The Role of Student Expectation and Service Quality in Higher Education Institutions of Pakistan

Shaheen Fatima[1]
Aqeel Ahmed[2]
Samreen Fatima[3]
Nausheen Fatima[4]

Abstract

A sharp increase in tuition fee and the demand for efficient university graduates for employment from the employers' perspective has given rise to an increase in students' expectations. In private sector, students of Higher Education Institutions (HEIs) have greater expectations as they pay more money but the private sector HEIs do not have the required capabilities to meet such expectations. There are a lot of students who feel that the courses they are studying have no significant value against the money which they are paying to study these courses. The management of HEIs allocates more funds for research activities, updating libraries, innovative teaching methodologies, science laboratories and academic career services. Various studies showed how to gauge service quality in the specific area of higher education. The current study focuses specifically on first year/semester students of all academic disciplines of private sector HEIs. It is based on a questionnaire, and 162 responses were collected; data collection tool, that is, the questionnaire was administered personally by the researcher. By using Exploratory Factor Analysis, those dimensions of service quality were elaborated which had a considerable impact on students' expectations and also the factors that influence students' choice or priority to get enrolled in private sector universities. Reliability analysis of the 5 dimensions of service

[1] Hailey College of Commerce, University of the Punjab, Pakistan;
[2] University of Central Punjab, School of Business, Pakistan;
[3] Hailey College of Commerce, University of the Punjab, Pakistan;
[4] Institute of Quality and Technology department, University of the Punjab, Pakistan.
Correspondence concerning this article should be addressed to Shaheen Fatima, Hailey College of Commerce, University of the Punjab Lahore,Pakistan.E-mail:shaheenfatima344@yahoo.com

quality including reliability, tangibility, responsiveness, assurance and empathy depicted the value of Cronbach's alpha to 0.980. Factor Analysis of the five dimensions of service quality was also done .Loadings after Varimax rotation with Kaiser Normalization (KMO) by considering the values of loadings suppressed to 0.50 shows that 43 out of 48 items converged into 7 factors, while 5 items did not converge. The non-convergent items recommend the management of HEIs to focus on such areas of students' expectations.

1. Introduction

Universities have a critical role in respect of development of societies, educating professionals, businessmen, political leaders, and religious scholars (Mazhar & Akhtar, 2016). Higher education is crucial for knowledge based economies and globalization. The countries which ignored higher education in the past are paying a hefty price in terms of the deterioration of intellectual society. According to the World Bank Report (2000), economies which pay less attention to higher education will never reap benefits from the knowledge based economy.

In Pakistan during the years 2000-2018, the number of Higher Education Institutions (HEIs) has been raised. In 2000; there were 32 HEIs and 13 Degree Awarding Institutions (DAIs) in Pakistan. Out of these, 14 HEIs and 8 DAIs were private institutes (Ahmed & Ali, 2012). In 2013, private sector HEIs increased to 66 according to the Higher Education Commission (HEC) of Pakistan. By 2018, this number has increased to 78 according to the statistics provided by the HEC. Due to commercialization and an increase in the number of private sector HEIs, there is an urgent need to focus on their quality of education and on updating their service quality according to national and international standards. In doing so, the management of HEIs targets students' expectations land updates their service quality accordingly. In this way, the most and the least influential factor regarding students' expectations are analyzed. The current study aims to develop deeper and comprehensive view of quality education and the expectations it fosters among students that motivates them to give priority to private sector HEIs while getting enrolled. Moreover, weak

areas of students' expectations are also areas of concern for the management of HEIs and requires them to motivate the students to update their expectations in such areas.

