

THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

The Mediation Role of Students Experience between Perceived Service Quality and Satisfaction

Mohamed Ahmed Mohamed Ahmed Foula

Researcher, Arab Academy for Science, Technology and Maritime Transport,
Alexandria Branch, Egypt

Dr. Alaa ElGharabawy

Associate Professor, Department of Marketing, Alexandria University, Egypt

Dr. Mohamed A. Ragheb

Dean, Department of Cardiff, Arab Academy for Science, Technology and Maritime Transport,
Alexandria Branch, Egypt

Dr. Alaa A. Bary

Vice President, Arab Academy for Graduate Studies, Arab Academy for Science, Technology
and Maritime Transport, Alexandria Branch, Egypt

Abstract:

This research aims to study the quality of educational service quality in MBA program at Alexandria University as an example of public universities and mediating effect of students' experiences between the service quality and their satisfaction with this program. To achieve this goal, data were collected using a survey list of a sample of 200 MBA students at the University. The data were analyzed using the structural equation (SEM) method, and the results showed that students were partially aware of the quality of service and the satisfaction of these students.

Keywords: Service quality, student's experience, student's satisfaction, students

1. Introduction

This research attempts to explore the case of the public universities in Alexandria University as a case study and how universities are dealing with students through the matching between what customers expect and what they experience to attract them and change their decisions of enrollment towards such universities. Deep and meaningful learning is a fundamental goal and essential outcome of successful participation in adult online college education. It incorporates multiple dimensions, including effectiveness of instruction, active learner engagement and empowerment, inquiry-based collaboration, and cognitive engagement.

Student retention has become a challenging problem for the academic community, thus effective measures for student retention must be implemented in order to increase the retention of qualified students at higher education institutions. Providing good service quality to customers helps retaining them and attracting new ones, as well as encouraging positive recommendation.

Higher education institutes need safeguarding of student's satisfaction or setting up a differentiated and different image as a competitive advantage in competitive markets to be able to retain students and achieve the required level of student's enrollment. One of these reasons is its effect on inclination of students for applying enrolment and its other reason can be attributed to the selection of reliable educational institute for fulfilling researches (Alves and Raposo, 2009). Thus, this paper attempts to identify some information. This information are the main service quality dimensions affecting students experience and students satisfaction; the extent to which perceived service quality could affect the students experience, and satisfaction; whether there is a mediation role of students experience between service quality and student's satisfaction.

This research aims at exploring the service quality dimensions in public universities to develop a matching framework with the required level of students experience and satisfaction. In this research, the quantitative approach will be followed to test the assigned relations according to previous theories and dimensions used in the field of the study. This approach will be able to evaluate the theories used before and test the model in the higher education of Egypt. Data was collected and analyzed using the quantitative data which measured the mediation role of Students Experience between Perceived Service Quality and Students' satisfaction and level of importance.

There are four sections in this paper. The first section is the introduction, the second is literature review, the third is research methodology, the fourth is empirical study and findings.

2. Literature Review

Higher education is becoming an important sector of service industry nowadays. This makes a great challenge and stress for this sector to match with the needs and wants of students to the level they are expecting from such service. The increasing competition worldwide, as well, imposes more challenge for the higher education sector to meet what students are expecting. It could be claimed that many universities and colleges face a deterioration in the number of students being enrolled due to the problems in quality of programs being offered as well as the accompanied services offered with such programs (Chui et al., 2016). At this point, it could be highlighted that education is known as the process of receiving or giving regular coaching, within a certain community, such as the school and/or university. Therefore, education could be expressed as the process of developing character (Shah, 2013).

The increasing importance of higher education as a service industry let it be one of the most active topics of research. Prior research had focused on service quality as the main reason for having positive word of mouth through achieving better students experience. By attracting students to a certain university through meeting students' expectations when providing higher service quality, a better word of mouth is gained, which leads to more students being enrolled in such university (Roux and Rensburg, 2014).

Despite this fact, few researches had been conducted on service quality of the Egyptian higher education sector. Therefore, this chapter discusses the recent research findings regarding the service quality and its various influences on students' experience, students' satisfaction. These topics will be discussed through the following sections, where the next one is designed to present the concepts and definitions of Quality, Service Quality and Perceived Service Quality. The second section represents the service quality in the higher education, while the third section displays the various service quality models. The fourth section is a development of the research hypotheses assigned for the current research.

2.1. Perceived Service Quality

Perceived quality was described as a form of attitude, related but not equal to satisfaction, and results from a consumption of expectations with perceptions of performance (Parasuraman et al, 1988). Therefore, having a better understanding of consumers attitudes will help know how they perceive service quality in the higher education sector. Perceived service quality is the result of comparing customers' service expectations with their perceptions of the actual performance of the service and is considered to be a global measure of the service (Parasuraman *et al.*, 1988). Service quality has a subjective nature (Rust and Oliver, 1994), and due to this, the focus of the services marketing literature on quality is mainly in terms of perceived service quality (Nadiri *et al.*, 2009).

Therefore, perceived service quality was defined as "an overall evaluation of the goodness or badness of a product or service". Consequently, there are many ways to define quality in Higher Education and each definition has its own criteria and perspective (Twaissi1 & Al-Kilani, 2015). Takalo et al. (2013) stated that education quality refers to the characteristics of education factors and using capabilities and potentials of those factors, explicit and implicit expectations and needs of educational customers can be met and their expectations can be achieved.

Additionally, the complexity of perceived service quality was explained, stating that the service does not just depend on the service provider, but also on the performance of the consumer. The co-production of services is of ultimate concern to organizations when customers are more involved in the production process. This is extremely significant in the context of higher education, as the participation of the students is of great importance since they play a big role in determining the success of the service provided at the higher education institution. Accordingly, managing and monitoring the quality of services is increasingly difficult for the service provider (Khodayari and Khodayari, 2011).

In the context of higher education, the above stated definitions for service quality and perceived service quality could be related to students as being the overall evaluation of students of the higher education service they receive through their universities. Thus, it could be noted that there is an association between the perceived service quality and students experience, students' satisfaction. Accordingly, the next sections will discuss in details each of them and how they could be affected by the service quality dimensions in the higher education sector.

