



## Measuring A Cambodian Public University Service Quality —A Case Study at Royal University of Phnom Penh

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## ABSTRACT

Service quality is driving forces in the business community. As higher education institutions strive for better service quality, the assessment of educational service quality is required to provide feedback. This study analyzes the perceived service quality of SERVQUAL's dimensions (tangibles, reliability, responsiveness, assurance, and empathy). The samples were drawn from 120 undergraduates of Royal University of Phnom Penh. The study shows that tangibles dimension was the highest mean score, followed by empathy dimension. The lowest mean score was assurance dimension. The reliability and responsiveness dimension were average. In short, the service quality of this university was satisfied by students.

## KEYWORDS

Service quality, SERVQUAL, higher education, Cambodia

### 1. Introduction

In the developing countries, higher education was often first established by colonial powers and transformed in different postcolonial situations. Though higher education is also recognized in the developing nations as a key force for modernization and development, universities in the developing countries are rooted in their own cultures and are affected by their social, economic and political realities. Cambodia is also a developing country which faces a unique challenge in its higher education as a result of the civil war and the depletion of human resources as the result of the destruction of the education system by the Khmer Rouge regime. However, since 1993, Cambodia has received both technical and financial assistance from major donor countries and international financial institutions. Since 1998 Cambodia has enjoyed relative peace and political stability, which are prerequisites for its economic development, and Cambodia has integrated itself into the Southeast Asian Nations (ASEAN) and the World Trade Organization (WTO). The Cambodian government now views its higher education as a vital factor to the national and economic development. The Cambodian government has realized that a main challenge to 2020 will be to improve Cambodia's economic productivity through the quality improvement of its higher education in order to create graduates to promote national development (Ngoy, 2009). The government objective is also the same as the donor countries which see Cambodian higher education as a key force for modernization. Now Cambodia's economic growth and future development rely heavily on its educated population.

With strong economic pressure to increase universities' fees as well as the increase in numbers of competitors, Cambodian higher education institutions are now being driven towards more customer-oriented approaches. Universities are seeking to attract and retain student enrolments in order to meet their revenue targets and to accomplish their goals and objectives. Also, they are engaging in competition for a market share in higher education. Their reputation depends not only on academic programs, prestige and location, but also the quality of student service delivery and the value of student experiences outside the classroom. Increasingly, students have come to view themselves as both customers and active learners; they are looking closely at the approach to service delivery of each institution as a significant factor that distinguishes one university from another.

### 2. Literature Review

#### 2.1 Definition of Service Quality

Service quality is the customer's perception of the level of success or failure in meeting expectations (Zeithaml, 1990). Ac-

cording to the expectation disconfirmation paradigm (Oliver, 1980), customers compare their satisfaction with a product or service with their expectations of performance. If perceived performance is greater than what was expected, positive disconfirmation results and customer satisfaction is expected to increase. Conversely, if the product or service performance is less than what was expected, negative disconfirmation occurs, with a corresponding decrease in customer satisfaction (Yi, 1990). Empirical studies confirm that disconfirmation and expectations are significant predictors of customer satisfaction.

In contrast, some scholars consider service quality to be a state of outcome of the service encounter and customer satisfaction to be a response to service quality. These researchers typically measure service quality using customer evaluations of tangibles, reliability, responsiveness, assurance, and empathy (Zeithaml, 1990). This is the basis of the service delivery gap model, whereby customer expectations and perceptions of service quality are gathered before and after a service experience. Consistent with the disconfirmation model, perceptions greater than expectations signal satisfactory service quality, and perceptions less than expectations indicate unsatisfactory service quality (Parasuraman, Berry & Zeithaml, 1985).

Service quality is a combination of two: service and quality where we find emphasis on the availability of quality service to ultimate users and focus on the standard or specification that a service provider promises. There is no universal, all-encompassing definition of service quality. Some prominent definition includes conformance to requirement, fitness for use, customers judgment for an entities overall excellence and superiority (Zeithaml, 1988).

Lehtinen (1983) view service quality in term of "process quality" and "output quality". Process quality is judged by the customer during service. Output quality is judged by the customer after the service is performed. With all forms of classification and sub-classification to service process, the ultimate aim is to satisfy customers for long term association. Zeithaml, Parasuraman and Berry (1990) define service quality as the extent of discrepancy between customers' expectations or desires and their perceptions.

