IMPACT OF SERVICE QUALITY ON STUDENT SATISFACTION IN HIGHER EDUCATION: A COMPARATIVE STUDY OF PUBLIC AND PRIVATE UNIVERSITIES IN PAKISTAN

Asma Tahir
MPhil Student
Institute of Administrative Sciences
University of the Punjab, Lahore

Iman Saleem
Lecturer
Institute of Administrative Sciences
University of the Punjab, Lahore

Abstract
        The study purpose is to examine overall service quality (OSQ) and eight service quality dimensions to analyze their influence on student satisfaction (SS) in a (private and public) educational institution of Pakistan. A quantitative approach opts as a research strategy. The findings explore that OSQ and SS are positively associated with both universities, whereas the influence of OSQ is slightly high in a private university. This study covers only "Faculty of management science" students in Pakistan. Therefore, it might be valuable to acquire different stakeholder's views like directors, teachers, parents and university administrators later on future studies. This study will grow awareness among higher education experts and will benefit universities with gaining a competitive edge.

Keywords: Service quality, Student Satisfaction, Higher Education, Service Quality Dimension

Introduction

        Service quality along with Student Satisfaction has gained increasing attention worldwide. These concepts are manifested as significant fundamentals in making a good strategy of Higher Education Institutions, which empower them to retain and attract

students in their institutions (Advani, 2015; Hwang, 2019; Ladhari, 2009). Several previous investigations have contemplated the associations between them in various settings. One constraint of these investigations is that few of them have done a comparative study on service quality in academic segments of Pakistan (Mukhtar, 2015; Rehman, 2012). However, such a relationship is somewhat limited in academic sectors especially the comparative study of public and private institutions (Viswanath & Faizaan, 2016).

The quick advancement of academic institutions encourages students in acquiring service quality. In addition, there is a lot of competition in providing better service quality among educational institutions. Furthermore, the previous investigation was primarily focused on service quality of private educational institutions (Adinegara & Putra, 2016; Kajenthiran & Mahadevan, 2015; Nurrahmawati, 2019). The study purpose is to examine overall service quality (OSQ) and eight *"service quality dimensions"* and analyze their influence on SS in a *(private and public)* educational institution of Pakistan**. "**Eight service quality dimensions in the higher education includes interaction quality, support facilities, campus, non-academic process, input quality, curriculum, industry interaction, and academic facilities" (Viswanath & Faizaan, 2016, p. 74). This study was conducted on students to have insight knowledge about their satisfaction with the services delivered to them.

Research Objectives and Questions

- What is the influence of overall service quality on student satisfaction in *(public and private)* universities?
- What is the influence of each service quality dimensions on student satisfaction in *(public and private)* universities?

Literature Review

Education institutions have turned into the engines of growth for learning-driven economies in the period of fast globalization (Goel, Engel, & McCarthy, 2019). They act as a fountainhead of technology and modern science. Such institutions of higher education were perceived as a service industry (Sharp, 2021). The approach of considering education institutions like the service sector

31

and student as the customer has gained a lot of interest in the literature (Guilbault, 2018; Paricio, 2017). One of the reason is that it has intangible nature of service and satisfies both perishability and heterogeneity criteria. In the service sector, providing high service quality is seen as the main determinant of success factor and competitiveness (Hadi, Aslam, & Gulzar, 2019). It helps to retain students in institutions and act as an antecedent to student satisfaction.

Service Quality

Service quality is described as an instrument that measures the high quality of the services and essential for the survival of the organization (Ramya, Kowsalya, & Dharanipriya, 2019). SQ is also considered as a benchmark that customers anticipate from the delivery of service provided to them (Khoo, 2020). SQ in an educational context means how the student observed the service in light of what he/she may have received in university (Hwang, 2019). There are many definitions regarding SQ but there is no consent of researcher in definition and measuring techniques of it. The most used definition by the researcher includes "Service quality is the ability of the organization to meet or exceed customer expectations" (Awoke, 2015, p. 146). The definition of SQ used in this study means "services that focus on the satisfying need of the customer (student) to shape the impression of the services delivered to them referred to as service quality" (Sia, 2011, p.147).

