

LIBRARY USERS SATISFACTION ANALYSIS USING SERVQUAL AND ANALYTIC NETWORK PROCESS

Afif Hakim¹, Annisa Indah Pratiwi², Sri Lestari³

Abstract---This research was conducted at Library of University of Buana Perjuangan Karawang. The purpose of this study is to measure and analyze the level of satisfaction of library users with Servqual approach and prioritize the improvements that can be done by weighting of the criteria with ANP method. The method used is the five-dimensional approach Servqual and weighting criteria with ANP. The conclusion shows that the average score for the criteria of reality is quite good (fairly satisfied) with the existing services at the Library of UBP Karawang, with an average score above 3, except for the criterion R4 (speed of turnitin service) average scores below 3 is 2.97, but because of the average expectation as well is not very high at 3.41 so that its gap is smaller than the gap between the expectations with the reality on the criteria E1 (the friendliness of the staff of the library) and E2 (the library staff willing to respond to complaints that exists). Except that, it was found that the three criteria of ranking the priority that should be the corrective action is E1 (the friendliness of the staff of the library), E2 (the library staff is willing to respond to complaints that exists), and T7 (a clear order information) with each of the priority value of 0.31; 0.31; and 0.27.

Keywords---Libraries, Servqual, Analytic Network Proses, user satisfaction

I. Preliminary

The demands on the quality making the company or institution to keep the improvement for their business processes. Major improvements in the business system is absolutely necessary, one of them is the quality of service, moreover, in a service industry. In the service industry, service into the leading gateway for dealing directly with customers either physically or not. Quality of service can determine which customers to re-use the services offered, or switch to a competitor. If you look at some of the phenomena that occur, in some cases the quality of service more important than the quality of the product itself. For example, sometimes people would prefer to buy goods in the shop/stall/booth friendly services from other stores although it may be slightly more expensive price.

Services defined as an activity undertaken by a person or group of people with a grounding factor of the material through the system, procedures and specific methods in order to attempt to meet the interests of others in his own right (Moenir, 2010). From the above definition can be concluded several issues related to the services, the first is that this service is an activity or process that is done not for ourselves but for others, the second that there are two main variables in service are variable interest (either need or desire) and variable fulfillment of these interests. If the result of the process of

¹University of Buana Perjuangan Karawang
Widyatama University
E-mail: afif.hakim@ubpkarawang.ac.id,
annisa.indah@ubpkarawang.ac.id

fulfilling this purpose in accordance with the expected interest, then it is said that service is a quality service, and vice versa.

Quality of service is determined by how much the fulfillment of performance of a service provider to the desires and expectations of users of the service. Very diverse forms of service depends on the business processes that are run by a company or institution. Some form of service require direct contact between the provider of the service users, those that do not, there is only one time there were regular, and others. Various forms of the service causing the desire nor the expectations of service users would be different and diverse. Hence, comes the concept called ServQual (Service Quality), which formulates the general about the dimensions of service quality.

Servqual concept first raised by Zeithaml, Parasuraman, and Berry in the 1980s. According to this concept, there are five dimensions of service quality that is Tangibles, Reliability, Responsiveness, Assurance and Empathy. Each of these dimensions can be tailored to the business processes that run. Although at first this concept emerged from the problems of the business world to measure customer satisfaction, but in the concept can be applied to all areas of service, including the library services.

The measurement method used is to approach the variables of quality dimensions contained in Servqual concept combined with Analytic Network Process (ANP) methods as weighting the importance of each of these variables. Assumptions built is the relationship between the variables in the dimensions Servqual that ANP is used to see the extent of the relationship between these variables and used also to determine the weighting variables based on the level of interest.

II. Literature review

Quality of service is an important part in an operation management, especially in the services sector. Therefore, the quality of service should not be underestimated only. Quality of service becomes a necessity because it is a crucial factor in whether customers are interested in re-use of services supplied or switch to another provider. The quality itself of some inferred resources is conformity between the hopes or expectations with reality or reality perceived by a user. The difference between the expectation with the reality expressed as a gap or discrepancy quality. Quality of service is a special part of the discussion of quality in general.

According Tjiptono (2011), Quality of service is the expected level of excellence and control over the level of excellence to meet customer desires. According to Kotler (2003) satisfaction is feeling happy or disappointed someone who comes from a comparison between the impression of the performance (or result) of a product and expectations. From that sense, it can be concluded that the quality of service is a comparison between the expectations of users will be services provided by the reality of the performance of services received and perceived user.

