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Factors Analysis of Service Quality at Clinic Telkom University

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***Abstract*—A large number of tertiary institutions in Indonesia has made the conditions of competition tight for universities, especially private universities. The improvement of facilities and the quality of services provided are parameters in seeing the performance of an organization. This study aims to describe and look at the dominant factors in shaping the quality of health services provided by Telkom university to students through the variables tangible, empathy, responsiveness, and assurance. This type of research is a quantitative description. The analysis technique used in describing the quality of clinical services is by descriptive analysis that is described through the continuum line, while to see the factors of the most dominant quality of service is to use confirmatory factor analysis. The number of respondents taken in this study were 110 respondents and were students at Telkom University. The results of this study indicate that the quality of clinical services is 67%, meaning that the quality of clinical services based on student perceptions is still considered good. For the strongest variable indicators to form latent variables, service quality is reliability, this is because the elements of reliability are in direct contact with the respondent and this is very easy to assess, the assessment of medical personnel skills.**

Keywords—service quality; Telkom University; analysis factors

I. INTRODUCTION

The current global era, the world of education has experienced a very rapid growth, the quality disparity of higher education can be seen from the results of tertiary education accreditation and study programs, from 4,472 universities in Indonesia currently only 50 universities that have A accreditation and A accredited study programs as many as 2,512 (12% of the total number of 20,254 accredited study programs), currently there are 124 State Universities, 3,127 Private Universities, 175 PT Ministries / Institutions, 968 PTAS, and 78 PTAN (PDDikti Data, March 11, 2017). Of these, BAN-PT data shows that only 1,131 are accredited with details of 50 PTs having A accreditation (4%), 345 PT accredited B (31%), and 736 PT accredited C (65%), and the remaining 3,340 have not been accredited. There are 26,672 study programs with a total of 20,254 accredited study programs with details of the number of study programs with A accreditation of 2,512 (12%), accreditation B of 9,922 (49%), and accreditation of C as much as 7,820 (39%), there are even 5,000 study programs that are not accredited, (BAN-PT, May 3, 2017 [1].

Mr. Nasir as the Minister of Research and Technology explained that competition is now increasingly tight, including in the world of education with the entry of foreign universities into Indonesia so that universities in Indonesia must be prepared and must continue to be able to innovate [2], and must continue to improve their services to students especially for private universities the majority of funding comes from students. Just imagine, for fellow private universities that have to compete for as many as 3,127 colleges, a very large number. Therefore, every private university must be able to innovate and improve the quality of its services to students.

Many measures or parameters used by the government in assessing the good and healthy of a university and one of the private universities that fall into either category or the value of the institution's accreditation A is Telkom University. The acquisition of the assessment is not just obtained, but Telkom University continues to improve itself, increasing student satisfaction because satisfaction can improve purchasing decisions [3], which means if students feel satisfied with the quality of services provided by Telkom University, then the student is not only loyal [4], will also provide recommendations to others [5]. Basically quality is a key parameter in evaluating an organization's performance [6]

One of the telecom university facilities provided to students is health services, in the form of services provided through clinics. For 24 hours. Based on the results of a survey of 35 student users it can be concluded that the low quality of health services provided by Telkom Medika causes students who have ever treated Telkom Medika clinics to always complain and be disappointed with the services provided by Telkomedika's clinics with several reasons stated by students ranging from: the doctor misdiagnosed, gave the wrong medication, did not recover or the pain worsened, the employee was not friendly, the availability of medicine was limited, the medicine was cheap, equipment was incomplete, the service was less responsive and others. The low quality of service perceived by consumers will lead to student dissatisfaction [7] and will lead to consumer disloyalty to clinical services [4]. Dissatisfaction can also basically affect the purchase decision [3], although students cannot choose or reject the services set by the campus, at least satisfaction here will have an impact on brand reference [4] Telkom University as a world-class university.

In addition, if consumers who are disappointed at the service of the company are happy to submit complaints,

meaning that if the patient complains the complaint does not mean automatically considered satisfied with the clinic attendant. Whereas 96% of dissatisfied consumers will quietly switch competitor service [4].

And usually, the efforts made in improving the quality of health services include the quality of health service organizations and professional personnel [8]. There are several things that are usually used in measuring service quality, including tangible, empathy, responsiveness, reliability and assurance [5]. For this reason, the writer wants to examine what factors most shape the quality of service, or in other words, what are the most dominant factors in the formation of perceptions of the quality of telecommunication services at Telkom University. And in this study what will be seen is the quality of the service, not the satisfaction. Therefore the title in this study is: Analysis of Service Quality Factors at Telkom University Clinic.

