Evaluating the Performance of Higher Education Institutions Through Significant Relationships Between the Five Dimensions of Service Quality

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Abstract

One of the important determinants of a country's competitiveness is the quality of its higher education. This quality comes from a combination of excellent learning processes and public satisfaction with the services delivered. Assessment of student satisfaction is important in determining the quality of services in higher education institutions (HEIs). Remaining competitive requires superior institutions of higher learning (HEIs) to continue to acquire, maintain and build stronger relationships with students. The main purpose of this paper is to evaluate student satisfaction with the services provided by IPT. Specifically, early studies found a significant relationship between the five dimensions of service quality (tangibility, reliability, responsiveness, assurance, and empathy) or SERVQUAL and student satisfaction. Even the signs generally show that the majority of students are satisfied with the facilities provided by the university. Such findings should help universities make better strategic plans to improve student satisfaction in particular and overall performance in general. In general, the study shows that all five dimensions of service quality are associated with student satisfaction.

Keywords: Competitiveness, satisfaction, public relationships, service quality, student satisfaction.

Introduction

Customer satisfaction is an important aspect of service organizations and in particular, it is closely related to service quality. Likewise, development is closely related to the intensity of competition in today's business environment (Lee, & Hwan, 2005). More and more organizations emphasize service quality because of its strategic role in increasing competitiveness, especially in the context of attracting new customers and improving relationships with existing customers (Ugboma, Ogwude, & Nadi, 2007). Service quality is one of the most important research topics over the past few decades (Gallifa & Batalle, 2010). Users are not only concerned with how a service is being delivered but most importantly with the quality of the output they receive. A positive view of the perception of the quality of the service being delivered occurs when it exceeds the customer's expectations. In the context of ensuring the sustainability of higher education, these institutions require them to continuously strive towards meeting and exceeding student expectations (Anderson, Fornell, & Lehmann, 1994). The main purpose of this research is to examine the relationship between service quality and student satisfaction in higher education institutions in Malaysia.

With the globalization and liberalization of higher education in Malaysia, universities and colleges face new challenges. Given this intense competition, universities and colleges have no choice but to improve the quality of their programs and graduates so that they can compete globally and attract students. Higher education is increasingly recognized as a service industry, giving more emphasis to meet the expectations and needs of participating customers, namely students. The current environment in the higher education industry in Malaysia is driven by globalization and the focus on teaching and learning quality to make Malaysia an education hub which results in the establishment of many public and private HEIs such as colleges and universities (Grapragasem et al., 2014). Currently, there are 160 public HEIs and 463 private HEIs registered

with the Malaysian Qualifications Agency (www.mqa.gov.my/mqr). In the public and private governance of HEIs, the assurance of quality education is closely monitored by the establishment of the Malaysian Qualifications Agency (MQA). According to the 2012/2013 Malaysian Quest Evaluation System for Private Colleges (MyQUEST) to evaluate the quality performance of students and programs, it was found that about 50% of private colleges reached Level 1 (poor) to Level 3 (good) (http://www. moe.gov.my).

As there are now many HEIs, both public and private in the higher education industry competing for market position and fighting for student market share, fierce competition, and rivalry inevitably take place among them. Therefore, there is a need to focus on understanding how students perceive service quality. Efforts are needed to monitor both local and international initiatives and ensure that quality is important to the higher education environment. As students are now seen as the main customers of HE services in Malaysia, service expectations and perceptions play an important role in the perception of quality that is ultimately developed by students. It follows, that PHEI should take appropriate measures to manage those expectations. This study tested the SERVQUAL Dimensions (significance, empathy, assurance, responsiveness, and reliability) in private higher education in the Malaysian context.

Literature Review

The service literature focuses on the perception of quality, which results from a comparison of customer service expectations versus actual performance perceptions (Zeithaml,2000). Customers are likely to be satisfied when their perception of the service provided exceeds their expectations. Service quality in the education industry is defined based on students' overall assessment of the service they receive which is part of their educational experience. This covers various educational activities inside and outside the classroom such as activity-based classrooms, faculty/student interactions, educational facilities, and relationships with institutional staff.

