INTEGRATION OF SERVICE QUALITY AND IMPORTANCE PERFORMANCE ANALYSIS METHOD IN IMPROVING SERVICE QUALITY AT SMK PLUS LABORATORIUM INDONESIA, KARAWANG

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ABSTRACT

To face fiercer competition, SMK Plus Laboratorium Indonesia Karawang is determined to improve the satisfaction of their customers, especially parents of students. Unfortunately, the data show the number of students who come out and move to other school after their parents fancy is quite large with an average of 9% per year, which is one of indication the existence of parents of students dissatisfaction with the services provided by SMK Plus Laboratorium Indonesia.

This study aimed to determine whether the services provided by SMK Plus Laboratorium Indonesia are in accordance with the expectations of its customers, and to determine which quality of services attribute that should be improved.

The results of the data processing and analysis with Servqual and IPA (Importance Performance Analysis) method show that the quality of services provided SMK Plus Laboratorium Indonesia has not meet the expectations of parents of students as its customer. Furthermore, by using Cartesian diagram analysis, it's known there are 13 quality of services attribute which should be improved by SMK Plus Laboratorium Indonesia to improve the parents of students satisfaction as its customer.

Keywords: *service, educational service, service quality, importance performance analysis*

1. INTRODUCTION

Rapid growth of the industry currently in Karawang, West Java requires the availability of skilled labor, particularly at the secondary level. The demand was answered with the establishment of various vocational schools in Karawang, which eventually led to fierce competition among the existing vocational school in getting new students.

As one of the vocational school in Karawang, SMK Plus Laboratorium Indonesia can not be separated from the competition. In order to win the competition, SMK Plus Laboratorium Indonesia strives to provide the best possible service so that customer satisfaction, especially the parents of students, can be improved. Unfortunately, existing data indicate that the number of students who came out and moved to another school after their parents fancy continues to increase each year, with an average of 9% per year. This is an indicator that shows the dissatisfaction of parents of students on educational services they and their son or daughter receive. Therefore, SMK Plus Laboratorium Indonesia should immediately repair service based on the analysis of the quality of existing services.

Quality of service at a service company, as well as SMK Plus Laboratorium Indonesia, as suggested by Giantari et al (2008), can be analyzed based on the five dimensions of Servqual (Service Quality), these are tangibles, reliability, responsiveness, assurance, and empathy, and also IPA (Importance Performance Analysis) method.

2. RESEARCH OBJECTIVES

The purpose of this study is as follows:
a. To determine whether the quality of care that has been provided by SMK Plus Laboratorium Indonesia have appropriate with parents of students expectations or not.
b. To determine the quality of service that should be improved by SMK Plus Laboratorium Indonesia.

3. LITERATURE REVIEW

Services, according to Kotler (2002), can be defined as any action or activities offered by one party to the other, which basically is something

intangible and does not result in any ownership. A product or service may result from or may not be related to the physical product.

Parasuraman et al. in Tjiptono (2005) defines quality of service from the customer view seen by an internal measure performance, it can be seen that the quality of service is the customer's perceptions of the advantages of a service. Quality of service is an important element in a service organization. This is caused by the quality of service is one of the tools used to measure the performance of a service organization, the quality of service should receive serious attention from the management service organization. An organization must have a clear intention to establish service quality to be achieved by a service organization.

Customer perception of the service quality can be measured and evaluated through the dimensions of service quality as stated by Parasuraman et al. in Tjiptono (2005), namely: (1) Physical evidence (tangibles), (2) reliability, (3) responsiveness, (4) assurance, and (5) empathy. The five dimensions of quality is better known as a servqual (service quality) method.

Atina (2010) suggested that servqual can be used to tell how big the gap of quality of service in the company, and what are the factors that cause this gap, so that the solution can be sought.

Supranto in Atina (2010) states that the concept of Importance Performance Analysis is actually derived from the concept of Service Quality (Servqual), it contains how to translate the concept of what is desired by consumers is measured in relation to what should be done by a company that produces quality products, both tangible and intangible.

Further, Atina (2010) states that to measure the willingness of consumers is not easy. This is because each company has different goals for each of their actions in order to meet consumer desires. For example, the decline in prices. According to consumers, perhaps it is best to be done by the company. However, the company must have a clear accounting of the price of the product. Consequently, the relationship between the desires of consumers and the company wishes to be biased.