Service Quality Dimensions

The brief explanation of dimensions of service quality with example is given below with the help of the table:

Table 1

The table showing below gives a brief explanation of "Dimensions of service quality"

Service Quality Dimensions		
Dimensions	**Explanation**	**Example**
1. **Non-Academic Process**	Non-Academic Process contains the administrative process of the institution such as complaint handling,	Handling of student's demographics, contact details, academic records, official transcripts,

		examination, admission procedure, results in compilation and registration etc. (Jain, Sahney, & Sinha, 2013).	degree and other documents.
2.	**Interaction Quality**	Interaction quality contains the effective two-way flow of interaction between the service provider and the client, or his/her delegate that strongly influence value outcome (Thuy, Hau, & Duyen, 2019).	Interaction with staff members, classmates, students, faculty members and alumni as well.
3.	**Academic Facilities**	Academic facilities are structured, fabricated and made accessible for encouraging smooth tasks of an education institute (Weerasinghe & Fernando, 2018).	Facilities like *"lecture rooms, labs, library, hostel, cafeteria, social areas, security, lighting, computer laboratories, and other physical elements"*.
4.	**Curriculum**	The curriculum is typically observed as an educational plan in higher academic institutions to involve students in acquiring information and	A collaborative and interactive procedure created among students, teachers, learners and the environment.

33

	knowledge heading towards a diploma, degree and certificates (Wang, 2014).	
5. **Campus**	The campus includes physical or tangibles facilities as an important framework for the procedure of education and learning process (Saeed, Sheema, & Kayani, 2019).	Such facilities indicated towards the presence of the "equipment, physical surrounding, visually appearance facilities, and environment of the university".
6. **Industry Interaction**	Industry interactions are seen as a framework where active cooperation and information sharing of all players is imperative (Shen & Tang, 2018). Such a framework is of collaborative, innovative, interactive, technology and participative nature.	Internship, On the job training, seminars, workshop, industrial tour, contemporary teaching methods and industry expert lecture.
7. **Support Facilities**	Support facilities are those facilities that are easily accessible and approachable to everyone like health care and recreational facilities	Healthcare facilities, gymnasium, badminton, tennis, cricket, cycling, skiing, swimming, skating, football etc.
8. **Input Quality**	Conditions such as technical and organizations are included in input quality (Kowalik & Klimecka, 2018).	Technical conditions such as service delivery location (building), equipment (devices, tools, and machines), and staff possessed aspects (experience and

34

		knowledge). Moreover, the attitude of staff, atmosphere and delivery time of service are some examples of organization conditions

Customer (Student) Satisfaction

The present global situation has enforced educational institution to view students as the "customer". The employers, student and other stakeholders can also be viewed as the customers (Guilbault, 2018). In this study, students are taken as customers. Universities are perceiving that students are actually customers and there is a need to give educational services during the student time spent in the university. Customers for educational institutions are students and the student's satisfaction is a significant element for institutions survival (Elahinia & Karami, 2019). The reason is that students are the first and only recipients of the services given by universities.

It is frequently stated that "The customer is always right". This quote is usually true that organization usually have the desire of being recognized and appreciated by the customers. For this purpose, the perception of customers is significant and fundamental to every service industry that ultimately leads to customer's satisfaction (Fida, 2020). In this study, SS is comprehended from the perspective of SQ delivered to the students by the HE institutions. SS is directly related to perception. It can be more clear from the understanding of student satisfaction which is used in this study, states that "Student satisfaction is a result of the perception of service quality delivered by the universities"(Rita, 2017). When the perception of students about the service is good, SS will be high. It is a significant marketing concept for HE institutions. Student being a primary customer in this study, their satisfaction is of great importance. Therefore, the focus of this investigation is to see the influence of all dimensions of SQ and OSQ on SS in the (*private and public*) educational sector. Thus, the hypothesis is made which is as follows:

> - **Hypothesis No 1 a:** OSQ is positively linked with SS in public university
>   **Hypothesis No. 1 b:** OSQ is positively linked with SS in private university
> - **Hypothesis No. 2 a**: OSQ will positively influence SS in public university
> - **Hypothesis No. 2 b:** OSQ will positively influence SS in private university
> - **Hypothesis No. 3**: OSQ will positively influence SS in private and public university

Eight "*service quality dimensions*" are collectively treated as OSQ. Hence, the hypothesis of each dimension are discussed below:

35

➢ **Hypothesis 3a**: Non-Academic Process will positively influence SS in private and public university
Hypothesis 3b: Interaction Quality will positively influence SS in private and public university
Hypothesis 3c: Academic Facilities will positively influence SS in private and public university
Hypothesis 3d: Curriculum will positively influence SS in private and public university
Hypothesis 3e: Campus will positively influence SS in private and public university
Hypothesis 3f: Industry Interaction will positively influence SS in private and public university
Hypothesis 3g: Support Facilities will positively influence SS in private and public university
Hypothesis 3h: Input Quality will positively influence SS in private and public university

Conceptual Framework

It is termed as "a network of linked concepts. It comprises such concepts that are used as the main variables in the research. It also consists of narrow or specific ideas that a researcher uses in his/her research. Moreover, *"Conceptual frameworks guide the paths of research and offer the foundation for establishing its credibility"*(Adom, Hussein, & Joe, 2018, p. 438). The conceptual basis of the topic is given below:
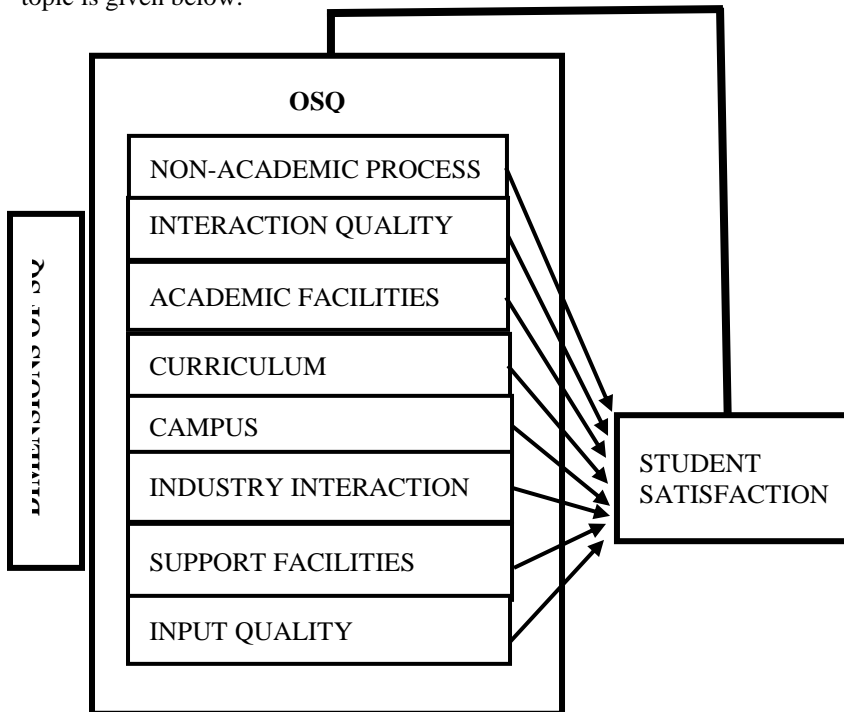
Figure 1: The above research model showing the influence of "OSQ & Dimensions of SQ" on SS

Research Methodology

This study was conducted on students of one private and public university in Pakistan to have insight knowledge about their satisfaction with the services delivered to them. This research is cross-sectional. It is considered as a critical matter which is central to research studies in social science as well as numerous different disciplines (Abutabenjeh & Jaradat, 2018). A quantitative approach was used as a research strategy in this study. The study type is descriptive and non-probability sampling is the technique applied to draw the sample out of the total population in this study. In non- probability sampling, convenience sampling was adopted to comprehend the influence of "OSQ" on "student satisfaction" in academic institutions. The study adopted the Jain (2013) questionnaire to see the influence of "OSQ" on "student satisfaction" in academic institutions. To collect primary data, questionnaires have been circulated amongst the students of "Faculty of management sciences" in the public and private university. Data is collected through online and self-administered questionnaires in this study. The data was analyzed via the "*Statistical Package for Social Sciences*" program (SPSS 20), which is applied for statistical examination of data. Furthermore, the entered data was first checked and then rectified. Out of 739 questionnaires, 49 questionnaires were completely disposed of as a result of inadequate information and data of 690 questionnaires were inspected cautiously. Slovin's Formula is commonly applied to know the sample size for survey research. The study is comparative in nature and population of one public and private university is the target population of this study, which is determined through available sampling frame. The target population size for one public and private university is 5731 and 1500 respectively. Sampling error is 5%. So, the sample size is given below:

"Calculation of sample size by using Slovin's Formula"
$$n = N/(1+Ne^2)$$
Where n = *sample size*, N = *total population*, e = *sampling error*

