Developing a Service Quality Model for Private Higher Education Institutions in Lebanon

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ABSTRACT

Objective –The objective of this study is to identify and implement the most suitable and prominent dimensions for service quality, which is key for the development of a successful model. Within a competitive academic environment, Lebanese higher education institutions are forced to develop their own dimensions of service quality and offer higher quality services than their competitors. Therefore, identifying the key dimensions of service quality in the Lebanese higher education sector is a priority for universities, to improve their overall services and maintain high levels of retention. The foremost condition to success is a well-developed service quality assessment process to evaluate university services. This paper aims to investigate the most effective service quality assessment tool for Lebanese universities, in addition to the corresponding dimensions of service quality and their impact on the satisfaction of the students.

Methodology/Technique – This study undertakes a comprehensive review of recent studies dealing with different aspects of service quality models and the corresponding service quality dimensions are presented and discussed. Considering the proved and established qualities and capabilities of the SERVQUAL model and the urgent need for service quality assessment for private higher education institutions in Lebanon, a modified SERVQUAL model with seven dimensions is proposed and highlighted as a potential model for assessing service quality in the Lebanese higher education sector.

Findings – Based on the comprehensive literature review carried out, it was noted that the SERVQUAL instrument is the most prominent model used in recent investigations to assess service quality in the higher education sector.

Novelty – Choosing the proper and the most influential service quality model is one of the crucial challenges faced in higher education.

Type of Paper: Review.

Keywords: Service Quality; Quality Dimensions; Service Model; Customer Satisfaction; Lebanese Higher Education.
JEL Classification: I20, I23, I29.

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1. Introduction

The higher education sector in Lebanon is one of the most established sectors in the Middle Eastern
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region, with one large public university and 41 private higher education institutions, with a total enrolment of 192,522 students (BankMed, 2014). Within a challenging and competitive academic environment, and considering the variety of services provided by different types of higher education institutions, the Lebanese higher education sector still lacks a systematic and effective service quality assessment tool, which hinders improvements in overall performance. This paper presents a comprehensive review of recent investigations in this area and progress in the field of service quality models as well as the governing service quality dimensions, creating a basis for development of an effective assessment tool to be implemented in the Lebanese higher education sector. Moreover, different service quality dimensions in higher education are reported and examined in order to assess the importance and influence of each dimension on service quality. Based on a thorough literature review and the discussion presented for different service quality models and their corresponding dimensions, a service quality model with seven dimensions is proposed to serve as a tool for assessing service quality in Lebanese higher education.

2. Service Quality

Quality is a key factor of success in the delivery of services and attaining customer satisfaction in a modern, sophisticated and competitive world (Ghobadian et al., 1994). In recent decades, a large portion of research has investigated and attempted to characterize service quality, however they are yet to produce a common definition of this (Becket and Brookes, 2006; Parasuraman et al., 1985). Nevertheless, some notable definitions of service quality in existing literature are: providing a service that complies with the customers' needs (Boomsma, 1992) and providing a service that meets or exceeds customer expectations (Grönroos, 1984; Parasuraman et al., 1985). According to Berry et al. (1988) and Crosby (1979), service quality refers to conformity to customer specifications, which is the extent to which essential features of the service provided meet the customers needs (ISO 9000: 2005). Customers weigh up their expectations with their perceptions of the delivered service and evaluate if the service in fact met or exceeded their expectations. Factors such as external environmental changes and modifications, past experiences and the competition between service providers have an effect on customers' expectations and perceptions, which may lead to a major change in their needs over time and across different situations (Grönroos, 1984; Parasuraman et al., 1985; O'Neil and Palmer, 2004; and Zeithaml et al., 1990).

3. Service Quality Dimensions in Higher Education

Peters et al. (1982) highlights quality in education as excellence, whereas Crosby (1979) states that quality in education refers to the output of compliance with set goals. In addition, Holdford and Patkar (2003) define service quality as an assessment of the services offered to the students in their educational journey. Defining and characterizing service quality dimensions is a major challenge, and there is extensive debate surrounding the correct number of dimensions. Cultural diversity, demographic variables and personal factors all contribute to the variation in service quality dimensions in various studies, locations and situations. Another factor leading to such variation is the difficulty to generalize in many studies due to inappropriate sampling methods and unrepresentative sample sizes (Douglas et. al., 2006; Hanaysha et al., 2011; Senthilkumar and Arulraj, 2010). Table 1 summarizes the major service quality dimensions employed in some studies targeting service quality assessment in higher education, in various countries.

