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Using the SERVQUAL Framework to Examine the Service Quality in Higher Education in Thailand

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Abstract

Customer service and quality are driving forces in the business community. As higher educational institutions struggle for competitive advantages and high service quality, the evaluation of educational service quality is essential to provide motivation for and give feedback on the effectiveness of educational plans and their implementation. Monitoring student satisfaction with education quality has become an integral part of the educational process in not only a number of universities, but also further afield. This research presents an enhanced approach to using the SERVQUAL framework for measuring student satisfaction. It involves the use of factors concerning student services that are queried and surveyed using the SERVQUAL methodology. The proposed instrument was tested at a regional university in Thailand with a sample of 400 undergraduate students. Rigorous analysis demonstrates the usefulness of the approach in gathering business students' perceptions, analyzing them, and reducing them to a form usable by management as an off-the-shelf service quality measurement tool.

Keywords: Satisfaction, Service Quality, SEVQUAL, Higher Education, Thailand

1. Introduction

Higher education is facing pressure to improve the value in its activities (Cavallone et al., 2019). The present principle for enhancing educational value is to expend effort on continuous improvement, to focus on stakeholder interests, and to increase student satisfaction. Student satisfaction is often used to assess educational quality, where the ability to address strategic needs is of prime importance (Tomlinson, 2018). Quality in education can be determined by the extent to which students' needs and expectations can be satisfied. Various concepts and models have been developed to measure student and stakeholder satisfaction. The quality of teaching and learning has become a major strategic issue in tertiary education systems across the globe over the past decades. Monitoring student satisfaction with education quality has become an integral part of the educational process in not only a number of universities, but also further afield. Furthermore, as competition in higher education becomes intense, concepts that did not figure in the strategic plans of universities, such as service quality, student satisfaction, image of the institution, and student loyalty, have suddenly become key

ingredients for their survival (Seyfried & Pohlenz, 2018; Latif et al., 2019). The present research builds upon the SERVQUAL instrument as a framework to assess the service quality in higher education.

1.1. Student perspectives on learning

Student learning is more influenced by their perspectives on the context of learning than by the context of learning itself, per se (Trautwein & Bosse, 2017). Consequently, the learning and teaching issue depends not only upon how teachers have designed and structured their subjects and courses, but also how their students perceive and understand this design and structure (Rueda, Benitez & Braojos, 2017; Fuchs, 2021a). In business education, students' constructs of learning are primarily dependent on their interpretations of the demands of the task, assessment, and teaching and learning environment (Fuchs, 2021b). Moreover, students' interpretations of the context of learning are important in their choice of learning strategies. Individual approaches to learning have been characterized as deep or surface (Rueda, Benitez & Braojos, 2017; Fuchs, 2021c). Students who employ a deeper approach aim to understand the material, interacting vigorously and critically with the content. On the other hand, those who take a surface approach to learning simply aim to reproduce parts of the content and accept ideas and information passively. The deep approach is associated with specific characteristics of teaching (Osman & Saputra, 2019). A third approach, labeled the strategic approach, refers to the intention of achieving the best possible grades by adapting to the assessment demands (Alves & Raposo, 2009). Effective teaching is multidimensional and no single criterion is sufficient in itself (Rueda, Benitez & Braojos, 2017). It is characterized by a long list of qualities, such as the demonstration of enthusiasm, giving feedback to students, understanding students' problems, and the presentation of subjects in an interesting manner. These bring about real differences in teaching quality and such variations can be measured (Alves & Raposo, 2009). Students' learning is strongly connected with their satisfaction with courses and their surrounding learning environment (Osman & Saputra, 2019).