1.1 Concept of Quality

The search for quality is a major concern of the customer according to Parasuraman, Zeithaml, and Berry (1985). Quality have been evolved from excellence to value, from conformance to specifications, from meeting to exceeding the expectations of customers (Pariseau & McDaniel, 1997). The concept of quality improvement was originally applied to manufacturing concerns but now its scope has been extended to services industry also. Quality in education has been defined by many researchers. A brief summary is presented by Sahney, Banwet, and Karunes (2003) in various words, "excellence in education and academics (Peters & Waterman Jr, 1982), value addition process in educational output (Feigenbaum , 1951), fitness for purpose (Brennan, 1992; Reynolds, 1986; Tang & Zairi, 1998), fitness of educational outcomes to planned goals and objectives, specifications and requirements in education (Gilmore, 1974; Crosby and Free, 1979), avoidance of defects in the educational process (Crosby & Free, 1979) and meeting or exceeding students' expectation from education (Parasuraman et al., 1985)."

1.2 Definition and Characteristics of Service

According to Kotler, Jatusripitak, and Maesincee (1997), services refer to set of activities that are offered by one person to other. Such activities are intangible and have no effect on ownership. Services can be either tangible or intangible (Zeithaml, Bitner, & Gremler, 1985). Service quality depicts the customer's perception in form of 5 dimensions including reliability, responsiveness, assurance, empathy and tangibility.

1.3 Service Quality

American Marketing Association (2012) explains that services can be delivered in a way that satisfies its recipient. In other words, service quality is the gap between expectations and performance. A business with high service quality will fulfill customer needs while remaining economical. Better service quality helps in increasing economic competitiveness.

2. Literature Review

Major needs of universities and students' expectations have obliged universities' management to focus on improvement of quality education (Thapa, 2011). It is imperative for HEIs to focus on competitive advantages (Cubillo-Pinilla, Zúñiga, Soret, & Sánchez, 2009). In-fact, their management should focus on such areas where students expects more and which constitute the reasons behind their motivation to get enrolled in universities (Marković, Horvat, & Raspor, 2005). So it's crucial for the management of HEIs to protect the interest of stakeholders and value the expectations of students by fulfilling their needs and wants (Zeshan, Afridi, & Khan, 2010; Al-Alak, 2009; Al-Alak & Alnaser, 2012). Measuring customers' satisfaction with HEIs is a great challenge for the educators (Cloutier & Richards, 1994). "Service Quality in higher education is ever changing" (Sultan & Wong, 2012b). The Quality of higher education is closely related to the quality of human resources (Napitupulu, Rahim, Abdullah, Setiawan, Abdillah, Ahmar, & Pranolo, 2018).

The Effectiveness of colleges and universities is considered at national priority in American society. The term 'effectiveness of universities and colleges' indicates what society expects to achieve from such institutions (Brint, Yoshikawa, Rotondi, Viggiano, & Maldonado, 2016). The performance of HEIs can be measured in three major areas including learning techniques, innovations in research and excellence and the development of academic faculty (Shah, 2013).The role of curricula and administrative process is significant in quality education, (Shekarchizadeh, Rasli, & Hontat, 2011; Al-Alak & Alnaser, 2012). The instructor is responsible for the service quality of education, (Henard & Roseveare, 2012). The expected need of quality education is fulfilled when national educational goals and objectives are met. These objectives are intended to achieve social, national and academic excellence. Some of the quality indicators to measure HEIs' performance of quality of education are the satisfaction of users, qualification, retention ratio of students, up-to-date learning methodologies, teaching criteria, research environment, changes in students' attitudes and employment opportunities. Chande (2006) and Van Schalkwyk & Steenkamp (2016) emphasized that there is a dire need for private Higher Education Institutions (PHEIs) of South Africa to develop Total Quality Service (TQS) framework. At the time of

independence in 1947, Pakistan had only one university that is Punjab University (Khawaja, 1996). Only 3% individuals of the age cohort 17 to 23 years were enrolled in various HEIs, which is the lowest ratio globally. Keeping in view such issues, Higher Education Commission (HEC) of Pakistan in 2006 had developed Quality Enhancements Cells (QECs) in 10 public sector universities and this number exceeded 20 cells in 2007-2008. In 2010, 15 more QECs were added in public sector HEIs and 17 in private sector HEIs. These QECs were developed for the improvement of academic, teaching and learning facilities. Now, almost all of the universities recognized by HEC have their QECs. Private sector universities have more knowledge management practices as compare to public sector universities (Mazhar & Akhtar, 2016).