Expectations and the reality of the subjective nature of the service depends on the satisfaction of each individual user. Therefore, in order to measurable service quality expectations and reality can be quantified by giving scores on a questionnaire to each of the criteria for quality of service. One of the criteria is the criteria on service quality approach proposed by Zeithaml, Parasuraman, and Berry in the 1980s. According Servqual approach (Zeithaml, et al 1988) there are 10 dimensions of quality are then summarized into five dimensions of quality, namely:

- a. Tangibles (direct evidence)
Describing the physical appearance, it looks good from the facility or personnel who serve
- b. Reliability
The ability to provide the promised service accurately and reliable
- c. Responsiveness
Readiness to help users and give proper attention

d. Assurance(Guarantee)

Providing courteous service and gives a strong sense of confidence to users

e. Empathy

Describing caring and individual attention to users

Of the five dimensions above may be expanded to special criteria depend on existing business processes. Special criteria will be distributed to the respondents to assess the expectations and the reality of the perceived performance which in turn will appear gap between expectations and the reality.

Analytic Network Process is a method of solving a problem that is not structured and their dependency relationships between elements (Dewayana and Budi, 2009). ANP is widely used in the manufacturing area, for example in the supplier selection, evaluation SC, site selection, system evaluation and selection, and evaluation of strategies in most case studies in the area of manufacturing (Sipahi and Timor, 2010).

Weighting by ANP need a model that represents the interdependence of its criteria and sub-criteria. There are two controls that need to be considered in the model the system to be addressed weight. The first control is the control hierarchy that shows the relationship criteria and sub criteria. In this control does not require a hierarchy structure as in AHP. The other control is the control linkage indicating interdependence criteria or cluster.

The influence of a set of elements in a cluster on the other elements in a system can be represented by the ratio of the scale of priorities drawn from pairwise comparison (Saaty, 1999). Networking in this method has a high complexity compared to other types, because of the phenomenon of feedback from one cluster to another cluster, even with their own clusters. To build a network at the ANP, it must be determined beforehand dependency relationship between both criteria in a single cluster or with other clusters (Kasirian & Yusuff, 2009).

ANP stages according to Tan et al (2007) are as follows:

a. Structuring the problem and create a model

In the first stage, the problem should be obvious. The purpose, criteria and sub-criteria related to the problem are selected based on brainstorming or other methods. Then create a model that will be evaluated and define a complete set of network groups and elements that are relevant to each criterion. All the elements in each group are connected in accordance with the influence of dependence on outside and from within the group.

b. Creating a pairwise comparison matrix

The second phase of selecting groups and elements that will be compared according to the criteria. The scale used in pairwise comparisons comparative scale can be seen in the following tables.

Table 1. Saaty's Scale

Importance	Definition	Information
1	equally important	Both elements have the same effect
3	A little more urgent	Experience and judgment slightly favoring one element compared to her partner
5	more important	Experience and judgment strongly favoring one element compared to her partner
7	very important	One element is preferred and practically dominance

		seen
9	absolute highly urgent	One element preferably absolute proven compared with her partner
2,4,6,8	Middle value	When required a compromise

Source: Saaty (1980) in Lee (2010)

c. Building supermatriks

Supermatriks made are unweighted supermatrix, weighted supermatrix, and limiting supermatrix.

III. Research methods

The data used in this study are primary data collected directly from the source. Sources of data in this study is the Librarian (expert) as respondents to the questionnaire ANP and service users as respondents to the questionnaire service satisfaction, The number of respondents librarians as experts in the field of library is three persons. In the method of ANP, ANP number of respondents are not used to benchmark validity. Terms of respondents are valid in the ANP is that they are those skilled in the art (Endri, 2009). Determination of the number of respondents to the questionnaire of service is based on Slovin formula (Sugiyono, 2017), as follows:

$$n = \frac{Z^2 \cdot p \cdot q}{d^2} = \frac{Z^2 \cdot p \cdot (1-p)}{d^2}$$

By taking 95% of confidence level, then its alpha or error is 5%, so that the value of $Z = 1.962$. p is the proportion of students who visit the library as many as 554 students in 2018 of the total members of the Library of UBP Karawang were recorded for 6801, can be calculated as follows:

$$p = 554 / 6,801 = 0.081459$$

so that a representative number of samples according to the formula is:

$$n = (1.962)^2 \times 0.081459 \times (1-0,081459) / (0.05)^2$$

$$= 114.97 \text{ is rounded to } 115 \text{ people.}$$

From these results, the sample of at least as many as 115 people. Questionnaire distributed at the beginning were as many as 150 questionnaires to 150 respondents. But, the number of questionnaires returned as many as 126 questionnaires were to be continued to be processed at a later stage because it exceeded the minimum sample size.