1.2. SERVQUAL

SERVQUAL measures the difference between what is expected from a service encounter and the perception of the actual service encounter (Ladhari, 2009; Parahoo et al., 2016). The author named this the disconfirmation paradigm and operationalized it as:

$$\text{Service Quality (SQ)} = \text{Perception (P)} - \text{Expectation (E)}$$

The SERVQUAL instrument is actually a survey form containing multiple items, wherein each item measures both the perception and the expectation of a particular service attribute. SERVQUAL is widely used as an off-the-shelf instrument in many service settings. Major dimensions in the SERVQUAL model for determining the gap between customer expectations and perceptions are (1) tangibles, i.e., physical facilities, equipment, and appearance of personnel; (2) reliability, i.e., capability to provide the promised service accurately and dependably; (3) responsiveness, i.e., willingness to provide a prompt service and help customers; (4) assurance, i.e., courtesy and knowledge of personnel and ability to convey confidence and trust; and lastly (5) empathy, i.e., attention provided to an individual customer (Đonlagić & Fazlić, 2015).

2. Methodology

2.1. Questionnaire and Methodology Development

This study involved the application of a survey instrument specifically for the use of a university adapted from an earlier study conducted by Đonlagić & Fazlić (2015), which was an adaptation from that which was available in the current literature. A survey form consisting of 25 attributes classified into five factors was developed for the research. Namely, these five factors were tangibles, reliability, responsiveness, assurance, and empathy. Each of the 25 attributes that were adapted relates to a specific aspect of university education. In line with the SERVQUAL methodology, the statements were constructed to ask students about their expectations (E) as well as their perceived experiences (P). In contemporary research projects, it is argued that the Likert-type scale is

best suited to allow individuals to express their agreement or disagreement with a particular statement (Donlagić & Fazlić, 2015). Using the five-point Likert-type scale allowed the students to report their level of agreement or disagreement with regard to their expectation and perception about 25 individual attributes related to their university study experience. The response options corresponded to the following verbal interpretations: (1) Poor, (2) Fair, (3) Average, (4) Good, and (5) Excellent and point value range (Table 1) as used on the slider (Table 1).

Table 1: Interpretation of five-point Likert-type scale and point range

Item on Likert-type scale	Value	Range
Excellent	5	4.50-5.00
Good	4	3.50-4.49
Average	3	2.50-3.49
Fair	2	1.50-2.49
Poor	1	1.00-1.49



2.2. Survey Details

The survey was self-administered electronically on the Internet over the period from February to March 2021. It was targeted at undergraduate tourism students from a regional university in Thailand. Snowball sampling was applied for the bilingual survey through an instant messaging application that the students were subscribed to as part of their course enrollments. It was expected that the survey reached more than 1,250 students with the request to voluntarily participate in the survey. Recipients were asked to follow a link to the survey website. This approach allowed for the transmission of returns directly to a database without user intervention. Coupled with proper preparation of the database structure (including the handling of incomplete and missing data), the author was able to attain a high level of data format efficiency in that the data came out in a format ready for analysis.

2.3. Data Analysis

In all, there were 421 responses, of which 400 were used for analysis. Twenty-one responses were discharged from the analysis due to irrelevance or incomplete information. A broad socio-demographic profile ranging through gender, age range, nationality, and year of study were represented (Table 2). The mean values of each factor were then analyzed by their respective gap scores, which are perception minus expectation.

Table 2: Socio-demographic profile of the respondents (n=400)

Characteristics *	Absolute	Percent
Gender		
Male	122	30.5%
Female	268	67.0%
Others	10	2.5%
Nationality		
Thai students	378	94.5%
Foreign students	22	5.5%
Year of study		

First-year undergraduate	68	17.0%
Second-year undergraduate	128	32.0%
Third-year undergraduate	132	33.0%
Final-year undergraduate	72	18.0%
Age range		
18 years or below	72	18.0%
19 – 20 years old	198	49.5%
21 – 22 years old	108	27.0%
23 years or above	22	5.5%

** Note: Only responses from undergraduate tourism students were*

3. Empirical Findings and Analysis

3.1. Empirical findings of the survey

To reiterate, service quality is measured by the difference between what is expected from a service encounter and the perception of the actual service encounter. In other words, the adopted methodology quantified service quality gap scores by measuring perception (P) minus expectation (E). The following results represent the findings based on 400 responses from undergraduate students based on their expectations and perceptions towards the higher institution at which they are enrolled. Positive gap scores indicate satisfaction or positive perceptions of the product or service consumed. Negative gap scores imply that there was dissatisfaction. The results of the survey indicate a range of consistently negative service quality gaps at the university (Table 3).

