Service Quality and Student Loyalty: The Mediating Role of Student Satisfaction

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Abstract

The current study attempts to investigate service quality and student satisfaction. First point about the concept of service quality and student satisfaction. The study is also examining the dimensions of service quality (tangibility, responsiveness, reliability, assurance, and empathy) which are contribute most to satisfaction of students. The content of this study also include the initial literature reviews. The study employed both purposive and stratified sampling by questionnaire that distributed 320 of undergraduates' students in LocalUniversities in Mogadishu. Structural equation modelling (SEM) and partial least squares (PLS) version 03 were used to analyse data. However, the study found that relationship between service quality and student loyalty is significant through measuring of student satisfaction as a mediating factor. Finally, the study concluded that improving service quality and evaluating satisfaction level of students will generate the trust and students' loyalty to the institution or Universities till reach success point at end.

Key words: Service quality, student satisfaction, student loyalty, tangibility, reliability, responsiveness, assurance, empathy, LocalUniversities, Mogadishu

Introduction

In the modern dynamic business world, competition among academic centres is growing as students can increasingly choose to study anywhere in the world. Many studies have attempted to revealfactors in educational higher institutions that can attract and retain students. However,this depends on how such organisations interact withsociety and how theirmarketing reaches their customers. Institutionsnot fully fulfilling students' expectationsmay cause disloyalty and the withdrawal of students(Rahid Abdul Rahman, feberuary 2009)

According to Abdul Malek and Wallace (1999), highlighted several factors in higher institutions in Malaysia. Most institutions are attempting to improve how they meet customers' expectation as well as how they collaborate with business organisations.

There are many options, in terms of providing service quality, for attracting and retaining students who seek to improve their career development through effective educational programs and services from higher institutions. Service institutions play a key role developing and growing the economies of all countries and the higher-education service sector is vital in this respect; it must be highly customer-oriented while attempting to provide the necessary service quality. (Khalid, 2014)

However, defining quality in higher education has proved challenging task. Cheng and Tam (1997) suggested that education quality is a rather vague concept asthere are so manyhigh-quality educational programs available to students. Competition among service industries has been increasing year on year, leading to efforts to improve service quality to attract more customers. Higher-education institutions have also tried to provide high-quality services to students to retain them (Chandra, 2018).

Parasuraman (1988) developed five dimensions measuring service quality to determine consumers' expectations and perceptions: tangibility; reliability; responsiveness; assurance; and empathy. A common strategy used to study customer satisfaction is to develop service quality by nurturing these dimensions to become market leaders in the long term.

Many researchers have focused on the significant correlation between service quality and student satisfaction and its effect student loyalty. As denotes by the researchers conducted in India, Syria and Portugal has confirmed the significant relationship between service quality and student satisfaction and its effect on student loyalty. (Samuel Anwowie, 2015)

The demand of Universities education has grown rapidly in Somalia after collapsed of the military regime. Enrolment in Somali private-Universities education has increased over the past ten years, leading students to focus increasingly on service quality. This study aims to fill the research gap byinvestigating the relationship between service quality and student loyalty through student satisfaction provided by LOCALuniversities and tries to explain how different dimensions of service quality can affect students' satisfaction in the context of Somali private universities.

Literature Review

Service quality

The definition of quality revolves around the idea that quality must be judged by users or consumersof the service. The construct of quality, as conceptualised in the services literature, is based on perceived quality.Perceived quality is defined as the consumer's judgment about an entity's overall experience or superiority (Zammuto*et al.*, 1996; Zeithaml,1987). Similarly, Parasuraman*et al.* (1990) concluded that consumerperceptions of service quality result from comparing expectations prior to receiving the service with their actualexperience of the service. Perceived quality is also seen as a form of attitude, related to, but not the same as,satisfaction,resulting from a comparison of expectations with perceptions of performance (Hasan *et al.*, 2008).

Kotler and Armstrong definedaservice as any activity or benefit that one party can offer to another thatis essentially intangible and does not result in the ownership of anything. Bhattachargeedefinedservices are the production of essentially intangible benefits and experience, either alone or as part of a tangible product through some form of exchange, with the intention of satisfying consumers' needs, wants, and desires.

Althoughthere is no precise definition of service quality from aneducational point of view,O'Neill and Palmer(2004) defined service quality in an educational context as "the difference between what a student expects to receive and his/her perceptions of actual delivery". To measure the quality of services on a Universities campus is one thing; to measure the quality of manufactured goods is another matter.

