnaire based on a Likert rating scale. Partial Least Square Structural Equation Modeling technique is used to examine relationships between service quality dimensions (functional quality, image and technical quality) and perceived satisfaction of students towards higher education. The study revealed that all three dimensions of service quality are positively and significantly associated to the student satisfaction. The strongest positive effect is between functional quality and student satisfaction. Imparting quality services to students is of paramount importance in the present time of competition. By improving upon their service delivery, the universities can enhance student satisfaction to a greater extent. We hereby declare that this present work is our own work and it contains no content previously submitted or published anywhere.

Keywords: Higher education, Perceived Service Quality, Student Satisfaction, Functional Quality

INTRODUCTION

Higher education sector across the world has experienced change due to increasing globalization and consequent changing environment e.g. increasing the mobility of students globally (Arambewela & Hall, 2006). Moreover, the current economic environment, the decline in government funding, entry of private players, establishment of new institutions and increase in competition has transformed higher education institutions into business organizations that are competing for

resources and students. Recognizing this, most of the higher education institutions are endeavoring hard to achieve quality and it has become the most significant goal for them.

In order to capture maximum students, even educational institutes are endorsing the marketing concept whereby students are regarded as customers. If students are considered as customers of higher education, their satisfaction is crucial. Shekarchizadeh *et al.* (2011) added that students being consumers of educational institutes, so institutes must seek to maximize their satisfaction. At present educational institutes are constantly trying to enhance the academic realm for their students and are seriously paying attention towards service quality and student satisfaction. The universities and colleges have realized that the long term survival depends on the degree to which the quality of their services match with students' expectations and the degree to which their students are satisfied with educational experience (Tsinidou, Gerogiannis, & Fitisilis, 2010).

Hence, the objective of this research is to examine the effect of perceived service quality dimensions on the perceived satisfaction of the students of selected universities in Punjab.

RATIONALE OF THE STUDY

The country has witnessed mushrooming of higher education in the past decade. Many new private and few public universities have come up during that period. Moreover, due to increasing demand for industry focused qualifications, specialized degree courses are gaining popularity and most of the universities are offering technical/ MBA degrees with focus on specific sectors. In this scenario, the students have got variety to choose among the large number of service providers (universities). Moreover, to bring more international students to higher educational institutions in India, the government has launched a new scheme 'Study in India' (as per Union Budget 2019-2020). It has become imperative for higher education institutes to provide quality services as it will form image of our education system on world map. The present research attempts to evaluate the quality of higher education system particularly university education from its beneficiaries i.e. students' perspective. So it will certainly help the educationists and institutional authorities to better understand the requirements of their prime customers and bring improvements in the areas where they lack.

LITERATURE REVIEW

Service Quality theory by Grönroos, (1982) & Parasuraman *et al.*, (1985) laid foundation for the measurement tool of service quality. Till then, with the increase in interest in the service quality management over time, a lot of research work was conducted on measurement of service quality. Three elements of service quality i.e. functional quality; technical quality and image were identified by Gronroos (1984). Technical quality pertains to what consumer receives during interactions with service firm or takes away when the production process of service is over. Functional quality relates to what happens during the interactions or how he gets the technical quality or outcome. Nordic model (i.e. matching perceived performance with expected service) is the foremost endeavor to compute the quality of service. It depicts the factors which lead to each side of (expected and perceived service) gap. It also demonstrates that the perceived service is not only based on reality of supplier quality but also on its image. This model didn't offer any tool to examine technical and functional quality. The focal point of Parasuraman's gap model and SERVQUAL scale is also on functional aspect of quality as mentioned by Gronroos (1984). In SERVQUAL model, Parasuraman *et al.* (1985) proposed that before encountering any service, customer has particular expectations and he collates those with the actual experience after receiving the service. Thus mathematically, Service Quality (SQ) = Perception (P)–Expectations (E). Despite of the popularity and usefulness of SERVQUAL in various service contexts such as airlines, banks, libraries, credit card companies, hospitality industry (Basheer, 2009), several studies have underlined theoretical, psychometric and operational concerns relating to number of facets of SERVQUAL measure. The SERVQUAL has also been criticized on the pretext that process or functional quality has been over emphasized whereas the researchers like (Gronroos, 1984) provided the dimensions like technical and image along with functional aspect. Cronin & Taylor (1992, 1994) suspected the conceptualization and usefulness of the expectations side of SERVQUAL model and through their research on four service industries empirically proved that SERVPERF based on performance only items of SERVQUAL showcase the stronger correlation with service quality as compared to perception minus expectation of SERVQUAL. They argued that concept of service

