Analysis of Patient Satisfaction Levels on the Quality of Health Services in Medical Center ITS

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Abstract— **The number of health institutions causes them to improve the quality of services provided, so that, the satisfaction of the patient is high and the loyalty of the patient is increased. One of the health institutions in the campus is the Medical Center ITS. Medical Center ITS is a health institution intended for ITS students and can serve the general public. Although the service facilities at Medical Center ITS are quite complete, but the large number of health institutions which is available, make research is needed on the level of satisfaction of patients to the Medical Center ITS. The existence of community service-based research is expected to provide input for the Medical Center ITS how the level of satisfying patient with the quality of health services in the Medical Center ITS and what types of services need to be improved by the Medical Center ITS.**

Keywords— *Satisfaction of patient, quality of health services, Medical Center ITS*

I. INTRODUCTION

The second largest city in Indonesia is Surabaya. Not surprisingly, there are many centers of education and entertainment there. In addition, there are some of the best national campus in Surabaya. One of them is Institut Teknologi Sepuluh Nopember (ITS). Based on the rating QS World University Rangkings and Times Higher Education (THE) (2016), ITS occupy the top 10 best universities in Indonesia. There are several reasons that make the ITS to be one of the best universities in Indonesia, among others, which are many scientific publications in national and international level, graduates who excel, and complete services facilities. One of complete services facilities is the health care facilities which are provided by Medical Center ITS.

Medical Center ITS is a health service, which not only serve the ITS students, but also serve the general public. There are facilities such as general clinic, dental poly, poly of psychology, maternity, and others that can be accepted by the patients there. But over time, the number of health services available causes factors that influence the level of loyalty of a patient. Loyalty is a behavior that is intended by the use of

routine services [2] and recommend other people to use it [3]. According Musanto [4], the higher customer satisfaction can be beneficial because satisfied customers will continue to use the services of these agencies so that the customer satisfaction will increase customer loyalty. Theoretically, the concept of quality of service, satisfaction, and loyalty interconnected with one another, where the quality of service affects the loyalty either directly or indirectly [5]. According Wendha [6] optimal service quality can be used as one of the company's strategy to increase and retain customers who are expected to meet customer expectations that will create satisfaction and loyalty to the company because of loyal customers is a valuable asset to maintain continuity life company in a highly competitive market. Therefore, a smart company or institution will guarantee customer satisfaction in every stage of the purchase or service process [7]. Based on Parasuraman [8] there are five dimensions in measuring service quality among other physical evidence (tangible), reliability, responsiveness, assurance, and empathy.

As one of the health institutions in Surabaya, the Medical Center is expected to provide a good quality service so that customer satisfaction, in this case the patient, can be achieved to the maximum so as to increase patient loyalty to the Medical Center ITS. Additionally, ITS is also an engineering campus that does not have a department in the health sector, but it has health care facilities making Medical Center ITS becomes a quite unique clinic.

Based on this background, it is necessary to do an analysis of the level of patient satisfaction with the quality of health care at the Medical Center of ITS, as an evaluation of how the quality of health care at the Medical Center for ITS. This evaluation will focus on gap analysis between reality and expectation felt by the patient in the use of health care services at the Medical Center ITS. From this analysis, it can also be known what kind of services need to be improved so as to expected future health care at the Medical Center ITS can be better. Therefore community service activities based

on research are carried out at Medical Center ITS. Research-based community service activities will also provide an instrument that can be used by the Medical Center of ITS, to evaluate the quality of health care at the Medical Center ITS annually.

II. MATERIALS AND METHODS

Desired condition or desired future state. Many people call into the needs and gap analysis, needs assessment or needs analysis alone. Gap analysis can also be interpreted as a comparison of actual performance with potential performance or expected. This analysis also identifies what measures are needed to reduce the gap or achieve the expected performance in future periods [9].