Previous studies have reported that service quality is important for higher institutions to remain effective growing and competitive. A recent study conducted in Iran suggested the imperative factors effect on the quality of Universities' services might offer to its students. Universities culture, Universities reputation and price are domain factors of service quality. (Shahzadi Saima Saleem1, Kamran Moosa2, Abeer Imam3∗, Rashid Ahmed Khan, 2017)Fitzgerald took this further and statedthat"a service ... cannot be objectively measured." Such frustration stems from the difference between services and goods. For example, educational services are intangible and cannot be packaged, displayed, or inspected fully by prospective students. Services also have a perishability problem because they cannot be stored for future delivery: when a student misses aclass, the professor's time is wasted.

The performance of services provided is another important factor,based on consumer's opinions and the students' attitude.Ahmedand Nawaz (2010) asserted that service quality is a key performance measure in educational excellence and is a main strategic variable for universities to create a strong perception in the consumer's mind.

Dimensions of service quality

(Kaur, 2011)Kiran(2010) studiedservice quality and customer satisfaction in the context of academic libraries in a Malaysian Universities using the SERVQUAL instrument to measure quality from the customer's perspective based on five dimensions (RATER) reflecting the core criteria that customers find most important in judging quality:

- *Reliability***:** ability to perform the promised service dependably and accurately.
- *Assurance*: knowledge and courtesy of employees and their ability to inspiretrust and confidence.
- *Tangibles*: appearance of physical facilities, equipment, and personnel.
- *Empathy*: provision of individualised care and attention to customers.
- *Responsiveness***:** willingness to help customers and provide prompt service.

Reliability of quality and student satisfaction

Satisfaction is a feeling of happiness and joy that individuals obtain when they have fulfilled their human needs and desires. Educational institutions use certain methodologies to determine the level of their students' satisfaction regarding the services and programmes they offer to better fulfil students' needs and satisfy student aspirations. Identifying the factors of student satisfaction entails answering questions related to students' satisfaction with educational services, how much students trust those services, and whether current students would recommend the institution (Saif, 2014).

Many other researchers have studied service quality and student satisfaction. Hasan *et al.*'s(2008) study used a questionnaire instrument to collect data from200 bachelor's-degree students from private higher educational institutions. The result showed the differences in satisfaction between male and female were 4.2561 and 4.0873, respectively, meaningthatthere was no significant difference between females and males in terms ofsatisfaction. Differences inservice quality between males and femaleswere also small: 4.1491 and 4.0041, respectively. The resultsdid show, however,thatthe dimensions of service quality had a positive effect on student satisfaction.

Rahman and Abu Zarim (2014) Factors found to be influencing student s' satisfaction have been explored in several studies. However, previous study explored the influence of reliability, responsiveness, ease of use, and security on student satisfaction in purchasing online educational materials. The researchers collected data from Malaysian and foreign students, usingdescriptive statistics and exploratory factor analysis to test the proposed hypothesis and assumptions. Results indicated a strong association between the reliability of purchasing as an online process and student satisfaction. Reliability is one of the dimensions of service quality thataffects studentsatisfaction, aselaboratedin most of the literature referred to in their study. (Muhammad Sabbir Rahman1and Zainal bin Abu Zarim2, 2014)

Quality assurance (QA)

QA is a management method that is defined as "all those planned and systematic actions needed to provide adequate confidence that a product, service orResult will satisfy given requirements for quality and be fit for use".The components of a QA programme are often grouped into three levels: the strategic or organisational level (dealing with the quality policy, objectives,and management and usually produced as the quality manual); the tactical or functionallevel (dealing with general practices such as training and facilities); and theoperational level (dealing with the standard operating procedures (SOPs), worksheets, and other aspects of day-to-day operations) (World Health Organization, 2000).

In 2013, the Norwegian Agency for Quality Assurance in Education (NOKUT) conducted their first annual student survey at the national level. With a national-level satisfaction survey, in addition to multiple institutional-level satisfaction surveys (institution, campus, and class level) there is a potential risk of survey fatigue among students and a risk of data overload at the institutional level. In other words, rather than getting better data, which in turn can be used to improve the quality of education, we risk getting less robust data that the sector as a whole is unable to use in productive ways (Hamberg*et al.*, 2016).

Quality assessment and assurance is an important mechanism for higher-education institutions to ensure students' and other customers'satisfactionwiththeir services. Belasha*et al.* (2015) collected from students and employers and concluded that quality assessment and assurance depended on the teaching of degree programs. Also, the number of part-time jobs ininstitutionsaffectedQA and its assessment inhigher education. They recommendedregulations and procedures for educational institutions to increase QA.

