Importance of Performance Analysis and Potential Gain in Customer Value's of Service Quality in Hospitals

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Abstract—**The Center for Community Lung Health is one of the health care clinics in handling lung disease which provides various facilities and services for pulmonary disease in Bandung, West Java - Indonesia, at this clinic provides 8 polies in its services. The research aims to maintain and improve the quality of services at the center for community lung health. The method used is Importance Performance Analysis (IPA) and Potential Gain in Customer Value's (PGCV). The result of the research is that from the four quadrants there is quadrant I which is the main priority needs to be improved service, the priority of the first attribute regarding Employees always do greetings, smile, say hello. The second attribute about medical personnel must be nimble and respect patients, and the third attribute about employees provide services in accordance with the wishes and understand the needs of patients. The conclusion of the study is that attributes that have the highest priority in quadrant 1 for immediate improvement so that patients who are undergoing treatment can be more satisfied with the services provided.**

Keywords—Importance Performance Analysis (IPA); Potential Gain in Customer Value's (PGCV); service quality

I. INTRODUCTION

Quality of service is an effort to fulfill the needs and desires of customers as well the accuracy of service delivery so that the service they receive is in line with expectations or customer desires. The service quality of a clinic is a subjective indicator that has a great influence on its development. The Center for Community Lung Health (CCLH) is one of the health care clinics in handling lung disease which provides various facilities and services for pulmonary disease, at this clinic provides 8 polies in its services, but with the increasing phenomenon of Tuberculosis sufferers so that Indonesia gets a ranking second and a number of patient complaints at CCLH. In the previous survey data, the Center for Community Lung Health in Bandung, West Java – Indonesia, which provides various facilities and services, has not provided satisfactory results for patients, there are some complaints that often appear in the form of clinical hygiene that is lacking due to limited workforce, lack of communication between medical personnel to patients in terms of treatment procedures. Therefore, this study aims to maintain and improve the quality of services at the center for people's lung health in Bandung.

II. LITERATURE

A. Hospital

Hospitals are one type of service industry, in this case the health services industry. Hospitals have several characteristics that distinguish them from other industries. Therefore, hospitals need a different approach. Hospital is a center for public health services, education and medical research organized which aims to organize healing efforts for patients [1]. Center for Community Lung Health (CCLH) is one of the health care clinics in handling lung disease. In this problem, the Center for Community Lung Health (CCLH) needs to have a health care system by devoting its attention to the things that are considered important by customers or patients.

B. Services Quality

Satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers Anticipate and what they receive, regarding the fulfillment of some needs, goals or desire [2]. Patient satisfaction occurs when there are similarities between expectations and the reality of health services obtained. The satisfaction of health service users has a close relationship with the results of health services, both medically and non-medically such as adherence to treatment, understanding of medical information and continuity of care [3]. There are five criteria to determine the quality of hospital services, namely: reliability, responsiveness, assurance, empathy, tangible [4,5]. In service quality, the Center for Community Lung Health (CCLH) needs to improve it to be better by managing the service system in such a way that it has the ability to get more new customers and retain existing customers.

C. Importance Performance Analysis

The method Importance Performance Analysis can analyze the importance of a variable where consumers with the performance of the company [6]. Thus, the company will be more focused in implementing its business strategy in

accordance with the priorities of the most dominant consumer interests.

The analysis begins with a questionnaire distributed to customers, each question item has two answers in a Likert scale, namely whether according to the customer it is important to do or do and how it works, good or bad. Furthermore, the level of these elements will be described in the Cartesian diagram, can be seen in Figure 1:
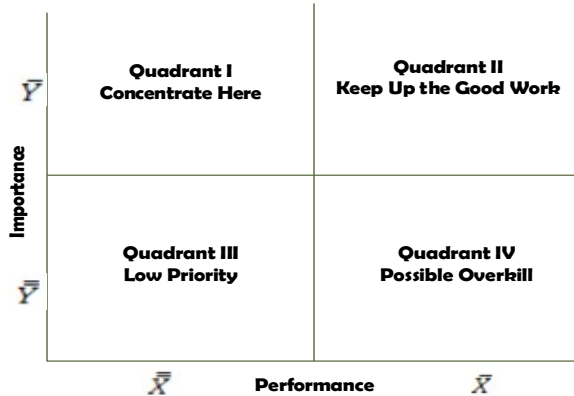

Fig. 1. Importance performance analysis grid [4].

Four quadrants are four strategies, depending on which quadrant is the consumer's assessment of the product or service issued.

For the assessment of the four quadrants can be seen the explanation below:

- The first quadrant (I), requires handling that needs to be prioritized by the management level, because of the high level of importance while the level of satisfaction of performance is low.

- The second quadrant (II), shows the area that must be maintained, because of the high level of importance while the level of satisfaction of performance is also high.

- Third quadrant (III), as a low priority area, because the level of importance is low while the satisfaction level of performance is also low. In this quadrant there are several factors that are less important for consumers. But the company must always display something better among other competitors.