II. LITERATURE REVIEW

A. *Service Quality*

Services basically can be defined as the activities of a person, group or organization both directly and indirectly to meet the needs [7]. Good service means an ability of a person in providing services that can provide satisfaction to customers with the specified standards [9,8]

Elements of Quality include: (1) compliance with requirements/demands; (2) suitability of usage; (3) continuous improvement or improvement; (4) free from damage; (5) fulfillment of customer needs since the beginning and at any time; (6) doing things right from the start and (7) something that can make customers happy [10] and Quality is a dynamic condition which relates to products, manpower/labor, processes and tasks, and the environment that meets or exceeds the expectations of customers or consumers [10].

B. *Dimension of Service Quality*

Knowing the quality of services provided by an organization is important because it can provide benefits to the organization concerned. If this is done at least the organization or agency in question already has "Concern" to the customer. In the end, it can be a maximum effort to meet the needs of customers served.

According to Zeithhaml, to find out the quality of service that is perceived significantly by consumers, there is a measure of consumer satisfaction that lies in the five dimensions of service quality according to what consumers say. The five servqual dimensions are [11]:

1) Tangibles: service quality in the form of office physical facilities, computerized administration, waiting rooms, information places.

2) Reliability: ability and reliability to provide trusted services.

3) Responsiveness: the ability to assist and provide services quickly and accurately, and responsive to consumer desires.

4) Assurance: the ability and friendliness and courtesy of employees in ensuring consumer confidence.

5) Empathy: firm but attentive attitude from employees to consumers.

In addition, different dimensions of service quality (assurance, empathy, reliability, and responsiveness) positively predict intentions to continue using services [12]. This is in line with research on reliability and responsiveness (not empathy, tangibility, and assurance) that have an impact on patient satisfaction. Patient satisfaction is directly related to patient loyalty to hospital [13].

C. *Framework*

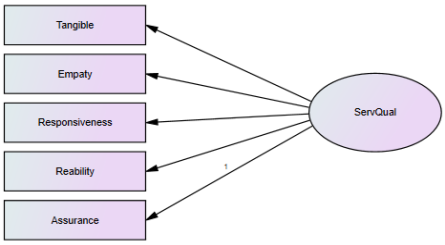

Fig. 1. Framework.

As for the framework of this research as seen in figure 1 where service quality consists of five dimensions of service. The five service dimensions are tangible, reliability, responsiveness, assurance and empathy dimensions.

III. METHODOLOGY

This research approach uses a quantitative approach because it uses numbers, ranging from data collection, interpretation of the data, as well as the appearance of the results and described by deduction that departs from general theories, then with observations to test the validity of the validity of the theory conclusions are drawn. Then described descriptively, because the results will be directed to describe the data obtained and to answer the formula [14]. According to Sugiyono Descriptive research is research that describes or analyzes a research result but is not used to make broader conclusions. Quantitative is a research method based on the philosophy of positivism, used to examine certain populations or samples, the sampling technique is generally done randomly, data collection uses research instruments, data analysis is quantitative or statistical with the aim to test the hypothesis that has been set [15].

To see an overview of how the quality of services in Telkomedika, the authors use descriptive analysis (continuum line), while to see which factors most shape the quality of clinical services, the authors use structure equation model with the operation of data using Amos software.

TABLE I. DESAIN SKALA LIKER

Scala	Answer
Verry Agree	4
Agree	3
Not Agree	2
Verry Not agree	1

The population is an area of generalization of objects/subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions [15]. The population in this study were active Telkom university students. Data collection in this study is using surveys or questionnaires. And the measurement scale used is the Likert Scale table 1.

TABLE II. INTERPRETATION CATEGORY

Prosentase	Categori
25% - 43.75%	Verry Bad
43.76% - 62.5%	Bad
62.6% - 81.25%	Good
81.26% - 100%	Verry God

[a] *Source:* [15]

In this study, all data obtained will be tested for classical assumptions that have fulfilled the requirements, such as checking the validity, reliability, and normality and from each statement accompanied by four possible answers that can be selected, from the answers can be compiled assessment criteria for each statement item based on percentage with the following table 2.

IV. DISCUSSION

Respondents in this study were dominated by women of the youngest age between 17 years to 20 years.