If the concept servqual only analyzed the gap between the desires or expectations of the consumer with the performance given by the manufacturer, then with the concept of importance performance analysis, we can analyze the importance of the variables according to the consumer with the company's performance. Thus, companies will be more focused in executing its business strategy in accordance with the priorities of the most dominant consumer interests.

The analysis begins with a questionnaire distributed to the customer, each item in question has two answers in Likert scale, which is according to the customer it is important to do or be implemented and how its performance, good or bad. Furthermore, levels of these elements will be described in Cartesian diagram.
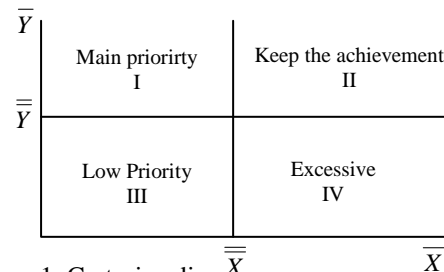

Figure 1. Cartesian diagram
(Source: Atina, 2010)

The four quadrants into four strategies, depending on which quadrant the consumer ratings on products or services issued. For the assessment of the four quadrants can be the explanation below:

a. The first quadrant (I), requiring treatment to be prioritized by the management level, since the rate of interest are high and low performance satisfaction.
b. The second quadrant (II), showing the area to be preserved, because the high level of interest while performance satisfaction levels are also high.
c. The third quadrant (III), as a low priority area, because the low level of interest while performance satisfaction levels are also low. In this quadrant, there are several factors that are less important effect on consumers. However, companies should always ask for something better among the other competitors.
d. The fourth quadrant (IV), categorized as redundant, because there are factors that the consumers are not important, but the company is very well executed. In addition due to a low interest rate while the high performance level of satisfaction, so that's not a priority to be addressed.

4. METHODOLOGY

Place of Research

The research was conducted at SMK Plus Laboratorium Indonesia located in Karawang, West Java.

Population and Sample

Population which is the object of this study was all parents of students of SMK Plus Laboratories Indonesia in the school year 2011/2012. Number of students (class X to class XII) SMK Plus Laboratory Indonesia in the school year 2011/2012

are 264 peoples. So, the number of parents of students is adjusted to the number of students, those are 264 peoples.

The number of samples or the respondents in this study determined by the Slovin formula at an error rate of 5%, which amounted to 160 parents of students.

Data and Research Methods

The data needed in this study were respondents (parents of students) regarding expectations or importance level and performance level of the services provided by SMK Plus Laboratorium Indonesia, obtained by distributing questionnaires.

The dimensions of quality used to define the variables of this study are further described in the question questionnaire items according to the model proposed by Zeithaml et al., and developed by Arsyad (2008), then by the researchers modified and adapted to the National Education Standards and questionnaire item in school accreditation issued by BAN-S/M (National Accreditation Board for School/Madrasah) and academic regulations and codes of ethics in SMK Plus Laboratorium Indonesia. Service quality attributes used in the research questionnaire can be found in the appendix.

Method of Data Analysis

The methods that used in the data analysis phase of the study are as follows:
a. Stage Introduction Data Collection and Processing
   At this stage, preliminary data collection was done by distributing the questionnaires to the 30 (thirty) of respondents. The results of the preliminary questionnaire distribution is then tested the validity and reliability of the data.
b. Stage Advanced Data Collection and Processing
   This stage is carried out after preliminary data collection results revealed valid and reliable. At this stage, further data collection formed by distributing questionnaires to the respondents amounted to 160 people or 100% of the predetermined amount of data. Once all of the data collected and then tested the adequacy of the data to the formula of Paul Leedy (Arikunto, 1998).
c. Importance Performance Analysis (IPA), consisting of:
   1) Analysis of gap level
      The gap level that calculated in this study is the fifth in the framework servqual gap, that is the gap between the perceived services with the services expected by the

consumer. The level of gap is the difference between average scores of perception or performance and the average score of the importance level or expectation. The level of gap is what will determine the order of priority to improve performance factors measured.
   2) Cartesian diagram
      Cartesian diagrams are used to determine the position of each variable quality of service is in quadrant I, II, III, or IV, where each quadrant contains different consequences.