Table 3: Mean gap scores and satisfaction grid results (summarized from survey data)

Factors	Mean expected service score	Mean perceived service score	Mean gap score	Cronbach's coefficient alpha
Tangibles	3.93	3.42	-0.51	.910
1 The faculty has modern technical equipment for the education process (i.e., computers/beamers)				
2 The building and premises of the faculty are modern and visually likeable				
3 Employees of the faculty appear professional and neat				
4 Teaching materials are available and up-to-date (study programs, brochures, student guides)				
Reliability	3.97	3.14	-0.83	.902
5 Classes are held in accordance with the schedule of lectures and without delays				
6 Working hours of the Academic Office are adequate and in accordance with students' needs				
7 Staff and the faculty provide support and help to students				
8 Academic staff have precise records of students' activities (presence at lectures, exam results)				
9 Academic staff apply consistent grading criteria				
10 Students are informed about the realization of certain activities (exams or seminars) in a timely manner				
Responsiveness	3.98	3.22	-0.76	.831
11 Inquiries, requests, and claims of students are handled and resolved promptly				
12 Academic staff conduct themselves in students' best interests				
13 Academic staff pay special attention and provide help to students in resolving their problems				
Assurance	3.97	3.16	-0.81	.914

- 14 Academic staff have the necessary knowledge and skills, as well as adequate communication skills
 15 The faculty implement study and educational programs with clear aims for the specialization of students
 16 Quality of education processes is at a high level
 17 Staff conduct fills students with confidence
 18 The reputation and position of the faculty in the environment is adequate
 19 Academic staff provide professional answers to students' questions

Empathy 3.90 3.11 -0.79 .920

- 20 Academic staff understand students' needs
 21 Academic staff show positive attitudes towards students
 22 Academic staff treat students equally and with respect
 23 Academic staff are available for consultations and are forthcoming with students
 24 The faculty value and acknowledge feedback from students for improving processes
 25 Staff are polite, kind, and professional in communications with students

3.2. Evaluation of Gap Scores

The largest recorded gap was recorded for factor reliability (-0.83), followed by factor assurance (-0.81) and factor empathy (-0.79). Consequently, the lowest negative gap scores were recorded for factor tangibles (-0.51) as well as factor responsiveness (-0.76). The largest gap (-0.83) was recorded between the mean expected service score and mean perceived service score for the six attributes that collectively constructed the aggregate 'reliability.' It can be noted that the lowest mean perceived service score was recorded for factor empathy (3.11). Contrary to this finding, the factor tangibles scored the highest, with a mean perceived service score of 3.42 (Table 3). Furthermore, it can be noted that students' expectations towards the attributes that make up the five factors range from 3.90-3.98, indicating a relatively high service quality expectation towards their educational institution of choice (Figure 1). Moreover, for each of the five factors, Cronbach's alpha was calculated to measure the internal consistency – how closely related a set of items are as a group. The five factors ranged between 0.831-0.920 (Table 3), indicating good internal consistency for factor responsiveness (0.831) and factor reliability (0.902), while indicating excellent consistency for tangibles (0.910), assurance (0.914), and empathy (0.920).

