

## Development of a Stakeholder Satisfaction System Model for Service and Education Quality

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### Abstract

This study aims to measure the level of stakeholder satisfaction with the quality of service and education at the Faculty of Education, State University of Malang. The research employs a quantitative analysis method, utilizing a structured questionnaire based on five service quality indicators: Tangible, Responsiveness, Reliability, Empathy, and Assurance. The questionnaire was distributed to stakeholders, including students, lecturers, and staff. The results indicate that the overall level of stakeholder satisfaction is high, with the Assurance indicator scoring the highest at 76.6%, reflecting strong trust in services provided. The lowest score was observed in the Responsiveness indicator at 72.8%, suggesting a need for improvement in addressing stakeholder needs promptly. The study is limited to stakeholders at the Faculty of Education, and the findings may not be generalizable to other faculties or institutions. The findings provide valuable insights for the Faculty of Education to enhance service quality, particularly in responsiveness, to better meet stakeholder expectations. This research contributes to the ongoing efforts to improve educational service quality by providing empirical data on stakeholder satisfaction within a specific academic context.

### Keywords:

Education quality, Service quality, Stakeholder satisfaction, Higher education, University services, Quantitative analysis

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## INTRODUCTION

One of the primary responsibilities of higher education as an educational institution is to deliver quality educational services, aiming to produce skilled human resources (HR) with high competitiveness in the future workforce. In the era of globalization, the competitive climate among universities is intensifying due to the rising number of universities in Indonesia. The quality of a higher education institution is largely determined by the quality of the services provided, which can be measured through customer satisfaction—in this case, stakeholders. According to Freeman in Wakka (2014:49), stakeholders are defined as parties who can influence or be influenced by the decisions made. In this study, stakeholders include students, lecturers, educational staff, alumni, companies, and government agencies. Stakeholder analysis is crucial for maintaining support and commitment from all involved parties.

The relationship between service quality and customer satisfaction for stakeholders is shaped by the service provider's desire and ability to serve its customers well, which is reflected in the quality of the services offered. Service

quality is a significant factor in determining customer satisfaction, as noted by Lupiyoadi (2001). In addition, Law No. 15 of 2005 Article 1 paragraph 2 concerning Teachers and Lecturers identifies lecturers as professional educators and scientists responsible for transforming, developing, and disseminating science, technology, and art through education, research, and community service. Beyond their role as educators, lecturers are also stakeholders whose satisfaction must be considered to support the success of higher education institutions. This consideration extends to educational staff who, if dissatisfied with their workplace, may see a decrease in their performance, which can affect services provided by the faculty.

Moreover, companies and government agencies, as end-users of graduates, are consumers of the institution's output. These organizations evaluate college graduates as employees and assess their performance, which can impact perceptions of the institution's quality. Bernadin and Russell (1993) define performance as the work output achieved by an employee according to job function over a certain period, while Maier (quoted in Peni, 2005) describes it as a person's success in completing a task. Good performance among graduates can enhance user satisfaction and reflect positively on the institution.

Educational institutions as service providers need to measure stakeholder satisfaction (including students, lecturers, educational staff, and alumni) to evaluate their success in delivering quality education. In a competitive environment, education providers must offer excellent service and quality education to strengthen their image. This research addresses the challenge of analyzing stakeholder satisfaction with the quality of service and education at the Faculty of Education, State University of Malang. Continual improvement in educational service quality is essential to achieve stakeholder satisfaction and is a fundamental step toward the success of higher education in the future.

This research aims to measure stakeholder satisfaction levels and identify areas for service improvement to increase stakeholder satisfaction at the Faculty of Education, State University of Malang. The study is also significant for providing data that supports the accreditation of departments and study programs, emphasizing the importance of stakeholder satisfaction. Given that the primary role of the faculty is to support both academic and non-academic activities for students, the Faculty of Education at Malang State University must strive to enhance its service quality to produce capable experts in education who can contribute to society. Achieving this outcome requires adequate support from facilities and infrastructure. Based on this premise, an information system is essential for analyzing stakeholder satisfaction at the Faculty of Education, State University of Malang, in terms of service and education quality.

The formulation of the problem for this research includes two main questions: 1) What is the level of stakeholder satisfaction with the quality of service and education at the Faculty of Education, State University of Malang? 2) What services need improvement to increase stakeholder satisfaction with the quality of service and education at the Faculty of Education, State University of Malang? The objectives of this research are to measure stakeholder satisfaction levels and identify services that need enhancement to improve stakeholder satisfaction. The benefits of this research include providing a reference for further studies on

stakeholder satisfaction with service quality at the Faculty of Education, State University of Malang, and serving as a consideration for decision-making in policy management at the Faculty to enhance service quality and achieve higher stakeholder satisfaction.