TABLE III. CORRELATION

		TANGIBLE	EMPHATY	RESPONSIVENESS	REABILITY	ASSURANCE
TANGIBLE	Pearson Correlation	1	,551**	551**	,627**	,500**
	Sig. (2-tailed)		,000	,000	,000	,000
	N	102	102	102	102	102
EMPHATY	Pearson Correlation	,551**	1	,541**	,526**	,698**
	Sig. (2-tailed)	,000		,000	,000	,000
	N	102	102	102	102	102
RENSPONSIVENESS	Pearson Correlation	,575**	,541**	1	,639**	,582**
	Sig. (2-tailed)	,000	,000		,000	,000
	N	102	102	102	102	102
REABILITY	Pearson Correlation	,697**	,526**	,639**	1	,677**
	Sig. (2-tailed)	,000	,000	,000		,000
	N	102	102	102	102	102
ASSURANCE	Pearson Correlation	,500**	,698**	,582**	,677**	1
	Sig. (2-tailed)	,000	,000	,000	,000	
	N	102	102	102	102	102

**. Correlation is significant at the 0,01 level (2-tailed)

Judging from table 3 the results of the data validity test obtained all indicators of service quality are declared valid because it exceeds 0.361 and that means the instrument / indicator used is correct.

TABLE IV. REABILITAS TEST

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Item	N of Items
,620	,879	5

From table 4 it can be said that the data that the author gets is reliable data because the Cronbach alpha value alpha 0.6 and that means the parameters used are reliable.

A. *Descriptive Analysis*

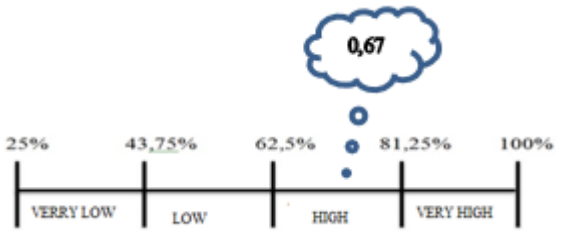

Fig. 2. Continum line service quality.

From the results of the descriptive analysis (figure 2) the quality of service delivery in its implementation is only in the range of 67%, although it is still in the high category the number still needs to be watched out and kept under control as well as improvements to the quality of its services.

To see what factors are most dominant in shaping the quality of clinical services in the telkomedika, the authors use the confirmatory factor analysis test. And some requirements required before using the following criteria:

TABLE V. MODEL FEASIBILITY TEST

Feasibility Size	The expected value to be feasible	Actual Value
Chi Square (x^2)	More less, more significant	3,275
RMSEA	≤0,08	0,000
GFI	≥0,80	0,988
AGFI	≥0,80	0,938
RMR	≤0,05	0,28

Based on the results of the RMSEA, GFI, AGFI, RMR feasibility test (table 5) the model has been able to meet the requirements of the fund can be said to be feasible, while the chi-square value can be reduced by adding the number of samples or respondents.

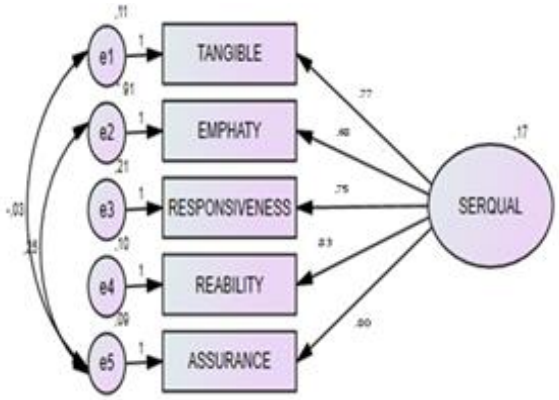

Fig. 3. Service quality model at telkomedika.

Figure 3 shows the standardized loading factor coefficient and the Square Multiple Correlation (R2) value. The value of the loading factor of the indicator variable Tangible, Empathy, Responsiveness, Reliability and assurance (TERRA) of service quality (SerQual) is 0.77; 0.68; 0.75; 0.83; 0.80, This means that service quality explains the highest variant of 77%; 68%; 75%; 83%; 80%. While the value of Squared Multiple Correlation (R2) describes the number of variants of the variable organizational commitment to the Terra indicator variable respectively 0.11; 0.91; 0.21; 0.10; 0.09. Reability is the strongest indicator in explaining service quality with factor loading (the standardized regression weight) of 0.83 and R2 of 0.10. While Emphaty is the weakest variable in forming latency variable service quality with factor loading of 0.58 and R2 of 0.91..