2.2. Students Experience

The customer experience originates from a set of interactions between a customer and a product, a company, or part of its organization, which provoke a reaction. This experience is personal and implies the customer's involvement at different levels; rational, emotional, sensorial, physical, and spiritual. A second and related definition is that it is the internal and subjective response customers have to any direct or indirect contact with a company. Direct contact generally occurs in the course of purchase, use, and service and is usually initiated by the customer. Indirect contact most often involves unplanned encounters with representatives of a company's products, service or brands and takes the form of word-of-mouth recommendations or criticisms, advertising, news reports, reviews and so forth (Verhoef et al., 2009).

In a university context, this can be seen as the students' perceptions of whether their course and course-related experiences was of high quality and whether it also provided good value for money. HE administrators should focus on

student perceptions of educational quality, so service quality in HE is assessed through the learner's perspective. Accordingly, the students' experience is a result of the experiencing the quality of the higher education service, which leads to students' satisfaction if the quality of higher education service matches the student's expectations. Thus, the following section will define students' satisfaction and how it could be related to the service quality.

2.3. Students Satisfaction

Satisfaction is a pleased or disappointed feeling of somebody when compared to customer perception and impression toward his/her work or product result and his hopes. It means that consumer's satisfaction is achievement of his work as same as his hopes. Operational Definitions Usability defined the extent to which people believe that use of a technology is easy. Information quality is relating to the quality, quantity, accuracy and form of information about the products and services offered on a website (Sahusilawane and Hiarley, 2016).

In the context of higher education, students are the primary customers. The concept of regarding students as customers of higher education service providers is not a new idea. Various researchers have suggested that students are primary customers and partners in the higher education sector as they consciously choose and buy services. According to Sapri et al. (2009), student satisfaction plays an important role in determining the accuracy and authenticity of the services being provided. This is further supported by Barnett (2011) who states that satisfaction of students is important as it is the only performance indicator of service quality for service providers of higher education. Moreover, student satisfaction is a short-term attitude which results from their experience with the education services received (Sultan and Wong, 2013).

Students' satisfaction is achieved when real performance of educational services exceeds student expectations. Student expectations are student expectations of the quality of services provided by educational services while performance is the real performance of the service quality provided by educational services. The main predictors of student satisfaction with educational services are performance of faculty, staff and classes (Wardley, L.J., Bélanger, C.H. and Leonard, V.M., 2013).

The above discussion mentioned means that students' satisfaction is related to the perceived service quality by students regarding the educational process. Thus, it depends on their experience to consider a certain university rather than another. Therefore, this research studies the relationship between service quality and students' satisfaction, as well as the relationship between students' experience and student's satisfaction.

2.4. Relationship between Service Quality and Students Experience

Educational service quality in universities is a multidimensional construct which is often approached from a range of indicators. Although there is no consensus on the dimensions that constitute educational service quality, existing literature reveals that the dimensions of quality of academic resources, teaching quality, administrative service quality, and quality of student support services have been consistently applied in higher education (Manzoor, 2013).

Findings have been inconclusive on the dimensions that significantly contribute to students' satisfaction and require improvement in universities (Wei and Ramalu, 2011). The study at Liverpool John Moores University in England found that quality of academic resources was not important in determining students' satisfaction. However, Encabo (2011) study in Brokenshire College in Philippines found that quality of academic resources was the most influential factor of students' satisfaction. Arambewela and Hall (2009) study in Australia concluded that teaching quality impacts on students' satisfaction in universities. Students' satisfaction was significantly related to the university having lecturers who are knowledgeable in their field of specialization, lecturers who are accessible to students for consultation, and lecturers who provide feedback to students. However, Farahmandian, et al. (2013) study in universities in Malaysia found that teaching quality was not significantly related to student satisfaction.

Tuan (2012) research in universities in Vietnam found that administrative service quality was significantly and positively related to students' satisfaction. This finding demonstrates that the knowledge of the functioning of a university, skills and service attitude of administrative staff play a very important role in increasing students' satisfaction. Contrary to this finding, Ahmed and Masud (2014) research in universities in Malaysia found that administrative services were not significantly related to students' satisfaction. However, their research found that quality of academic resources, lecturer quality and quality of academic programmes had a direct and significant relationship with students' satisfaction. Manzoor (2013) study in universities in Pakistan found that students' welfare services had significant positive effect on students' satisfaction ratings. Existing empirical research in universities in South Africa, Ghana and Ethiopia reveal that students were not satisfied with the quality of university experience (Takaro, 2014).

2.5. Relationship between Students Experience and Students Satisfaction

Service Quality is positively related to students' experience, satisfaction, so management should pay utmost attention to the quality of service offered (Helgesen and Nasset, 2010). Further, Abu Hasan and Ilias (2010) identified a positive relationship between the student students' experience and student satisfaction. Gronholdt et al. (2012) found a strong positive relationship between customer satisfaction and loyalty. Customer satisfaction plays a mediator role in the effect of service quality on service loyalty (Huili and Jing, 2012). The satisfaction/dissatisfaction is considered to act as an antecedent to loyalty, and it is highly essential to understand the role of customer satisfaction in loyalty (Ali et al., 2016).

There is an increasing recognition that the ultimate objective of customer satisfaction measurement should be customer loyalty. Higher customer satisfaction will result in increased customer loyalty. Current research findings reveal that satisfied students may attract new students by engaging in positive word-of-mouth communication to inform friends and others, and they may return to the university to take other courses. In addition, satisfied students are a source of competitive advantage and word of mouth marketing for education institutions (Helgesen and Nasset, 2007).

3. Research Methodology and Design

For the sake of this research, the current research will follow an explanatory research questionnaire survey used for the quantitative approach, as it will explain the impact of perceived service quality student experience and perceived service quality on student satisfaction, student experience on student satisfaction.