- The fourth quadrant (IV) is categorized as an excessive area, because there are factors that are not important to consumers, but the company is implemented very well. Besides that, due to the low level of importance while the level of satisfaction is high, so it is not a priority that is addressed.

D. Performance Gain in Customer Value's

Then proceed with the method Performance Gain In Customer Value's (PGCV) to determine priority improvements that must be made by the manufacturer [7]. Analysis of Importance and Performance is less able to recommend improvements that are the top priority. Therefore another analytical tool is used, which is analysis through the index number PGCV.

III. RESEARCH METHODOLOGY

This research is divided in to seven stages which will be explained in the following subsection.

A. Designing the Instrument and Preparing Questionnaire (pretest)

This stage is carried out to obtain information about the company and company policy. In this study the questionnaire was used as a data collection tool. The questionnaire is composed of predetermined research variables. This questionnaire study consisted of questionnaire identity of the respondent / patient, and the respondent / patient importance level questionnaire on the performance provided by the hospital.

B. Determining Sample Size

This stage was conducted to find out how many samples of the respondent population / patients undergoing treatment at Polyclinic. Sample size can be calculated using the Slovin formula.

C. Distribution of Questionnaires Pretest

Questionnaires Service quality questionnaires that have been prepared for patients are tried to be spread to find out whether the statements are easily understood by patients. If the statements in the questionnaire are difficult to understand and confuse, then it needs to be corrected again.

D. Test Validity and Reliability

Test is carried out to determine the extent to which a measuring device measures what you want to measure. Thus, the validity test can be defined as a measure of how strong or accurate a measuring device performs its measuring function. Then proceed with testing reliability carried out to determine the consistency or constancy of a measuring device in measuring the same symptoms.

E. Distribution of Actual Questionnaires

Distribution of questionnaires to respondents by giving directly to respondents, this dissemination was carried out to be right on target and get complete data. The actual collection of questionnaire data has been declared valid and reliable, besides that the amount of data collected has met the quantity. So that actual questionnaire data collection will be processed as input for data processing with method used.

F. Data Processing Using Methods

1) Importance Performance Analysis (IPA):
- Calculates performance / reality scores and expectations, where performance scores and interests are obtained through questionnaires.

- Calculate the average performance score and expectations, the value used to determine the average performance score and expectations for each statement attribute.

- Calculating the level of suitability, this is what will determine the order of priority for increasing the performance factors measured.

- Make a Cartesian diagram, where the horizontal axis (X) will be filled by the performance level score at CCLH, while the axis (Y) will be filled by the level of importance obtained from the patient's expectations and put the attributes into four quadrants.
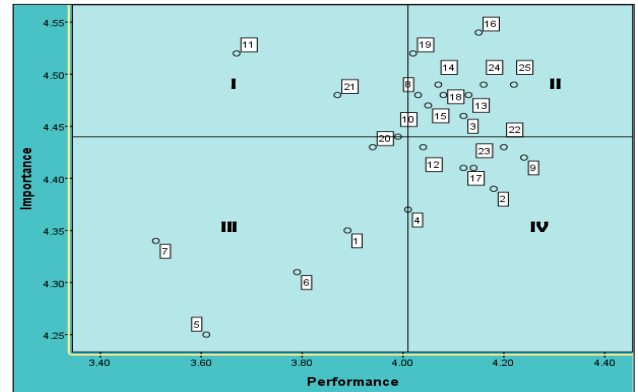
2) Potential Gain In Customer Values (PGCV):

- Performing calculations *Achieve Customer Value,* where this value is reached on the opinions of respondents.

- Performing calculations *Ultimately Desire Customer Value,* in which the final value is based on the level of interest selected by the respondents.

- Performing calculations index PGCV, conducted to complement the results of the analysis of *importance* and *performance.* So that it can be known what is desired by patients for the improvement of polyclinic.

G. Ordering Priority Improvement

Ordering is done by comparing importance and performance and the results of the PGCV calculation, so that it can find out which priorities should be improved first.

IV. RESULT AND DISCUSSIONS

The method Importance Performance Analysis (IPA) can analyze the level of importance of a variable where is the respondent (patient) with performance at polyclinic the center for lung health community in Bandung, so that precisely for the polyclinic can be better directed in service and carry out strategic business that is in accordance with the most dominant respondents. By calculating the total score of service performance and the interests (expectations) of respondents at the Center for Community Lung Health. The results of the elemental levels that affect customer satisfaction will be elaborated and divided into four quadrants in the Cartesian diagram. To be clearly it showed in Figure 2.

a. The results of the processing method IPA.

Fig. 2. Cartesian diagram.

Following the results of calculations of Analysis *Importance Performance* (IPA) can be seen in Table 1.