The European Association for Quality Assurance in Higher Education (ENQA, 2009)produced a report in consultation and co-operations with the EUA, ESIB, and EURASHE. These are associations for assuring quality of higher education in European countries;- European Association for Quality Assurance in Higher Education (ENQA), European Association of Institutions in Higher Education (EURASHE), European Universities Association(EUA) and European Student Information Bureau (EISB).

The main aim was to set the standards, guidelines, and procedures forQA and to explore ways of, and systems for,reviewingQAin the European Higher Education Area(EHEA). The report recommended European standards for internal and external assurance of educational services and that the European quality-assurance cycle/term/period shouldbe five years. Finally, the report provided recommendationsforhigher-educational institutions and European quality-assurance agencies to use as a common reference point in the EHEA.

The role of QA in education has grown in most countries globally,both developed and developing. Prior to 2003, there was no formal QA system for higher education in Ethiopia. In 2003, the government founded an agency called Higher Education Relevance and Quality Agency (HERQA), responsible for guiding and regulating the quality of higher education in Ethiopia. The instruments HERQA employs to achieve its mission include conducting institutional quality audits in all higher-education institutions, gathering and disseminating information about the standards and programs of study of foreign higher-education institutions, and examining accreditation issues (Kashay, 2012).

In Somalia,the educational system, as well as many other social services,wasdestroyed by the civil war thatbegan in 1991.The Heritage Institute for Policy Studies (HIPS, 2013), basedin Mogadishu,and conducteda survey to assessthe state of higher education in Somalia. It showed that the higher-education system in Somalia had failed after the central government collapsed.Inrecentyears, as stability and security have improved in parts of the country, a diverse range of actors (including local communities, the Somali diaspora, local and international NGOs, Islamic aid agencies, and the private sector) have made a significant contributions to the rehabilitation and development of the education sector.

However, Somalia is characterised by three main administrative areas (Somaliland, Puntland, and the Somali Federal Government), each having their own Ministry of Education, Culture and Higher Education. Each zone also has its own educational system.TheInternational Organization for Migration (IOM, 2017) stated in its report there was a need totrain, coach, and mentor the regions' QA teams, providing sound technical guidance to aid the development and application of relevant guidelines andchecklists, etc.

Therefore, controlling and assuring the quality of services supports and motivates students to obtainsatisfactionanddevelopconfidence;they may even become fully committedto their education. However,accordingboth to HIPS (2013) and IOM (2017) reports, Somalia has no regular system or agency to control the quality of service provided by higher educational institutions.

Tangibility

Tangibility refers to theappearance of physical facilities, equipment, personnel, and communication materialsthatinstitutions use to attract customers or students (Kitchroen, 2004).Whiletangibles are defined as aspects of a service that can be "felt" without actually purchasing the service, they are the "visible" aspects of the service that are employed by businesses to improve external customer satisfaction (Panda& Das, 2014).

Since customer satisfaction is the strategicalgoal of any organisation, various factors' influences on customer satisfaction are linked to tangibility. For example, Panda and Das (2014)measured the impact on customer satisfaction both of operation-based tangibalisation (OBT) and marketing-based tangibalisation (MBT) in the hospitality sector and found that the tangibility of service quality had a significant effect of on customer loyalty and satisfaction.

Responsiveness

Responsiveness is communicated to customers by the length of time they have to wait for assistance or attention to their problems. Responsiveness captures the notion of flexibility and the ability to customise the service to meet customers' needs. It is important that the service organisation examines the process of service delivery from the customer's point of view, rather than the company's point of view. For example, polytechnic students' standard for prompt service delivery may differ significantly from management's standards at the same institution. Examples of responsiveness in the context of this study would include polytechnic employees telling students exactly when services will be performed and employees providingprompt, effective service to students when required to do so (Anwowie*et al.*, 2015).

Empathy

According to Ekman (2014), the term "empathy" is used to describe a wide range of experiences. Emotion researchers generally define empathy as the ability to sense other people's emotions, coupled with the ability to imagine what someone else might be thinking or feeling.Contemporary researchers often differentiate between two types of empathy. "Affective empathy" refers to the sensations and feelings we get in response to others' emotions; this can include mirroring what that person is feeling, or just feeling stressed when we detect another's fear or anxiety. "Cognitive empathy," sometimes called "perspective taking," refers to our ability to identify and understand other peoples' emotions. Studies suggest that people with autism spectrum disorders have a hard time empathizing.

Empathy is an important factor for increasing student satisfaction; it entails showing respect to students bylisteningto their ideas and demands. To create maximum satisfaction, people responsible for working with students must develop those an empathic relationship with them. Empathy is the ability to share others' thoughts and feelings in a given situation, a way to act as if you were another person, and includes elements such as:

- an open behaviour;
- habitual interpretations of language, gestures, and actions;
- listening;
- showing interest;
- imparting information;
- attempt to understand;
- paying attention; and
- Sharing information.