Zeithaml (1981) made an attempt to understand consumer evaluation process of services and concluded that the service unique characteristics of intangibility, non-standardization and inseparability lead them to possess high levels of experience and credence properties, which in turn, make them more difficult to evaluate than tangible goods. Haywood-Farmer (1988) developed a conceptual model for service quality after stud-

ying a diversified number of organizations, such as utilities, transport, teaching, stock broking, repair services wholesaling, retailing, fast foods, and hospitals in Canada. The discussions pointed out that organization in the service sector are highly diverse and there are at least three important dimensions which can be segregated for better measurement of quality. Their research proposed a new three dimensional classification scheme based on this idea. Service quality was described by comprising three elements: physical facilities, process and procedures; personal behavior on the part of serving staff.

## 2.2 SERVQUAL Model

SERVQUAL is one of the most extensively used service quality measurement instrument because of its easiness to use, possession of a simple structure and capability of generalization. According to Zeithaml, Parasuraman and Berry, SERVQUAL is a universal method and can be applied to any service organization to assess the quality of services provided. Regardless of the type of service, consumers basically use the same criteria to assess quality. Service quality is a general opinion the client forms regarding service delivery, which is constituted by a series of successful or unsuccessful experiences.

A substantial body of evidence suggests that the SERVQUAL instrument is effective in measuring the quality of service in the higher education environment and is especially useful in offering guidance for changing shortcomings to strengths (Andell, Heffernan & Megicks 2008). SERVQUAL is a two-part instrument, with 22 items measuring expectations of customers and 22 similarly worded items measuring perceptions of experiences of customers, to measure the quality of service. Each dimension of the quality of service is recast into two statements – the first half of the instrument is to measure expectations about firms in general within the service category being investigated; the second half is to measure perceptions about the particular firm whose quality of service is being assessed (Parasuraman, Zeithaml & Berry 1988). A seven-point Likert scale ranging from strongly agree (7) to strongly disagree (1) accompanies each statement. Responses to the expectation and perception statements are compared. Parasuraman, Zeithaml & Berry (1988) state that if the expectation response is higher than the perception response, the score will be negative; if the perception response is higher than the expectation response, the score will be positive. A positive score indicates an area of strength and can represent a competitive advantage for the service provider.

The original SERVQUAL instrument reflected the criteria used by customers in assessing the quality of service and consisted of 10 dimensions: tangibility, reliability, responsiveness, competence, access, courtesy, communication, credibility, security, and understanding (Parasuraman, Zeithaml & Berry 1985). The dimensions serve as the foundation for the SERVQUAL instrument. However, Parasuraman, Zeithaml and Berry (1988), who carried out an examination of the 10 dimensions and factor analyses, suggested that there was some degree of overlap among them. A second stage of examination indicated that the overlap dimensions (competence, access, courtesy, communication, credibility, security and understanding) combined to form assurance and empathy dimensions. Consequently, Parasuraman, Zeithaml and Berry (1988) argue that SERVQUAL, with five distinct dimensions, has captured facets of all ten of the original dimensions of the quality of service concept. The five dimensions are tangibles, reliability, responsiveness, assurance and empathy.

**Tangibles** – physical facilities, equipment, and appearance of personnel. It concerns the service provider's physical installations, equipment, staff, and any materials associated with service delivery. Since there is no physical elements to be assessed in services, clients often trust the tangible evidence when making their assessment.

**Reliability** – ability to perform the promised service dependably and accurately. It is the most important dimension for the consumer of service. This dimension expresses the accuracy and

dependability with which the company provides its services and allows getting the answer to the following questions: Is the company reliable in providing the service? Does it provide as promised?

**Responsiveness** – willingness to help customers and provide prompt service. It is the demonstration of the company employee's capabilities of providing the best service for the customer. This dimension is responsible for measuring company and employee receptiveness towards clients.

**Assurance** – knowledge and courtesy of employees and their ability to inspire trust and confidence. It encompasses the company's competence, courtesy and precision in providing their service. This dimension allows getting the answer to the following question: Are employees well-informed, educated, competent and trustworthy?

**Empathy** – caring, individualized attention the firm provides its customers. It is the capacity to experience another person's feelings. It can be formulated as the following question: Does the service company provide careful and personalized attention?

## 2.3 Measuring Service quality in higher education

In improving service quality, higher education institution management must begin by getting an understanding of the stakeholders' view of service delivery through valid measurement instruments (Wang, Feng & Hsieh, 2010). A number of research studies measuring the perception of service quality have followed the best known quality measurement model, the Gap/SERVQUAL model. The SERVQUAL model is also easy to apply to the public sector, is statistically valid, is designed to identify key service quality dimensions and allows for the determination of perception, expectations and gaps between the perceptions and expectations (Bryland & Curry, 2001). Bryland and Curry (2001) add that SERVQUAL is a tried and tested model used reasonably often as a benchmarking tool. It was also developed in response to a lack of conclusive measuring tools designed for gauging service quality.