Table 1. Service Quality Dimensions Reported in the Literature

Study	Service Quality Dimensions
Abari et al. (2011)	Guarantee, Sympathy, Facilities, Responsibility and Reliance
Abdullah (2006a)	Reputation, Access, Program issues, Academic aspects, Non-academic aspects, and

	Understanding
Aldridge and Rowley (1998)	Services and facilities for students, Equal opportunities, Teaching and learning, Feedback and complaints, Communication, Consultation, Teaching and learning support, Disability and environment and Teaching and learning development
Annamderula and Bellamkonda (2012)	Administrative services, Campus infrastructure, Support services, Teaching and course content, and Academic facilities
Asefi et al. (2017)	Assurance, Responsiveness, Empathy, Tangibles and Confidence
Athiyaman (1997)	Quality of Teaching, Recreational facilities, Library services, Availability of staff for student consultation, Computing facilities, Class size, Student workload, and Level of difficulty of subject content
Carman (1990)	Assurance, Responsiveness, Reliability, Tangibles and Empathy
Cronin and Taylor (1992)	Assurance, Responsiveness, Reliability, Tangibles, Empathy and Customer Satisfaction
Gatfield (2000)	Guidance, Academic instruction, Recognition and Campus life
Hadikoemoro (2002)	Academic services, General attitudes, Readiness and Attentiveness, Fair and Impartial and Tangible
Hampton (1993)	Quality of education, Social life-personal, Teaching, Campus facilities, Student Advising, Social life-campus, and Effort to pass courses
Joseph and Joseph (1997)	Academic reputation, Program Issues, Word of mouth, Time, Location, Program aspects, Campus opportunities, Family, Physical aspects, and Peer influence
Lee et al. (2000)	Overall impression of the university, Overall impression of the education quality
Nguyen and Leblanc (2001)	Administration, Responsiveness, Curriculum, Physical evidence, Access to facilities, Functional quality, Technical quality
Owino (2013)	Human elements, Non-human elements, Core service, Service blueprint and Corporate image
Parasuraman et al. (1985)	Access, Courtesy, Communication, Tangibles, Responsiveness, Reliability, Credibility, Security Understanding and Competence
Parasuraman et al. (1988)	Assurance, Reliability, Empathy, Tangibles and Responsiveness
Pereda et al. (2007)	Reliability, Tangibility, Sufficiency of resources and Quality of faculty
Randheer (2015)	Reputation, Access, Program issues, Academic aspects, Non-academic aspects, Understanding, and Culture
Sohail and Shaikh (2004)	Reputation, Access to facilities, Contact personnel, Physical evidence, Curriculum and Responsiveness

4. Service Quality Assessment Models

4.1 The Grönroos Model and the Lehtinen and Lehtinen Model

One of the first investigations in the field of service quality assessment was presented by Lehtinen and Lehtinen (1982), who proposed a service quality model with three major dimensions: interactive quality, physical quality and corporative quality. Interactive quality highlights the interaction between the services provided and the customer, whereas physical quality refers to the tangible part of the service provided. In

addition, the image perceived by customers of the service provider characterizes the corporative quality. Building on this model, Grönroos (1984) developed a model that defines service quality as the gap between expected service levels and customer perceptions of the delivered service. The model significantly divides customer perceptions into technical quality, dealing with "what" service is provided and functional quality dealing with "how" this service is provided. Grönroos identifies a third quality dimension, being the image of the service provider, which moderates both technical and functional aspects of quality to arrive at a perceived level of service. With respect to an organization's image, the more positive and bright the image is, the less impact a mistake has on the perception of service quality (Grönroos, 1990). The level of the service quality perceived is governed by the functional and technical quality and the difference between the expected and perceived service.

4.2 SERVQUAL Model

The SERVQUAL model, developed by Parasuraman et al. (1988), is one of the most widely used service quality models and remains as one of the most controversial models. Parasuraman, et al. (1988) proposes a more precise criterion for assessing service quality and developed a measurement scale for service quality called SERVQUAL. In their model, they supported the gap model that is driven by consumers evaluating quality, by recognizing their expectations of the provided service and comparing them to their perception of the actual performance of the delivered service. Qualitative interviews of 12 focus groups made up of customers and 14 executives in 4 different service businesses were performed to develop the SERVQUAL gap model with the well-known 'Q=P-E' equation; (Q) being the quality, (E) the customers' expectations and (P) their perception of the service provider's overall performance. Thus, customer satisfaction is relative to the quality of the service delivered.