An emphatic teacher must understand the students' psychology, be close to them, and manifest interest in theirconcerns (Avram, 2011). Generally, empathy relates to the interaction of educational institutions' actors including teachers, heads, managers, other employees, and studentsandentails providing human and educational rights to students, leading them to feel satisfaction, without breaking the rules of the institution.

Student satisfaction in higher educational institutions

The concept of satisfaction in the context of higher education focuses on the student community. Oliver and Desarbo (1989) defined student satisfaction as the favourability of a student's subjective assessment of the numerous outcomes and experiences related with education,being shaped continually byrepeated experiences in campus life. Student satisfaction is also the short-term attitude that results from the evaluation of their experience with the educational service. Higher-education institutions tend to be concerned with student satisfaction due to its impact on student motivation, recruitment of new students, and retention of existing students (Onditi&Wechuli, 2017).

Student satisfaction is the strength ofstudents' expectation and perceptions of the quality of the institution's structure and services.Students are the key customers of higher-education institutions;Hasan*et al.*(2008) stated that student satisfaction is built continuously with experiences on campus during their study period. Student satisfaction is crucial since satisfied students could end up going back to their previous institutions for further studies or enrolling for new courses (Onditi and Wechuli, 2017).

Service quality and student satisfaction in higher-education institutions (Asaduzzaman, 2013)Conducted a case study on private universities related to service quality and student satisfaction in Bangladesh. These researchers used the five dimensions of SERVQUAL (tangibility, responsiveness, reliability, assurance, and empathy) to find the relationship between service quality and student satisfaction among 550 business students from private universities in Dhaka City, Bangladesh. The study found a significant relationship between service-quality factors and student satisfaction.

Saif(2014) examined service quality and student satisfaction, focusing on health-service-administration students in Jordan. The study examined the experiences of health-administration colleges applying service-quality standards and the effect of these standards on student satisfaction. Using SPSS to analyse results from 490 questionnaires,the study produced many results including that the four health-administration colleges studied had only average service-quality standards, leading to only average student loyalty. Finally, this study providedrecommendations to the college administrators forimprovingthe implementation of quality standardsto promote their development.

Hu *et al.* (2009)performed an empirical study on therelationships and impacts of service quality, perceived value, customer satisfaction, and image. The model produced indicated that providing high-quality services attracts more, and superior, customers and can lead to greater customersatisfaction, creating a positive image for the firm. Therefore, if students receive high-qualityservices from their institutions, these higher educational centres will improve theirimageand their development capabilities.

Much research has been focused on the effect of service quality on students'/customers' satisfaction, some based on the five dimensions of the SERVQUAL model, while others have analysed service-quality gaps by using customers'/students' expectations and perceptions to measure service quality. Sultana and (Sarmin Sultana, Shohel Rana, 2010)for example, studied service quality by analysing service-quality gaps in a case studyof "Komvux" (a form of secondary education for adults in Sweden). The objective of their study was to find service gaps between customers' expectations and perceptions, focusing on differences based on gender and country of origin. . Based on prior literature, the current study defines service quality as "the degree and direction of discrepancy betweencustomers' service perceptions and expectations" (PZ, 2006)Authors and different researchers gave the meaning and definitions of service quality over time. Zeithaml&Bitner (2003) defined service quality as dispersion between customer's needs and what service provider wants to offer.

. Previous authors have assertedthat the dimensions of SERVQUAL do not have generality and that administering items for expectation are necessary. Higher-educational centres need to influence their students to remain for long time byproviding high-quality service quality, which is one of the crucial strategies for achieving student satisfaction, as well as satisfying other stakeholders such asparents, educators, governments, and non-profit organisations. Providing high-quality education reduces student stress and reduces feelings of dissatisfaction among students.

Notably, the structure supporting all higher-educational institutions of Somalia wasdestroyed after the collapse of the central government 1991 andmany private higher institutions weresetup to provide education for the new generation. For the following 10 years, there was no formal means ofmeasurement to control the quality of education. To the best of our knowledge, there are very few studies that have attempted to research the relationship between service quality and student satisfaction in the higher-institution or Universities context in Somalia.