quality is like an “attitude” and can be worked out by adequacy-importance model. Lee *et al.* (2000) conducted an empirical study with the objectives to compare the disconfirmation model with the performance only model and to find key dimensions of service quality across different service industries i.e. people based service industry and equipment based service industry. Empirical investigations by the researchers found SERVPERF to be better fit than SERVQUAL as it explained more variance in overall service quality. Kang and James (2004) in their study in Korea used forty-three items adapted service quality scale to measure service quality and student satisfaction. The variables of the study included reliability, responsiveness, assurance, empathy, tangibles, technical quality, and image and customer satisfaction. The results of the study indicated that SQ consisted of three main variables naming technical, functional and image. Cardona and Bravo (2012) in their study based on data collection from under graduate students of a university of Columbia explored variables of perceived service quality like teaching methodology, availability of physical resources; context, campus environment; academic programs; communication devices and assistance to student needs; and information release of current activities. The findings depicted that student satisfaction can be increased by increasing positive perception of students relating to university life, positioning and image of university whereas variable semester of study was inversely related to student satisfaction. Rawas & Sagheir (2012) conducted a study based on sample of five colleges of one private university in Egypt. The findings of the study depicted that reliability, empathy, tangible and image was positively and significantly related with student satisfaction at 0.01 levels whereas responsiveness and technical teach method were not significantly related to student satisfaction. Empathy, tangible, image and reliability explains 33 per cent variance of student satisfaction. El-Hilali *et al.* (2015) conducted a study on 146 diploma students of one private college of Kuwait. The study concluded that along with five generic dimensions of service quality, other factors like teaching programs; methodology; image and reputation of college impacted student satisfaction significantly. A study by Chandra *et al.* (2019) investigated the impact of SQ & university image on the perceived satisfaction & perceived loyalty of students studying in different colleges in

Riau province. The results of the structural equation modeling confirmed a significant positive influence of service quality on perceived satisfaction of students. Moreover, perceived satisfaction positively and significantly influences perceived loyalty of students but service quality did not influence student loyalty. A further university image has a positive and significant impact on both student satisfaction and loyalty. Suyanto *et al.* (2019) in their study among students of Gorontalo University examined the direct effect of service quality on the institutional image and satisfaction of students, and analyzed the effect of institutional image on student satisfaction. The results of PLS-SEM indicated that service quality positively and significantly influenced both institutional image and student satisfaction. The further institutional image also influenced satisfaction of students. Moreover, service quality had a positive effect on student satisfaction through the image of the institution. The study suggested that by improving the SQ, institutional image and perceived satisfaction of students can be enhanced.

RESEARCH GAP

The existing literature on service quality in higher education reveals a number of gaps. The first gap relates to lack of empirical research with regard to students' perceptions of service quality in India and specifically in Punjab. Most of the studies have been conducted in foreign countries like USA, UK, Malaysia, Australia and Middle East countries. In most of the studies relationship between functional aspect of SQ and Student satisfaction has been examined. But none of the studies has adopted the Gronroos model of service quality i.e. the relationship between technical aspect of service quality and student satisfaction has not been examined in earlier studies. Impact of Image of the institution on student satisfaction has been examined in isolation in few studies. But the present research is going to examine the relationship between institutional image and student satisfaction along with relating the functional and technical aspect of service quality to student satisfaction. Moreover, present study is unique in the sense that it has considered functional quality as a second order construct (comprising accessibility, assurance, empathy, reliability, responsiveness and tangibility), which none of the previous studies reviewed has considered.

HYPOTHESES OF THE STUDY

The following broad hypotheses were formulated to test various objectives of the study:

H₀₁: There exists no significant relationship between functional quality and student satisfaction.

H₀₂: There exists no significant relationship between institutional image and student satisfaction.

H₀₃: There exists no significant relationship between technical quality and student satisfaction.

