Service Quality Gap in Higher Education: School of Postgraduate Studies (SPS) case study

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Abstract— Customer satisfaction and Service quality are important concepts to academic researchers studying consumer evaluations and to practitioners as a means of creating competitive advantages and customer loyalty. The aim of this study was improving service quality gap through customer satisfaction in school of postgraduate Studies (SPS) unit in UTM. Service quality gaps are the difference between customer expectation and customer perception. Measuring gaps are the first step in enhancing customer satisfaction. School of postgraduate Studies SPS as a service provider, meets a big challenge in satisfy a large number of students as the number of students increase every year. There is a significant gap in the entire dimension in service quality model for SPS. Furthermore, SPS needs to increase customers’ satisfaction to decrease service quality gap score. The method that used for investigating service quality gap was revised SERVQUAL model. This model includes 5 dimensions, tangible, systemization, service core, social responsibility and human element. All these dimensions have some factors to measuring customer satisfaction. A sample of 120 postgraduate local and international students of UTM responded to the survey. Four research question s guide the investigation. The data collection instrument was questionnaire. The question’s of questionnaire was according to factor of revised SERVQUAL model. The result indicated that there are significant gap among dimensions of this model. Service core dimension has biggest gap among other dimensions, systemization is afterward the big gap with short difference. In general, there is low customer satisfaction among student because of gaps in service quality gap.

Keywords – service quality; service quality gap; SERVQUAL; customer perception; customer expectation

1. INTRODUCTION

Customer satisfaction and Service quality are important concepts to academic researchers studying consumer evaluations and to practitioners as a means of creating competitive advantages and customer loyalty. Many industries are paying greater attention to customer satisfaction and service quality, for reasons such as increased deregulation and competition [1]. During the past few decades service quality has become a major area of attention to practitioners, managers and researchers owing to its strong impact on customer satisfaction, business performance, customer loyalty, profitability and lower costs [2]. The notice directed to these two theories, customer satisfaction and service quality is mainly due to the harsh competition among private businesses on the market, in addition to the pressure of biased factors and of the population, over organizations in the field of public administration [1].

Higher education is attentive pressure to improve value in its activities [3]. The present rule for increasing educational value is to use attempt on continuous development, to concentrate on stakeholder profits, and to increase student’s satisfaction. Student agreement is often used to measure educational quality, where the capability to address tactical needs is of major importance [4]. Education’s quality can be defined to be specific by the extent to which students’ expectations and needs be satisfied [5]. SPS provides services like as promotion, registration, consultation, application and continuous guidance to all postgraduate students. It is equipped with skillful non-academic and academic staff to provide to all require of the students to ensure a smooth and easy environment during their study in UTM. SPS as a service provider, meets a big challenge in satisfy a large number of students as the number of students increase every year. There is a significant gap in the entire dimension in service quality model for SPS.
2. LITRITURE REVIEW

The issue of service quality is very wealthy in background of definitions, measurement issue and models. Numerous investigators explored the subjects with varying views and using different methods. SERVQUAL method foundation on two theories: expectations and perceptions are two dimensions and measured on service quality [6]. This model shows the service organization’s efficient activities that impress the quality perception. In addition, the model illustrates the interplay between these activities and also recognizes the linkages between the main activities of the service marketer or organization which are pertinent to delivery of the satisfactory level of quality of service. The links are described as discrepancies or gaps: a gap represents major obstacles to achieving a satisfactory stage of service quality" [7].

Parasuraman suggested that the quality of service is a function of the variations between performance and expectation beside the dimensions of quality [6]. They developed a quality of service model based on the gap analysis (Figure1). The gaps contain [8]:

Gap 1: The first gap is between consumer expectations and management perceptions of consumer expectations. This gap points the difference between management’s perceptions and consumers’ expectations of service quality.

Gap 2: The second gap is between management perceptions of customer expectation and service quality specifications. This gap shows the difference between service quality specifications and management’s perceptions of consumer’s expectations.

Gap 3: The third gap is between service quality specifications and service actually delivered. This gap addresses the difference between service quality specifications and service actually delivered.

Gap 4: The fourth gap is between service delivery and what is communicated to customers about the service. This gap shows the difference between service delivery and the communications to consumers about service delivery.

Gap 5: The fifth gap is between the customer’s perceptions of service quality and their expectations of service quality. This gap addresses the difference between consumer’s expectation and perceived service. This gap depends on size and direction of the four gaps associated with the delivery of service quality on the marketer’s side.

