ANALYSIS OF STUDENT SATISFACTION LEVEL ON SERVICE QUALITY: IMPORTANCE-PERFORMANCE ANALYSIS APPROACH

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ABSTRACT

Education is the learning of knowledge, skills, and habits of a group of people that are passed down from one generation to the next through teaching, training, or research. Faculty that has large number of students must be followed by good service quality. The sample of this study were active students of the Department X, as many as 68 students. The analytical technique used in this report is the Importance Performance Analysis (IPA). It can be concluded that in general the level of conformity between performance appraisal and expectation assessment ranges from 72.09% to 98.31% with an average of 88.41%. This means that in general students are satisfied with the quality of services at the Department X. There are four variables where students feel satisfied with the services at the Department X which include the dimensions of reliability, namely fast procedures (V5), timely administration services (V6), and careful services (V7); from the dimension of responsiveness, namely the alertness of employees (V8); from the assurance dimension, namely trust in the information provided (V12).

Keyword: - *Education, Service Quality, Importance Performance Analysis, Satisfaction*

1. INTRODUCTION

Education is the learning of knowledge, skills, and habits of a group of people that are passed down from one generation to the next through teaching, training, or research. Education is one sector that also involves many people. If an educational institution has a large number of students, it should be followed by good service quality [4]. If educational institutions have good service quality, it is expected that students will be more comfortable in learning.

A service is any action or activity that one party can offer to another, which is essentially intangible and does not result in any ownership [7]. Based on the description above, it can be concluded that education is an intangible service product but can meet consumer needs, which is processed using or not using the help of physical products where the process that occurs is an interaction between service providers and service users which has the nature of not resulting in the transfer of rights or ownership.

One way for service companies to remain competitive is to consistently provide services of higher quality than their competitors [13] Service quality is a model that can describe the condition of customers by comparing the service they expect with what they receive in evaluating quality [5]. Based on the background described above, the problem formulation of this research report is "What is the level of satisfaction of student on service quality at the Department X?".

2. THEORETICAL REVIEW
2.1. Definition of Educational Services

In developing and improving the quality of human resources, education services play an important role. However, interest and attention to aspects of the quality of educational services can be said to have only developed in the last decade. The success of educational services is determined in providing quality services to the users of these educational services (students, stakeholders, the community) [4]. In simple terms, service quality in education can be interpreted as educational services [12]. The word service itself has several meanings, ranging from personal service to service as a product.

2.2. Service Characteristics

Services have broad characteristics, which distinguish them from products in the form of goods. These characteristics have important implications in the marketing of services. [7] explain that services have four main characteristics, namely:

1. Intangible

Unlike physical products, services cannot be seen, tasted, touched, heard or smelled before they are purchased. To reduce uncertainty, buyers will look for or evidence of service quality. They will draw conclusions about service quality from the places, people, equipment, communication tools, symbols, and prices they see.

2. Inseparability

Generally, services are produced and consumed simultaneously. Services cannot be separated from their providers, regardless of whether the providers are people or machines. Unlike physical goods that are produced, they are kept in inventory. If someone provides a service, then the provision is part of the service.

3. Variability

Services depend on who provides them and when and where they are provided. Companies can take three steps in quality control. The first is investing in good hiring and training procedures. The second is to standardize the service delivery process across the organization. The third is monitoring customer satisfaction through a system of suggestions and complaints, customer surveys and doing comparison shopping.

4. Perishability

A service cannot be stored, the perishable nature of services will not be a problem if demand is constant, problems will arise when demand for services fluctuates

.2.3. Service Quality

Service quality is all forms of activities carried out by the company must be in accordance with expectations and increase the excellence of a service to meet the wishes and expectations as well as customer satisfaction [9]. According to [7] suggests that service quality is the overall characteristics and properties of a service that affect its ability to satisfy stated or implied needs. Service is a very influential factor, especially for companies engaged in services. For this reason, service activities must be oriented to customer satisfaction [2]. The concept of service quality basically provides a concrete perception of the quality of a service. The concept of service quality is a complete, permanent revolution in changing the human perspective in carrying out or pursuing its efforts related to dynamic, ongoing, continuous processes in meeting expectations, desires and needs [6].