Gallifa and Batalle (2010) used the SERVQUAL model to measure the importance of students' perceptions of service quality improvement in higher education institutions in their study conducted at University X between 2002 and 2006. Their sample consisted of final year students because it was assumed they would have a clear and critical perception and could evaluate the quality of service they had experienced reliably. The research reveals that student perceptions of quality are useful in the identification of deficiencies in quality and in the composition of a university profile based on student perceptions of service quality.

Faganel (2010) demonstrates how SERVQUAL can be used to assess stakeholders' perceptions in higher education in his study of a Slovenian business school and its two dominant internal stakeholders: students and academic staff. The results show that there was a difference in the understanding of quality between the two groups of stakeholders. The finding also challenges the SERVPERF model by establishing important determinants of service quality for both students and staff.

Smith (2007) also used the SERVQUAL scale in their exploration of service quality at an IT service department at a higher education institutions and their evaluation of the SERVQUAL instrument. Their findings confirm the previous findings that the use of SERVQUAL in the public sector produces different dimensions than those found in private service sectors (Faganel, 2010). It has also been found that the relative importance of the five dimensions of SERVQUAL scale was similar for internal stakeholder groups, students and academic staff.

Zafropoulos and Vrana (2008) have tried to analyze how students and staff viewed the quality of education at higher education institutions in Greece using the SERVQUAL model. They investigated the perceptions of students and staff with regard

to their university and its provision of quality education. Accordingly, they used a standardized SERVQUAL scale designed for the educational context and their findings revealed that there was indeed a gap between students' perceptions and their expectations of service quality at their institution. In addition, they found that the staff had higher expectations than the students, while their perceptions were lower than those of the students.

Nadiri (2009) also demonstrated how the use of SERVQUAL could be used to evaluate students' perceptions of service quality in higher education institutions in a study to identify the applicability of a perceived service quality measurement scale to students to diagnose the degree of student satisfaction in higher education institutions.

Khanchitpol (2014) investigated service quality in higher education in Thailand. The author focused on the five dimensions of SERVQUAL instrumentation (tangibles, reliability, responsiveness, assurance and empathy). The author also examined the validity and reliability of SERVQUAL in assessing higher education in Thailand. With a total number of 350 undergraduate students from a private university participated, the study found that the higher education in Thailand did not meet the expectations of undergraduate students. In all five dimensions of service quality, a gap was observed between undergraduate students' perceptions and expectations as follows: Reliability: -2.25, Responsiveness: -2.72, Assurance: -2.48, Empathy: -2.48, Tangible: -2.88. The gap analysis between service perceptions and expectations showed that all scores for perceptions were lower than their expectations scores, indicating that there are a lot of service improvements efforts need to be fulfilled to the service quality. In short, the Thai university need to improve the service delivery by upgrading facilities and equipment in order to decrease the gap between undergraduate students' perceptions and expectations.

**3. Methodology**

**3.1 Method**

A survey was conducted at Royal University of Phnom Penh from November to December 2015 in Phnom Penh, the capital of Cambodia.

**3.2 Survey Instrument**

The study questionnaire consists of 2 parts; in the first part, demographic characteristics of the undergraduate students, such as gender, major, academic year, the birthplace, financial type. In the second part, the SERVQUAL questionnaire was used to assess undergraduate students' perceptions of service quality which included 22 items representing the five service quality dimensions tangibles (4 items), reliability (5 items), responsiveness (4 items), assurance (4 items) and empathy (5 items). The SERVQUAL scale was translated into the Cambodian and Chinese from Parasuraman et al. (1991). A 5-point Likert-type scale was used, ranging from strongly disagree (1) to strongly agree (5).

The SERVQUAL instrument was revised from a pilot sample of 30 respondents. The Cronbach alpha results of pilot test were used to test the scale reliability with values of 0.85 perception scores. Churchill (1979) showed that a reliability estimate of 0.80 or more was acceptable; so the reliability results of this pilot study were supported.

**3.3 Sample design and data collection**

The survey questionnaire was adjusted from the SERVQUAL questionnaire to the real context of Cambodian higher education to collect data from 120 undergraduates at Royal University of Phnom Penh during November to December 2015. The samples were randomly selected for all 4 academic years; each academic year selected 30 samples. The researcher distributed 30 copies of questionnaires to each academic year by choosing one class. The students got the questionnaires and completed about 15 minutes and then gave back to the researcher. All the 120 questionnaires were returned and could be used to analyze.