RESEARCH METHODOLOGY

Sample Determination

Descriptive research design is applied in the study and the scope of present study is limited to state of Punjab. Among the various public and private universities in Punjab and Chandigarh, a sample of six universities consisting three public universities (Panjab University, Guru Nanak Dev University and Punjabi University) and three private universities (Lovely Professional University, Chandigarh University and Chitkara University) was selected on the basis of their popularity and student strength. From these universities a sample of 600 students from M.B.A. and M. Com courses were chosen for data collection.

Sampling Techniques

The course of action a researcher follows in selecting the unit for the sample is called a sampling technique. In the present study, the researchers have used purposive sampling technique to gather the data from the students of selected departments of universities.

Design of Questionnaire

Based on literature review and scales used by previous researchers, a structured modified questionnaire after consultation with experts was prepared and used to collect the data. The questionnaire has been divided into two parts - the first part relates to the demographic profile of the respondents and the second part of questionnaire includes thirty eight statements (modified from Abdullah, 2006; Cronin & Taylor, 1992; Oldfield & Baron, 2000; Senthil Kumar & Arulraj, 2011; Shekarchizadeh *et al.*, 2011; Sultan & Wong, 2010) relating service quality dimensions and third part of questionnaire includes nine statements (adapted from Athiyaman 1997, Browne *et al.*, 1998 and Lee

et al., 2000) relating to overall satisfaction of students in relation to university education. All statements were assessed on a five-point scale ranging from 1 to 5, representing strongly disagree (SDA) to strongly agree (SA).

Collection of Data

The questionnaires were distributed among students of management and commerce departments of six universities in Punjab. Finally, 595 appropriate responses were utilized in analysis.

Tools and Techniques

Descriptive analysis was done by calculating frequency and percentages (Table 1). Partial Least Square Structural Equation Modeling technique (PLS-SEM) was used to examine relationships between service quality dimensions and perceived satisfaction of students by using Smart PLS version 3.3.2.

PLS- SEM is a chosen methodology for the present study as the conceptual model carries the construct of service quality (functional), that's a second order formative construct. Further, as the model includes reflective and formative modeling, the PLS-SEM is broadly approved multivariate analytical technique (Hair *et al.*, 2020; Hair *et al.*, 2014).

RESULTS

Demographic Profile

The demographic profile of the respondents in Table1 shows that 49.4 per cent responders were men and 50.6 per cent were women. In accord with age, 51.1 per cent respondents were of ≤ 22 years and 48.9 per cent was of ≥ 23 years. In terms of residential area, 55.1 per cent respondents belonged to urban areas and rest (44.9 per cent) belonged to rural areas. 48.2 per cent of respondents belong to service class families and 51.8 per cent of respondents belong to business class families. According to family income, majority of respondents i.e. 39.2 per cent had income from Rs. 30,001 to Rs. 60,000 followed by 23.2 per cent percent had family income from Rs. 60000 to Rs.100,000. 60.5 per cent of respondents were day scholars and 39.5 per cent of them were residential students of universities. With regard to academic performance, majority of respondents i.e. 38.1 per cent had marks ranging from 60 per cent to 70 per cent, followed by 33.3 per cent had marks between 70.1 per cent - 80 per cent in previous semester. According to the major or specialization of course,

28.6 per cent of respondents opted for finance, 26.5 per cent of respondents opted for marketing and 24.9 per cent of respondents opted for human resource management.

Table 1: Demographic Profile of Respondents

Particulars	Classification	Frequency	Percentage
Type of University	Public	299	50.25
	Private	296	49.75
Gender	Men	294	49.4
	Women	301	50.6
Age	≤ 22 years	304	51.1
	≥ 23 years	291	48.9
Residential Area of Student	Urban	328	55.1
	Rural	267	44.9
Family Background	Service Class	287	48.2
	Business Class	308	51.8
Monthly Family Income	Less than 30000	87	14.6
	30001 - 60000	233	39.2
	60001 - 100000	138	23.2
	More than 100000	137	23.0
Type of Student	Day Scholar	360	60.5
	Residential (Hostler)	235	39.5
Academic Performance	less than 60 per cent	86	14.5
	60 per cent to 70 per cent	227	38.1
	70.1 per cent to 80 per cent	198	33.3
	Above 80 per cent	84	14.1
Major of Course	Finance	170	28.6
	Marketing	158	26.5
	Human Resource management	148	24.9
	Others	119	20.0
Sample Size		595	100

Source: Primary Data 2020

Measurement Model Assessments

The outer model specifications were examined by using internal reliability and convergent validity checks of the model. The internal reliability of reflective constructs is confirmed through Cronbach’s Alpha, Dijkstra and Henseler’s Rho A and Composite Reliability (CR). The values of Cronbach’s Alpha and RhoA for all the constructs are adequately above the threshold of 0.70 to prove the reliability of constructs in this study. All the CR values in the present study shown in table 2 ensure the reliability of the variables applied for explaining the service quality dimensions. AVE values for all the constructs in the present study are above 0.50, thereby supporting the convergent validity of the variables in the measurement model (Hair *et al.* 2020).