Service quality according to [10] has five dimensions as follows.

a. Tangibles (physical evidence), is the company's ability to show its existence to external parties through the presence of physical facilities, equipment, employees and means of communication.

b. Reliability is the ability to provide services immediately as promised, accurately and satisfactorily.

c. Responsiveness is the desire to help and provide responsive and appropriate services to customers.

d. Assurance includes the knowledge, competence, courtesy, and trustworthiness of the staff, free from danger, risk, or doubt.

e. Empathy, giving sincere attention including ease in establishing relationships, good communication, personal attention, and understanding of the individual needs of customers.

3. METHODOLOGY

The object used in this report is the level of student satisfaction with service quality. The population in this study were all active students of the Department X, as many as 627 people. In this study, the method of determining the sample used is probability sampling. The chosen probability sampling technique is simple random sampling. This technique is said to be simple because the sampling method from all members of the population is done randomly regardless of the strata in the population. The minimum number of samples taken according to Derek L. Waller in [1] namely:

$$n \geq \frac{\left(Z\left(\frac{a}{2}\right)\right)^2 pxq}{e^2}$$

Where:

n = Minimum number of samples required

α = Level of significance

e = Maximum error rate between allowed population and sample values

p = Percentage of customers who are satisfied (0.5)

q = Percentage of customers who are dissatisfied (0.5)

By using = 10%, e = 10%, and Z table of 0.05 is 1.6449 and assumes that students who are satisfied are 50% and those who are dissatisfied are 50%, then the above equation becomes:

$$n \geq \frac{(1,6449)^2 x(0,5)x(0,5)}{(0,1)2} = 67,638$$

Based on the formula, the minimum number of samples required is 68 respondents. The sample of this study were active students of Department X, as many as 68 students.

Data collection techniques in this study using a questionnaire method. Questionnaire method is a number of questions that are asked to respondents and then filled in according to the respondent's perception of the object of research. This study uses a questionnaire as a data collection tool, so it is necessary to test the validity and reliability so that the questionnaire is feasible to use.

The analytical technique used in this report is the Importance Performance Analysis (IPA) analysis method which was first introduced by [8]. This analysis method is used to compare the consumer's assessment of the importance of service quality (importance) with the level of service quality performance. Companies can compare consumer expectations with the performance that has been done. If the level of expectation is higher than the company's performance, it means that the consumer has not achieved satisfaction, and vice versa. According to [3] states that "IPA has been generally accepted and used in various fields of study because of its ease of application and display of analysis results that facilitate proposed performance improvements".

Figure 1. Importance Performance Matrix
Source: [2]

The average result of the overall consumer assessment is then described in the Importance-Performance Matrix or often called a Cartesian diagram, where the abscissa axis (X) is the level of performance and the ordinate axis (Y) is the level of importance. The average level of performance is used as a cut-off or barrier for high and low performance, while the average level of importance is used as a cut-off of high importance with low importance. Importance-Performance matrix or Cartesian diagram as shown in Figure 1.

4. RESSULTS AND DISCUSSION

Student satisfaction is analyzed from two dimensions, namely from the importance on service and performance received by students.

4.1 Student Importance Level

In this study, the level of student importance was measured using a Likert scale with 5 categories, namely: very important = 5, important = 4, quite important = 3, less important = 2, and not important = 1. Respondents' expectations for services at the Department X, then calculated the frequency distribution of respondents' answers (Table 3.3).