The data collection technique is by using a questionnaire. There are three stages of the questionnaire in this study which will be conducted as follows:

1. Servqual Questionnaire (Questionnaire 1)

This questionnaire is a questionnaire to measure the level of users satisfaction. Consists of two questions that hope/desire of the Library service and service performance felt today.

2. Questionnaire of dependent relationship between clusters and criteria (Questionnaire 2)

This questionnaire is a preliminary questionnaire that is useful to see there or absence of a relationship between the cluster and the relationship between both criteria inner dependency or outer dependency. The questionnaire was given to librarians as expert respondents.

3. Paired comparisons questionnaire (Questionnaire 3)

This questionnaire is useful to determine how important clusters or criteria compared to the clusters or other criteria when seen from cluster or criteria is the reference. In other words, this questionnaire measure the importance of the cluster or clusters criteria or criteria be a control factor. The scale used is the Saaty scale that is scale ratings of 1 to 9. The questionnaire was given to librarians as an expert respondents.

The stages of data analysis in this study is as following:

1. Satisfaction measurement stage

Phase satisfaction measurement criteria approach Servqual done by comparing the expectations and actual performance of service received. The data used is the data from the questionnaire 1.

2. Weighting stage

Phase of weighting was conducted by ANP in order to obtain the importance of each variable or criteria to quality the expected service. The data used in stage of weighting is data from questionnaire results of the 2nd and 3rd questionnaire.

3. Prioritization stage

Phase of prioritization is to determine priority issues can be resolved by the result of multiplying the ratio of hope with actual performance on servqual and weighting of each criterion.

4. Stage of determination improvement strategies

The final stage is the determination of how the right strategy as effort improvements based on the level of priority issues.

This research process flow can be described in a flowchart as follows:

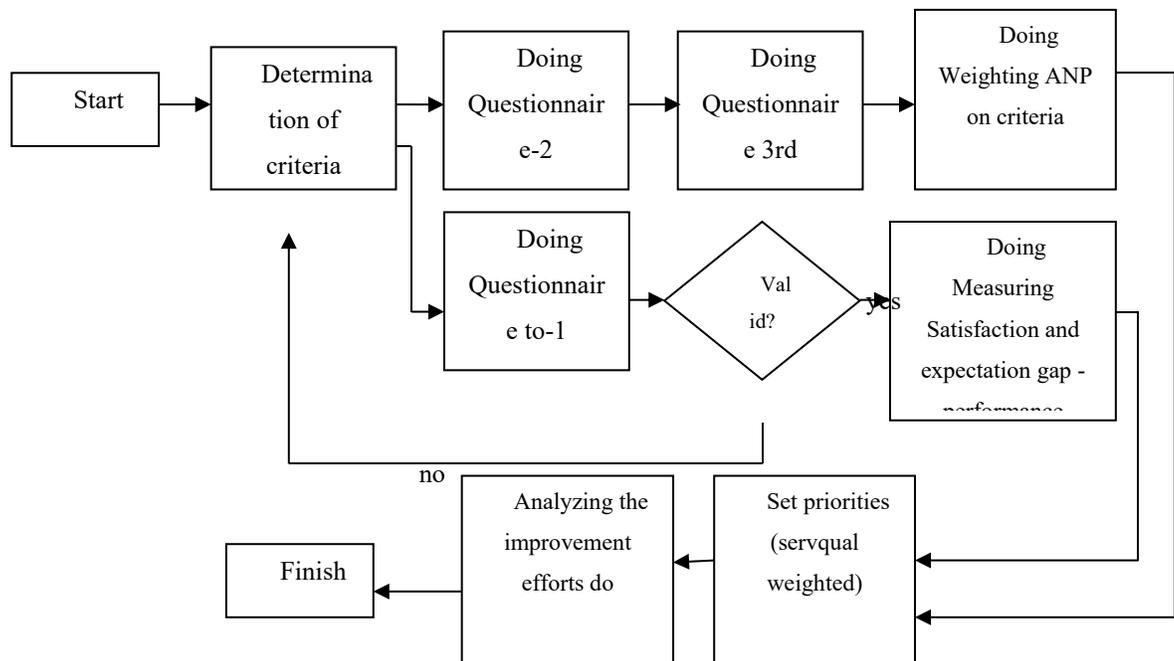


Figure 1. Flowchart of Research

IV. Results and Discussion

1. Determination of Cluster and Criteria

Before collecting data, first is to determine clusters and criteria used in this study. Cluster determined from the five dimensions of service quality while the criteria are derivatives of these dimensions in accordance with the conditions of library of UBP Karawang. Here clusters and criteria used in this study:

Table 2. Cluster and Criteria

clusters	Code	Criteria	Code
Tangible (evidence measured)	T	Conditions library room clean and tidy	T1
		Library room atmosphere of calm and serenity	T2
		The library staff dressed	T3
		Adequate library information system	T4
		Recording a good visit list	T5
		Deposit box (locker) are adequate	T6
		Information rules clear	T7
		Computer functioning properly	T8
Reliability	RL	A complete library collections and updates	R1
		Open and close the library in accordance with a predetermined time	R2
		Speed of borrowing and repayment collection service	R3
		Turnitin service speeds	R4
Responsiveness	RV	The library staff is always helpful with immediately	RS
Assurance	A	Guarantee against deposit box	A1
		The library staff ensuring library room	A2
Empathy	E	The friendliness of the staff of the library	E1
		The library staff is willing mananggapi existing complaint	E2

2. Validity and Reliability Testing

Validity and reliability testing needs to be done to see if the criteria be valid research instruments / precise and consistent or not. In this study, the criteria can be used for further calculations is if the criteria are valid on both questionnaires questionnaires questionnaires expectations and reality. If there is the one that is not valid then the criteria will be removed from the calculation. Assuming a value of significance is 5% with a two-way test. By using SPSS software obtained the following results:

a. Validity test

- Questionnaires of expectations

Here is a comparison of the results of R is calculated by R questionnaire table on expectations, with a significance level of 0.5% (in both directions) and n = 126 students.

Table 3 Validity Test of Expectations Questionnaire

Criteria	R Calculated (Result of SPSS)	R Tabel (df = n-2 = 124)	Conduision
T1	0,868	0,175	Valid
T2	0,390	0,175	Valid
T3	0,434	0,175	Valid
T4	0,384	0,175	Valid
T5	0,579	0,175	Valid
T6	0,437	0,175	Valid
T7	0,541	0,175	Valid
T8	0,492	0,175	Valid
R1	0,289	0,175	Valid
R2	0,528	0,175	Valid
R3	0,458	0,175	Valid
R4	0,639	0,175	Valid
RS	0,505	0,175	Valid
A1	0,370	0,175	Valid
A2	0,362	0,175	Valid
E1	0,450	0,175	Valid
E2	0,352	0,175	Valid

From the above results for all criteria of the R value calculated > of the R table so that all the criteria on the questionnaire of expectations declared valid.

- Questionnaires of reality performance

Here is a comparison of the results of R calculated by R table on performance questionnaire, with a significance level of 0.5% (in both directions) and n = 126 students.

Table 4. Validity Test of Questionnaires Performance

Criteria	R Calculated (result of SPSS)	R Tabel (df = n-2 = 124)	Conduision
T1	0,830	0,175	Valid
T2	0,884	0,175	Valid
T3	0,917	0,175	Valid
T4	0,893	0,175	Valid
T5	0,924	0,175	Valid
T6	0,862	0,175	Valid
T7	0,932	0,175	Valid
T8	0,955	0,175	Valid
R1	0,839	0,175	Valid
R2	0,927	0,175	Valid
R3	0,928	0,175	Valid
R4	0,923	0,175	Valid
RS	0,922	0,175	Valid
A1	0,944	0,175	Valid
A2	0,909	0,175	Valid
E1	0,815	0,175	Valid
E2	0,882	0,175	Valid

From the above results for all criteria of the R value calculated > of the R table so that all the criteria on the questionnaire of performance declared valid. So that both questionnaires, there is not a criteria-whatever the results are not valid.