Key factors that influence the quality of HEIs include the quality of facilities provided, standards of curriculum, technology, and infrastructure, opportunity of research facilities, accreditation regime, policies and procedure that are being implemented in HEIs. Accreditation should be at both departmental level and at institutional level (HEC, 2010).Various issues of plaguing quality education in HEIs of Pakistan included ineffective governmental and institutional policies and practices, inappropriate use of resources, insufficient funding, biased recruitment channels, absence of proper research environment and politics among staff, faculty and students (Dilshad, Rehman, Ahmad, & Iqbal, 2010).

2.1 SERVQUAL Model and Its Applications

The concept of service quality is tedious to measure as compare to physical goods according to Parasuraman, Zeithaml, & Berry 1985. Various instruments used for measuring service quality are Gap model of service quality and SERVQUAL. SERVQUAL was originally tested for validity and reliability in multiple service sector industries and is considered to be a comprehensive multiple-item scale. SERVQUAL was modified and used by various researchers. Soutar and McNeil (1996) and Pariseau and McDaniel (1997) used SERVQUAL in a small private school and concluded that students and faculty have different perceptions of the quality of education. Chua (2004) used SERVQUAL to measure service quality from the perspective of the various stakeholders of universities. Sherry, Bhat, Beaver, and Ling (2004) used SERVQUAL to access the perception of quality education of foreign students as compare to national students.

Cuthbert (1996a) used SERVQUAL as an instrument for measuring the service quality of higher education. SERVQUAL has 22 items grouped according to 5 major dimensions of service quality including reliability, tangibility, responsiveness, empathy and assurance. SERVQUAL in this paper is used to record students' expectations about the major issues related to quality education.

3. Research methodology:

3.1 Study Tool, Sample and Procedure:

SERVQUAL was used as a tool to tap students' expectations. Simple random sampling technique was used for data collection via questionnaire. The internal consistency of the questionnaire was calculated via Cronbach Alpha and its value was found to be 0.980. 5 dimensions of service quality by Parasuraman, Zeithaml, and Berry (1988), Othman and Owen (2001) and Jabnoun and Al-Tamini (2003) were explored in this research. A five point likert scale was used in this study to measure the expectation level of students moving from strongly disagree to strongly agree. Pakistan has 78 private sectors HEIs/DAIs, out of these only 29 have campuses operating in Lahore. (As per list of HEC Recognized universities and Degree Awarding Institutions, 2018). The current study is confined to the city of Lahore and its focus remains on first year/semester students' only. 21 private sector universities having campuses in Lahore were selected randomly from the list of HEC recognized universities. Out of 210 questionnaires distributed only 162 questionnaires were completely filled. The rest were either incomplete or wrongly filled, so they were not included in the sample. The percentage of respondents was 77% of the total sample.

Table 1

Items in each dimension of service quality along with respective Cronbach's Alpha

Dimensions of service quality	No .of Items	Alpha
Reliability (RELI)	1-13	0.936
Tangibility (TANG)	14-27	0.958
Responsiveness (RESS)	28-35	0.926
Assurance (ASSUR)	36-42	0.919
Empathy (EMPA)	43-48	0.914

4. Results

4.1 Descriptive Statistics

After performing the reliability test for individual dimensions of service quality, table 2 shows descriptive statistics regarding the five dimensions of service quality .It shows a high mean value for reliability' (3.7683) and low value for responsiveness' (3.6447).

Table 2

Descriptive Statistics

Dimensions of Service Quality	Mean	Std. Deviation
Reliability	3.7683	0.89331
Tangibility	3.7104	1.05002
Responsiveness	3.6447	1.04650
Assurance	3.7644	0.99020
Empathy	3.7233	1.06313

Kaiser –Meyer-Olkin (KMO) and Barlett's test of sphericity were used to measure the adequacy of data (Williams, Onsman, & Brown, 2010). The KMO value calculated was 0.901as shown in table 3, which is marvelous for factor analysis. The second technique of Barlett's test of sphericity shows whether correlation matrix is an identity matrix or not. This technique shows a significant P value of 0.00 which is less than 0.05 as presented in table 4.