Source: Parasuraman et al. (1985)

FIGURE 1: Service quality gaps model by Parasuraman
Another reference model that tries to conceptualize the dimensions of service quality from the customers’ perspective is the model suggested by G.S. Sureshchandar (2002) who considers that the defining dimensions of the service quality from the customers’ perspective are those presented in the following [9]:

- **Dimension 1: Tangible aspects of the service**
  It refers to the tangible aspects of service delivery, aspects that are not related to human factor and which are not made up of: what the surrounding in which the service delivery takes place, looks like ease and accessibility in the building, accessibility to the utilities in the building, the existence and/or the way in which the materials necessary for the service delivery are presented-proper forms and petitions, information and descriptive material.

- **Dimension 2: Systematization of providing the service**
  It refers to aspects made up of procedures, proceeding standards and system that systemize the process of service delivery.

- **Dimension 3: Service core**
  It refers to content of effective elements provided by the system and is made of the features of all the things of the service offers.

- **Dimension 4: Social responsibility**
  It refers to those aspects that contribute to the ethical and moral feature of the organization via-its client as well as towards the members of the community in general.

- **Dimension 5: Human element of service delivery**
  It refers to all aspects related to human factors.

### 3. RESEARCH METHODOLOGY

The model which is used in this research is revised SERVQUAL model. Revised service quality model describe the differences between customer expectation and perception which used 5 dimensions. These 5 dimensions include 34 factors. The dimensions of this model are tangible, systemization, service core, social responsibility and human elements. G.S. Sureshchandar suggested the model that the defining dimensions of the service quality from the customers’ perspective are those presented in the following table: [1].

**Table 1- Revised SERVQUAL model dimensions**

<table>
<thead>
<tr>
<th>No.</th>
<th>Dimensions</th>
<th>Dimension description of the service quality</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Tangible aspects of</strong></td>
<td>It refers to the tangible aspects of service delivery, aspects that are not related to human</td>
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<td></td>
<td><strong>the service</strong></td>
<td>factor and which are not made up of: what the surrounding in which the service delivery takes</td>
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<td>place, looks like ease and accessibility in the building, accessibility to the utilities in</td>
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<td>the building, the existence and/or the way in which the materials necessary for the service</td>
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<td></td>
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<td>delivery are presented-proper forms and petitions, information and descriptive material</td>
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<td>2</td>
<td><strong>Systematization of</strong></td>
<td>It refers to aspects made up of procedures, proceeding standards and system that systemize the</td>
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<tr>
<td></td>
<td><strong>providing the service</strong></td>
<td>process of service delivery</td>
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<tr>
<td>3</td>
<td><strong>Service core</strong></td>
<td>It refers to content of effective elements provided by the system and is made of the features of</td>
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<td></td>
<td>all the things of the service offers</td>
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<td></td>
<td>via-its client as well as towards the members of the community in general</td>
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<tr>
<td>5</td>
<td><strong>Human element of</strong></td>
<td>It refers to all aspects related to human factors</td>
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<td></td>
<td><strong>service delivery</strong></td>
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This research is based on questionnaire; the questionnaire for determining the factor of service quality gap includes 34 factor of SERVQUAL model. The SPSS software was used to analyzing data for finding the service quality gaps. The reliability coefficient (alpha value) for all the constructs is more than 0.7 that shows high statistically reliable.
4. GAP ANALYZING

The population of this research was postgraduate students of UTM University. To get right population a sample of 120 students was sampled by simple random selection frame of 17677 students who study in UTM. After the questionnaires distributed and returned, data were collected and sorted into the SPSS software for analyzing. The average scores of perceptions and expectations related to each factor of questionnaires were calculated. According to service quality gap model and also using SERVQUAL subsequent scale for this model, it is a function of expectation and perception and can be modeled as:

Where:
- SQ = overall service quality.
- Pi = Performance perception of stimulus i
- Ei = Service quality expectation for attribute i

The final data consisted of the differences between perceptions and expectations of each clause of questionnaire (Pi- Ei) the values which are shown in table are representing the service quality gap for each clause of questionnaires.

The graphs analysis for tangible dimension is as follow:

![Graph 2: Service quality gap of tangible dimension](image)

The graph 1 shows the service quality gap of tangible dimension. It indicates the maximum level of expectation in all factors which is 5 while there are significant difference among these factors. As the graph indicates the highest level of satisfaction is allocated to the cleaning factor. On the other hand, the lowest level of satisfaction is devoted to effective complaint process that highlights the significant gap in tangible dimension.