Problem Statement

Higher education has become a competitive enterprise between private and public HEIs. Given the increasing competition in the higher education industry, many private colleges and universities are facing the challenges of declining student enrolment, poor strategic marketing planning, and fierce competition among other private colleges or universities that offer the same courses and quality services are found wanting to let go of the ladder. The quality of education is an important factor taken into account to attract and retain students because it is an important investment made by their parents. Malaysian Quality Accreditation (MQA) raised their standard eligibility requirements for enrolment students in 2012 from five (5) credits to only two (2) credits based on the SPM (Malaysian Certificate of Education) for private higher education institutions (PHEI). This has limited student enrolment and many PHEIs are forced to compete for students and have difficulty meeting student enrolment targets.

More recent studies of service quality in education have focused on higher education as more universities and colleges struggle and compete to gain several positions and accreditations in their programs and institutions. Therefore, in the quest for the internationalization of quality in education, service quality assurance becomes the main focus. Quality services improve the university's image (Sultan and Ho, 2012). High competition among private colleges offering similar courses does not make it easy. For example, a private college here offers a specialized management course for diploma students against four competitors who also offer the same course. Therefore, the delivery of quality services has become an important goal for most HEIs and differentiates them from ordinary competitors and others. The quality seen by students today is changing rapidly, especially with the technology, techniques, skills, and knowledge required in their field of study.

The most noticeable change is the need to know the needs of their customers from different student groups and different program requirements because most students from each intake come with different needs and expectations. There is also a lack of quality assurance measures to assess student satisfaction with services. Service quality assurance affects students' perceptions of their knowledge and the ability to build student trust. Lack of quality assurance in their marketing approach and services can be a barrier for smaller private colleges to compete. The main objective of this research is to test the PHEI service quality dimension by analyzing the gap between the quality expected and perceived by students. This study uses the notion of gaps as presented in the service quality model of Parasuraman, Zeithaml, and Berry. An attempt is made to develop a service improvement strategy using the Service Improvement Matrix to gain a competitive advantage in private higher education. Measuring service quality in higher education is increasingly important to attract and retain study-based outcomes, especially for PEI stakeholders.

Service quality.

The quality of services in the field of education and higher education, in particular, is not only important and quality, but it is also an important parameter of excellent education. It has been found that positive perceptions of service quality have a significant influence on student satisfaction and thus satisfied students will attract more students through word-of-mouth communication (Alves & Raposo, 2010). students can be motivated or inspired by both academic performance and also the administrative efficiency of their institution. Ahmed & Nawaz (2010) mentioned that service quality is the main performance measure in educational excellence and is the main strategic variable for universities to create a strong perception in the minds of consumers. Most established higher learning institutions focus heavily on strategic issues such as providing excellent customer service. It is important because by doing so they will be able to establish and build good relationships with customers which is very important in determining their future in the industry (Malik, Danish, & Usman, 2010). Higher learning institutions are like other service-based firms that rely on the perception of people/students and one of the simplest yet most effective marketing strategies is through positive word of mouth. One of the most robust service quality satisfaction analysis tools was developed by Parasuraman, Zeithaml, and Berry (1988), who identified 10 dimensions of service quality; significance, reliability, responsiveness, efficiency, politeness, communication, credibility, security, access, and understanding.

In addition, the measurement of service quality performance in higher education institutions is strongly embedded in the match between student expectations and their specific service experience (Tahar, 2008). In general, students measure and evaluate the quality of service that will be satisfactory by comparing what they want or expect to what they get. Gruber, Voss, & Glaser-Zikuda (2010) believe that the customer relationship behavior and attitude of employees mainly determine the customer's perception of the quality of service provided. This means human interaction elements are important to determine whether students consider the service delivered satisfactory or not. In addition, higher learning institutions need to have appropriate infrastructure as well such as administrators and academic buildings, halls of residence, catering facilities, sports facilities, and recreation centers (Sapri, Kaka, & Finch, 2009).

Tahar (2008) found that the perception of the quality of higher education services between the two countries; The United States and New Zealand differ from New Zealand, as students define quality in the following positions; ability to create career opportunities, program issues, cost/time, physical aspects, location, and others. While in the United States, they ranked academic reputation first and then followed by cost/time, program issues, other, physical aspects, and choice of influence. Ilias, Hasan, Rahman & Yasoa (2008) identified that the main factors that can influence the level of satisfaction students are; student perception of learning and teaching, support facilities for teaching and learning such as (library, computer, and laboratory facilities), learning environment (lecture rooms, laboratories, social spaces, and university buildings), support facilities (health facilities, dining facilities, student accommodation, student services) and external aspects of being a student (such as finances, transportation). With all these capabilities, an institution will be able to meet student expectations and compete competitively.

