Assessment of Service Quality in Higher Education: Case Study in Private University

Gusti Ngurah Joko Adinegara¹, Putu Steven Eka Putra²

¹²(Management Department, Faculty of Economics & Humanities, Dhyana Pura University, Bali, Indonesia)

ABSTRACT: Service quality is one factor that is considered in managing an educational institution. Student satisfaction is the result of perceived service quality of students during the educational process. The purpose of this study is to explore the student's perspective on the service quality received during the learning process. Data collected from students and the questionnaires collected were 95 respondents. IPA analysis is used in order to identify the attributes of service quality from the students’ perspective of level of importance and the perceived performance. Result show that there is a gap between importance and performance attributes of service quality. Based on the cartesius diagram there are two attributes in quadrant I are top priority for improvement. These attributes are fast service and student exchange programs. Based on the customer satisfaction index results showed that the service quality that has been given by university in the criteria of reasonable satisfactory. The results of this analysis are expected to assist management in improving the quality of service to the students in terms of both academic and non-academic, because private universities received the largest inflow from students. Recommendations are also discussed to obtain more comprehensive results in measuring student satisfaction.

Keywords: IPA, importance, performance, service quality, private university

I. INTRODUCTION

Improving the quality of students is one of the objectives to be achieved by each institution. Forming qualified students cannot be separated from the learning process of the students during the education. Support from the government and other stakeholders need to be increased in an attempt to ensure the learning process in accordance with the minimum criteria of the learning process, research and community service. Educational standards need to be implemented by each institution consists of competency standards, learning content, learning processes, learning assessment, lecturers and staff, facilities and infrastructure, management and financing of the learning process. Then, through the National Accreditation Board of Higher Education would ensure the implementation of the learning process carried out by universities, conduct an assessment in accordance with the minimum criteria specified in higher education.

The learning process can run well if it is supported by the facilities and infrastructures prepared by the institution. In addition to infrastructure, a process service to students is an important factor in the learning process that supports the improvement of the quality of students. Measuring service quality in higher education is perceived more and more important to attract and retain the income-based tuition (Angell et al. 2008). According to Pike (2004) on the situation of the higher competition in the field of higher education, the concept of orientation to the customer is the most important thing to be noticed. This concept is necessary, especially for educational institution which attempted to compete with other educational institutions. Management should be able to monitor the students' perceptions that can lead to satisfaction and dissatisfaction.

Quality has become an important topic of discussion among higher education institutions and has been studied specifically in recent years. One way to retain the students is to identify student satisfaction on the level of interest and performance is obtained by the educational institution according to their choice. Importance-Performance Analysis (IPA) is part of the technique of marketing research that involves the analysis of consumer attitudes toward the product or service, and this concept has been applied in several business areas including education, health, hospitality industry, tourism (Kitcharoen, 2004; Kuo et al., 2011; Angell et al., 2008; Lee & Chen, 2015). Service quality performance was built by customer expectations before consumption and consumer experience after consumption. Parasuraman et al. (1985) conducted a study that aims to determine customer expectations on customer perceived service quality, and the gap between expectations and perceived performance. Vargo and Lusch (2004) argue that service is key competitiveness and value created for display in the process of service for customer needs. Therefore, providing services that meet the needs of customers is an important task for the manager when trying to satisfy customers so that they are willing to come again. After Parasuraman et al. (1985) proposed a service quality measurement known as SERVQUAL, measurement of the quality of service has become a growing trend and the attention of academics and practitioners. Service quality performance was built by customer expectations before consumption and consumer experience after consumption (Johnson and Mathews, 1997).
Martilla and James (1977) proposed a model that is commonly used to measure the performance of services provided by the company to its customers, namely Importance Performance Analysis (IPA). Deng (2008) demonstrated that the IPA is a performance evaluation tool that measures the level of service factors between importance and satisfaction in the process of service innovation. This study tries to identify the level of importance or expectation of students to the attribute of service quality and performance quality of university services to students using IPA. By identifying the needs, desires and expectations of the students, university will be in a better position to develop appropriate marketing strategy to meet students’ expectations and to achieve competitive advantage.