Conceptual model of the study

The conceptual model of the study is shown in **Figure 1** and the hypotheses are listed below:

*H1*. There is significant relation between reliability and student satisfaction.
H2. There is significant relation between responsiveness and student satisfaction.
H3. There is a correlation between tangibility and student satisfaction
H4.There is significant correlation between the mediation variable (student satisfaction) and studentloyalty.
H4: Assurance has significant impact on student satisfaction.
H5: The relation between empathy and student satisfaction is significance.

Figure 1. The conceptual model of the study
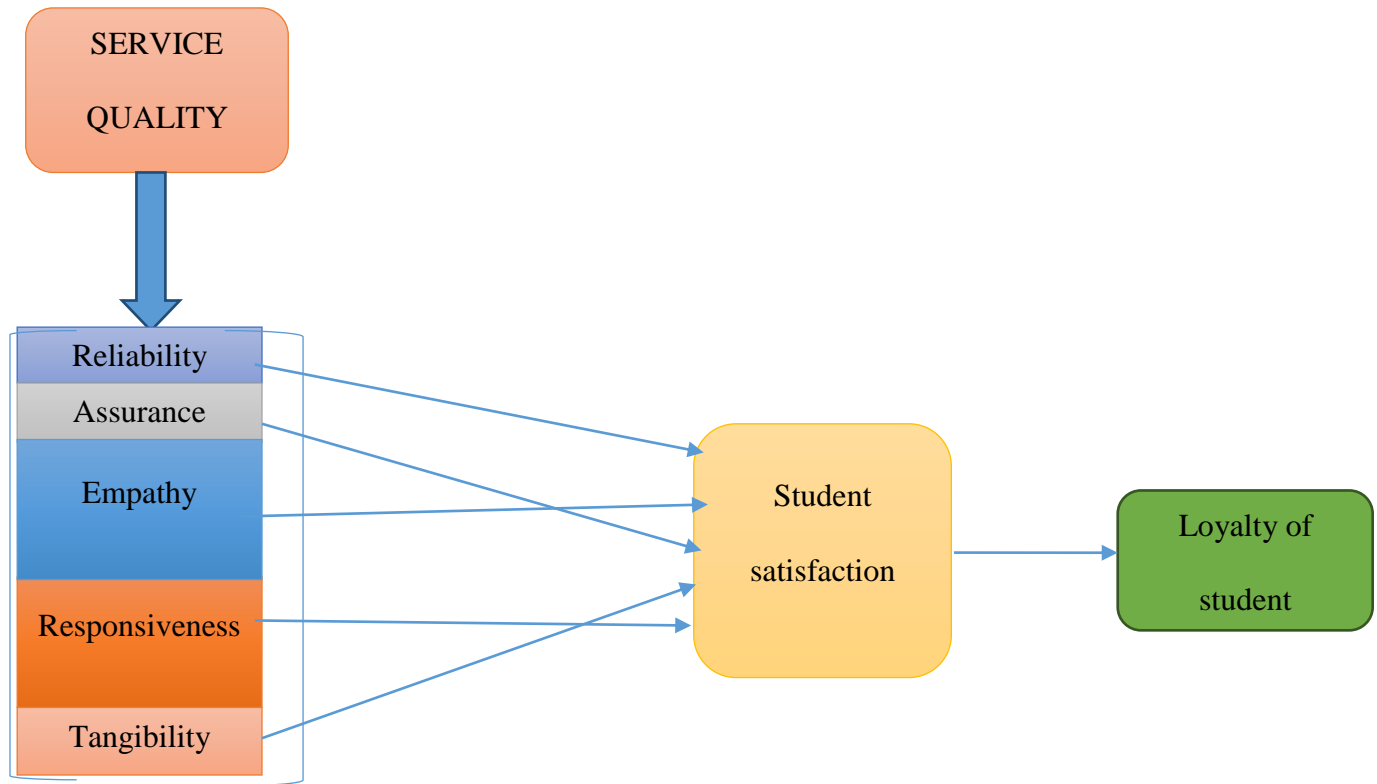
Research theory

SERVQUAL is a multi-item scale developed to assess customer perceptions of service quality in service and retail businesses. The scale decomposes the notion of service quality into five constructs:

(1) *Tangibles:* physical facilities, equipment, staff appearance, etc.
(2) *Reliability:* ability to perform service dependably and accurately.
(3) *Responsiveness:* willingness to help and respond to customer needs.
(4) *Assurance:* ability of staff to inspire confidence and trust.
(5) *Empathy:* the extent to which caring individualised service is given.

SERVQUAL represents service quality as the discrepancy between a customer's expectations for a service offering and the customer's perceptions of the service received, requiring respondents to answer questions about both their expectations and their perceptions. However, this model developed as cooperation by (Parasuraman, Zeithaml, and Berry , 1985). The use of perceived as opposed to actual service received makes the SERVQUAL measure an attitude measure that is related to, but not the same as, satisfaction. They *presented* some revisions to the original SERVQUAL measure to remedy problems with high means and standard deviations found on some questions and to obtain a direct measure of the importance of each construct to the customer.