Public University	**Private University**
n = 5731/1+5731(0.05*0.05) n = 5731/ 1+14.32 n = 5731/ 15.32 ***n = 374***	n = 1500/1+1500(0.05*0.05) n = 1500/ 1+3.75 n = 1500/ 4.75 ***n = 316***

Results Findings and Discussion:

Data was analyzed via the "*Statistical Package for Social Sciences*" program (SPSS 20). To check instrument reliability, "*Cronbach's alpha*" is applied

37

on OSQ, SS and overall reliability are also checked which value includes 0.836, 0.816 and 0.848 respectively, specifying tool reliability highly significant. To evaluate sample characteristics, the demographic analysis takes place. As indicated by "Central limit theorem", data which has a larger sample size (more than 30) are normally dispersed (Kwak & Kim, 2017). Sample size in this study is 690, which is larger than 30 which indicated that the data is normally distributed (Kwak, 2017) . Standard deviation value also determines normal distribution. The condition of normal distribution also includes that *"68% of the data should fall within one standard deviation of the mean"* (Field, 2013). The standard deviation of OSQ, satisfaction and all data are 0.724, 1 and 0.728 respectively. These values are prominently close to 1, which depicts that data spread possesses normal distribution (Kwak, 2017).

Regression Analysis

 "Regression analysis is a method that is used in this study because it is suitable to comprehend the relationship between one predictor (independent) variable and one outcome (dependent) variable" (Lisa & Sandro, 2017). There are some requirements that are satisfied in this study for doing regression analysis. Such requirements are described below:

       1. Homogeneity of variances should exist

       2. Linear regression requires no auto-correlation

       3. Multicollinearity should not take place

OSQ and eight service quality dimensions were regressed against student satisfaction (dependent variable). The significant value of OSQ, as well as each dimension, were observed to be significant as $p < 0.05$. Therefore, the influence of OSQ and all eight dimensions on student satisfaction were positively significant. The analysis demonstrates that all dimensions have some sort of influence on SS in both universities, which indicates that results are supported. But, low influence of "Curriculum" (ß = 0.304, t = 6.155, p= 0.000) discovered on SS in public university as shown in Table: 20, whereas "Input quality" has least influence on SS in private university. This highlights that these two dimensions are not considered important in their respective universities from the SS point of view. Some research has found "Industry interaction" and "Curriculum" that greatly influence SS (Viswanath & Faizaan, 2016), whereas this study notices different results. The analysis discovered the high influence of "Interaction quality" (Public "ß= 0.613, t= 14.974, p= 0.000"), (Private "ß= 0.650, t= 15.171, p= 0.000") and "Academic Facilities" (Public "ß= 0.521, t= 11.761, p= 0.000"), (Private "ß= 0.553, t= 11.768, p= 0.000") on student satisfaction (Table: 2) as compared to other dimensions. This implies that students see these two SQ dimensions as noteworthy characteristics that should be offered by education institutions (private and public). So, it can be specified that these dimensions are significant in both university and a source of great satisfaction to students.

Table 2: Overall Model Summary

Model	Standardized Coefficients (Beta)		t value		Significant Value	Results
	Public	Private	Public	Private	Both	
OSQ→ SS	0.638	0.724	15.991	18.611	0.000*	Supported
Non-Academic Process→ SS	0.467	0.583	10.436	12.700	0.000*	Supported
Interaction uality→ SS	0.613	0.650	14.974	15.171	0.000*	Supported
Academic Facilities→ SS	0.521	0.553	11.761	11.768	0.000*	Supported
Curriculum → SS	0.304	0.509	6.155	10.475	0.000*	Supported
Campus→ SS	0.354	0.485	7.306	9.835	0.000*	Supported
Industry Interaction → SS	0.419	0.523	8.911	10.873	0.000*	Supported
Support Facilities→ SS	0.374	0.444	7.782	8.789	0.000*	Supported
Input Quality→ SS	0.338	0.419	6.934	8.179	0.000*	Supported

Multiple Regression Analysis

This analysis is applied in this study for a clear description of the impact of all the variables on dependent variables. Such analysis depicts that eight SQ dimensions influence student satisfaction greatly in private university as compared to the public. This means that students of the private university are more satisfied with OSQ given to them by their institute. This could be predicted as high SS depend on high OSQ in private university as shown below:

39

Table 3: Multiple Regression Analysis

Model	Standardized Coefficients (Beta)		Significant Value	
	Public	Private	Public	Private
Input Quality	0.056	0.023	0.017*	0.047*
Curriculum	0.016	0.114	0.048*	0.023*
Industry Interaction	0.063	0.102	0.025*	0.042*
Campus	0.023	0.031	0.021*	0.031*
Academic Facilities	0.249	0.109	0.000**	0.000**
Support Facilities	0.064	0.064	0.046*	0.041*
Non-Academic Process	0.177	0.215	0.022*	0.001**
Interaction Quality	0.419	0.339	0.000**	0.000**

Conclusion

The study purpose is to examine overall service quality (OSQ) and eight service quality dimensions to analyze their influence on student satisfaction (SS) in a (private and public) educational institution of Pakistan. The results indicated that all hypothesis was supported, demonstrating that all dimensions have some sort of influence on SS in both universities. However, the high influence of Interaction quality and Academic Facilities on student satisfaction were discovered. These result findings will add a valuable contribution to the present literature and guide experts and policymakers of the education sector about the importance of SQ on SS, which will provide them with the solution to the problems that emerge during the delivery of SQ. Furthermore, this study will help universities in identifying important SQ dimensions for gaining a competitive edge in this global world of information and innovation.

Limitation and Future Implication

This study is confined to only one private and public university and covers only "Faculty of management science" students in Pakistan. Therefore, the study outcome or findings may not be generalizable. The future research will be done across other cultures as perspective and thoughts differ regarding SQ and SS.

40

Future investigation can be done on other faculty or department's students to have insight knowledge about their satisfaction on the SQ delivered to them. Likewise, researchers can present a new variable, for example, behavioral intention as a "moderating variable" in future investigation. Moreover, it might be valuable to acquire the view of different stakeholders like directors, teachers, parents and university administrators later on future studies.

Acknowledgement

Reference

Abutabenjeh, S., & Jaradat, R. (2018). Clarification of research design, research methods, and research methodology:A guide for public administration researchers and practitioners. *Teaching Public Administration, 36*(3), 237-258. doi: 10.1177/0144739418775787

Adinegara, & Putra. (2016). Assessment of Service Quality in Higher Education: Case Study in Private University. *International Journal of Business and Management Invention, 5*(9).

Adom, D., Hussein, E., & Joe, A.-A. (2018). Theoretical and Conceptual Framework: Mandatory Ingredients of a Quality Research. *International Journal of Scientific Research, 7*(1), 438-441.

Advani, G. M. H. M. S. M. A. (2015). "Measuring the endeavors' Impact of Quality Enhancement Cell on Quality of Higher Education system in Pakistan. A case of Private and Public

41

Universities in Pakistan,". *Journal of Management for Global Sustainable Development*, 37-39.

Awoke, H. M. (2015). Service Quality and Customer Satisfaction: Empirical Evidence from Saving Account Customers of Banking Industry. *European Journal of Business and Management, 7*(1).

Elahinia, N., & Karami, M. (2019). The influence of service quality on Iranian students' satisfaction, loyalty and WOM: A case study of north Cyprus. *Journal of Management, Marketing and Logistics (JMML), 6*(1), 21.

Fida, B. A.-B. (2020). Impact of Service Quality on Customer Loyalty and Customer Satisfaction in Islamic Banks in the Sultanate of Oman. *SAGE Open*, https://doi.org/10.1177/2158244020919517.

Field, A. (2013). *Discovering Statistics using IBM SPSS Statistics.* Sage Publications Ltd.

Goel, Engel, & McCarthy. (2019). Reassessing globalization: new perspectives on education in the tumult of global change. *Discourse: Studies in the Cultural Politics of Education, 40*(5), 757-759. doi: 10.1080/01596306.2019.1626173

Guilbault, M. (2018). Students as customers in higher education: The (controversial) debate needs to end. *Journal of Retailing and Consumer Services, 40*, 295-298. doi: https://doi.org/10.1016/j.jretconser.2017.03.006

Hadi, N. U., Aslam, N., & Gulzar, A. (2019). Sustainable Service Quality and Customer Loyalty: The Role of Customer Satisfaction and Switching Costs in the Pakistan Cellphone Industry. *Sustainability, 11*(8), 2408.