Student Satisfaction.

Kotler and Clarke (1987) define satisfaction as the state felt by a person who has experienced performance or results that meet his expectations. Satisfaction is a function of the relative level of expectation and it looks at performance. Satisfaction is also considered a deliberate performance that produces a person's satisfaction (Malik & Usman, 2010). According to Sapri and Finch (2009), customers are the heart of any organization whether private or public in the enterprise sector. Student satisfaction plays an important role in determining the accuracy and authenticity of the system used. Students' expectations may go as far as before they enter and engage in higher education (Palacio, Meneses, & Perez, 2002). On the contrary, Hasan & Ilias (2008) think that satisfaction includes issues with students' perceptions and experiences during the college years. Student satisfaction is continuously shaped by repeated experiences in campus life. The results of previous studies revealed that satisfied students can attract new students by engaging in positive word-of-mouth communication to tell their friends and acquaintances, and they can return to the university to continue their studies or take other courses (Helgesen & Nesset,2007; Gruber et al., 2010).

Students may be satisfied with their educational institution when the service meets their expectations, or they will be very satisfied when the service exceeds their expectations, or completely satisfied when they receive more than they expected. Life is the other way around, students are not satisfied with educational institutions when the service is less than their expectations, and when the gap between perceived service and expected quality is high, they tend to communicate negative aspects (Petruzzellis, Uggento, & Romanazzi, 2006). Tian and Wang (2010) argue that satisfaction is a function of the fit between the perceived performance and the benefits obtained as a result of the user's values, and the user's value configuration is influenced by the center of cultural values. Moreover, they mentioned that cultural differences have directly affected the level of satisfaction of students regarding their perception of services, and satisfying customers with the same

cultural background is not that easy, then to satisfying customers with different cultural backgrounds will be more difficult. However, Navarro et al. (2005) mentioned that students evaluate the quality of the organization based on the existence (teachers), reliability and responsiveness (teaching methods), and management of the institution and these factors have a direct influence on the level of student satisfaction. According to Mavondo and Zaman (2000), the academic reputation of the institution, The quality of the lecturers, and the provision of facilities are important during market orientation and are found to be important assets for student satisfaction. The results of this review and study show that satisfied students give a positive word of mouth and recommend prospective students to the institutions they study.

Service Quality and Customer Satisfaction.

Parasuraman, Zeithmal, and Berry (1994) agree that service quality is one of the foundations of customer satisfaction. In addressing the relationship between service quality and satisfaction, they study the model developed by Oliver (1993). Oliver's model combines the two concepts and suggests that perceived service quality is an antecedent to satisfaction. The results show that service quality leads to satisfaction. Parasuraman et al., (1988) compared service quality with satisfaction. They define service quality as an attitudinal, long-term overall evaluation, while satisfaction is a transaction-specific measure. Based on this definition, it is considered that perceived service quality is a global measure, and so is the direction of cause and effect from satisfaction with service quality (Parasuraman et al., 1988). Parasuraman, Zeithmal, and Berry (1991) consider that reliability is fundamentally related to service outcomes while tangible, assurance, responsiveness, and empathy are concerned with the service delivery process. The results not only evaluate the reliability and accuracy (ie reliability) of the service, but they also determine other dimensions of the service provided (Parasuraman et al, 1991). Therefore, customer satisfaction can depend not only on the customer's regulation of the reliability of the service provided but also on the customer's experience with the delivery process service. Higher education Ahmed & Nawaz (2010) mentioned that service quality is the main performance measure in educational excellence and is the main strategic variable for universities to create a strong perception in the minds of consumers.