The result for 'Effective complaints process' shows that the mean score for expectation is 5 and the mean score for perception is 2.368 this indicates that there is the considerable gap score of 2.632 between this two. The result for 'The apparent attractiveness of the facility' represents that the mean score for expectation is 5 and the mean score for perception is 2.936. The gap score between these two variables is 2.064. The result for 'On-time and fast service delivery' shows that the mean score for expectation is 5 and the mean score for perception is 2.8 this indicate that there is significant gap score of 2.2 between this two. The result for 'Commitment to doing services' indicates that the mean score for expectation is 5 and the mean score for perception is 3.168 and the gap score is 1.832. The result for 'Scheduled service delivery' shows that the mean score for expectation is 5 and the mean score for perception is 3.363 this indicate that there is a insignificant gap score of 1.637 between this two. The result for 'cleaning' shows that the mean score for expectation is 5 and the mean score for perception is 3.857 this indicate the smallest gap score (1.143) in tangible dimensions.

Graph 2 represents the data on Service quality gap of systemization dimension. According to the graph the expectation has high level of satisfaction similar to other dimensions. Regarding the perception factors there are not much differences. It can be seen that sufficient number of employee and necessary and sufficient facilities being indicate average
level of satisfaction which the levels are slightly above 3. Concerning other factors of this graph there are high level of gap score as the levels of satisfaction are below 3.

The result for 'Sufficient number of employees' shows that the mean score for expectation is 5 and the mean score for perception is 3.247 and gap score is 1.753. The result for 'Service capacity upgrading' indicates that the mean score for expectation is 5 and the mean score for perception is 2.536 this indicates that there is the considerable gap score of 2.464 between this two. The result for 'Standard processes' shows that the mean score for expectation is 5 and the mean score for perception is 2.721 and gap score is 2.279. The result for 'Necessary and sufficient facilities being' indicates that the mean score for expectation is 5 and the mean score for perception is 3.321 this shows that the gap score is 1.679 and it is smallest gap in this dimensions. The result for 'Without error processes' shows that the mean score for expectation is 5 and the mean score for perception is 2.626 this indicates that there is the considerable gap score of 2.374 between this two. The result for 'Non-complex processes' represents that the mean score for expectation is 5 and the mean score for perception is 2.615 this indicates that there is the considerable gap score of 2.385 between this two with small difference with biggest gap score.
Graph 3 shows service quality gap of Service core dimension. In this table no need to mention that expectation has the highest level of satisfaction unlike the perception. Unfortunately, the level of satisfaction factors in this dimension represents the deepest gap score among the 5 dimensions. It is obvious that the levels of all perception factors are below 3 that mean they do not reach the desirable level of satisfaction.

The result for 'Diversity and range of services' shows that the mean score for expectation is 5 and the mean score for perception is 2.9 this indicates that there is the slight gap score of 2.1 between this two and this factor has smallest gap in this dimension. The result for 'Innovation in Services' represents that the mean score for expectation is 5 and the mean score for perception is 2.310 and the gap score is 2.69. The result for 'The intensity and depth of services' indicates that the mean score for expectation is 5 and the mean score for perception is 2.273 this indicates that there is the considerable gap score of 2.727 between this two after the biggest gap. The result for 'Suitable office range-time' shows that the mean score for expectation is 5 and the mean score for perception is 2.652 and gap score is 2.348. The result for 'Time-consuming operating' indicates that the mean score for expectation is 5 and the mean score for perception is 2.036 this indicates that there is the significance gap score of 2.964 between this two.

![Graph 3: Service quality gap of Service core dimension](image)

Graph 4 shows service quality gap of Social responsibility dimension. Similarly, in this graph expectation is placed in the pick of the graph. However, there is not significant level of satisfaction regarding the perception. As the graph illustrates employees' fair treatment, service delivery with minimum cost and service excellence indicate average level of satisfaction while the other 3 factors namely: employees commitment, being moral pattern and providing good services to all segments fall under level 3 which means that the visitors are not satisfied with the services provided by the respected dimension.