TABLE I. RESULTS OF CALCULATION IPA METHODS FOR EACH QUADRANT

Quadrant	Statement	Performance	Importance	Level of Suitability	Decision of H & A
I	P11	3.67	4.52	81.28%	A (*Action*)
	P21	3.87	4.48	86.21%	A (*Action*)
	P10	3.99	4.44	89.79%	A (*Action*)
II	P19	4.02	4.52	89.04%	A (*Action*)
	P8	4.03	4.48	89.89%	A (*Action*)
	P15	4.05	4.47	90.55%	H (*Hold*)
	P14	4.07	4.49	90.60%	H (*Hold*)
	P18	4.08	4.48	91.03%	H (*Hold*)
	P16	4.15	4.54	91.59%	H (*Hold*)
	P13	4.13	4.48	92.18%	H (*Hold*)
	P3	4.12	4.46	92.38 %	H (*Hold*)
	P24	4.16	4.49	92.66%	H (*Hold*)
	P25	4.22	4.49	93.81%	H (*Hold*)
III	P7	3.51	4.34	80.76%	A (*Action*)
	P5	3.61	4.25	84.95%	A (*Action*)
	P6	3.79	4.31	88.04%	A (*Action*)
	P20	3.94	4.43	88.84%	A (*Action*)
	P1	3.89	4.35	89.34%	A (*Action*)
IV	P12	4.04	4.43	91.16%	H (*Hold*)
	P4	4.01	4.37	91.75%	H (*Hold*)
	P17	4.12	4.41	93.46%	H (*Hold*)
	P23	4.14	4.41	93.93%	H (*Hold*)
	P22	4.2	4.43	94.65%	H (*Hold*)
	P2	4.18	4.39	95.07%	H (*Hold*)
	P9	4.24	4.42	95.80%	H (*Hold*)

The next is doing the calculation by using Potential Gain in Customer Value method which aims to determine the priority of service improvement in the study and make it easier to analyze the wishes of the respondent. So that the convenience provides a way for Importance Performance Analysis to be compared in a more detailed quantitative form. The results of the method PGCV with the concept of Cartesian diagram can be seen in Table 2:

TABLE II.   RESULTS OF CALCULATION USING PGCV METHOD

Quadrant	Attributes Questionnaire	PGCV	sequence of
I	Employees always do 3S (greetings, smiles, say hello)	6:01	P11
	Medical personnel is deft and respect patients	5:06	P21
	Employees provide services in accordance with the wishes and understand patient needs	4.48	P10
II	Medical personnel serve and receive well	4.43	P19
	Doctors provide adequate service time for patients	4.35	P8
	Medical workers and other workers help if there are patient problems	4.25	P15
	Medical personnel provide careful services	4.18	P14
	Medical personnel respond to patients	4.12	P18
	Complete examination tools and meet patient needs	3.92	P3
	Treatment rates in polyclinic are more economical and competitive	3.90	P13
	Medical personnel explain the actions to be taken to patients and family patients	3.86	P16
	Doctors serve in a convincing manner so that patients feel safe	3.77	P24
	Medical personnel have patient medical records	3.50	P25
III	There are free parking facilities for patients and families of patients who deliver	6.47	P7
	Toilet available and Mosque for visitors / patients	5.91	P5
	There are plenty of shady green trees for clean and fresh air for the patient	5.22	P6
	A neat and clean waiting room	4.83	P1
	Medical personnel have safe initiatives for patients	4.70	P20
IV	Providing ease of searching for information needed by patients related to treatment plans	4.33	P4
	Disciplined officers in providing services to patients	4.25	P12
	Medical personnel are willing to respond to patient complaints	3.88	P17
	Levels towards recovery / reduction of disease in patients treated in polyclinic	3.79	P23
	Medical personnel / employees look neat and clean	3.60	P2
	Availability of complete medical support services	3.54	P22
	Doctors listen to complaints and provide solutions / consultations	3.36	P9

Proposed improvements from the calculation using The Importance Performance Analysis and Potential Gain in Customer Value's rules in quadrant I are categorized as the top priority resulting in the 11th statement attribute, the Employees always do 3S (greetings, smiles, say hello) are:

- When the patient arrives give a smile to him, then say hello and a second said a word to greet him. In this way the patient feels appreciated and feels that he is being cared for.

- When employees / nurses are tired or there are disturbing thoughts, don't show them to the patient. Keep smiling even if you feel bad.

- The head of service must monitor and provide advice to employees / nurses for the sake of running 3S (greetings, smiles, say hello) effectively and efficiently.

V. CONCLUSION

Based on the calculation of the level conformity between the assessment of the performance of the hospital and the importance of patients, a special assessment is made that forms the basis decision to maintain achievements or make improvements. As for the decision limit of decision making is 90.35% which is the average value of the suitability level of all statement attributes. So that it can be known the attributes that cause patient dissatisfaction include the first attribute about employees always doing 3S (greetings, smiles, say hello) (P11), the second attribute about medical personnel is deft and respect patients (P21), and the last attribute about employees provide services in accordance with the wishes and understand the needs (P10). Thus, the attributes that have the highest priority order are expected to be more attention and immediate improvement so that patients who are undergoing treatment can be more satisfied with the services provided so that patients become loyal.

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