## METHODS

This type of research is descriptive, non-experimental research, namely research without treatment of related variables. Descriptive research is research that attempts to describe and interpret objects according to what they are. The Likert Scale Survey method was used in this research, namely by distributing questionnaires containing structured or systematic questions online using Google Form to respondents consisting of students, lecturers, education staff, alumni. In this type of research, researchers collect data quantitatively, the data is in the form of questionnaires which can be analyzed statistically to show trends in the responses given by the target population regarding the phenomenon being discussed (Creswell, 2016). Data is processed using the SPSS application. The data obtained and processed from the Google form is presented in the form of tables or diagrams.

### Population and Sample

The population consists of: objects/subjects, which have certain characteristics determined by researchers to be studied and then conclusions drawn (Sugiyono, 2012). The population in this research is Malang State University FIP stakeholders from 2023 to 2024.

Meanwhile, to determine the sample size, because the population is known, the Slovin formula (Umar, 2001) will be used as follows:

$$n = \frac{N}{1 + Ne^2}$$

Where :

$n$  = sample size

$N$  = population size

$e$  = 5 %

### Method of collecting data

Data obtained by researchers from data sources directly is called primary data. Primary data in this research was obtained using a questionnaire where the respondent was the data source. In the questionnaire, a measurement scale in the form of a Likert scale is used. In the questionnaire, respondents give a score for each statement in the questionnaire. The following is the Likert scale assessment on the questionnaire:

1. Very bad
2. Not good
3. Good
4. Very good

Data sources that do not provide data to researchers directly are called secondary data. Secondary data can be obtained using library study techniques.

#### Data collection technique

The data in this research was collected using the method:

##### Library Research (Library Study)

This literature study is library research by studying and citing literature and theories that are related to this research

##### Field Research (Field Study)

Data collection is carried out through questionnaires where a questionnaire is a data collection technique that is carried out by giving a set of written questions for respondents to answer. This questionnaire was distributed directly to respondents, via email addresses, telephone numbers and using the Google Form application.

#### Data analysis

The data validity test aims to determine the extent of the validity of the data obtained from distributing the questionnaire. To measure this validity test, the author uses the SPSS application by looking at the results from the Corrected Item-Total Correlation table. In this research, the instrument was prepared based on validity by developing indicators into question items in the instrument. The testing criteria is if  $r_{count} > r_{table}$  and/or sig value.  $< 0.05$  which means the question is valid, conversely if  $r_{count} < r_{table}$  and/or value

sig.  $> 0.05$  means the question is invalid (Thoifah, 2015).

The method for testing validity is by calculating the correlation between the scores of each question and the total score using the Product Moment correlation formula, as follows (Sugiyono, 2011):

$$r_{xy} = \frac{n \sum_{i=1}^n x_i y_i - \sum_{i=1}^n x_i \sum_{i=1}^n y_i}{\sqrt{n \sum_{i=1}^n x_i^2 - (\sum_{i=1}^n x_i)^2} \sqrt{n \sum_{i=1}^n y_i^2 - (\sum_{i=1}^n y_i)^2}}$$

Where:

$r$  = product moment correlation

$x$  = score for

each attribute

$y$  = total

score for all

attributes

$n$  = number of respondents

#### Data Reliability Test

A questionnaire is said to be reliable or reliable if a person's answers to the questions are constant or stable over time (Imam, 20015). Reliability is a term used to indicate the extent to which a measurement result is relatively consistent if the measurement is repeated two or more times. Reliability is an index that shows the extent to which a measuring instrument is trustworthy or reliable. (Masri Singarimbun, Sofian Effendi, 2006).

In this research, the reliability test uses the alpha method cronbach ( $\alpha$ ) because the questions use scale measurements. The formula:

$$r_{11} = \frac{k}{k-1} \left( 1 - \frac{\sum \sigma_b^2}{\sigma_1^2} \right)$$

Where

$r_{11}$  =Instrument reliability (alpha cronbach)

$k$  =The number of questions

$\sum \sigma^2$  =Number of item variants

$\sigma^2$  = Total variance

Basis for making reliability test decisions:

1. Cronbach's alpha > 0,7 → Cronbach's alpha acceptable (construct reliable)
2. Cronbach's alpha < 0,7 → Cronbach's alpha poor acceptable (construct unreliable)

### Percentage Calculation

This percentage is used to get an overall picture of stakeholder satisfaction with the quality of service and education at FIP UM. The assessment percentage can be obtained by looking at the distribution of scores throughout the distribution of recorded frequency results, and the satisfaction scale is assessed by the size of the percentage that can be assessed. Based on Sujane, 2007, to interpret the data that has been obtained, it is necessary to evaluate the research data using the following methods:

$$P = \frac{f}{n} \times 100 \%$$

Information:

$n$  : Total Ideal items

$f$  : Total items, taken through;

- |                  |  |
|------------------|--|
| a. Very good     | : Total itemsworth 4 x SB points ( 4 ) |
| b. Good          | : Total itemsworth 3 x B points ( 3 )  |
| c. Not good      | : Total items worth 2 x KB points (2)  |
| d. Very Not Good | : Total items worth 1 x SKB points (1) |

The resulting data points are then interpreted by calculating vulnerable data on a scale by calculating the difference between the largest and smallest percentages divided by the number of categories as follows:

$$RS = \frac{18.75 - 0}{4} = 4.6875$$

Based on results in the above ranges, the following default percentage interpretation is used:

**Table 1.** Percentage Interpretation

No	Category	Range
1	Very high	75.10% - 100%
2	High	56.26% - 75.00
3	Low	56.26% - 75.00
4	Very Low	0.00% - 37.50%

## RESULTS & DISCUSSION

Based on data obtained through the questionnaire, there were 37 respondents who had filled in, this number had exceeded the minimum target, namely 30 respondents who came from students and alumni of the Faculty of Education, State University of Malang. This survey was designed to measure the level of satisfaction of alumni users with the quality of service and education provided by the faculty. Measurements are carried out based on five main dimensions: responsiveness, reliability, empathy, assurance and tangibles. The data that has been obtained is processed based on the results of validity tests, reliability tests and data analysis as follows:

### Data Validity Test Results

The validity test was calculated using IBM SPSS 20. To test the validity of the instrument, the questionnaire was tested on 37 respondents. The respondents were students and alumni of the Faculty of Education, State University of Malang. The r count results are compared with r table to analyze its validity. With  $N=37$ , df (degree of freedom)=35, significance 0.05, it is known that  $r \text{ table} = 0.324$ . An instrument is said to be valid if  $r \text{ count} > r \text{ table}$ , conversely if  $r \text{ count} < r \text{ table}$  then the instrument is declared invalid. The validity tests that have been carried out in this research are shown in the following table:

**Table 2.** Validity Test Results

Variable	Statement	Pearson Correlation	R table	Information
Level of Stakeholder Satisfaction	Q1	0.282	0.324	INVALID
	Q2	0.457	0.324	VALID
	Q3	0.537	0.324	VALID
	Q4	0.462	0.324	VALID
	Q5	0.738	0.324	VALID

Q6	0.443	0.324	VALID
Q7	0.538	0.324	VALID
Q8	0.692	0.324	VALID
Q9	0.400	0.324	VALID
Q10	0.528	0.324	VALID
Q11	0.614	0.324	VALID
Q12	0.711	0.324	VALID
Q13	0.570	0.324	VALID
Q14	0.782	0.324	VALID
Q15	0.746	0.324	VALID
Q16	0.579	0.324	VALID
Q17	0.718	0.324	VALID
Q18	0.734	0.324	VALID
Q19	0.684	0.324	VALID
Q20	0.661	0.324	VALID
Q21	0.572	0.324	VALID
Q22	0.604	0.324	VALID
Q23	0.630	0.324	VALID

Based on the correlations table above, It is known that the  $r$  table is 0.324 because the number of data is 37 and the significance level is 5%, then the sig (2-tailed) value must be  $<0.05$ . but in statement 1  $r$  count has a value of 0.284 which means it is less than 0.325 and the value sig (2-tailed) is 0.088 more than 0.05 so statement point 1 is invalid.

In order for the statement item to be valid, deletion is required in statement item 1 so that the results are in the following table:

**Table 3.** Validity Test Results

Variable	Statement	Pearson Correlation	R table	Information
Level of Stakeholder Satisfaction	Q2	0.457	0.324	VALID
	Q3	0.537	0.324	VALID
	Q4	0.462	0.324	VALID
	Q5	0.738	0.324	VALID
	Q6	0.443	0.324	VALID
	Q7	0.538	0.324	VALID
	Q8	0.692	0.324	VALID
	Q9	0.400	0.324	VALID
	Q10	0.528	0.324	VALID
	Q11	0.614	0.324	VALID
	Q12	0.711	0.324	VALID
	Q13	0.570	0.324	VALID
	Q14	0.782	0.324	VALID
	Q15	0.746	0.324	VALID
	Q16	0.579	0.324	VALID
	Q17	0.718	0.324	VALID
	Q18	0.734	0.324	VALID



Q19	0.684	0.324	VALID
Q20	0.661	0.324	VALID
Q21	0.572	0.324	VALID
Q22	0.604	0.324	VALID
Q23	0.630	0.324	VALID

After statement item 1 is deleted, all statements 2 to 23 have  $r_{count} > r_{table}$  and sig value (2-tailed) of statements 2 to 23 have a value  $< 0.05$ . Because the  $r_{count}$  value  $> r_{table}$  and sig value (2-tailed)  $< 0.05$ , then all statements from the validity test conducted, it can be concluded that all statement items in the questionnaire are said to be valid.