4.2 Measures of Sample Adequacy

Table 3

KMO Sample adequacy values

KMO Values within	Comment
0.9	Marvelous
0.8	Meritorious
0.7	Middling
0.6	Mediocre
0.5	Miserable
less than 0.50	Unacceptable

Source: Measure of Factor Analysis of University of Texas, Austin

Measure of appropriateness of factor analysis at the University of Texas, Austin explaining the appropriateness of KMO values.

Table 4

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.901
Bartlett's Test of Sphericity	
Approx.Chi-Square	5170.681
Df	1128
Sig.	0.000

Table 4 shows that KMO value is 0.901 which is marvelous as per table 3 .So it is proved that the data is suitable for exploratory factor analysis .The significant P value is 0.00 which is less than 0.05, hence it proves the significance of data.

4.3 Exploratory Factor Analysis (EFA)

It is a multivariate statistical technique which is used to uncover a wide range of variables .EFA is a technique of factor analysis and its major goal is to explore the relationship between measured variables. Furthermore, this technique minimizes less important factors regarding each measuring variable.
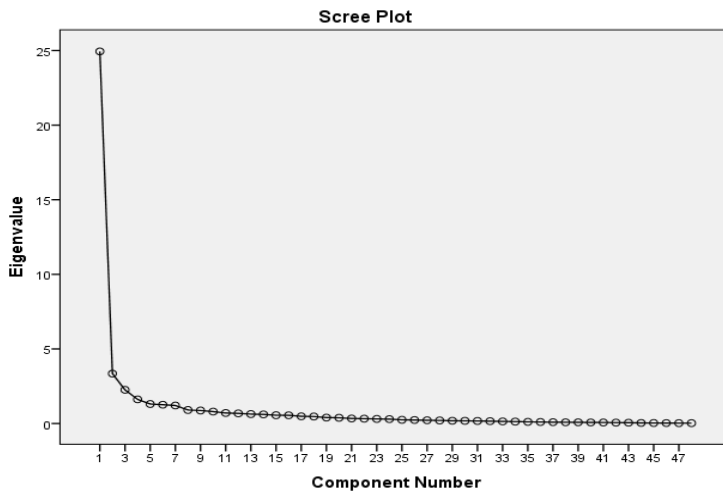
Figure 1. Scree plot

As shown in the scree plot a flattening line and eigen value falling below 1 show that the items included in the study converge into seven factors. Rotated component matrix shows that 43 out of 48 items converge into seven factors, while five factors do not converged. These non-convergent items are shown in table 6.

4.4 Principal Component Analysis

It shows a cumulative percentage of variance and eigen value>1. Seven factors were extracted having approximately 74.8% of total variance as shown in table 5. All the cumulative values are greater than one. Factor loadings show the strength and direction of factors .It determines how strongly the factors influence measuring variables. Annexure B shows a factor loading pattern in which items load highly on other factors (greater than 0.50).

Table 5

Extraction Sums of Squared Loadings

Total and cumulative variance due to extracted factor		
Factor	**%of variance**	**Cumulative%**
1	51.962	51.962
2	6.974	58.936
3	4.704	63.640
4	3.373	67.013
5	2.721	69.734
6	2.630	72.364
7	2.517	74.881

Whether items representing the dimensions of service quality converge or not is shown in Annexure B. Rotated Component Matrix was used and loading less than 0.50 were ignored, since these loadings are non-significant (Black, Hair, Anderson, Tatham, & Babin, 2006). Further Annexure B elaborates 43 items which converged into 7 factors, while the remaining 5 items did not converge.

4.5 Non- Convergent Items

43 out of 48 items converged into seven factors while the remaining 5 items did not converge. Such areas should be the top priority for the management of HEIs for improving service quality in these areas .It would be more attractive for new admissions because students expect more from private sector HEIs.