Methodology

The survey was conductedusingSERVQUALtheory and its measurements. The independent variable was service quality, which predicates the quality of the higher education institutions, and the dependent variable was student satisfaction. The investigators adopted an explanatory and descriptive research designto explain the relationships between service quality and student satisfaction.

The researchers selected aquantitative approach and used a sample from local Universities, which is one of the most popular and prestigious private universities in Somalia. Respondentsincluded both graduates and undergraduates. Non-probabilitysampling was chosenas the most appropriate technique for this study and aquestionnaire was utilised as thetool tocollect the data. A total of 320 questionnaires were distributed, comprising three parts:demographic data; service-quality measurement; and studentsatisfaction.

The first section gathered data on gender,age, and semester (Hasan*et al.*, 2008). The second and third sections gathered data on the five SERVQUAL dimensions and student satisfaction, respectively(also adapted from Hasan*et al.*, 2008).

SPSS software was used to analyse the descriptive analysis reliability and validity were also tested before Model test.

Findings

This current study uses partial least squares(SmartPLS 3.0) to test the fitof the construct and the model presented in this study. This software facilitates the prediction relationship between variables. It also enables thetestingofthe group of inter-correlated research variables using systematic analysis by framing the correlation among various variables and allowsthe testing of the complete conceptual and theoretical framework (Hair, Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013).)(Hair &Sarstedt, 2013).

This paper used three steps to analyse the data: model specification and constructs' relationships; determining the measurement model; and analysing the model.

Measurement of the model

The ultimate of goal of measuring the model's indicators is to test the study'svalidity and reliability. If the items are valid and reliable, this validates the path relationships and theoretical framework of our study. This paper also reports both discriminate and convergent validity, in line with PLS methodology. Convergent validity tests whether constructs that should be related are related. Discriminant validity tests whether believed unrelated constructs are, in fact, unrelated (Hair, Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013).) (Hair *et al*., 2010).

Convergent validity was tested based on two criteria:standardised loadings; and average variance experienced (AVE).We considered composite reliability, Cronbach'salpha,andAVEto clarify the convergent validity of the construct as suggested by structural equation modelling. The"rule of thumb" suggeststhe minimum level of standard loadings should be 0.7 to verifythe significance of the constructs (M R Ab Hamid1, 2017)

All the constructs for service quality and student satisfaction were above these

	Reliability	Responsiveness	Student satisfaction	Tangible	Student loyalty
Loy1					0.736
Loy2					0.851
Loy3					0.786
Re1	0.773				
Re2	0.814				
Re3	0.829				
Res1		0.805			
Res2		0.863			
Res3		0.777			
Res5		0.781			
St1			0.740		
St2			0.807		
St3			0.817		
St4			0.778		
Tan2				0.904	
Tan3				0.836	

minimum standardsforCronbach's alpha (Table 1). Minimum requirements for AVE(above 0.50) were also met (Table 1).

Table1. Reliability and validity of constructs

Construct	AVE	Alpha	Composite reliability
Reliability	**0.649**	**0.732**	**0.847**
Responsiveness	**0.578**	**0.815**	**0.872**
Student satisfaction	**0.618**	**0.796**	**0.866**
Tangible	**0.538**	**0.714**	**0.821**
Loyalty	**0.563**	**0.743**	**0.837**

Cronbach's alpha was used to test the internal consistency (Nunnally, 1994)(Nunnally and Berstein,1994). Again all variables are exceeded the minimum alpha value of 0.70 (Table 1).

Discriminant validity describes the extant differentiation among the constructs of the study to test their correlation, and requirescorrelation not to be high. To determine discriminant validity, the study followed the criterion of Fornell and Larcker (1981). A construct empirically differs from other theoretically related constructs if its root square of the AVE is higher than the relationship with other constructs. (Bagozzi and Yi 1988; Fornell and Larcker 1981). The current study met these conditions for discriminate validity (Table 3).