Table 3.3. Distribution of Percentage of Respondents' Answers According to the Level of Importance in Determining Variables of Service Quality in Department X

Var	Variables that determine service quality	Level of Importance					Total (%)
		1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	
Y1	Arrangement of class facilities such as chairs and tables in the Department X	0.00	2.94	14.71	44.12	38.24	100.00
Y2	Classroom cleanliness in Department X	1.47	1.47	7.35	44.12	45.59	100.00
Y3	Classroom comfort in the Department X	0.00	2.94	13.24	45.59	38.24	100.00
Y4	Cleanliness of toilets in Department X	0.00	4.41	7.35	29.41	58.82	100.00
Y5	Fast student service procedures	0.00	2.94	4.41	29.41	63.24	100.00
Y6	Administrative services are carried out in a timely manner	1.47	2.94	7.35	29.41	58.82	100.00
Y7	Handling administrative matters carefully	0.00	1.47	2.94	55.88	39.71	100.00
Y8	Staff alertness in serving students	0.00	1.47	5.88	50.00	42.65	100.00
Var	**Variables that determine service quality**	**1 (%)**	**2 (%)**	**3 (%)**	**4 (%)**	**5 (%)**	**Total (%)**
Y9	Program Coordinator is fast in handling student complaints	0.00	1.47	5.88	60.29	32.35	100.00
Y10	The friendliness of the employees in providing services	0.00	2.94	2.94	42.65	51.47	100.00
Y11	The attitude of the employees in providing services	0.00	2.94	13.24	50.00	33.82	100.00
Y12	Trust in the information provided by employees	0.00	0.00	4.41	54.41	41.18	100.00
Y13	Ease of contacting the coordinator of study programs	0.00	5.88	8.82	57.35	27.94	100.00
Y14	Employees have good communication skills with students	0.00	2.94	2.94	50.00	44.12	100.00
Y15	Employees provide clear information	0.00	2.94	5.88	52.94	38.24	100.00
Y16	Pay special attention to every student	0.00	2.94	5.88	47.06	44.12	100.00

Source: Processed Data, 2018

While the respondent's choice of answers about the service importance received by students of Department X is in the fairly good and good category.

4.1 Student Performance Level

To get an answer about the level of satisfaction of students on the quality The level of performance or perception of service performance in the Department X according to respondents' opinions was measured using a Likert scale with categories: very good = 5, good = 4, quite good = 3, not good = 2, and very not good = 1. To determine the tendency of respondents' answer choices regarding service performance in Department X, the frequency distribution of respondents' answers is calculated (Table 3.4).

Table 3.4. Distribution of Percentage of Respondents' Answers According to Performance Levels on Determinants of Service Quality in the Department X

Var	Variables that determine service quality	Performance Level					Total (%)
		1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	
X1	Arrangement of class facilities such as chairs and tables in the Department X	2.94	5.88	35.29	38.24	17.65	100.00
X2	Classroom cleanliness in Department X	0.00	5.88	44.12	38.24	11.76	100.00
X3	Classroom comfort in the Department X	1.47	5.88	50.00	27.94	14.71	100.00
X4	Cleanliness of toilets in Department X	4.41	16.18	44.12	26.47	8.82	100.00
X5	Fast student service procedures	1.47	1.47	29.41	50.00	17.65	100.00
X6	Administrative services are carried out in a timely manner	1.47	2.94	14.71	60.29	20.59	100.00
X7	Handling administrative matters carefully	0.00	1.47	2.94	63.24	32.35	100.00
X8	The readiness of employees in serving students	0.00	1.47	7.35	61.76	29.41	100.00
Var	Variables that determine service quality	Performance Level					Total (%)
		1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	
X9	Study Program Coordinator is fast in handling student complaints	0.00	0.00	25.00	44.12	30.88	100.00
X10	The friendliness of the employees in providing services	1.47	4.41	41.18	50.00	2.94	100.00
X11	The attitude of the employees in providing services	1.47	2.94	16.18	55.88	23.53	100.00
X12	Trust in the information provided by employees	0.00	0.00	19.12	47.06	33.82	100.00
X13	Ease of contacting the coordinator of study programs	0.00	2.94	25.00	51.47	20.59	100.00
X14	Employees have good communication skills with students	1.47	2.94	36.76	44.12	14.71	100.00
X15	Employees provide clear information	0.00	1.47	11.76	72.06	14.71	100.00
X16	Pay special attention to each student	1.47	2.94	38.24	52.94	4.41	100.00

Source: Processed Data, 2018

While the respondent's choice of answers about the service performance received by students of Department X is in the fairly good and good category. From the two things above, at a glance, it can be said that there is a small gap between the performance of the service received and the expectation/level of interest desired.