B. Interpretation Data

All indicator variables both tangible, empathy, responsiveness, reliability and assurance significantly from the latent variable of service quality. If we see which one of the most potent forms of potential service quality is reliability, this is because the elements of reliability come into direct contact with the respondent and this is very easy to assess, such as the assessment of the skills / skills of medical personnel, the speed of pharmacists providing drugs, diagnosis and explanation of doctors about the respondent's illness and handling of medical staff in accordance with the complaints of these patients makes it easy for respondents to assess the reliability variable by comparing it with other types of clinical services out there.

While the reason for the weakest empathy in explaining the quality of telkomedika clinic services is because the instrument or measuring instrument through the statement made, it is difficult to judge by the respondent such as the friendliness and smile of medical personnel, not discriminating patients, medical staff to be good listeners and concern for respondents especially - more telkomedika clinics in Telkom university there is only one, which must serve approximately 30 thousand active students.

TABLE VI. REGRESSION WEIGHTS: (GROUP NUMBER 1 - DEFAULT MODEL)

		Estimate	S.E.	C.R.	P	Label
ASSURANCE	← SERQUAL	1,000				
REABILITY	← SERQUAL	1,160	,142	8,184	***	
RENSPONSIVENESS	← SERQUAL	1,274	,171	7,459	***	
EMPHATY	← SERQUAL	5,026	,592	8,484	***	
TANGIBLE	← SERQUAL	,978	,141	6,910	***	

The regression weight table (table 6) provides information about standard error critical ratio (CR), that is, the estimated value is divided by the standard error and p-value. But here there is no p-value for assurance variables because variable assurance is limited to 1. This number is the default of Amos where the latent variable scale (Latent scale variable) is limited so the factor loading is one. A 3-star sign is a p-value of less than 0.001. All tangible up to assurance variables are significant with a significance level of α = 5%, even significance at α = 1%. Similarly, when we use the value of the distribution statistics with α = 5% where the critical value is ± 1.96, all value's of C.R. greater than ± 1.96.

TABLE VII. STANDARDIZED REGRESSION WEIGHTS: (GROUP NUMBER 1 - DEFAULT MODEL)

			Estimate
ASSURANCE	<---	**SERQUAL**	,799
REABILITY	<---	**SERQUAL**	,834
RESPONSIVENESS	<---	**SERQUAL**	,748
EMPHATY	<---	**SERQUAL**	,679
TANGIBLE	<---	**SERQUAL**	,768

TABLE VIII. VARIANCES: (GROUP NUMBER 1 - DEFAULT MODEL)

	Estimate	S.E.	C.R.	P	Label
SERQUAL	,166	,038	4,425	***	
e5	,094	,021	4,510	***	
e4	,098	,021	4,689	***	
e3	,212	,036	5,900	***	
e2	4,914	,815	6,030	***	
e1	,110	,021	5,239	***	

In table 8 the standardized regression weight shows the value of loading factor for each indicator variable. The amount of loading factor is the same as in figure 4.1. Variance table 4.6 shows variants of the existing service quality and residual latent variables. Squared Multiple Correlation tables show the value of Squared Multiple Correlation (R2).

V. CONCLUSION

From the results of the above research, it can be concluded, the value of telecom university clinical service quality is based on a perception of 67% or still felt high or good. The strongest variable indicators form the latent variable of service quality is the reliability. This is because the elements of reliability come into direct contact with the respondents and this is very easy to assess, such as the assessment of the skills/skills of medical personnel, the speed of pharmacists providing drugs, diagnosis, and explanation of doctors about respondent's disease and handling from medical personnel in accordance with patient complaints. While the weakest empathy indicator variable in explaining the quality of telkomedika clinic services is because the instrument or measuring instrument through the statements made, it is difficult to judge by the respondent such as the friendliness and smile of medical personnel, not discriminating patients, medical personnel to be good listeners and concern for respondents especially - more telkomedika clinics in Telkom university there is only one, which must serve approximately 30 thousand active students.

RECOMMENDATION

There must be an increase in performance derived from Empathy's point, namely by asking the telkomedika to do customer excellence training on how to be friendly, smiling, not discriminating, being good listeners and caring for all customers and for the next research we want to measure deeper about emphaty variabel with many sub variabel into and how about the correlation with purchasing decision, especially recomendation for they relatives (student).

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