Model quality services to determine the level of achievement of customer satisfaction developed by Parasuraman [8] in an effort to identify gaps (Gap), there are five kinds of gaps, namely: 1) Gap on knowing the expectations of consumers for services, 2) Gap on design and service standards right, 3) Gap on providing services based on standards, 4) The Gap of providing services in accordance with the promise, and 5) Gap neighbor differences of perception with consumer expectations of service delivery. Cartesian diagram is divided into four quadrants as follows [10].
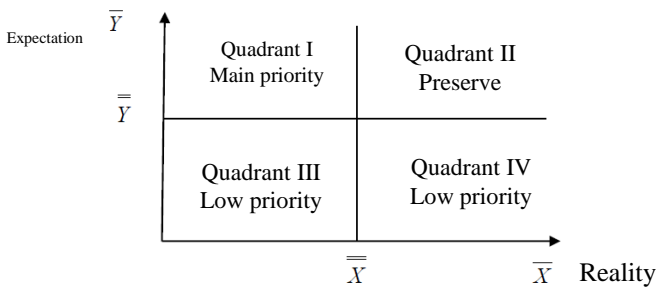
Fig. 1 Cartesian diagram Expectations and Reality

III. RESULTS AND DISCUSSION

The results of research obtained include instruments and questionnaires used to obtain primary data, then the characteristics of the respondent data or patient at the Medical Center of ITS at the time of the survey on the satisfaction of the patient at the Medical Center of ITS, then performed the analysis of validity and reliability test results of a satisfaction patients in health care at the Medical Center of ITS.

A. Validity and Reliability of Satisfaction Survey on Medical Center ITS

The validity of the test results on the satisfaction survey data at the Medical Center ITS August to September 2019 shows that the questions of customer satisfaction Medical Center ITS (fact and hope) can be said that the questions used in the survey of customer satisfaction in the Medical Center ITS has been valid. It can be indicated from all questions that have p-value less than 0.05. Having tested the validity then will do an analysis of the reliability test. The reliability test results on the survey results a reality and a survey of the expectations at the Medical Center of ITS, based on the value of Alpha Cronbach's is 0.752 for the indicator fact and 0,753

for indicators of expectations, the values are greater than 0.6, it can be said that reliable statement with very high criteria in order to take a decision that the statements were appropriate to be used for this research.

### B. Characteristics of Patient Satisfaction Survey on Medical Center ITS

In a satisfaction survey at the Medical Center of ITS, population demographics in which more than half of the sample survey conducted at the Medical Center ITS are female. Meanwhile, based on education levels, it is known that 152 high school students make the most visits at the Medical Center ITS and students S1 / DIII had the highest rate second only to high school students. Furthermore the proportion of respondents who most visits at the Medical Center of ITS is having an expenditure per month of ≥ 1 million - 2 million. The characteristic can be explain by Fig. 2.
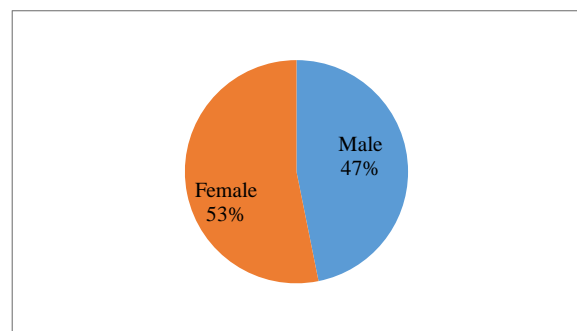
a.) Characteristic by Gender
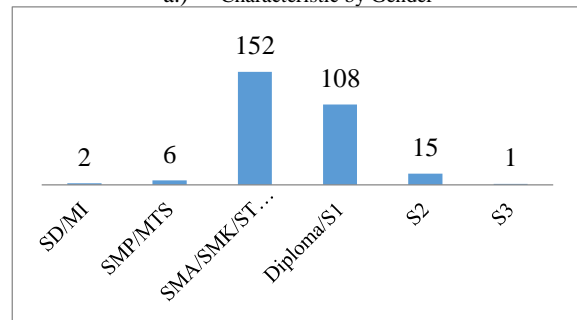
b.) Characteristic by Education
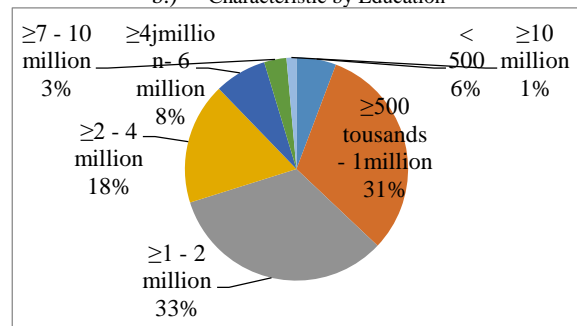
c.) Characteristic by Income
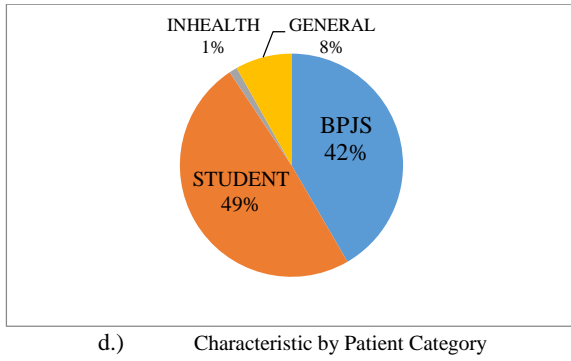
d.)   Characteristic by Patient Category