5. RESULTS AND DISCUSSION

Data Collection and Processing

Data required and will be processed further in this study consisted of two types, those are data on the importance level and data on the performance level of the services provided by SMK Plus Laboratorium Indonesia according to customer, ini this case is the parents of students. Both of the data obtained through the distribution of questionnaires.

Before the questionnaire distributed to all respondents, the questionnaire was distributed to the 30 (thirty) first responders as a preliminary study. If the data from these questionnaires initial deployment declared valid and reliable, the questionnaire will be distributed again to all respondents.

The results of preliminary data processing indicate that the data is valid and reliable, so the questionnaire can be used for further data collection and processing.

After making a complete distribution of questionnaires to all respondents who have previously determined, the next step is to test the adequacy of the data that serves to determine whether the data is retrieved or not enough to represent the population.

To determine the minimum amount of data (sample) that must be acquired, the researcher use the data adequacy test formula from Paul Leedy (Arikunto, 1997).

The test results shows that the amount of data collected is stated enough, and can be used for further data processing.

Importance Performance Analysis (IPA)

a. Gap Level
   Gap level that calculated in this study is the fifth gap in the servqual framework, that is the gap between perceived services (performance level) to the services expected by the consumer

(importance level). Recapitulation of importance, performance, and gap level of the quality of service variable is shown in the following table.

Table 1. Recapitulation of importance, performance, and gap level

Quality Dimension	No	Attribute	Performance Average (X)	Importance Average (Y)	Gap	Quality Dimension's Gap Average
Tangibles	1	X1	3,25	4,51	-1,25	
	2	X2	3,25	4,38	-1,12	
	3	X3	3,20	4,28	-1,08	
	4	X4	3,18	4,32	-1,15	
	5	X5	3,02	4,30	-1,28	
	6	X6	3,04	3,97	-0,94	
	7	X7	3,05	3,95	-0,90	-1,07
	8	X8	3,09	4,06	-0,97	
	9	X9	3,25	4,20	-0,95	
	10	X10	3,22	4,16	-0,94	
	11	X11	3,11	4,28	-1,17	
	12	X12	3,19	4,29	-1,09	
	13	X13	3,11	4,18	-1,07	
Reliability	14	X14	3,11	4,23	-1,12	
	15	X15	3,10	4,38	-1,29	
	16	X16	3,06	4,10	-1,05	
	17	X17	3,12	4,34	-1,23	
	18	X18	3,10	4,40	-1,29	-1,13
	19	X19	3,18	4,32	-1,14	
	20	X20	3,04	4,16	-1,12	
	21	X21	3,14	4,27	-1,13	
	22	X22	3,0 6	4,33	-1,27	
	23	X23	3,34	4,16	-0,82	
	24	X24	3,10	4,16	-1,06	
	25	X25	3,01	4,01	-1,00	
	26	X26	3,14	4,27	-1,13	
	27	X27	3,18	4,32	-1,14	
	28	X28	3,21	4,22	-1,01	
	29	X29	3,27	4,19	-0,92	
	30	X30	2,97	4,44	-1,47	
	31	X31	3,12	4,19	-1,07	
Responsiveness	32	X32	3,17	4,32	-1,15	
	33	X33	3,17	4,08	-0,91	
	34	X34	3,24	4,23	-0,99	
	35	X35	3,26	4,12	-0,86	-1,00
	36	X36	3,22	4,25	-1,03	
	37	X37	3,19	4,13	-0,94	
	38	X38	3,13	4,26	-1,13	
Assurance	39	X39	3,35	4,36	-1,01	
	40	X40	3,34	4,21	-0,87	
	41	X41	3,29	4,12	-0,83	
	42	X42	3,27	4,16	-0,89	
	43	X43	3,22	4,13	-0,91	-0,97
	44	X44	3,39	4,37	-0,98	
	45	X45	3,25	4,32	-1,06	
	46	X46	3,19	4,19	-0,99	
	47	X47	3,19	4,19	-1,00	

Quality Dimen sion	No	Attr ibut e	Perfor mance Avera ge (X)	Impor tance Avera ge (Y)	Ga p	Quality Dimensi on's Gap Average
	48	X4 8	3,0 9	4,23	-1,14	
Empathy	49	X4 9	3,0 1	4,16	-1,15	-0,99
	50	X5 0	2,9 9	4,20	-1,21	
	51	X5 1	3,1 2	4,20	-1,08	
	52	X5 2	3,4 1	4,15	-0,74	
	53	X5 3	3,1 5	4,02	-0,87	
	54	X5 4	3,1 8	4,17	-0,99	
	55	X5 5	3,3 0	4,34	-1,04	
	56	X5 6	3,1 5	3,95	-0,81	

Source: Results of Data Processing, 2012

Based on the table above, it can be seen that the gap around the quality of service variable, is negative, which means that the services provided by SMK Plus Laboratorium Indonesia has been unable to meet the expectations of its customers.

