Service Quality in Higher Education Institutions an Overview of Models Assessing It

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Abstract—This paper focuses on presenting an overview of the existing literature of the models which assess the quality of higher education institutions. The higher education sector is dynamic and competitive. The competition between universities leads to the necessity to maximize efforts and improve the quality of their services. A lot of studies from different researchers and different countries are developed through time. It is important to emphasize that higher education is a service, and as other services are offered to the customers, we have to measure its quality. By analyzing the advantages and disadvantages of each model, the researchers would be able to use the model which is more reliable and valid for their study. The results of this paper are consistent with earlier research that had compared these models. The Servqual remains the most pointed model used to assess service quality in the higher education sector.

Index Terms—Higher Education Institutions, Service Quality, Models, Servqual Model.

I. INTRODUCTION

Nowadays, we live in the era of globalization. A lot of enterprises are created, and a lot of them also go bankrupt. In order to succeed or to survive, it is important for any economic enterprise in today's competitive environment to deliver quality service (Sandhu & Bala, 2011, p.219). The service quality is an approach of managing the activities of businesses in such an effective way that their clients will be satisfied. Customer service, service quality, and quality assurance are driving forces in the business environment. There are a number of studies which gives an overview of the models of service quality measurement. Each of these models attempts to identify the core dimensions of service quality. Some stem from the realization of conceptual models which are produced to understand the evaluation process (Parasuraman *et al.*, 1985), and others come from empirical analysis and experimentation on different service sectors (Cronin & Taylor, 1992; Franceschini & Rossetto, 1997; Parasuraman *et al.*, 1988). Parasuraman *et al.* (1988, p.15) describes service quality "as a form of attitude, related but not equivalent to satisfaction, and results from comparison of expectations with perceptions of performance."

The most widely used methods which are applied to measure perceived quality can be characterized as primarily quantitative multi-attribute measurements. Within the attribute-based methods, a great number of variants exist. Among these variants, the *SERVQUAL* and *SERVPERF*

instruments have attracted the greatest attention. Generally, most researchers acknowledge that customers have expectations and these serve as standards or reference points to evaluate the performance of an organization.

II. SERVICE QUALITY MODELS IN HIGHER EDUCATION

The quality of educational service is a complex and diversified concept that needs to be explored, and it cannot be measured objectively (Hameed & Amyad, 2011, p.151). Competition between higher education institutions has increased significantly over the last decade. Therefore, high quality service is an essential condition to ensure survival in the higher education market. It is important to identify students' needs as well as to understand how their perceptions pertain to quality of service. Students' expectations have an impact on the assessment of service quality and student satisfaction and they rely mainly on their past high school experience.

Higher education institutions are paying close attention not only to the quality of service they offer, but also to the student's satisfaction as the latter has a positive impact on their decision to continue their education in that institution.

In addition to quality service care, academic institutions are becoming more aware of the importance of student enjoyment. This is because student satisfaction has a positive impact on their decision to continue their education in that institution. Students' satisfaction also influences student motivation, their participation, and increased income of the educational institution (Vranesovic, 2006, p.14). As a result, higher education institutions are under pressure from government and society to achieve better relationships between the services provided and the financial compensation they receive. Also, efforts are being made to ensure a higher quality of education which will meet the individual and social needs of students.

The quality of service is based on multiple dimensions (Parasuraman *et al.*, 1988, p.29). The relationship between what the students expect from one university and the satisfaction of what they get influences the reputation of academic institutions. Most of the universities, given the importance of these issues, pay great attention to them when drawing up guidelines to improve the quality of their services. Some models which measure the quality of services are described below.

A. Gronroos Model

Christain Gronroos was the first researcher who developed a model of service quality in 1984. The model was a form of gap analysis to explain the 'missing service quality concept'. The model focuses primarily on the

construct of an image which represents the point at which a gap may occur between the expectations from the service and perceptions from it. According to Gronroos (1984), perceived quality means that expectations and perceptions from the services of a firm have to match each other. Gronroos distinguishes between technical quality and functional quality as the components of the service image delivery.