The Research purpose is to explain the impact research variables on students' satisfaction. Therefore, the current research framework could be expressed using the following figure:

3.1. Perceived Service Quality

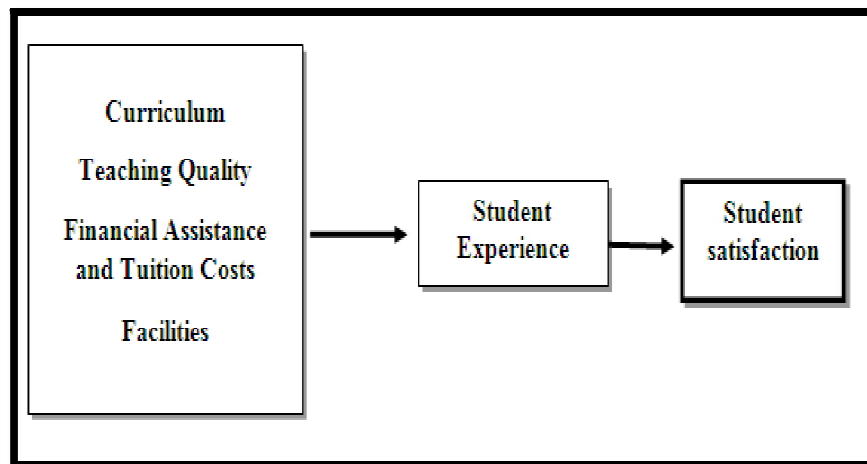


Figure 1: Proposed Research Framework

The research variables are considered as the perceived service quality (Advising, Curriculum, Teaching Quality, Financial Assistance and Tuition Costs, and Facilities), Students experience, and Students Satisfaction.

The research contains of 9 main hypotheses and 25 sub hypotheses for the model mentioned as follows:

- H1: There is a Significant relationship between Perceived Service Quality & Student Experience
- H2: There is a Significant relationship between Student Experience & Student Satisfaction
- H3: There is a Significant Relationship between Perceived Service Quality & Student Satisfaction.
- H4: student experience mediates the relationship between Perceived Service Quality & Student Satisfaction.

The research variables were defined and adopted according to the study of Farahmandian et al (2013). The research variables and their definitions, through which they were measured after that as shown in the following paragraph. The questionnaire design is one of the most important steps in measuring the research variables. It is divided into three sections; First Independent Dimension "Perceived Service Quality" includes 5 variables (Advising, Curriculum, Teaching quality, Financial Assistance and Facilities); Second, Mediator "Student Experience" it includes 3 Variables (Improvements, Convenience and Service process) Third, Dependant Dimension "Student Satisfaction".

4. Data Analysis

The descriptive statistics is a way to illustrate and understand characteristics of a specific data set, by making short summaries about the sample and measures of the data. There are three main types of descriptive statistics which are frequencies, measures of central tendency (e.g. averages), and measures of variability (e.g. standard deviation). Measures of central tendency give one value that represents the whole set of scores, like the mean. Measures of variability show the degree to which scores are different from the mean. Frequency statistics sum the number of times that each variable is repeated, for example the number of males and females within the sample. In the following section, means, standard deviations and frequency statistics will be conducted on both; demographic data and the research variables. The descriptive analysis had been observed. Table 1 shows the frequency tables for the research variables of the public universities, where it could be observed that most responses are in the agreement zone, yet some of the responses are in the disagreement zone which means that Curriculum, Teaching Quality, Financial Assistance and Tuition Costs, Facilities, Student Experience, and Student Satisfaction needs to be improved.

Variables	Mean	Std. Deviation	Frequencies				
			1	2	3	4	5
C	3.6733	0.72082	0	10	66	106	20
T	3.5743	0.77069	0	15	76	91	20
F	3.5693	0.94508	6	17	65	84	30
FAC	3.3465	0.86313	5	24	82	78	13
SE	3.7277	0.76628	2	9	55	112	24
SS	3.599	0.81808	2	14	70	93	23
SL	3.8267	0.87797	3	10	50	95	44

Table 1: Descriptive Analysis for the Research Variables

Table 2 shows the regression model fitted for the effect of Curriculum, Teaching Quality, Facilities and Financial Assistance and Tuition Costs on Student Experience. It illustrates that there is a significant positive effect of Curriculum, Teaching Quality and Facilities on Student Experience as the regression coefficients are 0.121, 0.204, 0.492 and P-values are 0.061, 0.001 and 0.000 respectively. Moreover, it is found that there is insignificant effect of Financial Assistance and Tuition Fees on Student Experience where the P-value is 0.549. Moreover, the R squared is 0.529, which means that 52.9% of the variation in Student Experience can be explained by the variation in the independent variables together.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Square
		B	Std. Error	Beta			
1	(Constant)	.998	.233		4.288	.000	.529
	C	.121	.064	.114	1.882	.061	
	T	.204	.061	.206	3.325	.001	
	F	-.026	.043	-.032	-.600	.549	
	FAC	.492	.053	.555	9.349	.000	

Table 2: Regression Model Fitted for the Effect of Perceived Service Quality on Student Experience

Table 3 shows the SEM model for the effect of Perceived Service Quality; Curriculum, Teaching Quality, Financial Assistance and Tuition Costs, and facilities on Student Experience. The model fit indices are described as minimum discrepancy (CMIN), goodness of fit index (GFI), comparative fit index (CFI), incremental fit index (IFI), Tucker-Lewis index (TLI), and root mean square of approximation (RMSEA). It was found that $CMIN/df = 1.363$, $GFI = 0.937$, $CFI = 0.973$, $AGFI = 0.901$ and $RMSEA = 0.043$ are all within their acceptable levels. It was observed that there is a significant effect of Financial Assistance and Tuition Costs on Student Experience, with estimates of 1.196, and P-values of 0.003. While there is insignificant influence of Curriculum, Teaching Quality, and Facilities, as p-valued are greater than 0.05.