Table 2: Internal Consistency Reliability and Convergent Validity of Measurement Model Constructs

Construct /Items	Type	Indicator Loadings	Cronbach α	RhoA	Composite Reliability	AVE
Accessibility	Reflective		0.876	0.876	0.915	0.729
ACC1		0.839				
ACC2		0.881				
ACC3		0.858				
ACC4		0.835				
Assurance	Reflective		0.892	0.893	0.921	0.699
ASS1		0.866				
ASS2		0.806				
ASS3		0.831				

ASS4		0.833				
ASS5		0.843				
Empathy	Reflective		0.851	0.851	0.91	0.771
EM1		0.908				
EM2		0.889				
EM3		0.836				
Reliability	Reflective		0.892	0.892	0.918	0.651
REL1		0.797				
REL2		0.827				
REL3		0.849				
REL4		0.836				
REL5		0.731				
REL6		0.794				
Responsiveness	Reflective		0.886	0.888	0.921	0.746
RES1		0.884				
RES2		0.867				
RES3		0.828				
RES4		0.874				
Tangibility	Reflective		0.885	0.887	0.916	0.686
TANG1		0.818				
TANG2		0.832				
TANG3		0.847				
TANG4		0.843				
TANG5		0.800				
Image	Reflective		0.894	0.896	0.922	0.703
IM1		0.82				
IM2		0.876				
IM3		0.833				
IM4		0.796				
IM5		0.864				
Technical (Academics)	Reflective		0.899	0.9	0.923	0.666
ACAD1		0.804				
ACAD2		0.83				
ACAD3		0.783				
ACAD4		0.811				
ACAD5		0.829				
ACAD6		0.838				
Satisfaction	Reflective		0.91	0.913	0.926	0.583
SA1		0.826				
SA2		0.733				
SA3		0.792				
SA4		0.755				
SA5		0.71				
SA6		0.771				
SA7		0.826				
SA8		0.731				
SA9		0.719				

Source: Primary Data 2020

Discriminant Validity Assessments

The discriminant validity confirms the degree to which a construct can be distinguished from the remaining constructs in the structural equation model (Fornell & Larcker, 1981).

Findings of the PLS discriminant validity assessment in Table 3 depict that diagonal values i.e. square root of AVEs of all the constructs are higher than the coefficients of correlation of the remaining constructs, thereby validating that each construct is clearly distinct from other.

As per Henseler *et al.* (2015), HTMT criterion is more cautious method for examining the discriminant validity concerning reflective construct. The findings of the PLS-HTMT ratio assessment for all the constructs are depicted in Table 4. The results of the present study depict that all the HTMT ratios are sufficiently lower than the

outset value of 0.85, thereby confirming the discriminant validity and demonstrating the uniqueness of all the constructs of the model.

Structural Model Assessments

The next stage relates to the structural model assessments. In the structural inner model, the inner VIF values were found to be lower than threshold limits of 3.33 with functional quality (1.963),

institutional image (1.717) and technical quality (1.737) on student satisfaction that ensures multi-collinearity issues were not present in this research. Next, the hypotheses in the structural model were tested using the bootstrapping method with 5000 sub samples in order to ascertain the desired p-values for the hypotheses formulated in the present study (Hair *et al.*, 2020).