Table 6

Non-Convergent Items of Service Quality that need to be focused by Management of HEIs

Labels/codes	Explanation
TANG20	Library is equipped with latest and up-to-date books, journals, search engines, international newspaper, magazines etc.
TANG21	The laboratories are well equipped with latest equipment and facilities to boost research activities.
TANG24	Up-to-date computer laboratory facilities along with free access to international journals, books downloading facility etc.
TANG25	University provides the facility of publication of research work.
ASSUR42	Quality of teaching is evaluated fairly and proper feedback is also linked with the evaluation process.

Student expectation is extremely regarding the factors of tangibility' and assurance'. The relevant dimensions are as follows:

1. TANG20: Students have no expectations with library to provide them with up- to-date books and the availability of other resources in libraries.
2. TANG21: Students of private HEIs are least concerned to explore their study material and experiments in well-equipped laboratories.
3. TANG24: The availability of smart phones have made students of private HEIs negligent in using up to date computer laboratories in universities. In this way, they move away from accessing various international journals whose access is free in universities' computer laboratories.
4. TANG25: Students of private HEIs are least concerned with research publications .They have no expectations in this area.

5. ASSUR42: Students of private HEIs have no expectations with fair evaluation of teaching and proper feedback that is mandatory in evaluation.

5. Conclusion and Recommendations

With an increase in attention paid to the service quality of HEIs, the need to increase the use of assessment tools also heightens. The purpose of the research paper was to mention those factors that explain the expectations of students while they prefer enrolment in private sector HEIs. The use of Exploratory Factor Analysis, Principal Component Analysis , and Rotated Component Matrix showed that 43 out of 48 items converged into 7 factors with loadings greater than 0.50, while 5 items did not converge (see table 6).

Following recommendations   are made on the basis of non- convergent items:

- TANG20: There is an increase in the ratio of library non users among students in private HEIs. Library management should ensure encompassing and appealing services to all users .In this way, the expectations of students regarding the non-use of academic libraries will decrease.
- TANG21: Laboratories play a distinctive and indispensable role in any physical and experimental work. It motivates the students to test their findings by performing experiments. Such an activity will boost their academic and learning levels and achievements. Students of private HEIs have no interest in laboratory work as they are not willing to make the required efforts and they are not confident about their findings. So they have low expectations regarding laboratories and they substitute experimental work with other non-practical activities.
- TANG24: Technology is expensive but it should be relevant to coursework. Technology assists in achieving academic excellence since it facilitates social interaction and e learning via distance education and online courses. Students of private HEIs are not aware of using technology as a learning tool. In today's digital era interaction with technology is mandatory. Computer labs should not be abused and there should be separate sitting areas for male and female students. By focusing on the above suggestions, the

management of private sector HEIs should motivate their students for using IT labs.

- TANG25: Research publication is the acknowledgment of research findings. Students should be encouraged to publish their research findings as research is not completed until it is published. The management of HEIs should provide opportunities to students to recognize the importance of research work. Students should be active contributors in the process of knowledge creation .Students should be encouraged to attend research conferences. Management should council students to increase their expectations regarding the importance of research work.
- ASSUR42: Students of private HEIs have low expectations regarding fair evaluation of quality of teaching. They don't have any expectations with feedback on quality education. The management of private sector HEIs should create awareness among students regarding the importance of fair evaluation of the quality teaching and should create a proper feedback channel.

The advantages and contribution of research findings will assist the management of HEIs in decision making and budgeting while keeping in view students' expectations of service quality because the students of private sector HEIs expect more as compare to public sector universities. This study has several limitations. Firstly, it is limited to the measurement of service quality from the perspective of students' expectations only. Secondly, it is limited to private sector universities only. Thirdly, the study is limited to the city of Lahore, and finally the expectations of only first year/semester students were measured. In future, researchers can measure students' expectations of quality education in public sector HEIs and can compare the results of both public versus private sector HEIs of Lahore, Pakistan.

References

Ahmed, R., & Ali, S. I. (2012). Implementing TQM practices in Pakistani higher education institutions. *Pakistan Journal of Engineering, Technology & Science, 2*(1), 1–26.