			Estimate	P-value
Student Experience	<---	Curriculum	.178	.620
Student Experience	<---	Teaching Quality	-.185	.594
Student Experience	<---	Financial Assistance and T.C	1.196	.003
Student Experience	<---	facilities	-.167	.084

Table 3: SEM Model for the Effect of Perceived Service Quality on Student Experience-Public Universities

Figure 2 shows the SEM model conducted for the effect of Perceived Service Quality on Students Experience. The independent variables are the latent ones of Curriculum, Teaching Quality, Financial Assistance and Tuition Costs and Facilities, while Students Experience is the dependent variable.

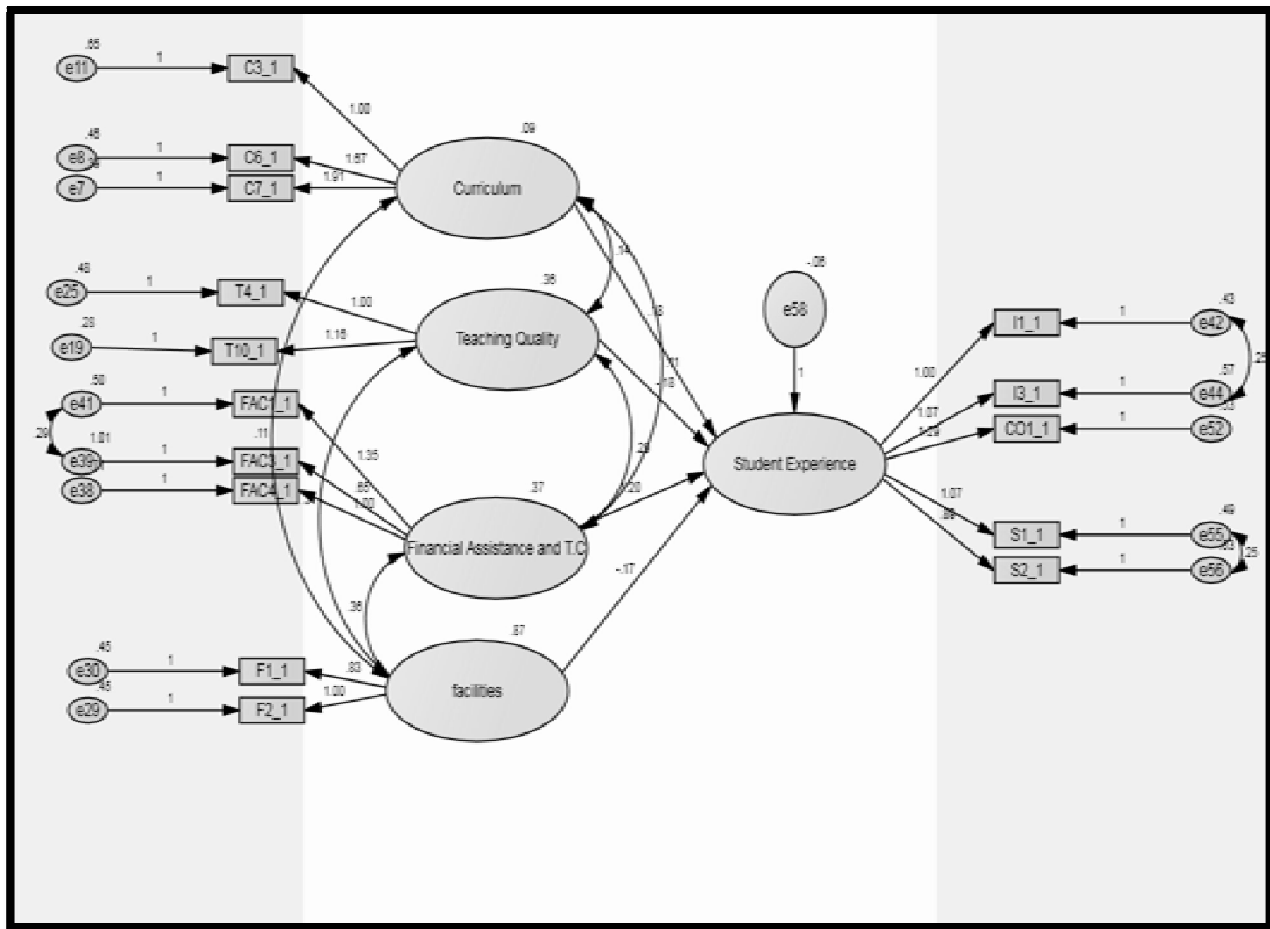


Figure 2: SEM Model for the Effect of Perceived Service Quality on Student Experience-Public Universities

Therefore, the first hypothesis that there is a significant relation between perceived service quality and students experience is partially supported.

Table 4 shows the regression model fitted for the effect of Student Experience on Student Satisfaction. It illustrates that there is a significant positive effect of Student Experience on Student Satisfaction as the regression coefficient is 0.694 and p-value is 0.000. Moreover, the R squared is 0.423 which means that 42.3% of the variation in Student Satisfaction can be explained by the variation in the independent variable.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Square
		B	Std. Error	Beta			
1	(Constant)	1.011	.218		4.632	.000	.423
	SE	.694	.057	.650	12.108	.000	

Table 4: Regression Model Fitted for the Effect of Student Experience on Student Satisfaction

Therefore, the second hypothesis that there is a significant relation between Student Experience and Student Satisfaction is fully supported.