Research Method

This study adopted the SERVQUAL Dimension Scale. The dependent variable in this study is overall student satisfaction with higher education institutions in Malaysia. The dimensions for the independent variables are tangible, assurance, responsiveness, reliability, and empathy as illustrated in Figure 1.
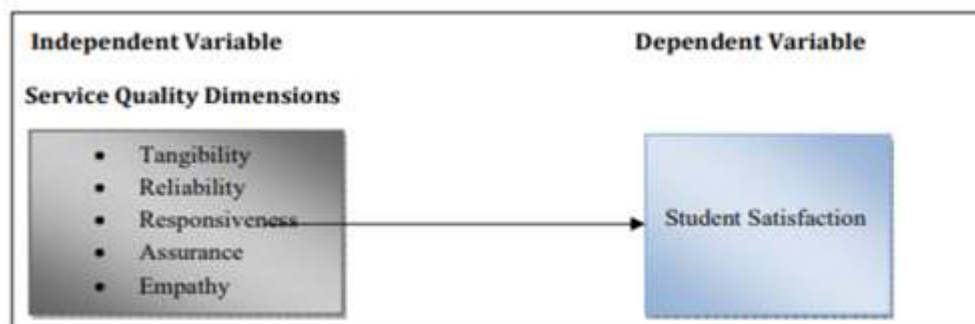

Figure 1: Framework of the Study.

Research Objectives

The main objectives of the study are:
• To explore available models to investigate higher service quality education.
• To assess the role played by different models in assessing service quality in higher education.
• To analyze the dimensions of service quality identified by existing studies.

Hypothesis

This study investigates five hypotheses:
H 1: There is a significant relationship between existence and student satisfaction.
H 2: There is a significant relationship between reliability and student satisfaction.

H 3: There is a significant relationship between responsiveness and student satisfaction.
H 4: There is a significant relationship between assurance and student satisfaction.
H 5: There is a significant relationship between empathy and student satisfaction.

Methodology

Research Instruments and Data Collection Methods

The instrument in this research is based on Parasuraman et al. (1990). The questionnaire is based on five dimensions of service quality (tangibility, assurance, reliability, responsiveness, and empathy) and uses a Likert scale from 1 for strongly disagree to 5 for strongly agree. Questionnaires were distributed using a survey method and respondents were identified through a random sampling approach. Validity tests will be conducted using content and face validity approaches. While the alpha coefficient for the reliability test is 0.85.

Scope of Study

This study will include all the main models of service quality used by different scholars from time to time, especially in the field of higher education. Five models which are the importance of performance analysis, Service quality gap model, SERVQUAL, SERVPERF, and HEdPERF are widely used by previous researchers. Many scholars have developed new models after reviewing the aforementioned models and building new dimensions of service quality.

The Selection Criteria

Only papers published from 2009 to 2019 were carefully selected. This time was chosen to get the latest literature in this field of research. This paper will only focus on studies that investigate service quality in higher education regarding the above-mentioned models.

The Selection Process

Research papers were identified by searching keywords such as 'service quality', 'higher education', 'SERVQUAL', 'SERVPERF', 'HEdPERF', 'Gap model', and 'Performance Importance Analysis'. A cross-reference of the collected papers was also conducted to find the most relevant papers. Only research papers that study selected models are reviewed. Dimensions and items under all dimensions of research papers between 2009 and 2019 are identified.

Service Quality in Higher Education

As competition in the higher education sector is increasing, the quality of services delivered to students has become a strategic issue for HEIs. The studies carried out by different authors and the identified dimensions are tabulated as follows:

Table 1: Dimensions of the study

No.	Year	Author	Model applied	Dimensions	Items
1	2009	Nadiri et al.	SERVPERF	Tangibles and Intangibles	22
2	2010	Jain et al.	Self-developed	Visual appeal, Outcome, Campus, Reputation, Input Quality (students), Industry interaction, Support Facilities, Input Quality (Faculty), Inter personal relations, Curriculum, Academic facilities and Processes.	43
3	2011	Khan et. al.	SERVQUAL	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	22
4	2011	Rajab et. al.	SERVPERF	Teaching and Learning, Lecturer/ Supervisor, Student	44
5	2011	Lim et.al.	Importance Performance Analysis	14 dimensions for IPA	28
6	2011	Shekarchizadeh et. al.	Modified SERVQUAL	Professionalism, Reliability, Hospitality, Tangibles, and Commitment.	35

Table 1: Model and dimensions of service quality identified by different studies during 2009-2019