II. LITERATURE REVIEW

1. Service Quality

Service is defined as an activity or benefits offered from one party to another and did not result in any ownership and as economic activity that can create value and benefits for customers (Lovelock, 2000). According to Parasuraman et al. (1985) services is something intangible and services have four characteristics: intangibility, inseparability, variability and heterogeneity. DeShields et al. (2005) states it is important for the management of higher education to implement the principles of market-oriented. Educational institutions are increasingly recognizing the importance of higher education as a service industry and placing greater emphasis to meet the expectations and needs of students. Nadiri et al. (2009) showed that it is important for providers to understand the expectations of higher education and students’ perceptions about the service quality in order to attract students and serve their needs. This indicates that the need for higher education institutions continues to providing servicequality and to satisfy customers in order to achieve sustainability of the business in the competitive service (DeShields et al. 2005).

There are many studies that have been conducted to obtain a greater insight into the service quality. Grönroos (1984) noted two important dimensions that influence the total service quality which are technical quality and functional quality. In the framework of this dimension, the services quality provided is measured as a result of the evaluation process, in which consumer expectations and perceptions compared. Lehtinen and Lehtinen (1991) defines three dimensions of service quality consists of physical quality, which involves physical aspects of services (facilities or equipment); the quality of the company, involving the image and profile; and interactive quality, which involves the interaction between contact personnel and customers and the interaction between customers. Similarly Brady and Cronin (2001) use three dimensions of quality: quality of interaction, quality of the physical environment, and quality of the results.

Most studies on the service quality that has been done in the last two decades are based on the SERVQUAL model. Parasuraman et al. (1985) developed a model to measure the service quality from a wider perspective. SERVQUAL initially focus on ten dimensions of quality of service and then reduce the number of these dimensions into five dimensions consists of tangibles, reliability, responsiveness, assurance, and empathy. Then Parasuraman et al. (1998) highlighted the differences between the perceptions of customers and companies linked to the services quality provided. They argue that service quality can be determined by measuring the differences between the customers received and customers expect. If the perceived greater than expectations, then the perceived quality is high, and if the perceived smaller than expected then it shows the perceived quality is low.

In the context of a service company, management is not only learning the perceived service quality as well as learns how to measure service quality, but also provides guidance in improving service quality in order to enhance customer satisfaction. Consumers assume that intangible product that is service quality, has contributed a major role in driving the customer's satisfaction or dissatisfaction (Negi, 2009). Khodayari and Khodayari (2011) uses seven indicators to measure service quality of higher education consists of (1) the adequacy of the academic resources (labs, books, journals), (2) easy to access academic resources (3) competence of lecturers in teaching both theory and practice (4) curriculum appropriate to the job in the future (5) academic staff understand the desire of students (6) the level of academic staff in serving students (7) the willingness of academic staff in guiding and advising students.

2. Importance Performance Analysis (IPA)

Importance Performance Analysis (IPA) was first proposed by Martilla and James (1977), which is one of the simple evaluation tools that can be used to understand and prioritize customer satisfaction attributes for improvement. IPA model is used to determine the priority attribute for improvement and also provide guidance to the company's strategic development plan. IPA is a powerful evaluation tool for practitioners and academics to find out the good attributes and attributes that need to be improved and the need for corrective action so as to increase profits and market opportunities (Wong et al. 2009).
Assessment of Service Quality in Higher Education: Case Study in Private University

Two dimensions of the IPA is the level of interest and the level of performance is divided into four quadrants (Martilla and James, 1977). Quadrant I is concentrate here or priority. In this quadrant there are factors that are considered important or expected consumers, but the company's performance has not been satisfactory, so the company needs to concentrate to allocate its resources to improve performance in this quadrant. Quadrant II is keep up the good work or maintain the achievements, all the attributes that fall into this quadrant is a strength of the organization as well as the pride of the organization. Quadrant III is a low priority. In this quadrant there are factors that are considered to have the perception or the actual performance levels are low and not too important or not expected by consumers, so companies do not need to prioritize or pay more attention to these factors. Quadrant IV is possible overkill, in this quadrant there are factors that are considered less important and less expected by the customer so that companies better allocate resources related to these factors to other factors that more have a higher priority level.