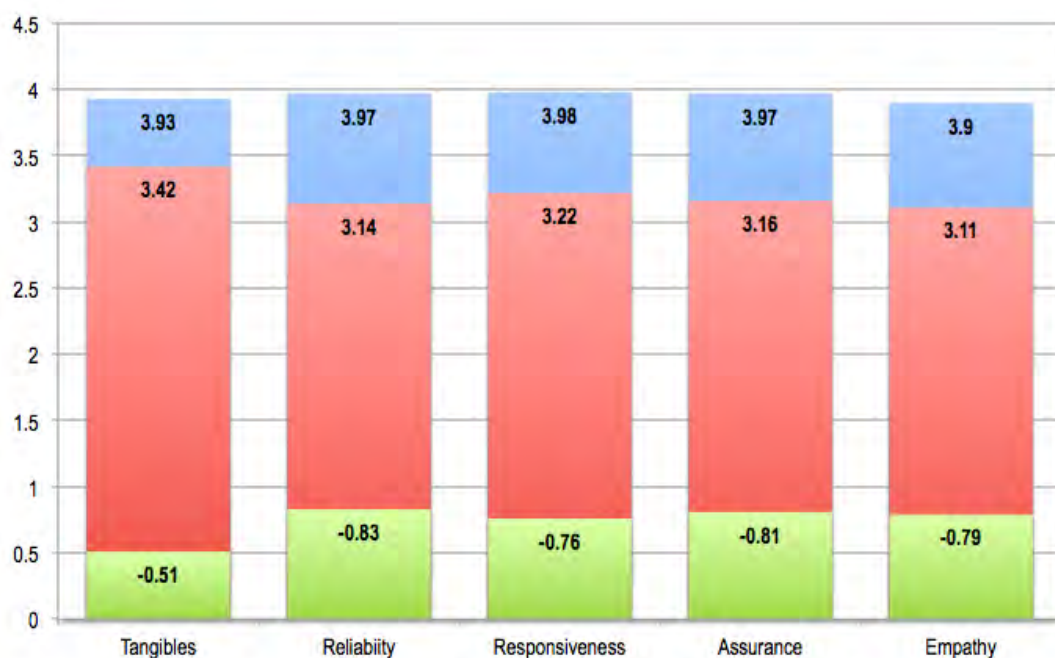


Figure 1: Visualization of expected service score (blue), perceived service score (red) and gap score (green)

3.3. Verbal interpretation of findings

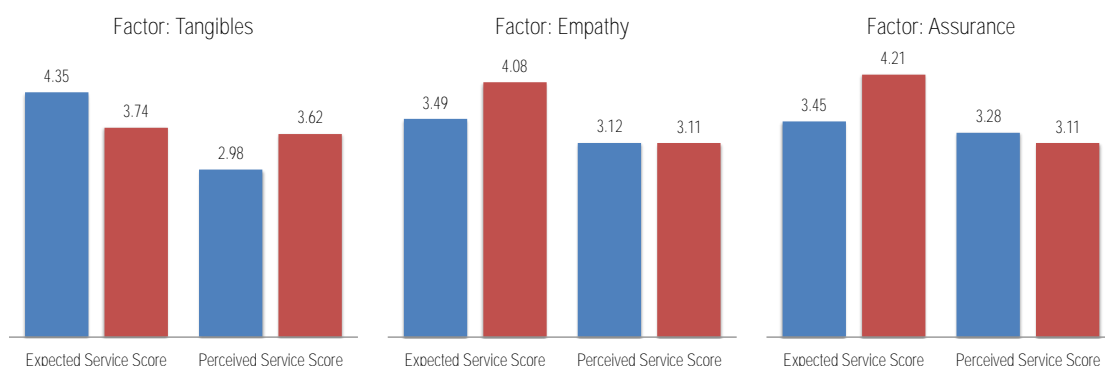
To further investigate the meaning of the aggregated responses, a verbal interpretation was added in accordance with the introduced methodology in the previous section. It can be stated that all three items received the second-highest rating, namely 'Good,' based on the mean expected service score. The mean perceived service score yielded a verbal interpretation of 'Average' on all five factors. Based on the service quality gap and verbal interpretation, the results suggest that the surveyed undergraduate students have a relatively high expectation towards their educational institution. However, the institution was unable to meet the relatively high expectations on any of the surveyed factors. This finding begs the question of whether the students' expectations are unrealistically high, or whether the university has failed to deliver a consistently high quality of service to their students. Either way, the service quality gap across all five factors indicates an existing service quality gap, wherein the perceived service quality is either rated as fair or poor, indicating that there is room for improvement, but no acute service failure is being recorded through the means of the survey.