7	2012	Sumaedi et. al.	Self-developed	Curriculum, Facilities, Contact personnel, Social activities, Education counselors, Assessment, and Instruction medium	24
8	2012	Abili et. al.	SERVQUAL	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	22
9	2012	Sultan and Wong	Self-developed	Communications/information, Past experience	59
10	2013	Seng and Ling	Self-developed	Instructors, Learning resources, Academic courses, Assessment, Student engagement	40
11	2013	Law, D.C.S.	SERVPERF &HEdPERF	Dimensions of both the Models	63
12	2013	Arguelles et. al.	Self-developed	Core business (teaching), Facilitative or administrative services, Support services and User interface	24
13	2014	Kashif et. al.	Self-developed	Tangibility, Reliability, Assurance, Sincerity, Personalization.	31
14	2014	Kontic, L.	SERVPERF	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	23
15	2014	Martins and Dastane	SERVQUAL	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	22
16	2014	Krsmanovic et. al.	SERVQUAL	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	20
17	2014	Mang'unyi&Go vender	HEdPERF	Non-academic, Academic, Reputation, Access, Programme issues and Understanding.	70
18	2014	Ahmad, S.Z.	Modified SERVPERF	University reputation/image, Programme quality, Lecturers and teaching quality, Student learning environment, Effective use of technology, Counselling and Academic advising support, and Social life (direct/indirect) facilities.	36
19	2015	Hassan and Yusof	Modified SERVQUAL	Reliability, Assurance, Responsiveness, Empathy, Tangibles (Program Quality and Servicescape), Communication, Knowledge/	50

				Expertise, Systems/ Secondary services, Social Responsibility and Self-development .	
20	2015	Salah et. al.	Gap Analysis	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	22(2)
21	2016	Ushantha and Kumara	HEdPERF	Academic, Non-academic, Reputation, Access	40
22	2016	Adinegara and Putra	Importance Performance Analysis	General aspects, Quality of classroom, Quality of laboratory, Quality of library, Quality of academic service, Aspects of Teaching Quality, Quality of External Relations.	28
23	2016	Bhat and Sofi	Modified SERVPERF	Tangibles, Reliability, Responsiveness, Assurance and Empathy	29
24	2016	Sardar et. al.	Gap Analysis	Tangibles, Reliability, Responsiveness, Assurance and Empathy	22(2)
25	2016	Campos et. al.	Importance Performance Analysis	Academics, Teaching, Complementary, Comfort, Other Services.	33
26	2017	Latif et. al.	Self-Developed	Teacher quality, Administrative services, Knowledge services, Activities, Continuous improvement, and Leadership quality	37
27	2017	Rezaei et. al.	Gap Analysis	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	25
28	2018	Mogre et. al.	Gap Analysis	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	25
29	2018	Singh et. al.	SERVQUAL	Tangibles, Reliability, Responsiveness, Assurance and Empathy.	22
30	2018	Puthal et. al.	Self-developed	Two primary dimensions with each having four sub-dimensions (i) Program Quality: Curriculum, Industry collaboration, Input Quality, Academic Facilities. (ii) Quality of Students' Life: Non Academic Process, Support Facilities, Interaction Quality, Campus.	38
31	2018	Leonnard	SERVQUAL	tangibility, reliability, responsiveness,	20

32	2019	Osman et. al.	SERVPERF	assurance and empathy tangibility, reliability, responsiveness, assurance and empathy	22
33	2019	Adekiya et. al.	Self-developed	Quality of lecturers, Teaching facilities/learning environment, Hostel infrastructures, Non-teaching staff, General environment and Management.	36
34	2019	Shurair et al.	Self-developed	Original dimensions of SERVQUAL (Reliability, Responsiveness, Assurance, Empathy and Tangibles) and Two additional dimensions (Imageand culture/value)	29

Finding

An evaluation of research papers revealed that many scholars use existing models to use existing measurement scales, constructs, and items under different dimensions. The analysis carried out with the help of the model is cheaper and time-consuming. The validity and reliability of the model have been tested first. Some researchers modify the existing model to eliminate its shortcomings. A new model was also developed by some scholars to define and analyze the research problem by taking the existing literature as a basis. The big problem they face is identifying the dimensions with the help of qualitative research. Many of them renamed or framed new dimensions of service quality as listed in table 1 of the report model used and its dimensions.

Conclusion

With this research paper, a literature review on service quality in HEIs is carried out as part of ongoing research. This is a conceptual paper where the main objective is to understand the concept of service quality in higher education. The literature review highlights various models that can be used to study service quality in HEIs and different studies researchers use different models. The quality of higher education must be seen as a strategic issue of economic development. This study can contribute to public policy as an education charter in Malaysia. Even studying the quality of service at IPT will be very helpful in the effective development of marketing strategies. Therefore, this study also highlights the changing nature of higher education in the market and the satisfaction of the students themselves.

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