Table 5 shows the regression model fitted for the effect of Curriculum, Teaching Quality, and Facilities on Student Satisfaction. It illustrates that there is a significant positive effect of Curriculum, Teaching Quality and Facilities on Student Satisfaction as the regression coefficients are 0.158, 0.335, 0.307 respectively and P-values are 0.037, 0.000, 0.000 respectively. While the relationship between the Financial Assistance and Tuition Costs and the student satisfaction is insignificant as P-value is 0.313. Moreover, the value of R square is 0.436 which means 43.6% of the variation in Student Satisfaction can be explained by the variation in all the independent variables together.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Square
		B	Std. Error	Beta			
1	(Constant)	.610	.272		2.243	.026	.436
	C	.158	.075	.139	2.101	.037	
	T	.335	.072	.316	4.667	.000	
	F	.051	.051	.059	1.011	.313	
	FAC	.307	.062	.324	4.991	.000	

Table 5: Regression Model Fitted for the Effect of Perceived Service Quality on Student Satisfaction

Table 6 shows the SEM model for the effect of Perceived Service Quality; Curriculum, Teaching Quality, Financial Assistance and Tuition Costs, and facilities on Student Satisfaction, and Student Loyalty. The model fit indices are described as minimum discrepancy (CMIN), goodness of fit index (GFI), comparative fit index (CFI), incremental fit index (IFI), Tucker-Lewis index (TLI), and root mean square of approximation (RMSEA). It was found that CMIN/df = 1.182, GFI = 0.947, CFI = 0.988, AGFI = 0.916 and RMSEA = 0.030 are all within their acceptable levels. It was observed that there is a significant effect of Financial Assistance and Tuition Costs on Student Satisfaction, with estimate of 1.005 and P-values of 0.003, while there is insignificant influence of Curriculum, Teaching Quality, and Facilities, as p-value are greater than 0.05.

			Estimate	P-value
Student satisfaction	<---	Curriculum	.158	.392
Student satisfaction	<---	Teaching Quality	-.063	.830
Student satisfaction	<---	Financial Assistance and T.C	1.005	.003
Student satisfaction	<---	facilities	-.248	.068

Table 6: SEM Model for the Effect of Perceived Service Quality on Student Satisfaction-Public Universities

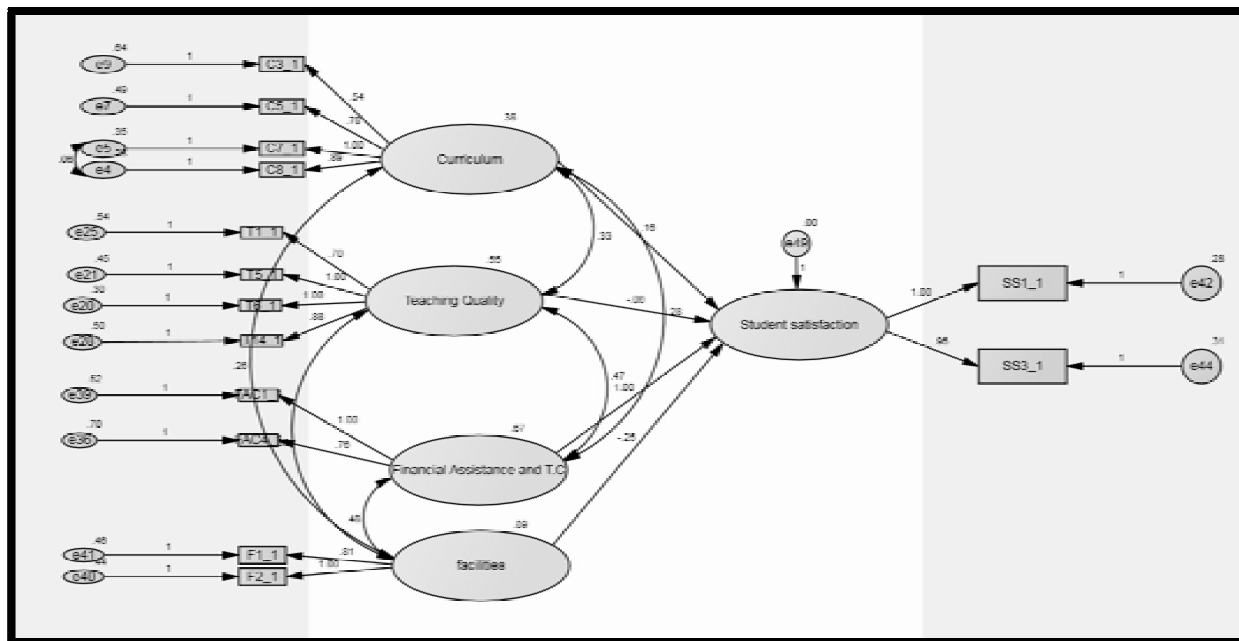


Figure 3: SEM Model for the Effect of Perceived Service Quality on Student Satisfaction-Public Universities-

Therefore, the second hypothesis that there is a significant relation between Student Experience and Student Satisfaction is fully supported.

Table 7 shows the effect of Curriculum, Teaching Quality, Facilities and Student Experience on Student Satisfaction. It is found that Teaching Quality and Student Experience has a significant positive relationship on Student Satisfaction as P-values are 0.000, while the relationship between Curriculum, Financial Assistance and Tuition Fees are insignificant as P-values are 0.161 and 0.068 respectively. Therefore, there is a partial mediation role between Teaching Quality and Student Satisfaction and a full mediation role between Curriculum, Facilities and Student Satisfaction.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Square
		B	Std. Error	Beta			
1	(Constant)	.311	.248		1.251	.212	.506
	C	.099	.071	.088	1.407	.161	
	T	.264	.068	.249	3.878	.000	
	FAC	.122	.067	.129	1.833	.068	
	SE	.422	.078	.395	5.423	.000	

Table 7: Mediation Role of Students Experience in the Relationship between Perceived Service Quality and Student Satisfaction

Table 8 shows the SEM model for the effect of Perceived Service Quality; Curriculum, Teaching Quality, Financial Assistance and Tuition Costs, and facilities on Student Experience. The model fit indices are described as minimum discrepancy (CMIN), goodness of fit index (GFI), comparative fit index (CFI), incremental fit index (IFI), Tucker-Lewis index (TLI), and root mean square of approximation (RMSEA). It was found that CMIN/df = 1.160, GFI = 0.951, CFI = 0.989, AGFI = 0.915 and RMSEA = 0.028 are all within their acceptable levels.

It was observed that there is significant effect of Financial Assistance and Tuition Costs on Student Experience, as p-valued are greater than 0.05. Moreover, it was observed that there is insignificant effect of Financial Assistance and Tuition Costs and Student Experience on Student Satisfaction, as p-value are less than 0.05. Thus, there is no mediation role of Student Experience in the relationship between Perceived Service Quality and Student Satisfaction.