b. Reliability Test

Having tested the validity, reliability test next is done by using SPSS software with Cronbach alpha method showed that the Cronbach alpha value is 0,794 questionnaires of expectations and questionnaire of performance Cronbach alpha value was 0.983. On the basis that both the Cronbach alpha values > 0.6 then the second questionnaire were declared reliable and can be passed on to the next stage. Here is the SPSS output that shows the Cronbach alpha values in both the questionnaire were:

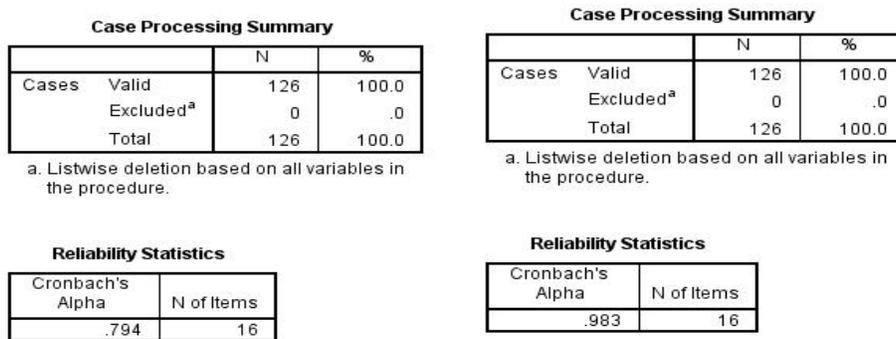


Figure 2. Output SPSS of Reliability Test

3. Calculating the average score and the gap between expectations and actual

Calculating the average score and the gap between expectations and actual measurements derived from satisfaction questionnaires (questionnaire 1). Results of the assessment scoring on each criterion was calculated for the average value using the following formula:

The average scoring = total value of the criterion / number of respondents

After all the average value score for each criterion both questionnaires obtained, the next is calculate the gap on each criterion according to the formula:

Gap = average score of reality - an average score of hope

So the result recap Gap calculation is as follows:

Table 5. Gap between Expectations and Reality

Criteria	average skor of performance	average skor of expectation	GAP
T1	3:39	3.89	-0.50
T2	3:34	3.85	-0.51
T3	3:44	3.87	-0.43
T4	3:55	3.86	-0.31
T5	3:46	3.75	-0.29

T6	3:56	3.87	-0.30
T7	3:42	3.72	-0.30
T8	3:20	3.63	-0.43
R1	3:47	3:14	-0.33
R2	3:35	3.76	-0.41
R3	3:48	3.85	-0.37
R4	2.97	3:41	-0.44
RS	3:36	3.80	-0.44
A1	3:28	3.84	-0.56
A2	3:45	3.83	-0.38
E1	3:02	3.73	-0.71
E2	3:09	3.78	-0.69

From the results above shows that the average score for the criteria of reality is good enough that with an average score above 3, except for R4 criteria (speed of service turnitin) average scores below 3 are 2.97, but because of the the average expectation as well is not very high at 3.41 so that its gap is smaller than the gap between the expectations with the reality on the criteria E1 (the friendliness of the staff of the library) and E2 (the library staff is willing to respond to complaints that exists).

4. Determining Relationships between Cluster

Clusters and criteria determination of the previous stage, made the questionnaire of dependency relationship between clusters and criteria. Recapitulation can be seen in the following table:

Table 6. Result of Questionnaire Dependency Relationships between Criteria

Cluster		T1	T2	T3	T4	T5	T6	T7	T8	R1	R2	R3	R4	RS	A1	A2	E1	E2
Tangibles	T1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	T2	1	0	0	1	0	0	3	0	0	1	0	0	1	0	1	0	0
	T3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	2
	T4	1	0	0	0	2	0	0	0	0	0	3	2	0	0	0	0	0
	T5	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0
	T6	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0
	T7	1	2	0	0	3	0	0	0	0	1	0	1	0	0	0	0	0
	T8	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0
Reliability	R1	0	0	0	0	0	0	1	0	0	1	1	1	0	0	1	0	0
Responsiveness	R2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	R3	0	1	0	2	0	1	0	1	0	0	0	0	0	0	1	0	0
	R4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Assurance	RS	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	A1	0	0	0	0	0	3	0	1	0	1	0	0	0	0	0	0	0
Empathy	A2	0	3	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
	E1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	3
	E2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0