Table 3. Discriminant validity

Constructs	1	2	3	4	5
Reliability	0.806				
Responsiveness	0.573	**0.761**			
Student satisfaction	0.456	0.537	**0.786**		
Tangible	0.497	0.447	0.593	**0.734**	
Loyalty	0.583	0.569	0.682	0.517	**0.750**

Structural model

The current study used bootstrapping to determine the level of significance of constructs statistically. The bootstrapping technique has been recommended by previous literature to enableforecastingfor theconstructs to highlight the variances among them within the structural model of PLS(Hair, Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013).)(Hair *et al.*, 2013). The coefficient determination of R^2 is the key technique to evaluate the extant level of variation in the PLS model. A total of 46% of variances existed in the constructs of service quality and student satisfaction (Figure 2).
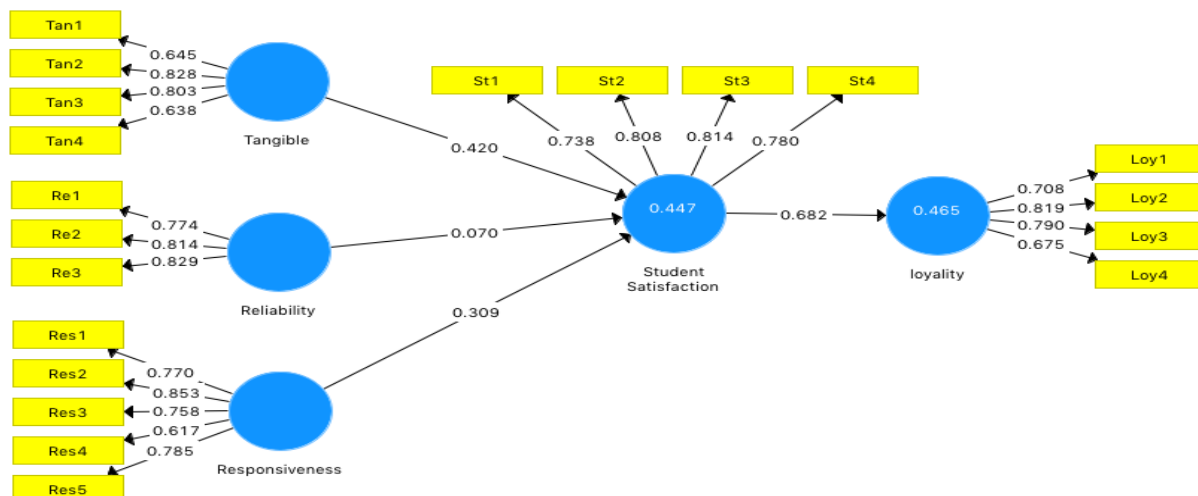
Figure 2. Coefficients for the conceptual model

The aim of the current study was to measurethe effect of service quality and its dimensions on student satisfaction in the educational sector of Somalia and also to investigate the mediating effect of student loyalty on the relationship between service quality and student satisfaction.

Four assumptions were developed based onthe previous literature; to test the measures and hypotheses, we conducted a PLS path analysis in Smart PLS 3.0. The effects both of explanatory variables and the mediators were also measured (Table 3). This indicated the path coefficients, *t*-tests, and *p*-values, to assure the significance of the hypotheses (Table 4).

Table 4. Path coefficients

Suggested path	Coefficients	SE	*t*-values	*p*-values	Decision
Reliability→Studentsatisfaction	0.070	0.109	1.036	0.301	Failed to support
Responsiveness→Studentsatisfaction	0.309	0.128	2.262	0.024	Supported
Student satisfaction→ Loyalty	0.662	0.056	12.417	0.000	Supported
Tangible → Student satisfaction	0.420	0.090	4.641	0.000	Supported