Gronroos service quality model consists of three dimensions. The first dimension is technical quality, the second is functional quality, and the last dimension is the image.

Technical quality refers to what the customer is truly getting from the service. This can be objectively measured with tangible goods. Functional quality refers to how the technical elements of service are received by the customers. This cannot be objectively measured like technical quality.

Consumers' expectations are influenced by the company's image. The corporate image of a firm is the end result of how customers perceive the firm. The corporate image can be built up by the technical and functional quality of the services rendered by the firm.

B. Lehtinen and Lehtinen Three-Dimensional Model

Uolevi Lehtinen and Jarmo R. Lehtinen (1992) developed another service quality model which also has three dimensions of service quality. The three dimensions models of service quality by Lehtinen & Lehtinen (1991) are physical quality, interactive quality, and corporate quality.

Physical quality is linked to the tangible aspects of the service. Interactive quality involves the interactive nature of services and refers to the two-way flow that occurs between the customer and the service provider. Corporate quality refers to the image attributed to a service provider by its present and potential customers as well as others in the public. Corporate quality is generally more stable in nature than physical quality and interactive quality.

C. SERVQUAL Model

SERVQUAL is a reliable and powerful tool, widely used in marketing literature, to measure the perceptions of customers about quality of service (Parasuraman, Zeithaml & Berry, 1994, p.22). Consumers rely on the same criteria to measure quality, regardless of the type of service. Quality constitutes a competitive advantage and significantly differentiates an institution from others. To assess the quality of services, five criteria are used which include: reliability, vulnerability, responsibility, security, and sensitivity (Parasuraman et al., 1988, p.33). Each of them consists of the following:

- Reliability: it is the ability to deliver the promised services responsibly and accurately;
- Tolerance: physical environment, equipment, personnel, and communication materials;
- Responsibility: Providing services and staff willingness to assist clients;
- Security: Employees' courtesy and their ability to secure trust;
- Sensitivity: it is the capacity to experience one's feelings by providing individual attention to customer service.

Determining the gap between expectations and perception of a service is the purpose of this instrument. Parasuraman et al. (1988, p.33) developed a methodology to compare consumer perceptions and expectations with regard to quality.

The original SERVQUAL instrument consists of two sections, each containing 22 items. The first 22 items relate to the expectations of respondents for quality of service, while the other 22 items measure the actual performance of service delivery. The level of service quality is represented by the gap between expected and perceived service. 22 items represent five dimensions of service quality that are specified as SERVQUAL dimensions. This instrument provides assistance in finding the difference between the expectations of service users and their perceptions of a particular service. SERVQUAL authors determine the quality of service as:

$$Q = P - E \quad (1)$$

Where:

E - Service user expectation, measured by 22 statements

P - Perceptions of service users, measured by 22 statements (Armstrong, Connie, & Go, 1997, p.103).

The answers of the respondents were recorded using the Likert scale (1-7 scale, where 1 means a lot or completely non-descriptiveness, and 7 indicates a lot of conformance). Therefore, the SERVQUAL instrument is used to measure the expectations and perceptions of service users and to calculate the gap between perceptions and expectations.

The SERVQUAL instrument is applicable to any service industry as long as the organizational framework is tailored and the gap scores help managers to diagnose where they can improve performance. This is accomplished by combining the biggest negative outcomes with a rating of the highest expectations. Also, if they have achieved positive results, the expectations of the gap are exceeded. According to Asubonteng, McCleary and Sana (1996), the SERVQUAL instrument is widely used for two purposes. Firstly, on a qualitative basis, as a form of awareness of what makes a quality service. Secondly, on a quantitative basis, as a measure of quality that can provide useful data for quality management.

1) Qualitative Use of SERVQUAL

As a result of the extensive use of the SERVQUAL measuring instrument, it is first necessary to check whether similar studies have been carried out in this area, otherwise the dimensions and the space accompanying it should be redefined. In the next step, the expectations of customers should be judged. In the last step, performance should be compared with expectations to identify strengths and weaknesses.