The number of respondents in this case, the expert librarians there are $N = 3$. If in one cell the number of respondents who chose (X_{ij}) is more than or equal to $Q = N / 2 = 1.5$, it is concluded that there is a dependency relationship between the criteria. From the table above, cell by a blue color values (X_{ij}) is more than 1.5. Thus the cell by the blue color indicates the presence of the relationship between the influence of the criteria on the right of the criteria on the top. Here is a representation of a matrix relationship of interdependence between the criteria:

Table 7. Relationship of Addiction between Criterion

Influences		Affected	
Cluster	Criteria	Criteria	Cluster
T	T2	T7	T
	T3	E1, E2	E
	T4	R3, R4	R
	T5	T8	T
	T6	A1	A
	T7	T2, T5	T
	T4	T5	T
	T8	T4, T5	T
R	R3	T4	T
A	A1	T6	T
	A2	T2	T
E	E1	E2	E
	E2	E1	E

This relationship is the basis for the modeling and design of the questionnaire ANP pairwise comparison. ANP model creation assisted by super decision software. Here is an ANP network model research on super decision software:

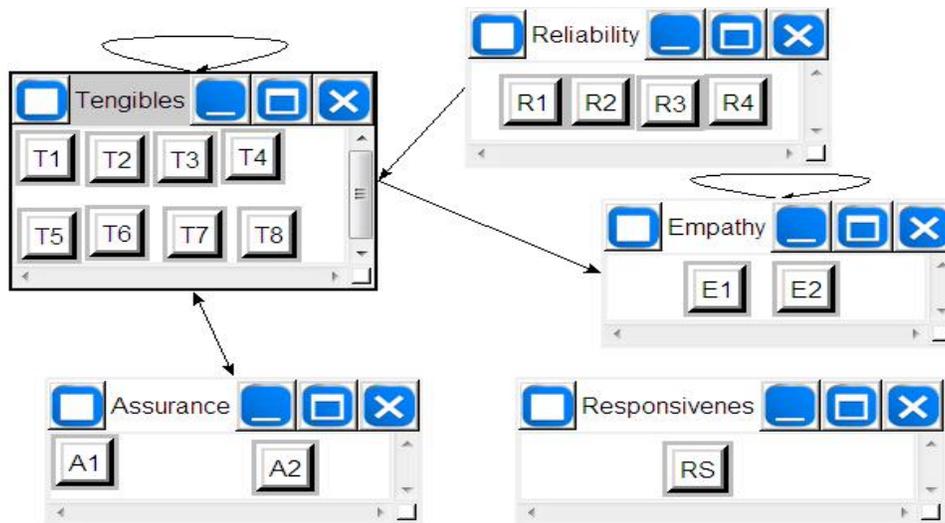


Figure 3. Model Relationships between Criteria

From the picture above shows the network pattern formed. There are only affects other criteria that are still in a cluster called the inner dependency that is on clusters and cluster Empaty Tangibles, those that affect the criteria that exist in other clusters are called outer dependency on Tangibles Reliability, Tangibles against Empaty, and so on.

5. Determination and analysis of the importance weight of each criteria with ANP

Based on the relationship between both criteria in a single cluster or the criteria on the other cluster, then made a pairwise comparison with the size questionnaire score following the Saaty scale, from 1 - 9. For example, in table 8. T3 criteria affect E2 E1dan criteria. Thereby the control factor is T3, E1 and E2 while the criteria that will be compared referring to T3. The results of questionnaires from the 1 in comparison with T3 E1 and E2 as a control factor is as follows.

Table 8. Comparison Criteria Matrix E1 and E2 (respondents 1)

	E1	E2
E1	1	0.5
E2	2	1

From this matrix can be read that the criterion E2 two times more important than the benchmark criteria T3, or E2 criteria are more important criteria than the criteria E1 to 0.5 times the benchmark criteria T3.