According to IPA with four quadrants, managers should focus on quadrants I and II because it reflects the high importance and represents the voice of the customer, if the department has performed well in fulfilling requirement of customers, then customers will be satisfied and can manifest loyalty. This is the way to help companies to do business in a sustainable manner. Research from Lee & Chen (2015) was to explore the perspectives of athletes who participated in the National University Sport Games in Taiwan regarding to the service quality. Result of their study was indicated that thirteen items, those were both high in importance and performance, in which must keep; in the meanwhile, there were four questions in high importance and low in performance, in which must be in the first priority to improve to enhance service quality and increase participants’ satisfaction. Other research from Angell et al. (2008) who applied IPA to judge the service quality of a university in the UK showed that the factors of academic and industrial relations aspects is the most important for graduate students. These results indicate that the IPA is the right tool to measure the quality of services in the field of graduate education. Then Pike (2004) conducted a study using the model of the IPA and the results can identify the attributes that are used by high school students in choosing a university. Attributes that are used in the research are: high standard of teaching, a good college campus atmosphere, safe neighborhood, campus facilities are modern, computer facilities were good, support a good student, the job prospects for graduates are excellent, good reputation, selection of flexible study programs, large campus, close to the beach, its social activities, located within the city, close to family or friends, good location, provided the opportunity to work part time, low tuition fees, accommodation near campus.

Furthermore, Mourkani and Shohoodi (2013) conducted a study to measure the quality of higher education combining a model of internal evaluation and IPA, and the results showed that of the 39 criteria assessed there were 11 criteria that require special attention from the campus to improve the quality of the departments within these criteria. 11 criteria were combined in 2-dimensional and needs to be addressed are (1) education and research consists of a library and information systems, facilities and computer services, laboratories, departments of education and research (2) learning process consists of faculty using appropriate teaching methods, clear criterion for evaluating a student at the beginning of the semester, providing precise feedback on student evaluation results, fixtures and fittings lectures, learning process is clear from the teaching staff, process of transfer of knowledge from lecturers and professors responding to questions from the students. Kuo et al. (2011) conducted a study that aims to identify the critical elements in the tourism and hospitality education using the Kano model and IPA. The results show that the elements of education can be categorized by different quality attributes. Two of the most important elements perceived by the students are (1) teachers assessing students' academic performance in the right way and reasonable (2) teacher can provide students with information about the job in the future.
IPA has been generally accepted and used in various fields of study because of the ease to be applied and the analysis results are easily understood and acted upon to improve the company's performance. The main function of the IPA is to display information relating to factors greatly affect the quality of customer service satisfaction and loyalty, and factors of service quality according to the customer needs to get attention from the company to be improved because the current situation is not providing satisfaction to customers.

III. RESEARCH METHOD

This research was conducted at a private university in Badung, Bali. Purposive sampling was used in gathering information from students and as many as 95 respondents collected using the formula from Slovin. Variables used in this research is the result of the identification of variables that have been used from several studies such as Pike, (2004); Kuo et al., (2011); Yusoff et al., (2015) and Indonesian National Education Standards. This research uses seven attributes which consists of 28 statements. 5 point Likert scale used to measure the level of interest and performance quality of university services.

Scale in measuring the level of interest (1 = not very important to 5 = very important) and a scale to measure the level of performance (1 = very poor to 5 = excellent). Validity and reliability are used to ensure the indicators are valid and reliable. Measurement of validity and reliability are very important in the assessment questionnaire. According to Sugiyono (2012) the level of validity for all indicators is expected to be above the value of correlation (r) = 0.3 and the level of reliability according of cronbach alpha value of each indicator must be greater than 0.7. The analysis technique used is the Importance Performance Analysis.