4.3 Conformity Level Analysis

To get an answer about the level of satisfaction of students on the quality of service at the Department X, it can be seen from the ratio of the level of conformity. The level of conformity ratio is a comparison between performance and importance. The level of student satisfaction is expressed in 3 gradations, namely: (1) dissatisfied if the suitability ratio is less than 100%, (2) satisfied if the ratio is 100%, and (3) very satisfied if the ratio is more

than 100%. Measurement of student satisfaction level can also be seen from comparing the average performance (X) and the average importance ($\bar{Y}$). The average performance score which is the same as the average importance score is assessed as a satisfied student. Likewise, if the average performance score is greater than the average importance rate, it indicates that students are very satisfied, whereas if the average performance rate is less than the average importance rate, it indicates that students are not satisfied with the services they receive. The results of the analysis on the satisfaction level of students who receive services at the Department X are presented in Table 3.5.

Table 3.5. Assessment of Performance and Importance, Level of Conformity, and Average Realities and Interests of Each Variable Determining Service Quality at the Department X

No	Determinants of Service Quality	Evaluation Performance (X)	Average Performance Rating $\bar{x}$	Average Importance Rating (Y)	Importance Rate $\bar{y}$	Conformity Level (X/Y)
1	Arrangement of class facilities such as chairs and tables in the Department X	246	3.62	284	4.18	86.62
2	Classroom cleanliness in Department X	242	3.56	293	4.31	82.59
3	Classroom comfort in the Department X	237	3.49	285	4.19	83.16
No	Determinants of Service Quality	Evaluation Performance (X)	Average Performance Rating $\bar{x}$	Average Importance Rating (Y)	Importance Rate $\bar{y}$	Conformity Level (X/Y)
4	Cleanliness of toilets in Department X	217	3.19	301	4.41	72,09
5	Fast student service procedures	259	3.81	308	4.53	84.09
6	Administrative services are carried out in a timely manner	269	3.96	300	4.41	89.67
7	Handling administrative matters carefully	290	4.26	295.00	4.34	98.31
8	The readiness of employees in serving students	285	4.19	295	4.34	96.61
9	Study Program Coordinator is fast in handling student complaints	276	4.06	288	4.24	95.83
10	The friendliness of the employees in providing services	237	3.49	301	4.43	78.74
11	The attitude of the employees in providing services	270	3.97	282	4.15	95.74
12	Trust in the information provided by employees	282	4.15	297	4.37	94.95
13	Ease of contacting the coordinator of study programs	265	3.90	277	4.07	95.67
14	Employees have good communication skills with students	250	3.68	296	4.35	84.46
No	Determinants of Service Quality	Evaluation Performance	Average Performance Rating	Average Importance Rating	Importance Rate	Conformity Level

		(X)	$\overline{x}$	(Y)	$\overline{y}$	(X/Y)
15	Employees provide clear information	272	4.00	290	4.26	93.79
16	Pay special attention to each student	242	3.56	294	4.32	82.31
Total X and Y		4139	60.87	4686	68.91	
Avarage ($\overline{x}$) and ($\overline{y}$)			3.80		4.31	88.41

Source: Processed Data, 2018

Based on Table 3.5. it can be explained that in general the level of conformity between performance appraisal and expectation assessment ranges from 72.09% to 98.31% with an average of 88.41%. This means that in general, students are satisfied with the quality of services at the Department X.