As shown in Figure 1, five of the gaps (P-E) are defined in the SERVQUAL model (Parasuraman et al., 1985). Gap 5 represents a dependent variable on the consumer side and the other 4 gaps represent independent variables on the service provider side.
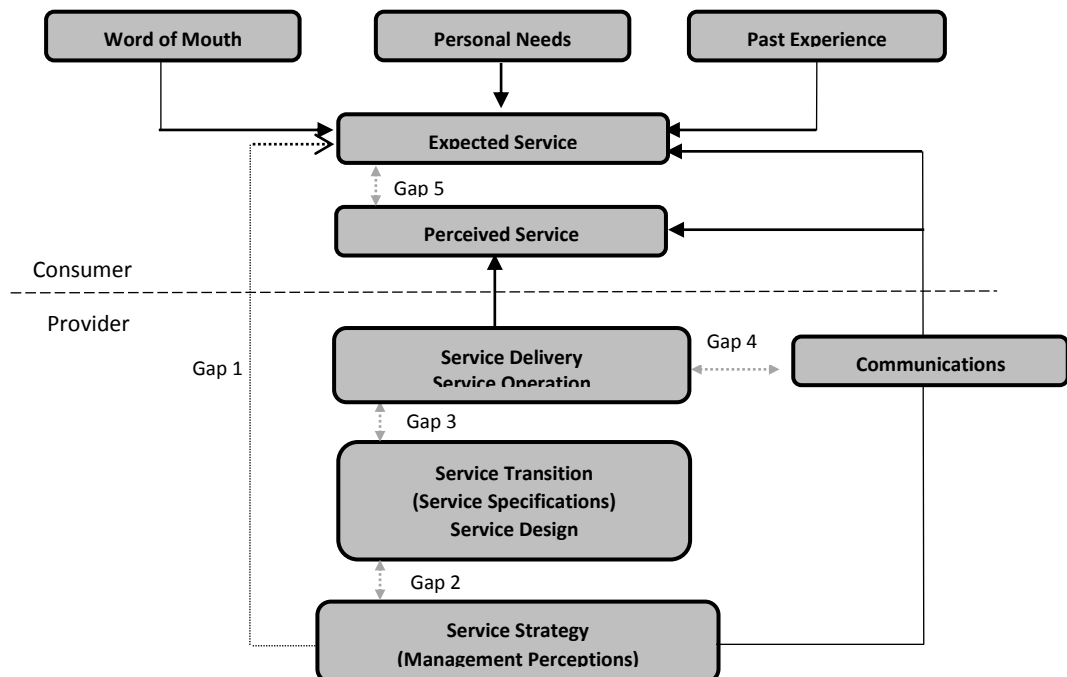

Figure 1. SERVQUAL model- Parasuraman et al. (1985)

A positive gap indicates customer satisfaction; the higher the gap, the higher the satisfaction rate. Parasuraman et al. (1985) links Gap 5 with service quality dimensions as evidence of how customers employ all dimensions in their evaluation. In addition, they identify 10 dimensions of service quality: communication, responsiveness, tangibles, access, reliability, courtesy, understanding, competence, credibility and security. In a later study, Parasuraman et al. (1988) correlates those 10 dimensions and developed 5 dimensions of service quality into the SERVQUAL model; reliability, empathy, tangibility, assurance and responsiveness with 22 corresponding statements.

Buttle (1996) questions expectation as a suitable paradigm in service quality assessment. Babakus and Boller (1992) and Cronin and Taylor (1992) also state that the discrepancies between expectations and perceptions do not provide any additional value to the performance only instrument. In addition, Gabbott and Hongg (1998) claim that even perfect service falls short of meeting customer expectations, resulting in a negative gap. Moreover, the SRERVQUAL model was criticized for being non-universal and inapplicable to different sectors (Chen et al., 2006; Smith et al., 2007). Cuthbert (1996) states that the dimensions of the SERVQUAL model are inappropriate in the framework of higher education. Parasuraman et al. (1991) agrees that the SERVQUAL model requires modification in order to apply to specific contexts.