**3.4 Ethics**

This survey was approved by the Cambodian ministry of education, the university rectors, lecturers and students. The individual answer to questionnaire was kept confidential.

**3.5 Data analysis Procedures**

The data of this study was analyzed by using SPSS version 22. This study focus only on perceived of service quality result of the five dimensions of SERVQUAL (tangibles, reliability, responsiveness, assurance, and empathy). The expectation of service quality was excluded from the survey, so there was not calculation of SERVQUAL Gap.

**4. Results**

**4.1 Demographic information of Respondents**

**Table I. Summary profile of respondents (n=120)**

| Categories                      |        | Number | Percentage |
|---------------------------------|--------|--------|------------|
| Gender                          | Male   | 59     | 49.2       |
|                                 | Female | 61     | 50.8       |
| Level of Study (Undergraduates) | Year 1 | 30     | 25         |
|                                 | Year 2 | 30     | 25         |
|                                 | Year 3 | 30     | 25         |
|                                 | Year 4 | 30     | 25         |

Table I shows that there are totally 120 respondents, male 59 and female 61. All are undergraduates; each academic year was selected 30 students.

**4.2 Service quality perception**

**Table II. Mean scores of dimensions of service quality**

| Dimensions and Items                               | Mean        |
|--|-------------|
| <b>Tangibles</b>                                   | <b>2.98</b> |
| Modern facilities and equipment                    | 3.44        |
| Installations are well conserved                   | 3.56        |
| Well- dressed staffs and lecturers                 | 1.99        |
| Up-to-date printed documents                       | 2.94        |
| <b>Reliability</b>                                 | <b>2.53</b> |
| Keeping promise                                    | 2.43        |
| Sincere interest in solving problems               | 3.10        |
| Do the job right the first time and without errors | 2.40        |
| Confident to help students                         | 2.45        |
| Keep study record correctly                        | 2.28        |
| <b>Responsiveness</b>                              | <b>2.56</b> |
| Be able to finish the job within deadline          | 2.73        |
| Be willing and available to provide service        | 2.78        |
| Show goodwill in helping                           | 2.52        |
| Be always willing to explain doubts                | 2.22        |
| <b>Assurance</b>                                   | <b>2.21</b> |
| With confident behavior                            | 2.42        |
| Feel safe in campus                                | 2.25        |
| Being polite                                       | 2.18        |
| Enough knowledge to answer questions               | 2.00        |
| <b>Empathy</b>                                     | <b>2.95</b> |
| Care about and treat towards students fairly       | 2.80        |
| Have available hour for students to ask questions  | 2.99        |
| Provide individual attention to each student       | 2.82        |
| Focus on the best service for students             | 3.01        |
| Understand the specific needs of students          | 3.17        |

Table 2 shows the mean score of service quality perceptions. The mean score of the service quality perceptions were high. Among the five dimensions, the highest perceptions was the tangibles (mean score = 2.98), however the mean score of question 3 (Well- dressed staffs and lecturers) was the lowest among 22 questions. The second highest dimension was the empathy (mean score = 2.95). On the other hand, the lowest mean score was assurance (mean score = 2.21), especially question 17 (Enough knowledge to answer questions). And the reliability and responsiveness dimensions had similar average mean scores (mean score 2.53 and 2.56). Based on the result, the author concluded that the service quality of Royal University of Phnom Penh was good enough to satisfy students.

**5. Conclusions**

First, the assurance dimension showed the most negative service quality perception mean score. Thus, the university can work on improving this dimension. They can increase over perceived quality by possessing the knowledge to answer students' questions and by making sure that their staffs are courteous and friendly to students. The behavior of staffs should instill trust among the students. Moreover, the univer-

sity should focus more on campus safety by hiring more safety guards to protect the students. Second, although the tangible mean score was the highest among other dimension mean scores, the university should increase more modern facilities and equipment in the classes and labs; especially should provide fast free Internet Wi-Fi, updated textbooks and electronic documents in the library.

## 6. Limitations and future research

This study has limitations of the results. First, the results are based on only one top public university in Cambodia, so other researchers should conduct in other universities to increase the external validity of the study's results. Second, the research was conducted using samples of undergraduates; future researchers should include master and doctoral students. Also, they can focus more on other stakeholders such as administrative staff, academic staff, students' parents etc. Finally, a comparison between public and private higher educational institutions' service quality should be analyzed.

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