Based on dimension of service quality, parents of students consider that the worst service quality dimension is reliability with average of gap level is -1,13. On the other hand, the parents of students also consider that the best service quality dimension is assurance with average of gap level is -0,74.

Meanwhile, based on each service quality attribute, the parents of students consider that the worst service quality attribute is the 30th attribute, that is the teacher or class trustee quick and responsive in overcoming grievances or complaints of parents of students, with point of gap level is -1,47. On the other hand, the parents of students also consider that the best service quality attribute is the 52th attribute, that is System notifications about of student activities that organized by the school, with point of gap level is -1,47.

Furthermore, to determine the position of each service quality attribute, the data on the average of importance level and the average of performance level are plotted in the cartesian diagram, so the decision about service quality

attribute that have to be improved at first can be made.

b. Cartesian Diagram Analysis

Cartesian diagram are used to determine the position of each quality of service variable whether is in quadrant I, II, III, or IV, where each quadrant contains different consequences. The Cartesian diagram based on table 1 can be seen in the following figures.
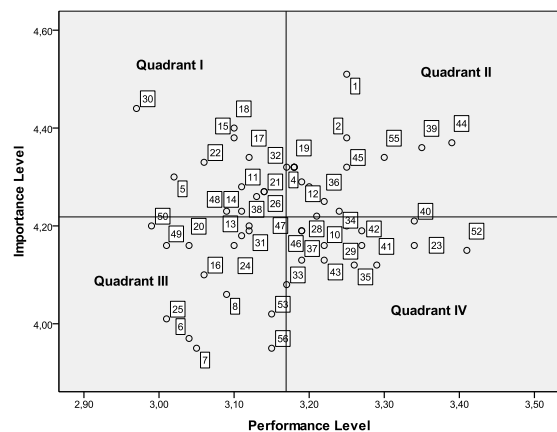

Figure 2. Cartesian diagram (Source: Results of Data Processing, 2012)

From the Cartesian diagram above, the quality of service that should be improved is the quality of service that is in quadrant I, which is as follows:

Table 2. Quality of Service in Quadrant I According to Parents of Students

No	Service Quality Attributes
1	Support facilities (prayer house, restrooms, cafeteria, parking lots) adequate
2	Cleanliness and neatness of the environment
3	Providing information about value accurately (thorough and timely)
4	Provide an accurate timetable information (thorough and timely)
5	Discipline of teachers in attendance
6	Discipline of teachers in teaching punctuality
7	Curriculum in accordance with the vision and mission
8	Uptodate and various learning methods
9	Teaching in schools affect in increasing of students basic skills
10	Teachers or Class Trustee quick and responsive in addressing complaints of

No	Service Quality Attributes
	parents of students
11	Teachers or Class Trustee easily contacted or met to consult
12	Knowledge and skills of teacher or class trustee in providing information that is clear and understandable to parents of students
13	The guarantee of delivery after students pass through special employement exchange

Source: Results of Data Processing, 2012

Limitations of Research

Satisfaction on the school services in this study is based only on 1 (one) type of customers as respondent, that is the parents of students. According to Praptiningsih (2010), customers of school are divided into 2 (two), those are internal and external customers. Internal customers are teachers and administration staff, while students, parents of students, and the user or recipient of graduates belonging to the external customer. Thus, this study not involving another 3 (three) types of school customers, those are students, the teachers and administration staff, and also the user or recipient of graduates (universities, industry, and society). In the future, further research needs to be done by involving the school customer types except the parents of students.

6. CONCLUSION

Conclusion

1) The quality of service provided by SMK Plus Laboratorium Indonesia has not meet the expectations of parents of students as its customers, it is evident from the gap level of service quality attributes which are all negative.

2) There are 13 (thirteen) attributes of service quality that have to be improved at first by SMK Plus Laboratorium Indonesia in order to enhance the satisfaction of the parents of students as its customer.