The path coefficients between the dimensions of service quality and student satisfaction revealed that different relationships existed in the model (Figure 3 and Table 3). This means that some dimensions hadaweak correlation with student satisfaction while other factors hada strong correlation.
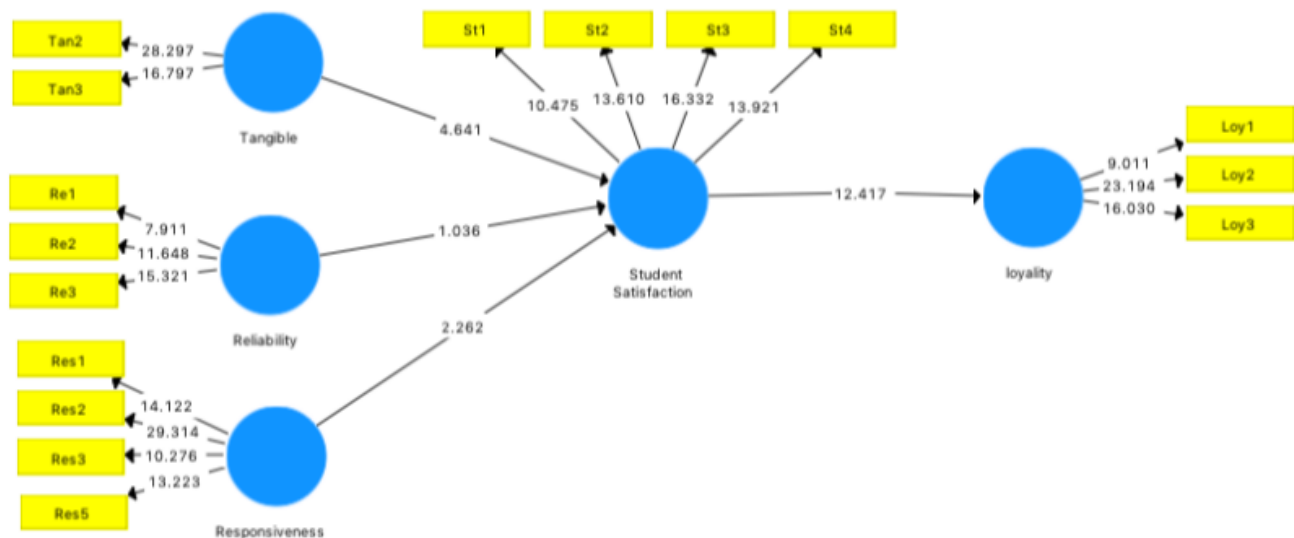

Figure 3.Bootstrapping values for the path coefficients

The path analysis led to the rejection of*H1*(reliability has a significant relation to student satisfaction) (*r*=0.070, *t*=1.036, *p*=0.301). *H2*, regarding responsiveness, was confirmed, but not to the extent expected(*r*=0.309, *t*=2.262, *p*=0.024). *H3*, regarding tangibility, however, was confirmed (*r*=0.420, *t*=4.641, *p*=0.000). The final hypothesis (*H4*)concernedthe mediation factor (loyalty),assumed to have an indirect effect on student satisfaction; this was fully supported and proved more significant than the other explanatory variables (*r*= 0.662, *t*=12.417, *p*=0.000).

Therefore, reliabilitywas not very significant in terms of its effect on service quality and loyalty, while responsiveness, tangibility,andstudent satisfaction were all more involved the indirect relationship between service quality and student loyalty.

Discussion and conclusion

The constructs of tangibility and responsiveness had a significant relationship with student satisfaction. These dimensions fully supported that student satisfaction enhances student loyalty. Theseresultsareconsistent with the previous study conducted by Mantovani (2012).

The reliability dimension failed to demonstrate a significantdirectrelationship with student loyalty. This is in line with (2011), although they focused only on the relationship between this construct (reliability) and the mediating variable of current study (student satisfaction). However, it is Two constructs (empathy and assurance) were removed from the analysis this study's model as their factor loadings showed no significant relationship with student satisfaction.

However, the most important correlation revealedby the resultswas the relation between the mediating variable (student satisfaction) and final output of the model (student loyalty). The resultsrevealedthe correlation of these two construct to bemore significant than the other dimensions(reliability, tangibility, and responsiveness) in terms of perceptions ofhigh-quality service in higher- educational institutionsinSomalia, specificallyLOCALUniversities.

Finally, the results how the AVE (R^2) of the service-quality dimensions (tangibility, reliability, and responsiveness) on student satisfaction to be0.447 (44.7%). This means that the change rates of the three constructs may increase or decrease student satisfaction, which affects student loyalty directly. The AVE(R^2) between the mediation variable (student satisfaction) and the dependent variable (student loyalty), however,was shown to be 0.465(46.5%).

Conclusion

This study mainly focused on the indirect connection between service quality and student loyalty through the intermediate factor of student satisfaction in LOCALUniversitiesin Mogadishu, Somalia. Specifically, the study observed and discussed analysis related to measurements of service provided (assurance, empathy, tangibility, responsiveness, and reliability) in relation to student loyalty through the mediation variable (student satisfaction).Two of these service-quality measurements, however(assurance and empathy),demonstrated, through their factor loadings,no effect on student loyalty.

The current study differs from many previous studies through the inclusion of the loyalty factor and the influence from the mediatingfactor (student satisfaction). The study employed astructured questionnaire to collect data from 324 students.

Results confirm and enhance our understanding of the significance of providing high-quality services to ensure studentsatisfaction, leading to increased student loyalty and an increased desire to seekmore knowledge from higher-educational institutions, specificallyLOCALUniversities.Therefore, increasing student satisfaction has a key rolein promotingstudent loyalty byprovidingeffective services,andvice versa. Student satisfaction also serves as the linking factor betweenservice quality andstudent loyalty.

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