IV. RESULT AND DISCUSSION

1. Validity and Reliability Test

Based on validity tests of service quality of private university, the results show that the entire statements have a value above 0.3 (>0.3), so that the entire statements had content validity. From the reliability tests also obtained the results of the CronbachAlpha (α) of 0.953 (>0.7), this shows that all statements exceeding α value of 0.7 (all factors are reliable).

<table>
<thead>
<tr>
<th>Table 1. Reliability Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s Alpha</td>
</tr>
<tr>
<td>0.953</td>
</tr>
</tbody>
</table>

2. Importance Performance Analysis

This analysis is done by comparing scores on the level of interest with the score on performance. Analysis on the level of conformity will determine the order of priority of improving the factors that affect the quality of service. This study uses two variables: the level of importance (Y) and the level of performance (X). Based on the calculation result, value of the average of performance (X), the average of importance (Y) of each attribute, and the value of service quality conformity rate, it’s shown in Table 2.

<table>
<thead>
<tr>
<th>Table 2. Conformity Assessment of Level of Importance and Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>13</td>
</tr>
<tr>
<td>14</td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td>16</td>
</tr>
<tr>
<td>17</td>
</tr>
<tr>
<td>18</td>
</tr>
<tr>
<td>19</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>
Gap analysis was conducted to determine whether there is a gap between the levels of importance to the level of performance in the variables analyzed. Tests were carried out by differentiating the value of the degree of importance to performance, then analysis by creating a cartesius diagram. Based on the assessment results in Table 2 it can be seen that the average level of importance is 4.51 then the average level of performance is 3.56. The average assessment performance level was 3.56, below the average importance assessment level is 4.51 (performance > importance). Then the value of performance based on the level of conformity is 79.03% were below 100%, which means that the assessment of students during the learning process has not been fully serviced in accordance with the expectations of students. Furthermore, it can be noted that the average value of the level of conformity is at 79.03%, so it can be concluded that overall attributes entered in the category of "reasonable satisfactory" (<100%).

Based on Table 2, it can be explained that there is a difference between the level of performance with the level of interest based on the value that has a sign (-) negative. This means that nearly every dimension represented by attributes is under the level of interest of the student. The higher the gap, those attributes are increasingly prioritized to be improved in its services. For this reason, the university management need to work hard to improve its performance in service to students, especially the indicator of availability wifi (value gap is -1.76), collection of books in the library (the value gap is -1.22). Based on the results, these dimensions have the highest gap between the level of performance and expectations.

Furthermore, there are three dimensions that require close attention to be harmonized in order to achieve the level of importance of students. (1) The quality of the class in the learning process, both in providing first-class equipment and modern including a comfortable classroom environment. (2) The quality of the laboratory, in this case is the availability of laboratory that is still less by the students, the availability of laboratory equipment and laboratory staff in providing services. (3) The quality of academic services is also felt needed to be improved as perceived service was still slow, the staff is not provided with complete services and academic staff has not been able to provide solutions to the problems of students. The average value gap of this dimension has a bigger value compared to the value of the average gap in another dimension. Therefore, the university management works to improve the service quality, especially in three dimensions.

The next step is to analyze the quadrant to create a cartesius diagram. Based on the calculations, it obtained an average assessment of importance is 4.51 and an average performance assessmentis 3.56. The all numbers inserted into the quadrant analysis diagram importance performance analysis as shown in Figure 2.

![Figure 2. Cartesius Diagram of Importance-Performance](image-url)
Based on the cartesius diagram in Figure 2, the factors associated with service quality to students may be grouped within each quadrant as follows. In Quadrant I (priority), two attributes that are given high priority that are attribute to provide fast service (20) and the attributes of foreign student exchange program (28). Attributes are located in this quadrant is considered as a very important factor but the condition at this time is not satisfactory for students, and the management must seek adequate resources to improve performance on a variety of factors. Attributes are located in this quadrant is a priority to be improved so that the expectations of students can be maintained for the benefit of students at attribute level is high, while the perceived performance of students is still low.