Table 3: Discriminant Validity Assessments

Constructs	Satisfaction	Institution Image	Tech. Quality (Academics)	Accessibility	Assurance	Empathy	Reliability	Responsiveness	Tangibility
Satisfaction	0.764								
Institutional Image	0.609	0.838							
Technical Quality (Academics)	0.555	0.552	0.816						
Accessibility	0.57	0.46	0.474	0.854					
Assurance	0.573	0.466	0.497	0.545	0.836				
Empathy	0.487	0.382	0.381	0.438	0.462	0.878			
Reliability	0.584	0.505	0.495	0.558	0.531	0.465	0.807		
Responsive-ness	0.510	0.485	0.450	0.426	0.437	0.384	0.517	0.864	
Tangibility	0.457	0.426	0.411	0.424	0.365	0.324	0.446	0.345	0.828

Source: Primary Data 2020

Table 4: HTMT Ratios of Correlations

Constructs	Satisfaction	Institution Image	Tech. Quality	Accessible	Assurance	Empathy	Reliability	Responsiveness
Satisfaction								
Institutional Image	0.673							
Tech. Quality (Acad.)	0.612	0.616						
Accessibility	0.636	0.519	0.616					
Assurance	0.634	0.520	0.555	0.616				
Empathy	0.551	0.438	0.437	0.507	0.530			
Reliability	0.648	0.565	0.553	0.632	0.595	0.534		
Responsiveness	0.565	0.550	0.501	0.482	0.489	0.441	0.580	
Tangibility	0.505	0.476	0.459	0.481	0.408	0.357	0.499	0.385

Source: Primary Data 2020

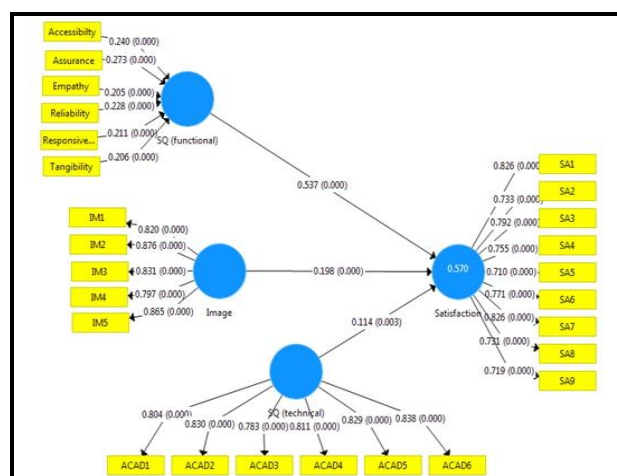


Figure 1: Relationship Between Service Quality Dimensions and Student Satisfaction

Functional quality was examined as a second-order construct for which latent variable scores of six reflective constructs were applied as formative assessment in structural model. The R^2 of the endogenous construct student satisfaction can be considered conservatively high at 56.8 per cent. In the present study student satisfaction is significantly determined by service quality (functional), institutional image and technical quality of service quality ($t=18.373$, $p<0.001$).

Further, the Standardized root mean square residual (SRMR) indices were used to investigate the goodness of fit criterion. The SRMR value of 0.04 in both saturated as well as estimated model is sufficiently low the value of 0.08 which ensures the good explanatory power of the model of study (Henseler *et al.*, 2015).

Table 5 results show that functional aspect of service quality is the most salient factor which positively impact perceived satisfaction of students towards educational experiences in universities ($\beta=0.537$, $p<0.001$), thereby rejecting H_01 . In connection with evaluating this formative construct (fig.1), all the dimensions i.e. accessibility, assurance, empathy, reliability, responsiveness and tangibility are positively and significantly related to the functional dimension of service quality. The most prominent dimension for functional quality construct is assurance (0.273, $p<0.001$), followed by accessibility (0.240, $p<0.001$), reliability (0.228, $p<0.001$), responsiveness (0.211, $p<0.001$), tangibility (0.206, $p<0.001$) and empathy (0.205, $p<0.001$). The above results indicate that all the six dimensions are the drivers behind the highly significant positive relationship between service quality (functional) and satisfaction of students.

Table 5: Structural Equation Modeling - Hypotheses Testing

Hypotheses	Path Relationships	Original Sample (Beta)	T-values	p-values	Decision
H₀₁	Functional Quality → Student Satisfaction	0.537	13.084	0.000***	Rejected
H₀₂	Institutional Image → Student Satisfaction	0.198	4.861	0.000***	Rejected
H₀₃	Technical Quality → Student Satisfaction	0.114	2.988	0.003**	Rejected

Path Model and PLS SEM Estimates. Notes: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

The second most prominent impact was exerted by institutional image on perceived satisfaction of

students in universities ($\beta=0.198$, $p<0.001$), so rejected H_02 . Further, students under study displayed that perceived service quality (technical) leads to perceived satisfaction of students in universities ($\beta=0.114$, $p<0.01$) and hence also rejected H_03 .