The result for 'Employees fair treatment' shows that the mean score for expectation is 5 and the mean score for perception is 3.157 and the gap score is 1.843. The result for 'Service delivery with minimum cost' shows that the mean score for expectation is 5 and the mean score for perception is 3.342 this indicates that there is the slight gap score of 1.658 between this two and this is smallest gap in this dimensions. The result for 'Service excellence' shows that the mean score for expectation is 5 and the mean score for perception is 3.263 and the gap score is 1.737. The result for 'Employees commitment sense' represents that the mean score for expectation is 5 and the mean score for perception is 2.926 and the gap score is 2.074. The result for 'Being moral pattern' shows that the mean score for expectation is 5 and the mean score for perception is 2.526 this indicates that there is the considerable gap score of 2.474 between this two. The result for 'Providing good services to all segments' indicates that the mean score for expectation is 5 and the mean score for perception is 2.8 and the gap score is 2.2.

Graph 5 shows the service quality gap of human elements dimension. According to the graph decorated and clan staffs has highest level of satisfaction among the others factors followed by employees demanding to help customers in human elements dimension. The factors such as, customers' information security, customers' feedback usage, paying
attention to the customer and reaction power against the crisis is almost above and below the 3 which indicate the average level of satisfaction. The remaining factors like, schedule informing, staff skills in crisis, employees with high perceived sense, employees with high level knowledge and courteous staff represent the low level of satisfaction in this dimension.

The result for ‘Employees fair treatment’ shows that the mean score for expectation is 5 and the mean score for perception is 3.705 and the gap score is 1.295. The result for ‘Schedule informing’ indicates that the mean score for expectation is 5 and the mean score for perception is 2.763 and the gap score is 2.237. The result for ‘Staff skills in crisis’ indicates that the mean score for expectation is 5 and the mean score for perception is 2.231 and the gap score is 2.769. The result for ‘Employees with high perceived’ shows that the mean score for expectation is 5 and the mean score for perception is 2.084 this indicates that there is the considerable gap score of 2.916 between this two. The result for ‘Employees with high-level knowledge’ shows that the mean score for expectation is 5 and the mean score for perception is 2.110 and the gap score is 1.295. The result for ‘Customers feedback usage’ shows that the mean score for expectation is 5 and the mean score for perception is 3.147 and the gap score is 1.853. The result for ‘Paying attentions to customers’ shows that the mean score for expectation is 5 and the mean score for perception is 2.963 and the gap score is 2.037. The result for ‘Courteous staff’ shows that the mean score for expectation is 5 and the mean score for perception is 2.742 and the gap score is 2.258. The result for ‘Reaction power against the crisis’ shows that the mean score for expectation is 5 and the mean score for perception is 3.036 and the gap score is 1.964. Finally, the smallest gap is in ‘Decorated and clean staffs’ with 0.969 score.

Graph 6 compares the gap scores related to dimensions. According to the graph there are significant gap scores in all dimensions especially the service core that shows the lowest level of satisfaction among dimensions. Regarding the other dimensions it can be presumed there are not remarkable levels of satisfaction as they almost fall around the 3. According to this graph the highest gap score among the five dimensions belongs to service core (2.566) and the lowest the gap score relates to tangible (1.918) of service. The next high gap score according to the table refers to systemization (2.156), human elements (2.116) and social responsibility (1.998) respectively.
5. DISCUSSION AND CONCLUSION

The purpose of this research is to evaluate and investigate service quality gap through customer satisfaction by using revised SERVQUAL model in SPS office in UTM. The result shows that there are significance service quality gap in all dimensions. The biggest gap score belongs to service core especially in time consuming operation. Also it is clear that the SPS has better performance in tangible of service and social responsibility with a short difference afterward. Concerning the other dimensions, it should be noted that although they meet the average level of satisfaction but it can be perceived that visitor are not satisfied by the services provided noticeably. As mentioned before, in tangible dimension most of items above 3 and that mean, SPS can lead customer satisfaction in tangible dimension. Regarding to systemization and service core dimension, there are four factors below 3. In dimension, there are 3 factors that have satisfaction less in social responsibility. In human element dimension, there are seven factors that below 3, this dimension has biggest number of unsatisfied in all dimensions. In general, result indicated there is less satisfaction among UTM postgraduate student. The biggest service quality gap belongs to service core dimension and systemization dimension with small difference. Customer satisfaction has direct relation with service quality, to increase customer satisfaction it need minimize the service quality gap. In this case study Increase number of staff, using more IT in all segments, increase service capacity upgrading, training staff and student offered to minimize the service quality gap.
REFERENCES