Fig. 2 Costumer's Characteristics

Type of patients category at the Medical Center ITS can be divided into 4 types: BPJS, Inhealth, Students, and General. Based on the results of a survey of 284 respondents, it is known that the highest percentage is students and the second highest is BPJS patient. Therefore it can be said that the magnitude of the type of patients who obtain services at the Medical Center ITS almost entirely is the patient who uses a type of insurance that is free of charge in treatment.

C. GAP Analysis on Satisfaction Survey Results at Medical Center ITS

In this study, the GAP analysis is intended for all of the dimensions that affect customer satisfaction levels in the Medical Center ITS. In addition to the entire dimension, GAP analysis was also performed on the indicators contained in each dimension.
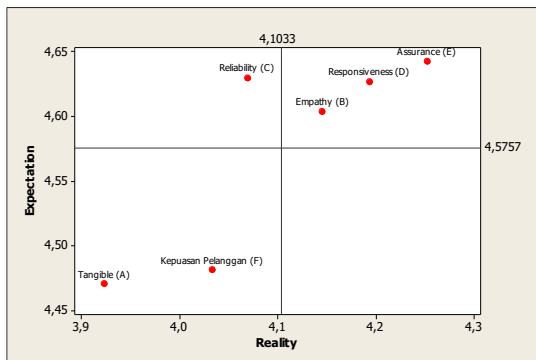

Fig. 3 GAP Analysis in All Dimensions

Based on Fig. 3 note that the dimension Empathy, Responsiveness, and Assurance have high reality and expectations value. Therefore these dimensions must be maintained to meet customer satisfaction. Furthermore, the dimensions of Reliability has the high customer expectations, but the fact is low. It describes that necessary for the reliability improvement in services officer and a doctor at the Medical Center of ITS. Another Gap analysis can be explained in every dimention. Gap analysis on each dimension can be explained by Fig. 4 until Fig. 9.

The indicator which consists of satisfaction with the various types of facilities in the Medical Center ITS park, infirmary, toilets and so on is Tangible dimension. Gap analysis explained that the indicators which has a reality and

a high expectation located in seven indicators, which are satisfaction regarding the building Medical Center neat, clean, and comfortable, the environment around the Medical Center ITS clean and beautiful, waiting rooms were clean, comfortable, and safe, the number of waiting room chairs were adequate, the toilets are clean and comfortable, the treatment room physicians were comfortable and clean, and a lounge area pharmacies were comfortable. It can be said that the Medical Center of ITS is able to provide comfort and cleanliness of the environment, the waiting room and a place of care for patients. However there is an indicator that should be the focus of the Medical Center ITS to be improved, which is the level of satisfaction with the clear signs and the number of doctors are adequately deal with patients because customers have high expectations but in fact low.
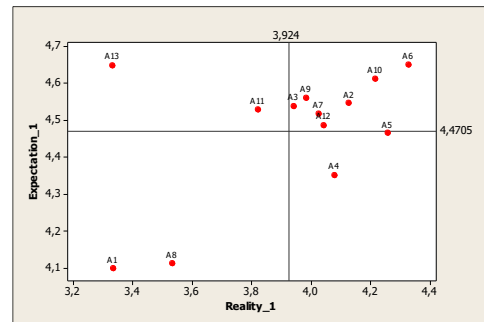