Although it has been subject to a wide range of criticism and debate, SERVQUAL has been successfully and widely implemented in different locations around the world and in different types of service organizations. In their study, Imrie et al. (2002) states that the SERVQUAL model requires alteration when taking into consideration the culture and environment in which it is implemented. This is supported by Malhotra et al. (1994) who argues that the dissimilarities between developed and developing countries can affect service quality dimensions for students. One such example is the "responsive" dimension, as it is related to socio-cultural effects, taking the value of time into consideration. They also claim that people who live in developed countries are more likely to have a strong perception of time due to the fast pace of their lifestyle, whereas their counterparts in developing countries do not give time as much consideration. Therefore, it is vital to apprehend the cultural differences between countries, concentrating on economic development and the numerous dimensions of service quality. With respect to the higher education sector, various studies have modified the SERVQUAL model, stating that the standard model structure is not entirely applicable to the education sector (Hampton, 1993; Gatfield, 2000; Kerlin, 2000).

4.3 SERVQUAL Model Implemented in Higher Education

The comprehensive literature review carried out above notes that the SERVQUAL instrument is the most prominent model used to assess service quality in the higher education sector. In a recent study, Moosavi et al. (2017) conducts a comprehensive review and analysis of the quality of educational services in Iran, from the student perspective. Following an analysis of 18 various studies, they report that the SERVQUAL model is the most effective model to be used for assessing and measuring service quality in the educational sector. In addition, they conclude that the overall quality of the current educational service is much lower that the expectations of the students.

In another study, Asefi et al. (2017) employed the SERVQUAL model to assess the gap between student expectations and perceptions of the service quality in the school of Nursing and Midwifery in Shahrekord University of Medical Sciences in Iran. A SERVQUAL questionnaire was considered using 5 dimensions; assurance, responsiveness, empathy, tangibles and confidence. An overall negative gap was reported between the students' expectations and perceptions of service quality, with the tangibles dimensions resulting in the largest gap.

Moreover, Legcevic (2009) performed a study aimed at investigating student perceptions and their expectation of service quality at the Law Faculty of Osijek University in Croatia employing the SERVQUAL model. Legcevic reported significant differences in the gap between perceptions and expectations among the 5 dimensions, while concluding that student expectations exceeded their perceptions of the quality of the service provided.

In assessing undergraduate students' perceptions of service quality, Polycarpou (2007) developed an adapted SERVQUAL instrument for conducting a case study of one of the leading colleges in Cyprus. The SERVQUAL 5 dimensions with the 22 measurement items were considered as a basis for the questionnaire. The author reported a wide gap in 20 out of the 22 items, where the tangibles dimension had the smallest gap and the empathy dimension had the largest gap.

Al-Alak and Alnaser (2012) studied the interdependencies and relationships between the 5 SERVQUAL dimensions of service quality and undergraduate student satisfaction at the Business Faculty at University of Jordan. In that investigation, assurance and reliability were found to be the most important service quality dimensions for the higher education sector in Jordan.

In another study, Yousapronpaiboon (2014) investigated service quality in the Thailand Higher Education sector. A case study of a private universities in Thailand using the 5 dimensions of the SERVQUAL instrument; reliability, assurance, tangibles, empathy and responsiveness was used and the SERVQUAL questionnaire was distributed to 350 undergraduate students. Based on the investigation results, the author reported that higher education in Thailand does not meet the expectations of the students, as a negative gap was reported between the students' perceptions and expectations for the 5 dimensions employed. To reduce the gap, an upgrade in the university facilities and equipment was recommended.

In addition, Zeshan et al. (2010) selected 8 business schools in Pakistan to serve as a case study to assess service quality employing SERVQUAL. They reported an overall low quality in all schools, in terms of all the service quality dimensions.

Recently, a study by Owino (2013), used a 56 item scale instrument based on performance only by consolidating the 5 dimensions of SERVQUAL into 2: human elements (reliability, responsiveness, assurance, empathy) and non-human elements (physical evidence). Two other dimensions were introduced and tested; core service and service blueprint and considered corporate image as a moderator.