Al-Alak, B. A. (2009). Measuring and evaluating business students satisfaction perceptions at public and private universities in Jordan. *Asian Journal of Marketing, 3*(2), 33–51.

Al-Alak, B. A., & Alnaser, A. S. M. (2012). Assessing the relationship between higher education service quality dimensions and student satisfaction. *Australian Journal of Basic and Applied Sciences, 6*(1), 156–164.

Brennan, J. (1992). *Towards a methodology for comparative quality assessment in European higher education: A pilot study on economics in Germany.* Netherlands, United Kingdom: ERIC.

Brint, S., Yoshikawa, S. R., Rotondi, M. B., Viggiano, T., & Maldonado, J. (2016). Surviving and thriving: The adaptive responses of US four-year colleges and universities during the great recession. *The Journal of Higher Education, 87*(6), 859–889.

Black, W. C., Hair, J. F., Anderson, R. E., Tatham, R. L., & Babin, B. J. (2006). *Multivariate data analysis* (6th ed). London: Pearson International.

Cloutier, M. G., & Richards, J. D. (1994). Examining customer satisfaction in a big school. *Quality progress, 27*(9), 117.

Crosby, P. B., & Free, Q. I. (1979). *The art of making quality certain: How to manage quality-so that it becomes a source of profit for your business.* New York: McGraw-Hill.

Cubillo-Pinilla, J. M., Zúñiga, J., Soret, I., & Sánchez, J. (2009). Factors influencing international students´ evaluations of higher educational programs. *The Journal of Academy of Business, 15*, 270–278.

Cuthbert, P. F. (1996). Managing service quality in HE: Is SERVQUAL the answer? *Managing Service Quality: An International Journal, 6*(2), 11–16.

Chua, C. (2004). Perception of quality in higher education. Paper presented at the *Proceedings of the Australian universities quality forum.* Retrieved from http://citeseerx.ist.psu.edu/view doc/download?doi=10.1.1.125.3578&rep=rep1&type=pdf

Chande, S. U. (2006). Performance indicators of an institute of higher education. Paper presented at the *1ˢᵗInternational Conference on Assessing of Quality in Higher Education Lahore,Pakistan.*

Dilshad, S. R., Rehman, N., Ahmad, N., & Iqbal, A. (2010). Documentation of ethnoveterinary practices for mastitis in dairy animals in Pakistan. *Pakistan Veterinary Journal, 30*(3), 167–171.

Feigenbaum, A. V. (1951). *Quality control.* New York: McGraw-Hill Book.

Gilmore, H. L. (1974). Product conformance cost. *Quality Progress, 7*(5), 16–19.

Henard, F., & Roseveare,D. (2012). *Fostering quality teaching in higher education: Policies and practices*. Paris: Institutional Management in Higher Education.

Jabnoun, N., & Al-Tamimi, H. A. (2003). Measuring perceived service quality at UAE commercial banks. *International Journal of Quality & Reliability Management, 20*(4), 458–472.

Khawaja, A. H. (1996). Difficulties and possibilities in university. *Pakistan Perspective, 1*(3). University of Karachi,Karachi

Kotler, P., Jatusripitak, S., & Maesincee, S. (1997). *The marketing of nations: A strategic approach to building national wealth.*New York: Free Press.

Marković, S., Horvat, J., & Raspor, S. (2005). Service quality management in health tourism sector: An exploratory study. *Ekonomski vjesnik: Review of Contemporary Entrepreneurship, Business, and Economic Issues, 17*(1-2), 63–75.

Mazhar, S., & Akhtar, M. (2016). Knowledge management practices: A comparative study of public and private sector universities at Lahore. *Journal of Quality and Technology Management, 12*(1), 81–90.