Table 4: Verbal interpretation of mean expected and mean perceived service scores

Factors	Mean expected service score	Verbal interpretation	Mean perceived service score	Verbal interpretation
Tangibles	3.93	Good	3.42	Average
Reliability	3.97	Good	3.14	Average
Responsiveness	3.98	Good	3.22	Average
Assurance	3.97	Good	3.16	Average
Empathy	3.90	Good	3.11	Average

3.4. Demographic Profiling

Analysis was also performed to identify the perception of the level of service quality in subsets of the samples across various demographic groups. For example, to explore the hypothesis that students across different years had different perceptions and expectations of the various aspects of education, mean scores were calculated for different years of study. This analysis can help illuminate the direction and magnitude of change that students experience across years concerning each service quality attribute. It can be distinguished that male students generally had a more critical view of attributes that contribute to factor tangibles, wherein female students gave a higher rating for the expected service for factors relating to empathy and assurance. Another particular finding derived from the demographic profiling was that there is a correlation between the perception score and the year of study. It can be said that as the year of study increases, the perception score decreased. This suggests that as students mature, their perception becomes more critical. Demographic profiling for the age was identical to the year of study and a comparison between Thai and foreign nationality was dismissed due to the limited sample of foreign students.



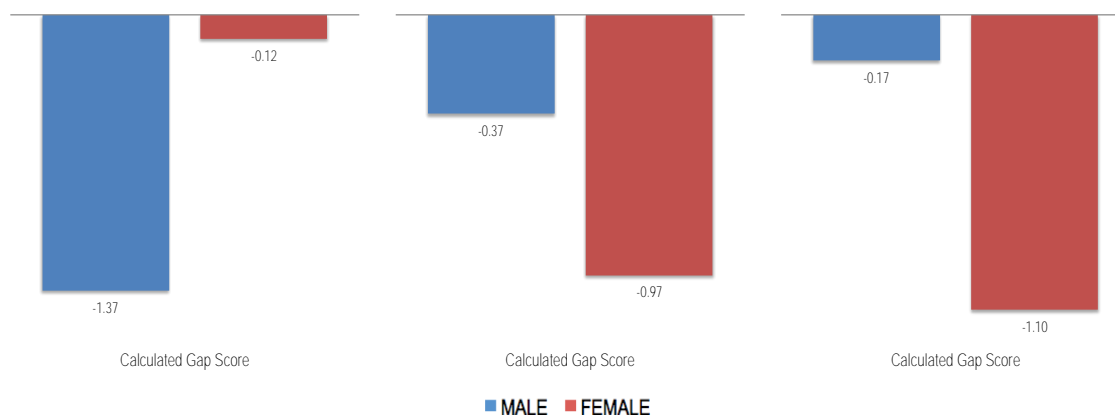


Figure 2: Gender profiling for three specific factors: Tangibles, Empathy and Assurance

4. Conclusion

As attention to service quality in higher education heightens, there needs to be a corresponding increase in the use of its assessment tools. This research began with the basic SERVQUAL survey instrument. It gathered literature about student perceptions and expectations. From surveys that have been developed and validated over the last decade, a modest amount of further customization was done to fit the survey instrument to the Thai context. From this was formed a broad-ranging survey covering service quality in 25 different areas. The use of the Internet for sending out and receiving returns provided an efficient means of administering the survey. Data collation for later analysis was also greatly aided. The main purpose of the survey was to provide information on service quality gaps. A range of demographic profiling was done, such as comparing first- to final-year students or evaluating gender-based perceptions. The results from such a survey can be used to identify areas of priority. The above analyses provide information useful for university administrators in decision-making. The focus of this research had been on both the acculturated survey as well as the derived methodology.

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