4.4 Other Service Quality Models Applied in Higher Education

In addition to the widely implemented SERVQUAL model, various service quality models have been developed and implemented in the context of higher education. A service performance model (SERVPERF) was developed by Cronin and Taylor (1992), derived from SERVQUAL, using all 5 dimensions but concentrating solely on customers' perception, denoted as (P) in SERVQUAL, and ignoring expectations (E). The SERVPERF model has been implemented by different researchers (Oliver, 1993; McAlexendder et al., 1994). These researchers claim that measuring the perception of the customer using performance only (SERVPERF model) outperforms the perception-expectation gap model (SERVQUAL model).

In their study, Abdullah et al. (2006a) modified the SERVPERF model in order for it to fit more suitably in the higher education context, and developed a new version based on performance-only measures, called the HEDPERF model. The model has 2 sections; the first targets the participants information and profile and the second deals with various aspects of Malaysian higher education service. They identified 6 dimensions: reputation, understanding, academic aspects, non-academic aspects, program issues and access.

Brochado (2009) compared the performance of different service quality models including HEDPERF, SERVPERF, and importance-weighted SERVQUAL. Considering the reliability and validity criteria, it is reported that the HEDPERF and SERVPERF models yield the highest scores. Nevertheless, a combined HEDPERF-SERVPERF model was developed in 2006 by Abdullah (2006b). The dimensions of the new model included academic aspects, non-academic aspects, empathy and reliability. However, Abdullah (2006c) compared these 3 models (HEDPERF, SERVPERF and HEDPERF-SERVPERF) and found that the HEDPERF model was a better fit for the higher education sector.

Moreover, Martilla and James (1977) propose the Importance-Performance Analysis (IPA) model derived from the SERVQUAL model, however this model was later adjusted by O'Neil and Palmer (2004) in order to suit the education sector. Despite the fact that the IPA model is based primarily on performance, it also considers the priority that the customers give to each of the service features. Thus, it relies on what customers

perceive as being important and attempts to categorize the importance of service quality dimensions to customers. The IPA model was modified to suit the educational setting by using 3 focus groups.

Compared to the previous models, O'Neil and Palmer (2004) consider the IPA model more convenient for higher education as past, current and future student perceptions of actual performance can be correlated. The model dimensions are divided into 4 quadrants, where each quadrant characterizes simultaneous relations between importance and performance, being either high or low. The IPA model has become increasingly popilar in recent years due to its simplicity, applicability and its diagnostic value (Joseph and Joseph, 1997; Ford et al., 1999).
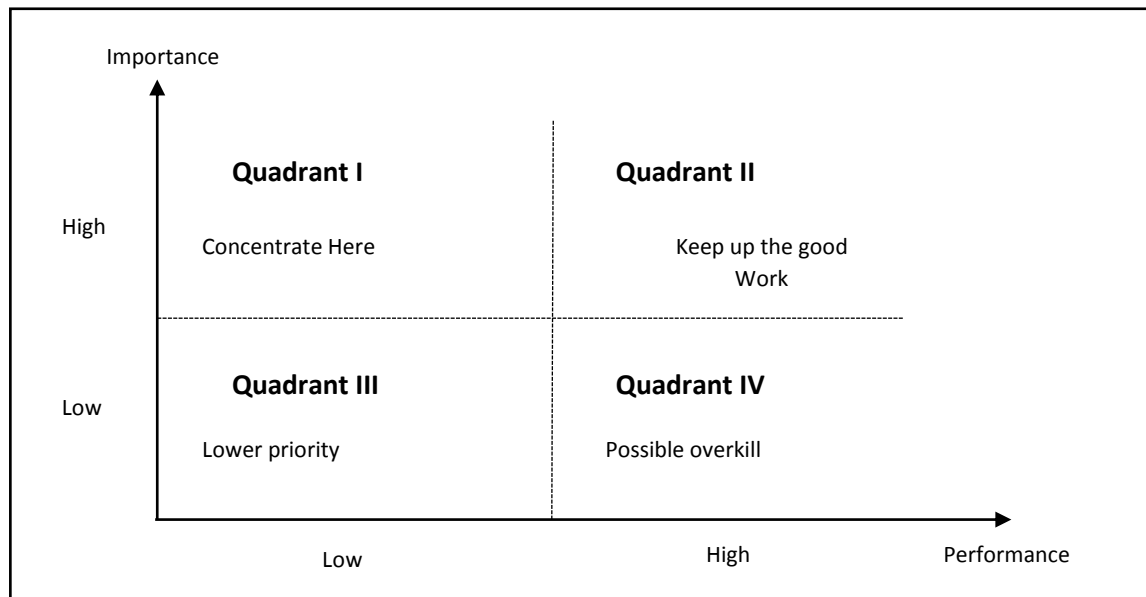