			Estimate	P-value
Student EXP	<---	Curriculum	-.041	.815
Student EXP	<---	Teaching Quality	-.235	.509
Student EXP	<---	Financial Assistance and T.C	.876	.027
Student EXP	<---	facilities	.000	.999
Student satisfaction	<---	Curriculum	.318	.530
Student satisfaction	<---	Teaching Quality	.319	.830
Student satisfaction	<---	Financial Assistance and T.C	-1.028	.862
Student satisfaction	<---	facilities	-.269	.294
Student satisfaction	<---	Student EXP	2.556	.721

Table 8: SEM Model of Mediation Role of Students Experience in the Relationship between Perceived Service Quality and Student Satisfaction

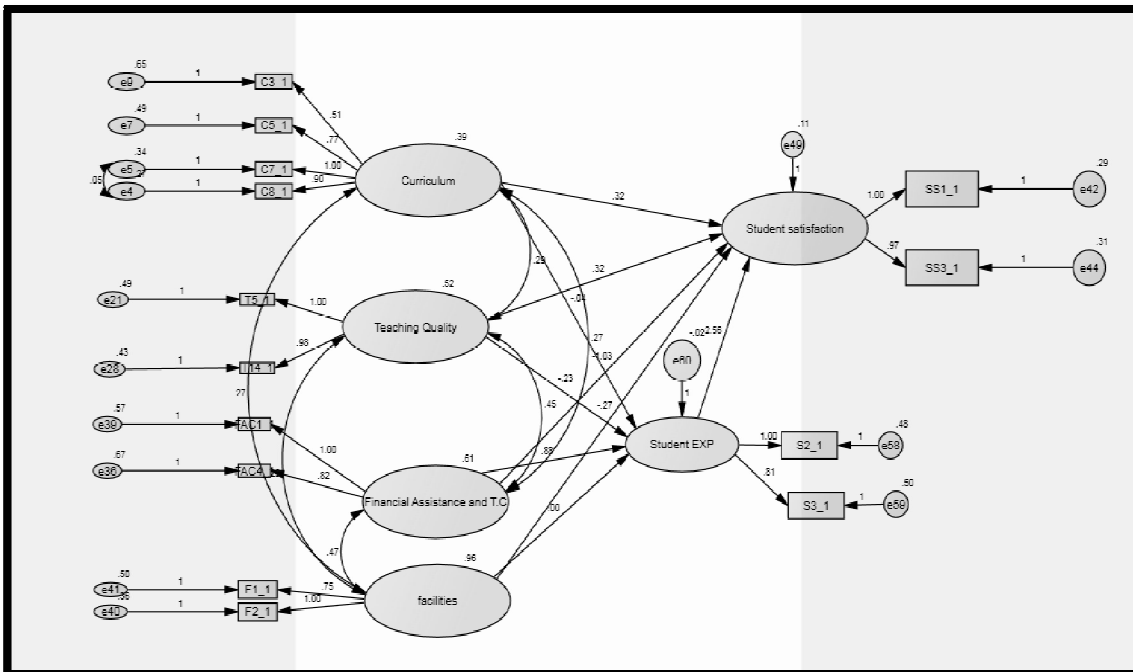


Figure 4: SEM Model for the Full Model

5. References

- i. Ahmed, S. and Masud, M.M., 2014. Measuring service quality of a higher educational institute towards student satisfaction. *American Journal of Educational Research*, 2(7), pp.447-455.
- ii. Aiken, L.H., Sermeus, W., Van den Heede, K., Sloane, D.M., Busse, R., McKee, M., Bruyneel, L., Rafferty, A.M., Griffiths, P., Moreno-Casbas, M.T. and Tishelman, C., 2012. Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *Bmj*, 344, p.e1717.
- iii. Ali, F. and Amin, M., 2014. The influence of physical environment on emotions, customer satisfaction and behavioural intentions in Chinese resort hotel industry. *Journal for Global Business Advancement*, 7(3), pp.249-266.
- iv. Ali, F., Zhou, Y., Hussain, K., Nair, P.K. and Ragavan, N.A., 2016. Does higher education service quality effect student satisfaction, image and loyalty? A study of international students in Malaysian public universities. *Quality Assurance in Education*, 24(1), pp.70-94.
- v. Ali, R.J.A., Rana, O.F., Walker, D.W., Jha, S. and Sohail, S., 2012. G-QoS: Grid service discovery using QoS properties. *Computing and Informatics*, 21(4), pp.363-382.
- vi. Andrews, T.M., Leonard, M.J., Colgrove, C.A. and Kalinowski, S.T., 2011. Active learning not associated with student learning in a random sample of college biology courses. *CBE-Life Sciences Education*, 10(4), pp.394-405.
- vii. Angelova, B. and Zekiri, J., 2011. Measuring customer satisfaction with service quality using American Customer Satisfaction Model (ACSI Model). *International Journal of Academic Research in Business and Social Sciences*, 1(3), p.232.
- viii. Annamdevula, S. and Bellamkonda, R.S., 2016. The effects of service quality on student loyalty: the mediating role of student satisfaction. *Journal of Modelling in Management*, 11(2), pp.446-462.
- ix. Appleton-Knapp, S.L. and Krentler, K.A., 2006. Measuring student expectations and their effects on satisfaction: The importance of managing student expectations. *Journal of marketing education*, 28(3), pp.254-264.
- x. Arambewela, R. and Hall, J., 2009. An empirical model of international student satisfaction. *Asia Pacific journal of marketing and logistics*, 21(4), pp.555-569.
- xi. Arif, S. and Ilyas, M., 2013. Quality of work-life model for teachers of private universities in Pakistan. *Quality Assurance in Education*, 21(3), pp.282-298.