Fig. 4 GAP analysis in Tangible Dimension

Gap Analysis of Empathy dimention shows that there is an indicator which have the high expectations but the reality is low. It is indicator of the staff serving in a friendly and polite manner. Therefore, this indicator should be the focus of the Medical Center ITS to be improved. Furthermore, the indicators that have high expectations and high reality are doctor do not discriminate against patients, doctors pay attention to the patient's condition and complaints, doctors make adequate communication / consultation with patients, doctors conduct adequate checks with patients, and doctors make good communication friendly and polite. This shows that patients have high expectations of the way doctors know patients, as well as being supported by high reality so it is said that good ethics from doctors at Medical Center ITS in recognizing patients is an indicator that needs to be maintained because it has fulfilled the satisfaction of Medical Center patients.
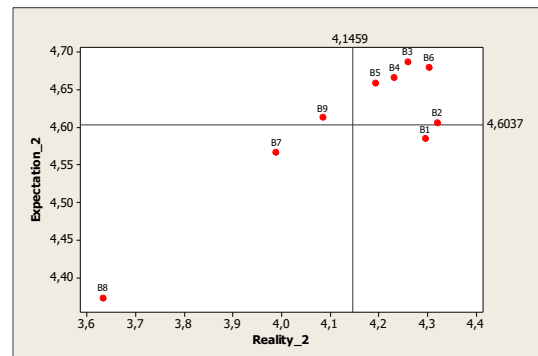

Fig. 5 GAP Analysis in Empathy Dimension

Reliability is the dimension which measures reliability doctors and officials Medical Center ITS. Gap analysis result shows that there are no indicators in the first quadrant so that there are no indicators which must be the main focus to be addressed. This is also shown an indicator with high expectations and high reality, which are the doctor is careful in examining, the doctor gives the right diagnosis, the patient believes in the doctor's ability to serve the patient, and the doctor is responsible for the treatment suffered by the patient. Therefore it can be interpreted that the Medical Center ITS has been able to provide a good level of doctor professionalism to patients so that the four indicators are said to meet patient satisfaction and must be maintained.
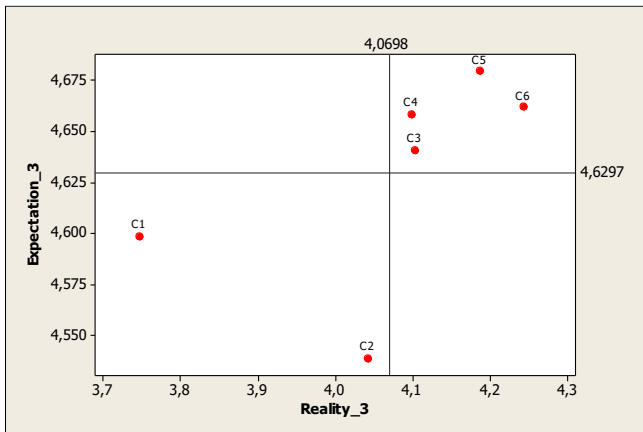

Fig. 6 GAP Analysis in Reliability Dimension

The fourth dimension is used to measure the level of customer satisfaction in the Medical Center ITS is Responsiveness. This dimension is composed indicators that include measuring the alertness of officers in serving patients, the interaction of doctors in asking complaints, providing opportunities to ask questions, as well as providing actions quickly and precisely in accordance with applicable procedures. Based on the analysis of GAP on the dimensions of known Responsiveness patient expectations were quite high in the indicator physicians able to serve patients quickly and accurately, but the fact that low. So that these indicators need to be the main focus Medical Center ITS to further improved, so that the patient's expectations regarding the accuracy of physicians in performing service to patients can be met. On the other hand, high patient expectations on indicators of patient registration services are fast and straightforward, doctors always ask patient complaints, doctors provide the opportunity to ask patients, doctors provide an explanation of the patient's disease, and doctors provide actions in accordance with applicable procedures supported by high reality so that it shows the Medical Center ITS is able to provide procedures for registration services and professionalism of good doctors to patients.
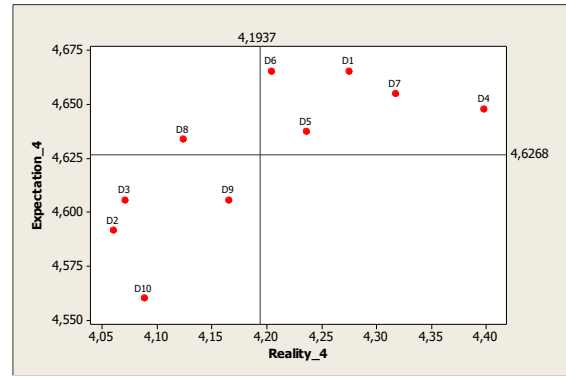