Suggestion

Given the limitations of this study, it is advisable to conduct further research with the involvement of students, teachers, employees, and the user or recipient of graduates (universities, industry, society) as the survey respondents about the quality of school services.

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Appendix

Table: Variable Statement in Research Questionnaire for Parents of Students

No	Quality Dimension	Variable	Attributes / Statement
1	*Tangible*	X1	Rooms (classrooms, laboratories and workshops) are adequate
		X2	Equipments (computers, machines, whiteboards, tables, chairs) are adequate
		X3	Library is adequate
		X4	Adequate sports field and facilities
		X5	Adequate of support facilities (prayer house, restrooms, cafeteria, and parking lots)
		X6	Availability of complete and informative media (brochures, leaflets, banners, and billboards) while new students registration activities
		X7	Availability of complete and informative media (brochures, leaflets, billboards, and wall magazines) while teaching and learning activities
		X8	Module or learning materials are complete and easy to understand
		X9	Teachers look neat, clean, and attractive
		X10	Appearances of administration staff and employees are neat, clean, and attractive
		X11	Cleanliness and tidiness of environment
		X12	The arrangement of buildings and equipment
2	*Reliability*	X13	Schools order, regulations, and guidelines are seen and readable
		X14	Providing information about student grade on lesson accurately (thorough and timely)
		X15	Providing an accurate timetable information (thorough and timely)
		X16	The education calendar and a clear timetable are available
		X17	Discipline of teachers in attendance
		X18	Discipline of teachers in teaching punctuality
		X19	Provision of same opportunity to ask questions or discussions for every student
		X20	Determination of administrative costs (tuition) in accordance with the services provided compared to other schools
		X21	Curriculum in accordance with the vision and mission
		X15	Uptodate and various learning methods
		X23	Provision of individual task or exercises that support the subject matter
		X24	Provision of group task or exercises that support the subject matter
		X25	Holding extra-curricular activities
		X26	Teaching in schools affect to increase students basic skills
		X27	The development of student's good character (responsibility, honesty, respect, compassion, discipline, empathy, etc.)
		X28	The ability of administration staff and employees in providing services
		X29	The ability of administration staff and employees in helping students to overcome their problem
		X30	Teacher or class trustee quick and responsive in addressing the problems experienced by the student or parent of students complaints
3	*Responsive-ness*	X31	Teacher or class trustee provide positive feedback on student grievances or parents of students complaints
		X32	Teacher or class trustee easily contacted or met to consult
		X33	Administration staff and employees quick and responsive in addressing the problems experienced by the student or parent of students complaints
		X34	Administration staff and employees give positive feedback to the student grievances or parents of students complaints
		X35	Administration staff and employees easily contacted or met to consult
		X36	Good and uncomplicated administrative procedures
		X37	The explanation given the school if there are any questions from parents of students
		X38	Knowledge and skills of teacher or class trustee in providing clear and

No	Quality Dimension	Variable	Attributes / Statement
			understandable information to students and parents of students
4	*Assurance*	X39	The friendliness and politeness of teacher or class trustee in serving students and parents of students
		X40	Hospitality and attention from the teacher or class trustee to receive complaints of students and parents of students
		X41	Knowledge and skills of administration staff and employees in providing clear and understandable information to students and parents of students
		X42	The friendliness and politeness of the administration staff and employees in serving students and parents of students
		X43	Hospitality and attention of the administration staff and employees in receiving complaints of students and parents of students
		X44	The creation of a family atmosphere among students and parents of students to teachers, administration staff, and employees
		X45	Students perceived feeling of safety while in the school area
		X46	Transparency in the administration management and information delivery that needed by students and parents of students
		X47	Good school image in the community
		X48	The guarantee to students to work after passing through special employement exchange
		X49	Communication between the schools (in particular class trustee) with a parent of the student
5	*Empathy*	X50	Availability of telephone or e-mail to serve and to receive complaints
		X51	Information on student learning outcomes at the end of each semester
		X52	System notifications on a range of student activities that organized by the school
		X53	The involvement of parents of students in determining school program or activities
		X54	The activities of the counseling or career guidance
		X55	Availability scholarships for all students (especially students can not afford)
		X56	Administration staff and employees provide services outside of office hours

Source: Arsyad, 2008 (modified)