In Quadrant II (maintain achievement), there are seventeen attributes within this quadrant are attribute (1) clean & comfortable campus atmosphere, (5) convenient parking area, (6) comfortable classroom environment, (11) laboratory staff provide friendly service, (12) easy access books on the shelf, (13) easy borrowing books, (15) library staff provide friendly service, (16) a cozy library room, (17) a simple procedure of academic, (18) academic staff is able to solve the problem, (19) (provide information to completion), (21) (hospitality of lecturer), (23) easy to communication with lecturers, (24) (clarity on learning materials), (25) (competences of lecturer), (26) (lecturers give a fair assessment), and (27) (quality of external relations). Factor that exist in this quadrant are considered as an additional factor for student satisfaction, where the level of student interest in this quadrant is high, so the level of the perceived performance of students is also high. The university is obliged to maintain the attributes that fall into this quadrant.

In Quadrant III (low priority), includes seven attributes consists of: attribute of laboratory equipment (10), modern facilities (3), availability of laboratories (9), modern class equipment (8), complete collection of books (14), easy access to the Wi-Fi (2) and classroom equipment is adequate (7). Attributes are located in this quadrant have a performance level of perceived low student once considered too important for students, so the priority in the priority scale is low. The attributes that exist within this quadrant should be maintained and adapted to current conditions. Attributes in Quadrant IV (overload) there are two attributes consists of: attribute adequate cafeteria (4) and personal attention from lecturers (22). Attributes are located in this quadrant are considered satisfactory or in accordance with the expectations of students, but the students attribute in this quadrant are considered not too important. The management does not need much to allocate resources associated with those attributes, then that will be retained and adapted to current conditions.

Customer satisfaction index (CSI) reported by large levels of customer satisfaction will be with the specific services. In this research, CSI is required to determine the level of student satisfaction with the services provided during the learning process. The greater value of CSI will show the level of satisfaction is getting better and if the value of CSI is getting smaller, it will indicate the level of satisfaction of diminishing returns. Thus, the value CSI can be used as a measure that shows how much the expectation that can be met by the university on the service quality received. Based on the calculations, CSI value obtained is 71.37%. CSI scores are located on the criteria of “reasonably satisfied” on the performance of the service quality of the university. CSI value can be increased by improving the performance of high-value gaps against expectations of students. Improvements to the performance attributes are expected to improve the value of customer satisfaction index.

**IV. CONCLUSION**

Based on the analysis of the gap between importance and performance of students, all attributes have a negative value, it means that the performance in serving students in the learning process is still below the expectations. Attributes the availability of Wi-Fi and collection of books in the library are the two attributes that have the largest gap. These results are also in accordance with the CSI value is 71.37%, which shows that the value of CSI is currently on criteria reasonable satisfactory. This indicates that the quality of services provided to students of private universities not in accordance with the interests or expectations of students. Therefore, all academic faculties are expected to improve service to all students. Based on cartesius diagram shows that there are two attributes that are entered in the first quadrant, seventeen attributes entered in quadrant II, seven attributes of the incoming quadrant III and the two attributes that go in quadrant IV. The main priorities in improving the quality of existing services to students in the first quadrant those provide fast service and student exchange programs to overseas. Priority in improving services to students is located on the attributes in quadrant I that provide fast service and student exchange programs to overseas, so the index of customer satisfaction can be improved.

Further research can use a bigger sample size and a larger population to get more comprehensive description of the service quality to the higher education. Further analysis can be developed by comparing the state and private universities. Then, for the analysis could use regression analysis or SEM-AMOS to obtain more comprehensive results about the relationship between attributes and dimensions of service quality.
REFERENCES