Fig. 7 GAP Analysis in Responesiveness Dimension

On the Assurance dimension in Medical Center ITS measure about security parking space, comfort and safety for patients to services of physicians, patient satisfaction with doctors / officers maintaining the confidentiality and ability of doctors to respond and give a good description of the disease patient. GAP analysis of the Assurance dimension can be explained that indicators that need to be the focus of the Medical Center to be repaired is an indicator of a secure parking lot, the comfort of the patient during a consultation with a physician, ability of doctors to give a good description of the patient's disease, and ability of doctors to answer questions and provide an explanation to the patient. This is shown through the patient's expectations are high on these four indicators but in fact obtained from the Medical Center ITS low. Meanwhile the indicators that have been able to meet customer satisfaction are doctors maintain the confidentiality of patient data, officials maintain the confidentiality of patients, the knowledge and skills of doctors regarding patient complaints, and the doctors was able to explain the usefulness of way use of drugs on patients. It is shown through the high expectations of the skills of doctors and officials at the Medical Center ITS, and is supported by the fact that high. So the level of patient satisfaction with these four indicators have been met and need to be maintained by the Medical Center ITS.
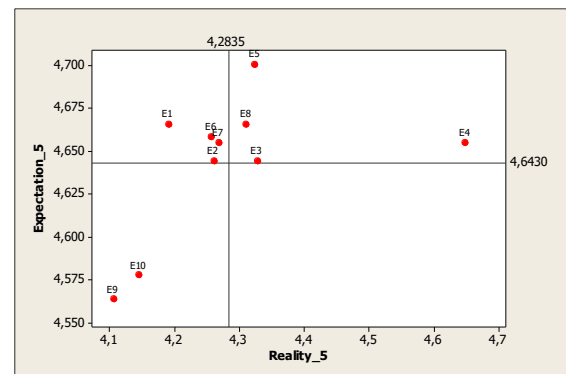

Fig. 8 GAP Analysis in Assurance Dimension

The results of the analysis of GAP on indicators of patient satisfaction which in the first quadrant of patients had high expectations in the form of the Medical Center ITS appropriate patient expectations, patient satisfaction with services rendered, patients never felt disappointed on the service provided, the high willingness of medical officers in

serving patients, handling complaints quickly from the Medical Center ITS, Medical Center ITS better than other health institutions, medical Center ITS has a poly sufficient and complete, Reputation Medical Center ITS good enough in the eyes of society. However the low reality was obtained by patients from Medical Center ITS. Therefore these indicators need to be the main focus for Medical Center ITS, so that patient satisfaction can be met.
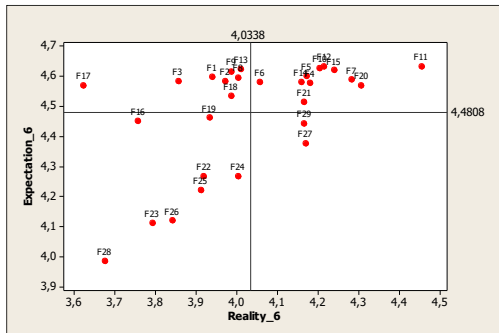

Fig. 9. Patient Satisfaction Indicator

IV. CONCLUSION

From the results of this study concluded that the validity test showed that all the variables have valid data for fact and expectations. To test reliability, it can be concluded that the statement is reliable with very high criteria in order to take a decision that the statements were appropriate and could be used for research.

GAP analysis on patient satisfaction data at Medical Center ITS shows that the instruments that must be maintained are Empathy, Responsiveness, and Assurance dimensions. Meanwhile the dimension that needs improvement is Reliability. On the Tangible dimension, indicators that must be improved are satisfaction with the sign posts, and the adequacy of the number of doctors. In the Empathy dimension, indicators that need improvement are the staff's hospitality instruments in serving patients. Meanwhile in the Reliability dimension there are no instruments that need to be improved. Furthermore the Responsiveness dimension that needs to be improved is the instrument of the speed and accuracy of doctors in handling patients, and the indicators in the Assurance dimension that need to be improved are parking facilities and the ability of doctors.

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