- xii. Bhatta, G., Webb, J.R., Hollingsworth, H., Dhalla, S., Khanuja, A., Bachev, R., Blinov, D.A., Böttcher, M., Calle, O.B., Calcidese, P. and Capezzali, D., 2013. The 72-h WEBT microvariability observation of blazar S5 0716+ 714 in 2009. *Astronomy & Astrophysics*, 558, p.A92.
- xiii. Brady, M.K., Cronin Jr, J.J. and Brand, R.R., 2002. Performance-only measurement of service quality: a replication and extension. *Journal of business research*, 55(1), pp.17-31.
- xiv. Browne, B.A., Kaldenberg, D.O., Browne, W.G. and Brown, D.J., 1998. Student as customer: Factors affecting satisfaction and assessments of institutional quality. *Journal of Marketing for Higher Education*, 8(3), pp.1-14.
- xv. Browne, B.A., Kaldenberg, D.O., Browne, W.G. and Brown, D.J., 1998. Student as customer: Factors affecting satisfaction and assessments of institutional quality. *Journal of Marketing for Higher Education*, 8(3), pp.1-14.
- xvi. Chahal, H. and Devi, P., 2013. Identifying satisfied/dissatisfied service encounters in higher education. *Quality assurance in Education*, 21(2), pp.211-222.
- xvii. Chiu, C.M., Chiu, C.S. and Chang, H.C., 2007. Examining the integrated influence of fairness and quality on learners' satisfaction and Web-based learning continuance intention. *Information systems journal*, 17(3), pp.271-287.
- xviii. Danaher, P.J., Wilson, I.W. and Davis, R.A., 2003. A comparison of online and offline consumer brand loyalty. *Marketing Science*, 22(4), pp.461-476.
- xix. Encabo, H.C., 2011. Canonical correlation analysis of student perception on instructional quality and satisfaction. *JPAIR Multidisciplinary Journal*, 6(1), pp.1-1.
- xx. Farahmandian, S., Minavand, H. and Afshardost, M., 2013. Perceived service quality and student satisfaction in higher education. *IOSR Journal of Business and Management*, 12(4), pp.65-74.
- xxi. Gharakhani, D., Rahmati, H., Farrokhi, M.R. and Farahmandian, A., 2013. Total quality management and organizational performance. *American Journal of Industrial Engineering*, 1(3), pp.46-50.
- xxii. Gronroos, C., 1988. Service quality: The six criteria of good perceived service. *Review of business*, 9(3), p.10.
- xxiii. Gruber, T., Fuß, S., Voss, R. and Gläser-Zikuda, M., 2010. Examining student satisfaction with higher education services: Using a new measurement tool. *International Journal of Public Sector Management*, 23(2), pp.105-123.
- xxiv. Hasan, H.F.A., Ilias, A., Rahman, R.A. and Razak, M.Z.A., 2009. Service quality and student satisfaction: A case study at private higher education institutions. *International Business Research*, 1(3), p.163.
- xxv. Helgesen, Ø. and Nettet, E., 2010. Gender, store satisfaction and antecedents: a case study of a grocery store. *Journal of Consumer Marketing*, 27(2), pp.114-126.
- xxvi. Huili, Y. A. O., and Y. U. Jing. "Empirical Research and Model Building about Customer Satisfaction Index on Postgraduate Education Service Quality/LA RECHERCHE EMPIRIQUE ET LA CONSTRUCTION DE MODELE SUR L'INDEX DE SACTIFICATIONDE LA CLIENTELE SUR LA QUALITE DU SERVICE DE L'EDUCATION POSTDOCTORALE." *Canadian Social Science* 8, no. 1 (2012): 108.