The effect size (f^2) and (Q^2) were used to test the predictive importance and relevance of the present model. The results reveal that technical quality ($f^2=0.017$) has no effect size on student satisfaction and institutional image ($f^2=0.053$) has small effect size on student satisfaction. However, service quality (functional) ($f^2=0.345$) has nearly large effect size and emerges the most important exogenous construct in explaining the endogenous variable of student satisfaction. The predictive relevance of the path model with second order Functional Quality, along with first order Institutional image and Technical Quality and Student Satisfaction was investigated by Q^2 and Q^2 value of 0.326 for student satisfaction exhibits the medium predictive relevance of the path model. It ensures that constructs are crucial for conceptual model of study and outcomes of the survey can be generalized in different settings in subsequent researches.

DISCUSSION AND THEORETICAL IMPLICATIONS

The present research was conducted to find relationship among SQ dimensions and overall satisfaction of students of selected public and private universities. A second-order construct i.e. functional quality together with other dimensions i.e. institutional image and academics (technical quality) is used in the study to examine the relationship with student examination. These three dimensions of service quality i.e. functional, image and technical quality were proposed by Gronroos (1984). The six factors reliability, assurance, empathy, tangibility, responsiveness and accessibility relate to functional aspect (how aspect of service delivery) as suggested by researchers (Buttle, 1996; Mangold & Babakus, 1991; Richard & Allaway, 1993). Besides five generic dimensions of service quality (functional) construct, the study recognizes that accessibility is another important aspect of the service delivery process in higher education. Hence, the findings of this study reveal that service quality theorists can detect or discover more dimensions in distinct service contexts.

Moreover, the results of the present study prove that a performance only measure can give significant results and act as a parsimonious tool for assessing service quality rather the complex disconfirmation process. The three exogenous constructs i.e. functional quality, institutional image and technical quality explain almost 57 per cent of the variation in student satisfaction. Although all three dimensions of service quality are positively related to the satisfaction of students (as hypothesized earlier), yet the strongest positive effect is between functional quality and student satisfaction. The present study also identifies the major drivers behind the strong relationship between functional quality and student satisfaction by providing an understanding of the relationship between functional quality and its sub- dimensions. Further, the results of the study conclude that although the most influential effect on satisfaction in university education is exerted by the functional aspect of service quality, yet satisfaction can be augmented by building a strong image and upgrading technical quality.

MANAGERIAL IMPLICATIONS

The results of the study confirm that functional quality exerts the most influential effect on student satisfaction in the higher education context. Hence, universities must pay attention to reliability, assurance, accessibility, empathy and responsiveness sub-dimensions of functional quality. By improving their processes of service delivery the universities can enhance student satisfaction to a greater extent. Besides the functional quality, image of university in students' mind regarding the ideal location and professional attitude of the university, their reputable programmes and tie-up with multinationals and easy employability of students have a significant impact on overall student satisfaction in universities. However, students perceive the image of the university from their outside references as well as from their personal experiences inside the university. Students may perceive the image of university favorable if they perceive the functional quality (the process of service) and technical quality (the outcome of service) of university high which will ultimately enhance student satisfaction as the institutional image significantly influences the student satisfaction. Hence, by further emphasizing and upgrading these, universities can

delight their students more who may then obviously recommend the universities to their family and friends.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Like other studies, the present study has a number of limitations that could become an insight for future research. Firstly, the study focuses particularly on respondents limited to six universities of Punjab and Chandigarh only. Therefore, the future study can be expanded for the measurement of perceived service quality in different states of country too. Secondly, the current research is conducted on postgraduate students of selected departments of universities only. Further research can be conducted on undergraduate students of different streams studying in public and private colleges. Thirdly, the present research focuses on the students' perspective of the perceived quality of Higher Education. In future research, the perspective of other stakeholders of education, such as the faculty, administrative staff, alumni, employers and parents of students can also be analyzed. Fourthly, the present study considered only the functional quality construct as a second-order construct in model. In future, researchers can extend the present model to incorporate other second-order constructs such as technical quality and institutional image. Finally, future research can be conducted to probe the mediating effect of an institutional image on the association between service quality, perceived student satisfaction & loyalty.

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