Napitupulu, D., Rahim, R., Abdullah, D., Setiawan, M. I., Abdillah, L. A., Ahmar, A. S., Pranolo, A. (2018). Analysis of student satisfaction toward quality of service facility. Paper presented at *the IOP Conference Series: Journal of Physics: Conference Series 954.* Retrieved from https://iopscience.iop.org/article/10 .1088/1742-6596/954/1/012019/pdf

Othman, A., & Owen, L. (2001). Adopting and measuring customer service quality (SQ) in Islamic banks: A case study in Kuwait finance house. *International Journal of Islamic Financial Services, 3*(1), 1–26.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual: A multipleitem scale for measuring consumer perc. *Journal of Retailing, 64*(1), 12.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *The Journal of Marketing*, *49*(4), 41–50.

Pariseau, S. E., & McDaniel, J. (1997). Assessing service quality in schools of business. *International Journal of Quality & Reliability Management, 14*(3), 204–218.

Peters, T. J., &Waterman Jr, R. H. (1982). *In search of excellence*. New York: Harper & Row.

Reynolds, P . A., (1986). *Academic standards for universities* (London: CVCP). Reynolds Academic Standards in Universities 1986.

Shekarchizadeh, A., Rasli, A., & Hon-Tat, H. (2011). SERVQUAL in Malaysian universities: Perspectives of international students. *Business Process Management Journal, 17*(1), 67–81.

Shah, F. (2013). Service quality and customer satisfaction in higher education in Pakistan. *Journal of Quality and Technology Management, 9*(2), 73–89.

Sherry, C., Bhat, R., Beaver, B., & Ling, A. (2004, July). Students as customers: The expectations and perceptions of local and international students. Paper presented *at the HERDSA 2004 Conference, Sarawak.* Retrieved from https://www.research gate.net/profile/Rama_Bhat3/publication/225083814_Students _as_customers_The_expectations_and_perceptions_of_local_a nd_international_students/links/53cfdc520cf25dc05cfb2f0e/Stu

dents-as-customers-The-expectations-and-perceptions-of-local-and-international-students.pdf

Soutar, G., & McNeil, M. (1996). Measuring service quality in a tertiary institution. *Journal of Educational Administration, 34*(1), 72–82.

Sahney, S., Banwet, D. K., & Karunes, S. (2003). Enhancing quality in education: Application of quality function deployment–an industry perspective. *Work Study, 52*(6), 297–309.

Sultan, P., & Wong, H. Y. (2012). Cultures' consequences in the assessment of higher education service quality: The case of CQU, Australia. Paper presented at *the Sharing the Cup of Knowledge, Australian and New Zealand Marketing Academy Conference (ANZMAC), Adelaide.* Retrieved from https://www.researchgate.net/profile/Parves_Sultan/publication /253340348_Cultures'_Consequences_in_the_assessment_of_ Higher_Education_Service_Quality_The_Case_of_CQU_Aust ralia/links/02e7e51f8a95bba1f3000000.pdf

Tang, K., & Zairi, M. (1998). Benchmarking quality implementation in a service context: A comparative analysis of financial services and institutions of higher education: Part II. *Total Quality Management, 9*(7), 539–552.

Thapa, T. B. (2011). Total quality management in education. *Academic Voices: A Multidisciplinary Journal, 1*, 80–83.

Van schalkwyk, R. D., & Steenkamp, R.J. (2016). A top mangement perspective of total quality management perspective of total quality dimensions for private higher education institutions in South Africa. *Southern African Business Review, 20*(1), 577–599.

Williams, B., Onsman, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine, 8*(3), 1–13.

World Bank. (2000). *Report on higher education in the developing countries: Peril and promise.* Oxford University Press.

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (1985). Services marketing. *Journal of Marketing, 49*(2), 33–46.

Zeshan, A., Afridi, T., & Khan, S. (2010, December). *Assessing service quality in business schools: Implications for improvement.*Paper presented at the 3rd International Conference on Assessing Quality in Higher Education, Lahore, Pakistan.

ANNEXURE A

Annexure A shows the coding of the dimensions of service quality used in this study.

Reliability (RELI)

RELI1: Readily availability of admission forms at appropriate places.

RELI2: Preparation of learning objectives of each module.

RELI3: In order to achieve the learning objectives, syllabus and class activities should be designed accordingly.

RELI4: The curriculum should fulfill the requirements of the degree program.