- xxvii. Khodayari, F. and Khodayari, B., 2011. Service quality in higher education. *interdisciplinary Journal of Research in Business*, 1(9), pp.38-46.
- xxviii. Khodayari, F. and Khodayari, B., 2011. Service quality in higher education. *interdisciplinary Journal of Research in Business*, 1(9), pp.38-46.
- xxix. Kumar, S.A., Mani, B.T., Mahalingam, S. and Vanjikovan, M., 2010. Influence of service quality on attitudinal loyalty in private retail banking: an empirical study. *IUP Journal of Management Research*, 9(4), p.21.
- xxx. Ladhari, R., 2009. Service quality, emotional satisfaction, and behavioural intentions: A study in the hotel industry. *Managing Service Quality: An International Journal*, 19(3), pp.308-331.
- xxxi. Le Roux, A. and Van Rensburg, R.J., 2014. Student perceptions of customer experience in a higher education environment. *Acta Commercii*, 14(1), pp.1-9.
- xxxii. Lewin, S., Glenton, C. and Oxman, A.D., 2009. Use of qualitative methods alongside randomized controlled trials of complex healthcare interventions: methodological study. *Bmj*, 339, p.b3496.
- xxxiii. Lovelock, C., 2011. *Services marketing: People, technology, strategy*. Pearson Education India.
- xxxiv. Manzoor, H., 2013. Measuring student satisfaction in public and private universities in Pakistan. *Global Journal of Management and Business Research*.
- xxxv. Manzoor, H., 2013. Measuring student satisfaction in public and private universities in Pakistan. *Global Journal of Management and Business Research*.
- xxxvi. Mizikaci, F., 2006. A systems approach to program evaluation model for quality in higher education. *Quality Assurance in Education*, 14(1), pp.37-53.
- xxxvii. Mizikaci, F., 2006. A systems approach to program evaluation model for quality in higher education. *Quality Assurance in Education*, 14(1), pp.37-53.
- xxxviii. Munusamy, J., Chelliah, S. and Mun, H.W., 2010. Service quality delivery and its impact on customer satisfaction in the banking sector in Malaysia. *International Journal of Innovation, Management and Technology*, 1(4), p.398.
- xxxix. Nadiri, H., Kandampully, J. and Hussain, K., 2009. Students' perceptions of service quality in higher education. *Total Quality Management*, 20(5), pp.523-535.
- xl. Nadiri, H., Kandampully, J. and Hussain, K., 2009. Students' perceptions of service quality in higher education. *Total Quality Management*, 20(5), pp.523-535.
- xli. Oliver, R.L. and Rust, R.T. eds., 1994. *Service quality: New directions in theory and practice*. Sage.
- xlii. Parasuraman, A., Zeithaml, V.A. and Berry, L.L., 1985. A conceptual model of service quality and its implications for future research. *the Journal of Marketing*, pp.41-50.
- xliii. Petruzzellis, L. and Romanazzi, S., 2010. Educational value: how students choose university: Evidence from an Italian university. *International journal of educational management*, 24(2), pp.139-158.
- xliv. Puccinelli, N.M., Goodstein, R.C., Grewal, D., Price, R., Raghuram, P. and Stewart, D., 2009. Customer experience management in retailing: understanding the buying process. *Journal of retailing*, 85(1), pp.15-30.
- xlv. Raposo, M.L., Alves, H.M. and Duarte, P.A., 2009. Dimensions of service quality and satisfaction in healthcare: a patient's satisfaction index. *Service Business*, 3(1), pp.85-100.
- xlvi. Sahusilawane, W. and Hiariy, L.S., 2016. The Role of Service Quality toward Open University Website on The Level of Student Satisfaction. *Journal of Education and Learning (EduLearn)*, 10(2), pp.85-92.
- xlvii. Sahusilawane, W. and Hiariy, L.S., 2016. The Role of Service Quality toward Open University Website on The Level of Student Satisfaction. *Journal of Education and Learning (EduLearn)*, 10(2), pp.85-92.
- xlviii. Sapri, M., Kaka, A. and Finch, E., 2009. Factors that influence student's level of satisfaction with regards to higher educational facilities services. *Malaysian Journal of Real Estate*, 4(1), pp.34-51.
- xlix. Seth, N., Deshmukh, S.G. and Vrat, P., 2005. Service quality models: a review. *International journal of quality & reliability management*, 22(9), pp.913-949.
- i. Seth, N., Deshmukh, S.G. and Vrat, P., 2005. Service quality models: a review. *International journal of quality & reliability management*, 22(9), pp.913-949.
- ii. Sharif, K. and Kassim, N.M., 2012. Non-academic service quality: comparative analysis of students and faculty as users. *Journal of Marketing for Higher Education*, 22(1), pp.35-54.
- iii. Sultan, P. and Yin Wong, H., 2013. Antecedents and consequences of service quality in a higher education context: a qualitative research approach. *Quality assurance in education*, 21(1), pp.70-95.
- iiii. Takalo, S.K., Abadi, A.R.N.S., Vesal, S.M., Mirzaei, A. and Nawaser, K., 2013. Fuzzy Failure Analysis: A new approach to service quality analysis in higher education institutions. *International Education Studies*, 6(9), p.93.
- liv. Twaissi, N.M. and Al-Kilani, M.H., 2015. The Impact of perceived service quality on students' intentions in higher education in a Jordanian Governmental University. *International Business Research*, 8(5), p.81.
- lv. Twaissi, N.M. and Al-Kilani, M.H., 2015. The Impact of perceived service quality on students' intentions in higher education in a Jordanian Governmental University. *International Business Research*, 8(5), p.81.
- lvi. Verhoef, P.C., Lemon, K.N., Parasuraman, A., Roggeveen, A., Tsiros, M. and Schlesinger, L.A., 2009. Customer experience creation: Determinants, dynamics and management strategies. *Journal of retailing*, 85(1), pp.31-41.

- lvii. Verhoef, P.C., Lemon, K.N., Parasuraman, A., Roggeveen, A., Tsiros, M. and Schlesinger, L.A., 2009. Customer experience creation: Determinants, dynamics and management strategies. *Journal of retailing*, 85(1), pp.31-41.
- lviii. Wardley, L.J., Bélanger, C.H. and Leonard, V.M., 2013. Institutional commitment of traditional and non-traditional-aged students: a potential brand measurement?. *Journal of Marketing for Higher Education*, 23(1), pp.90-112.
- lix. Watty, K., 2006. Want to know about quality in higher education? Ask an academic. *Quality in Higher Education*, 12(3), pp.291-301.
- lx. Watty, K., 2006. Want to know about quality in higher education? Ask an academic. *Quality in Higher Education*, 12(3), pp.291-301.
- lxi. Wei, C.C. and Ramalu, S.S., 2011. Students satisfaction towards the university: Does service quality matters?. *International Journal of Education*, 3(2), p.1.
- lxii. Welker, J. and Berardino, L., 2015, April. TEACHING CRITICAL THINKING: PROBLEMS AND RECOMMENDATIONS. In *Allied Academies International Conference. Academy of Educational Leadership. Proceedings (Vol. 20, No. 1, p. 1)*. Jordan Whitney Enterprises, Inc.
- lxiii. Williams, J. and Cappuccini-Ansfield, G., 2007. Fitness for purpose? National and institutional approaches to publicising the student voice. *Quality in Higher Education*, 13(2), pp.159-172.
- lxiv. Wisdom, J. and Creswell, J.W., 2013. *Mixed methods: integrating quantitative and qualitative data collection and analysis while studying patient-centered medical home models*. Rockville: Agency for Healthcare Research and Quality.
- lxv. Yin, R.K., 2009. *Case Study Research: Design and Methods. Essential guide to qualitative methods in organizational research (Vol. 5)*. In the *Information Systems Research Challenge (Harvard Business School Research Colloquium)*. London: Sage.
- lxvi. Zeithaml, V.A., Berry, L.L. and Parasuraman, A., 1988. Communication and control processes in the delivery of service quality. *The Journal of Marketing*, pp.35-48.
- lxvii. Zeithaml, V.A., Berry, L.L. and Parasuraman, A., 1988. Communication and control processes in the delivery of service quality. *The Journal of Marketing*, pp.35-48.
- lxviii. Zhao, L., Lu, Y., Zhang, L. and Chau, P.Y., 2012. Assessing the effects of service quality and justice on customer satisfaction and the continuance intention of mobile value-added services: An empirical test of a multidimensional model. *Decision support systems*, 52(3), pp.645-656.