Hwang, Y., & Choi, Y. (2019). Higher education service quality and student satisfaction, institutional image, and behavioral

42

intention. *Social Behavior and Personality: An international journal, 47*(2). doi: https://doi.org/10.2224/sbp.7622

Jain, R., Sahney, S., & Sinha, G. (2013). Developing a scale to measure students' perception of service quality in the Indian context. *The TQM Journal, 25*(3), 276-294. doi: doi:10.1108/17542731311307456

Kajenthiran, & Mahadevan. (2015). Service Quality and Student Satisfaction: A Case Study of Private External Higher Education Institutions in Jaffna, Sri Lanka. *Journal of Business Studies, 1*, 46-61.

Kowalik, K., & Klimecka, D. (2018). The process approach to service quality management. *Production Engineering Archives 18*, 31-34. doi: 10.30657/pea.2018.18.05

Khoo, K. L. (2020). A study of service quality, corporate image, customer satisfaction, revisit intention and word-of-mouth: evidence from the KTV industry. *PSU Research Review*.

Kwak, S. G., & Kim, J. H. (2017). Central limit theorem: the cornerstone of modern statistics. *Korean journal of anesthesiology, 70*(2), 144-156. doi: 10.4097/kjae.2017.70.2.144

Ladhari, R. (2009). Service quality, emotional satisfaction, and behavioural intentions: A study in the hotel industry. *Managing Service Quality: An International Journal, 19*(3), 308-331. doi: doi:10.1108/09604520910955320

Lisa, & Sandro. (2017). Realigning the Master of Public Health (MPH) to Meet the Evolving Needs of the Workforce. *Pedagogy in Health Promotion, 4*, 237337991774669. doi: 10.1177/2373379917746698

Mukhtar, U., Anwar, Suleman, Ahmed, Umaid, Baloch, Muhammad Awais. (2015). Factors Effecting the Service Quality of

43

Public and Private Sector Universities Comparatively: An Empirical Investigation. *Researchers World, 6*(3).

Nurrahmawati. (2019). *The Analysis of Private University Service Quality and Image.* Paper presented at the Social and Humaniora Research Symposium (SoRes 2018).

Paricio, J. (2017). Students as customers: a paradigm shift in higher education. *Annual Review. Debats. Revista de Cultura, Poder i Societat, 2*, 137-150. doi: 10.28939/iam.debats-en.2017-10

Ramya, M. N., Kowsalya, A., & Dharanipriya, K. (2019). Service Quality and its Dimensions. *EPRA International Journal Of Research And Development, 4*, 39-41.

Rehman, S. U. (2012). Measuring service quality in public and private sector university libraries of Pakistan. *Pakistan Journal of Information Management and Libraries, 13*(1).

Rita. (2017). Student Satisfaction in Higher Education: A comparative study of a Public and a Private college. *Bhutan Journal Of Research & Development, 1*.

Saeed, N., Sheema, & Kayani. (2019). A Study to Investigate the Importance of Physical Facilities to Improve Teaching Learning Process at College Level in Tehsil Kotli Azad Kashmir. *Asian Journal of Contemporary Education, Asian Economic and Social Society, 3*(1), 1.

Sharp, X. Z. (2021). Service quality' and higher education: investigating Chinese international student and academic perspectives at a UK university, Journal of Further and Higher Education. *Journal of Further and Higher Education.*

Shen, J., & Tang, C. (2018). How does training improve customer service quality? The roles of transfer of training and job satisfaction. *European Management Journal,36*(6),708-716.doi:https://doi.org/10.1016/j.emj.2018.02.002

Sia. (2011). Using service gaps to classify quality attributes. *The TQM Journal, 23*(2), 145-163. doi: doi:10.1108/17542731111110212

Thuy, P. N., Hau, L. N., & Duyen, N. K. N. (2019). A value perspective of service interaction quality: the case of immigrants returning to native countries as medical tourists. *International Journal of Quality Innovation, 5*(1), 2. doi: 10.1186/s40887-019-0027-7

Viswanath, & Faizaan. (2016). Service Quality in Higher Education: An Antecedent to Satisfaction and Behavioral Intentions. *International Journal of Management and Applied Science, 2*(5). doi: 10.13140/rg.2.1.3099.0484

Wang, L. (2014). Curriculum and Curriculum Integration of Information Literacy in Higher Education *Developing People's Information Capabilities: Fostering Information Literacy in Educational, Workplace and Community Contexts* (pp. 31-49).

Weerasinghe, S., & Fernando, R. L. s. (2018). *University facilities and student satisfaction in Sri Lanka* (Vol. 32).