In addition to using the ratio of the level of conformity as shown in Table 3.5., an analysis to measure the level of satisfaction is also carried out using an analysis of the importance of performance (importance performance analysis). [11] mentions importance-performance analysis is widely used in measuring the level of customer satisfaction based on the elements of expectations for something that is of consumer interest and the facts received by consumers. Analysis of the level of satisfaction is done by plotting the average value of importance and the average value of performance on a Cartesian diagram. The vertical axis (Y) represents the level of expectation/importance, with point ($\overline{X}$) being the average of the level of expectation/ importance. While the flat axis (X) describes the level of performance, with point ($\overline{Y}$) is the average of the level of performance. The intersection of the X and Y lines will form four quadrants, each of which is called quadrant A, B, C, and D. Based on the foregoing and referring to Table 3.5, the interest and performance analysis diagram is used to measure the level of satisfaction student on the quality of service in the Department X is presented as shown in Figure 2.

The variables that fall into quadrant A are from the dimensions of tangible evidence, namely classroom cleanliness (V2) and toilet cleanliness (V4), from the assurance dimension, namely employee friendliness (V10), and from the empathy dimension, namely employee communication skills (V14) and giving special attention to students (V16). The variables that fall into quadrant B from the reliability dimension are fast procedures (V5), timely administration services (V6) and careful services (V7); from the dimension of responsiveness, namely the alertness of employees (V8); from the assurance dimension, namely trust in the information provided (V12). The variables that fall into quadrant C from the dimensions of tangible evidence are: the arrangement of table and chair facilities in the classroom (V1) and the tidiness of the classroom (V3); from the dimension of empathy, namely the ease of contacting the study program (V13). The variables that fall into quadrant D of the responsiveness dimension are the coordinator of the study program quickly handling student complaints (V9); from the assurance dimension, namely the employee's attitude (V11) in providing services and from the empathy dimension, namely the employee providing clear information (V15).
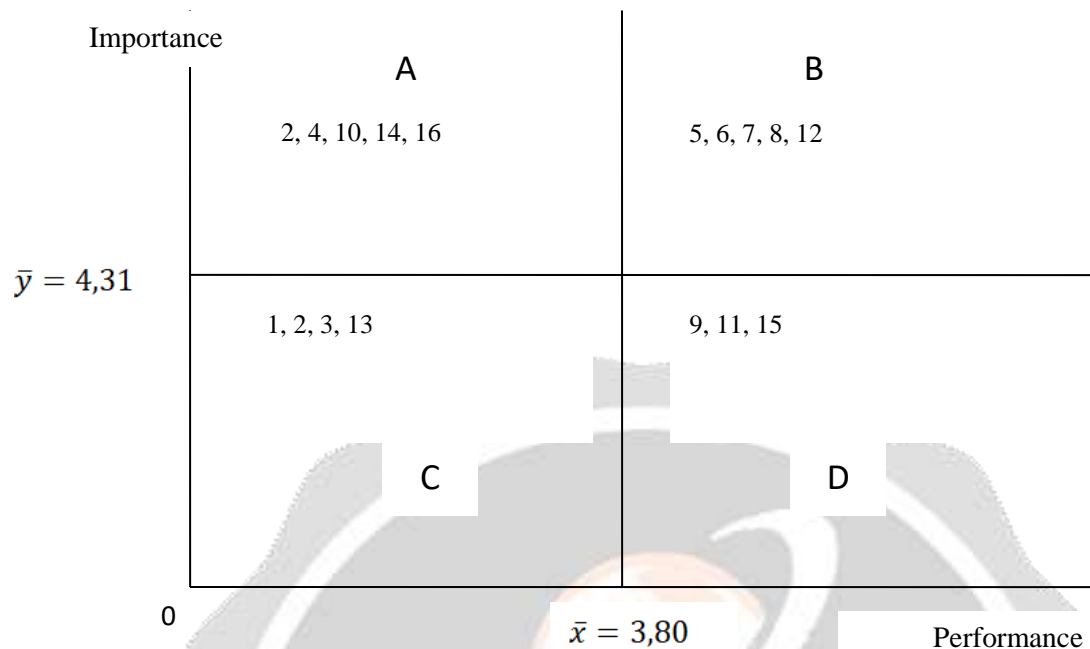
Importance