To combine all pairwise comparisons of the third questionnaire respondents, then calculated the geometric mean of all the results of the questionnaire. Here is a geometric mean value of the average of all respondents:

Table 9. Matrix of Average Geometric between Cluster

	T	E	R	A
T	1	0.55	0.79	0.69
E	1.82	1	0.87	0.5
R	1.26	1.14	1	0.79
A	1.44	2	1.26	1

Table 10. Matrix of Average Geometric between E1 and E2 Criteria

	E1	E2
E1	1	0.79
E2	1.26	1

Table 11. Matrix of Average Geometric between R3 and R4 Criteria

	R3	R4
R3	1	1.1
R4	0.91	1

Table 12. Matrix of Average Geometric between T2 and T5 Criteria

	T2	T5
T2	1	0.44
T5	2.29	1

Table 13. Matrix of Average Geometric between T4 and T5 Criteria

	T4	T5
T4	1	2.29
T5	0.44	1

The combined value by calculating the geometric average is what will be inputted into super decision software.

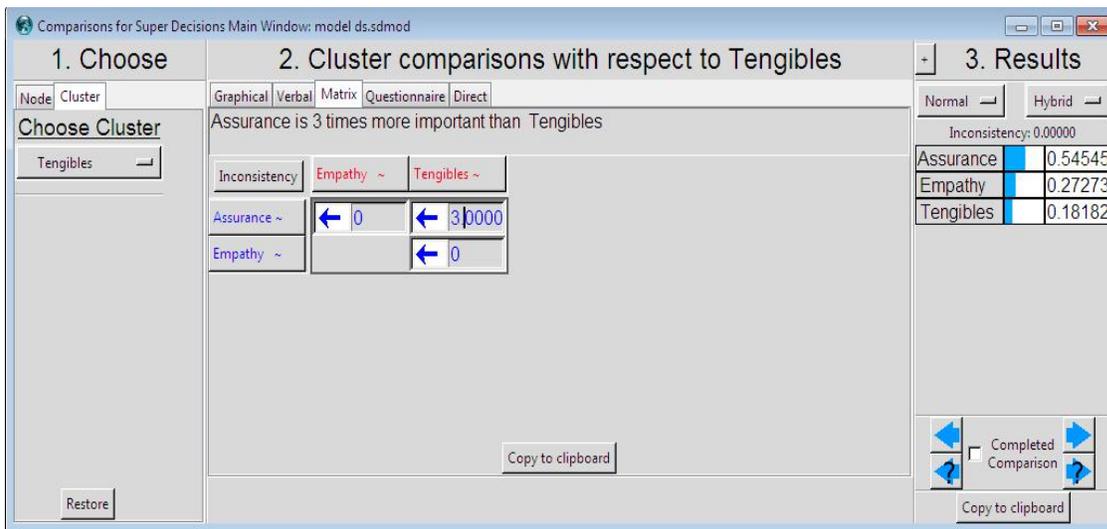


Figure 4. Input Form Pairwise Comparison

Once the value is entered into a software super decision, then the limiting value is directly obtained weight value of priority/importance of each criterion. Here are a priority weight values resulting from super decision software:

Table 14. Output Weights Priority of Super Decision Software

Criteria	Normalized By Cluster	Limiting
T1	0	0
T2	0,15198	0,075988
T3	0	0
T4	0	0
T5	0,34802	0,174012
T6	0	0
T7	0,5	0,25
T8	0	0
R1	0	0
R2	0	0
R3	0	0
R4	0	0
R5	0	0
A1	0	0
A2	0	0
E1	0,5	0,25
E2	0,5	0,25

From the table above it can be seen that the greatest limiting value is the criteria E1 (the friendliness of the staff of the library), E2 (the library staff is willing to respond to complaints that exists), and T7 (a clear order information). Thus all three criteria have higher priority than other criteria for the moment. The result of this priority weight will be multiplied by the ratio vs. reality.

6. Setting priorities completion strategy based on gap of expectations and reality

This stage is the last stage of all stages of data processing. The results of the questionnaire 1 states that the gap between the two greatest expectations with reality exist on criteria E1 and E2. But this result is not necessarily that the priority of improvement on the first two criteria. Therefore, the results of the questionnaire 1 first look for the value of the ratio between expectations with reality by the formula:

$$\text{ratio} = \text{average score criteria in expectation} / \text{average score criteria on the fact}$$

After the ratios obtained for each of the criteria, the next step is to multiply the ratio by weight of the priorities of each criterion. The result is a strategic priority which would take precedence for reducing the gap between expectations with reality/performance. The results of all these calculations are summarized in the following table:

Table 15. Criteria of Value Calculation

Criteria	Avg. Score of Reality	Avg. Score of Expectation	Ratio	Weight of priority	Priority
T1	3.39	3.89	1.15	0.08	0.09
T2	3.34	3.85	1.15	0.00	0.00
T3	3.44	3.87	1.12	0.00	0.00
T4	3.55	3.86	1.09	0.17	0.19
T5	3.46	3.75	1.08	0.00	0.00
T6	3.56	3.87	1.08	0.00	0.00
T7	3.42	3.72	1.09	0.25	0.27
T8	3.20	3.63	1.13	0.00	0.00
R2	3.35	3.76	1.12	0.00	0.00
R3	3.48	3.85	1.11	0.00	0.00
R4	2.97	3.41	1.15	0.00	0.00
R5	3.36	3.80	1.13	0.00	0.00
A1	3.28	3.84	1.17	0.00	0.00
A2	3.45	3.83	1.11	0.00	0.00
E1	3.02	3.73	1.24	0.25	0.31
E2	3.09	3.78	1.22	0.25	0.31

From the table above it can be seen that by multiplying the ratio by weight of ANP priorities will produce priority. There are three priority criteria must be done corrective action is E1 (the friendliness of the staff of the library), E2 (the library staff willing to perceive the existing complaint) and T7 (a clear order information) with each priority value of 0.31; 0.31; and 0.27.

V. Recommendation

The advice can be given to improve the quality service are as follows:

1. In matters relating to the friendliness and willingness of staff in response to a complaint, it is necessary to regular training and coaching to staff in order to improve the quality of service.
2. In terms of the order information, it not only displays the discipline but also necessary socialization on a regular basis to users of the Library.

Conclusion Based on research that has been done by calculating and analysis of the issue it can be concluded as follows:

1. The results of the questionnaire analysis 1 showed that the average score for the criteria the reality is quite good (fairly satisfied) with the existing services in library of UBP Karawang, with an average score above 3, except for R4 criteria (speed of service turnitin) average scores below 3 are 2.97, but because of the average expectation also is not too high ie 3.41 so that its gap is smaller than the gap between expectations with the reality on the criteria E1 (the friendliness of the staff of the library) and E2 (the library staff is willing to respond to complaints that exists).
2. Results of analysis of multiplying the ratio with priority weight, was found that priority on three criteria must be done corrective action is E1 (friendliness of the staff of the library), E2 (the library staff willing to respond complaints there), and T7 (a clear order information) with each each value priritas 0, 31; 0.31; and 0.27.

REFERENCES

- [1] Endri 2009, *Permasalahan Pengembangan Sukuk di Indonesia Menggunakan Metode ANP*. Jurnal Keuangan dan Perbankan, ABFI Institut Perbanas Jakarta.
- [2] Dewayana, Triwulandari S dan Ahmad Budi 2009, *Pemilihan Pemosok Cooper Rod Menggunakan Metode ANP (Studi Kasus: PT. Olex Cables Indonesia)*. Jurnal TI Undip Vol IV, No 3, September 2009
- [3] Kasirian, M.D. & R.D. Yusuff 2009, *Determining Interdependencies Among Supplier Selection Criteria*. European Journal of Scientific Research Vol.35 No.1, pp.76-84
- [4] Kotler, Philip, 2003, *Marketing Management*, 11th Edition. Prentice Hall. Inc. New Jersey. Hal 85.
- [5] Lee, Ming-Chang 2010, *The Analytic Hierarchy and the Network Process in Multicriteria Decision Making: Performance Evaluation and Selecting Key Performance Indicators Based on ANP Model*. Department of Information Management, Fooyin University Department of Business Administration, National Kaohsiung University of Applied Sciences, Taiwan
- [6] Moenir, A.S, 2010, *Manajemen Pelayanan Umum Di Indonesia*. Jakarta: Bumi Aksara.
- [7] Saaty, Thomas L 1999. *Fundamentals of The Analytic Network Process*. University of Pittsburgh
- [8] Sipahi, S.& Timor, M 2010, *The analytic hierarchy process and analytic network process: an overview of applications*. Management Decision. Vol. 48 No. 5, pp. 775-808
- [9] Tjiptono, Fandy, 2011, *Strategi Pemasaran*. Edisi 3. Yogyakarta: ANDI
- [10] Zeithaml, Parasuraman, and Leonard L. Berry, 1988, *SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality*. Journal of Retailing. Vol 64 (1) pp 12-37