RELI5: students should be involved in teaching process.

RELI6: Relevant case studies should be discussed in class.

RELI7: In advance determination of learning level.

RELI8: Development of students' communication skills.

RELI9: Course contents should be up to date according to national and international standards.

RELI10: Fair and unbiased assessment criterion.

RELI11: Merit based admission process.

RELI12: Fair entrance admission test.

RELI13: counseling of Students while selecting courses during the admission.

Tangibility (TANG)

TANG14: prospectus includes complete details of all degree programs.

TANG15: Impressive campus appearance.

TANG16: Medical facility is provided in university premises.

TANG17: Transport facility is provided to students.

TANG18: Hostels facility is provided to outstation /foreign students.

TANG19: Needy scholarships are provided to deserving students.

TANG20: Library is equipped with up to date books.

TANG21: The laboratories have latest equipment and facilities.

TANG22: Lab facility is available for the students.

TANG23: Proper facility of computer labs in university campus.

TANG24: Computer labs are well equipped and up to dated.

TANG25: Books and journals are published from the university.

TANG26: Comfortable furniture in the class rooms.

TANG27: Well equipped classrooms with the latest teaching aids (e.g. multimedia, electronic boards etc.)

Responsiveness (RESS)

RESS28: course outlines along with description is available in detail on the university official website.

RESS29: Online registration details of the students.

RESS30: Online Class notes and reading material.

RESS31: Class announcements or updates are communicated via email etc.

RESS32: Students should be given an opportunity to give their feedback regarding teaching methodologies and various facilities.

RESS33: Students queries are responded quickly and promptly.

RESS34: Results available on the official website of university.

RESS35: Display of results within stipulated time.

Assurance (ASSUR)

ASSUR36: Competent teaching faculty.

ASSUR37: Subjects specialist faculty.

ASSUR38: Foreign qualified and experienced faculty.

ASSUR39: Up to date faculty knowledge.

ASSUR40: SOP's followed for teaching, examination and admission.

ASSUR41: Administrative matters followed according to the university regulations.

ASSUR42: Fair evaluation of quality of teaching.

Empathy (EMPA)

EMPA43: Cooperative and supportive faculty attitude

EMPA44: Academic culture is promoted.

EMPA45: Alumni follow up services.

EMPA46: Liaison between students and university authorities.

EMPA47: University management listens to the opinion of students.

EMPA48: Celebrations of different events in university.

ANNEXURE B

DIMENSIONS OF SERVICE QUALITY	Rotated Component Matrix							
	ITEMS	Components						
		F1	FF2	FF3	FF4	FF5	FF6	F7
Reliability	RELI1	.656						
	RELI2	.685						
	RELI3	.657						
	RELI4	.681						
	RELI5	.640						
	RELI6	.694						
	RELI7	.751						
	RELI8	.681						
	RELI9	.650						
	RELI0	.626						
	RELI11	.610						
	RELI12	.551						
	RELI13			.530				
Cronbach Alpha	0.936							
Tangibility	TANG14			.582				
	TANG15			.657				
	TANG16			.712				
	TANG17			.740				
	TANG18			.657				
	TANG19			.568				
	TANG22							.571
	TANG23							.541
	TANG26				.657			
	TANG27				.575			
Cronbach Alpha	0.958							
Responsiveness	RESS28				.674			
	RESS29				.645			
	RESS30						.624	
	RESS31						.716	
	RESS32						.697	
	RESS33						.510	
	RESS34				.703			

	RESS35				.594			
Cronbach Alpha	0.926							
Assurance	ASSUR36					.595		
	ASSUR37					.596		
	ASSUR38					.590		
	ASSUR39					.538		
	ASSUR40					.652		
	ASSUR41					.708		
Cronbach Alpha	0.919							
Empathy	EMPA43		.512					
	EMPA44		.635					
	EMPA45		.801					
	EMPA46		.708					
	EMPA47		.749					
	EMPA48		.813					
Cronbach Alpha	0.914							
KMO coefficient	0.901							
Significant of Bartlett	0.00							