A   B

2, 4, 10, 14, 16   5, 6, 7, 8, 12

$\bar{y} = 4{,}31$

1, 2, 3, 13   9, 11, 15

C   D

0

$\bar{x} = 3{,}80$ Performance

Figure 2. Department X Importance-Performance Analysis Diagram

4) Strategic Implications of Analysis of Student Satisfaction Level of Department X

Based on the level of conformity between the performance assessment and the assessment of service importance of student in Department X, it can be explained that in general the level of conformity between the performance assessment and the assessment of expectations ranges from 72.09% to 98.31% with an average of 88 ,41%. Meanwhile, when using, there are five variables where students feel satisfied with the services at the Department X which include the dimensions of reliability, namely fast procedures (V5), timely administration services (V6) and careful service (V7); from the dimension of responsiveness, namely the alertness of employees (V8); from the assurance dimension, namely trust in the information provided (V12). Analysis of the level of satisfaction using the importance of performance analysis shows the following:

1) The variables that are expected to be in a high position, but low service performance so that students feel a low level of satisfaction (quadrant A) include real evidence dimensions, namely classroom cleanliness (V2) and toilet cleanliness (V4), from the assurance dimension, namely employee friendliness. (V10), and from the dimensions of empathy, namely employee communication skills (V14) and giving special attention to students (V16).

2) The variables that are expected to be in a high position and service performance are also high so that students feel high satisfaction (quadrant B) including in quadrant B from the reliability dimension, namely fast procedures (V5), timely administration services (V6) and careful service (V7); from the dimension of responsiveness, namely the alertness of employees (V8); from the assurance dimension, namely trust in the information provided (V12).

3) Variables which according to consumers' interests are considered unimportant, but when viewed from the performance are still low (quadrant C), include the dimensions of tangible evidence, namely: arrangement of table and chair facilities in class (V1) and classroom tidiness (V3); from the dimension of empathy, namely the ease of contacting the study program (V13).

4) Variables which according to students' interests are considered unimportant, but if viewed from the level of performance are high, students feel very excessive (quadrant D), including the responsiveness dimension, namely the study program coordinator quickly handles student complaints (V9); from the dimension of assurance, namely the attitude of employees (V11) in providing services and from the dimension of empathy, namely employees providing clear information (V15).

5) To increase the satisfaction of students with the quality of service in the Department X can be done by:
   a) Cleaning services can clean more routinely the toilets and classrooms in the Department X and also raise students' awareness not to throw garbage or do things that make classrooms and toilets dirty.
   b) Giving directions to employees to be more friendly to students in providing services.
   c) Provide training to employees to be able to provide good service for students, especially in terms of communication so that students can receive the information provided properly.
   d) In service, employees are expected to pay attention and have an empathetic attitude towards the interests/complaints of students without discriminating.

5. CONCLUSION AND SUGGESTION
5.1. Conclusion
It can be concluded that in general the level of conformity between performance appraisal and importance assessment ranges from 72.09% to 98.31% with an average of 88.41%. This means that in general students are satisfied with the quality of services at the Department X. There are four variables where students feel satisfied with the services at the Department X which include the dimensions of reliability, namely fast procedures (V5), timely administration services (V6), and careful services (V7); from the dimension of responsiveness, namely the alertness of employees (V8); from the assurance dimension, namely trust in the information provided (V12). However, there are also variables where the level of importance is high but service performance is low so that students feel a low level of satisfaction including the dimensions of tangible evidence, namely cleanliness of classrooms (V2) and cleanliness of toilets (V4), from the dimension of assurance, namely employee friendliness (V10), as well as from the dimensions of empathy, namely the ability to communicate employees (V14) and giving special attention to students (V16).

5.2. Suggestion
To increase the satisfaction of students to the quality of services in the Department X, it can be done through: 1) Cleaning services can clean more routinely toilets and classrooms in the Department X and also raise awareness of students not to throw garbage or do things that make classrooms and toilets become dirty; 2) provide direction to employees to be more friendly to students in providing services; 3) provide training to employees to be able to provide good service for students, especially in terms of communication so that students can receive the information provided properly; 4) In service, employees are expected to pay attention and have an empathetic attitude towards the interests/complaints of students without discriminating.

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