Figure 2. IPA model- Martilla and James (1977)

To overcome the weaknesses of the SERVPERF and HEDPERF models, another model was developed by Sultan and Wong (2010). The PHED model was implemented to measure the service quality performance at different Japanese universities with only international students participating. Based on the findings, they identified 8 service quality dimensions: capability, dependability, effectiveness, efficiency, semester and syllabus, competencies, assurance and unusual situation management. Nevertheless, the study findings could not be generalized as the survey was limited to only international students.

A recent study by Randheer (2015) adjusted the SERVPERF and HEDPERF models by introducing culture (CUL) as an additional dimension of the service quality model, in addition to the 6 dimensions in HEDPERF. As the Arab Gulf culture is rooted into the educational system, Randheer (2015) considered and implemented the Arab cultural aspects within the existing HEDPERF model to measure service quality in higher education for 750 business students in 5 different Saudi Arabian universities. They found that the CUL-HEDPERF model with its 7 corresponding dimensions: culture, reputation, understanding, access academic aspects, non-academic aspects and program issues, is more convenient than HEDPERF and SERVPERF models in assessing service quality in higher education institutions in the Gulf region.

Conclusion

The SERVQUAL model has been successfully and widely implemented in different countries around the world and in different types of higher education institutions to assess service quality. As highlighted in the literature review, many researchers have stressed that the initial SERVQUAL model presented and developed

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by Parasuraman et al. (1988), with 5 dimensions of service quality (reliability, empathy, tangibility, assurance and responsiveness) is not universal in its current format and is largely inapplicable to higher education.

Moreover, additional investigations suggest that the SERVQUAL model is in need of alteration to take into consideration the culture and environment where it is implemented. Thus, a large number of modified and adapted versions of the conventional SERVQUAL model have been developed and successfully implemented to assess service quality in the higher education sector in various countries. Building on the large body of research presented and reviewed in this study, and considering the challenges faced by the private higher education institutions in Lebanon and the absence of systematic and effective service quality assessment tools, this paper proposes a modified SERVQUAL model to be used as a basis for service quality assessment and student satisfaction measurement in Lebanese private higher education institutions.

The modified model should consider the 3 qualities identified by the Grönroos (1984) and Lehtinen and Lehtinen (1982) models: physical quality (physical campus facilities), interactive quality (interaction with administrative staff, faculty and other students) and corporative quality (university image and reputation) along with the recommendations of the Importance-Performance (IPA) model.

Moreover, several researchers have recommended and implemented 'university image and reputation' (Sohail and Shaikh, 2004; Abdullah, 2006; and Randheer, 2015), 'quality of education' and 'quality of students services support' (Athiyaman, 1997; Hadikoemoro, 2002; Lee et al., 2000; Nguyen and Leblanc, 2001; and Pereda et al., 2007) as 3 valuable dimensions in the assessment of service quality in the higher education sector. Thus, the model proposes the following 7 service quality dimensions: 'university image and reputation', 'quality of education', 'quality of students services support', 'campus physical facilities', 'students social life on campus', 'interaction with faculty' and 'interaction with administrative staff'.

Based on this proposed model, a questionnaire was developed and refined by using focus group interviews made up of students, to develop and validate the dimensions that are related to the Lebanese higher education framework. In addition, experts in the area have also reviewed the questionnaire items.

In the absence of sufficient studies within the Lebanese higher education context, this work forms an important basis to develop an effective service quality assessment tool, which is valuable to higher education institutions in Lebanon. In addition, this paper sets guidelines and provides recommendations for leaders, planners, university professors and administrators within the higher education sector in Lebanon. In future work, we are aiming to implement the proposed model to assess service quality in the context of Lebanese higher education. The study aims to provide valuable feedback and recommendations to enhance the overall methodology of service quality assessment in various higher education institutions in Lebanon and subsequently improve the level of Lebanese students' satisfaction. This study represents a step forward in improving the overall status of higher education in Lebanon, aiming to conserve its strong position in the Middle East region within a challenging academic environment.

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