2) Quantitative Use of SERVQUAL

The first step is to define the specific focus on activities. The next step is to measure and compare expectations and performance to identify strengths and weaknesses in service quality. It is also necessary to install the metering system in order to determine the quality of service over a long period of time and to compare it with other services.

According to the SERVQUAL model, the expected service can be influenced by several factors such as personal needs of individuals, past experiences, word of mouth, and external communication with clients. The model tries to assess and measure how close the expected service and perceived service was.

D. SERVPERF Model

Although the SERVQUAL model was widely used in traditional and support services as well as in health care applications, some authors questioned the utility of the gap model in service quality assessment (Asubonteng, McCleary & Snan, 1996). Cronin and Taylor (1992) introduced the SERVPERF model, which carried out the direct measurement of customer service quality perceived by the client instead of assessing the gap between reception and experience. SERVQUAL survey points are also used in the SERVPERF model, which also focus on some critical aspects of traditional service quality. Cronin and Taylor (1992, p.60) have critically criticized the role of expectation in measuring the quality of services and have relied on non-confirmatory paradigms. According to them, SERVQUAL is conceptual and inadequate. They have tested these two models in four service sectors: the banking sector, the fast food sector, the chemical cleaning sector, and the sector dealing with disinfection services. The results of this study have shown that empirical evidence supports the importance of the gap P-E = quality space as the basic measurement of service quality. The SERVPERF relation is:

$$SQ_i = \sum_k p_{ij} \quad (2)$$

Where:

SQ_i - obtaining the quality of individual service "i"
k - Number of items

p - Individual perception of "i" regarding the performance of a service firm "j"

E. Kano Model

The Kano model classifies product attributes in three categories: basic needs, performance needs, and pleasures. A product will be competitive when it meets the basic attributes, maximizes performance attributes, and includes as many "content" attributes at a cost that the market can hold (Ullman, 1997). This model does not intend to make the analysis of the lowest elements in service quality which represents the quality of static components, where the latter can move within one fully functional sphere. Its purpose is to analyze the quality of service in the domain of the lower level elements, and this is done to mark the product or services according to the character of their influence on customer satisfaction. The Kano model can be considered as a dynamic model of quality, given that the effect of the elements is determined by the level of performance elements.

The Kano model classifies the quality elements into five main groups (Ullman, 1997):

- Attractive quality elements
- One-dimensional quality elements
- Must be quality elements
- Indifferent quality elements

- Contrasting quality elements

This analysis consists of asking the clients two questions for each attribute:

- Do you appreciate your satisfaction if the service has this attribute?
- Do you assess your satisfaction if the service does not have this attribute?

Customer responses should vary as satisfied; neutral; disappointed; I do not care

According to Ullman (1997), the data obtained from the Kano Model Analysis are valid for the purpose of Quality Function Interaction.

III. CONCLUSION

This paper focused on giving a theoretical view of models assessing the service quality. The service quality models were analyzed on the basis of literature review. Also, the different models suggested by different authors were examined. The review of the different models emphasized that service quality is evaluated by comparing the expectations from a service with the perceptions of this service. Although there are a wide variety of models, none of the service quality model is suitable in all situations and all types of services offered to the customers. Therefore, this gives the opportunity for further research in this area. The customer is the king and the most important objective is to satisfy them. It is worthy to note that service quality is important for customer satisfaction. Higher education institutions want to satisfy students too. In this context, service quality in these institutions need to be measured. Researches on service quality in higher education institutions revealed that service quality has become a prominent tool, which enables universities to increase effectiveness of educational provision and concurrently achieve excellent service. SERVQUAL model was mostly applied to measure the extent of service quality delivered and perceived by students. However, we can conclude that researchers should develop new models aimed at assessing the quality based on the gap of perception and expectation of the overall quality, and specific programs, courses or curricula.

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