#### Data Reliability Test Results

After carrying out a reliability test using IBM SPSS 20, the reliability coefficient value was obtained. Reliability tests are carried out on each statement item. The criteria for decision making in determining reliability is that if the  $r$  (Cronbach's alpha) value is greater than 0.7 then the questionnaire/instrument is said to be reliable. On the other hand, if the  $r$  (Cronbach's alpha) value is smaller than 0.7 then the questionnaire/instrument is not reliable.

Table 4. Reliability Test Results

Variable	Statement	Cronbach's Alpha	Information
Level of Stakeholder Satisfaction	22	0.914	Reliable

From the reliability test results presented in the table above, it shows that Cronbach's Alpha is 0.914, so we can see that the Cronbach's alpha value is greater than 0.7. It can be concluded that the questionnaire/instrument is said to be reliable.

#### Description

Data from this descriptive analysis research were used to determine and describe the state of the variable level of student satisfaction with the quality of service and education at the Faculty of Education, State University of Malang, which consisted of 23 statement items obtained from a questionnaire that had been distributed to respondents. To simplify data analysis, it is divided into four criteria, namely; (4) categorized as very good, (3) categorized as good, (2) categorized as poor, (1) categorized as very poor. The researcher distributed questionnaires to FIP UM students and alumni consisting of 37 respondents as the research sample.

In order to make it easier to process questionnaire data that has been filled in by respondents, the questionnaire that has been distributed will be input into IBM SPSS

statistics version 20 to find the total score per item in the form of a percentage. Data on the level of student satisfaction with the quality of service and education at FIP UM will be processed in tabular form and then analyzed. The results of the questionnaire entered into table form is the process of changing the data into percent form.

#### Physical evidence indicators (Tangible)

Physical evidence indicators (Tangible) include various aspects that can be seen, felt and touched directly, such as appearance, equipment, facilities and communication media used. The respondents' responses regarding services based on physical evidence (tangible) indicators with the average results of respondents stating very good at (18.9%), good at (62.5%), not good at (15.7%) and very poor amounted to (3.3%). Based on the data, the overall respondents' answers to physical evidence (tangible) indicators were in the high category (74.15%). So it can be concluded that FIP UM staff is willing to help stakeholders in providing fast-responsive services.

#### Responsiveness indicators in helping customers (Responsiveness)

The responsiveness indicator refers to the desire and ability of staff or officers to help students during online lectures quickly and responsively. That respondents' responses regarding services related to academic and administrative information on the responsiveness indicator have an average of stakeholder/student responses which state that they are very good at (11.47%), good at (68.27%), and poor. good amounting to (20.25%). Based on the overall data of respondents' answers to the responsiveness indicator in the "high" category of 72.8%, it can be concluded that staff are willing to help students in providing fast-responsive services.

#### Reliability Indicators (Reliability)

Reliability is the ability to provide/implement promised services accurately, reliably and satisfactorily. The respondents' responses regarding the ability to provide/implement services on the Reliability Indicator, with an average of stakeholder/student responses which stated that it was very good at (15.12%), good at (68.68%), less good at (14.58%) and very poor (1.62%). Based on the overall data of respondents' answers to the Reliability Indicator (Reliability) in the "high" category of 74.3%, it can be concluded that the staff shows very good performance in terms of service reliability, because the majority of respondents consider that the services provided are reliable, fast and in accordance with procedures. clear. This shows that the services provided largely meet the expectations and standards desired by students.

#### Empathy Indicators (Empathy)

The Empathy indicator reflects the attention and willingness of officers to provide assistance to students who experience difficulties when requesting services. That respondents' responses regarding the Empathy Indicator (Empathy) reflect the attention and willingness of officers to provide assistance to students who experience difficulties when requesting services, with an average of stakeholder/student responses which stated that it was very good at (16.2%), good at (16.2%), good at (73.9%), and less good (9.9%). Based on the overall data of respondents' answers to the Empathy Indicator (Empathy) in the "high" category of 76.5%, it can be concluded that the staff shows a good level of empathy, because the majority of respondents feel that the officers are always willing to help, provide explanations that are easy to understand, and fulfill promises of service delivery according to specified time. This shows that the staff has high attention to student needs and difficulties, and is committed to providing adequate and responsive services.

#### Guarantee / Certainty Indicators (Assurance)

Guarantee/Certainty indicators include aspects that provide students with a sense of security and trust in receiving services. The respondents' responses regarding the yes

aspect of the Guarantee/Certainty Indicator (Assurance), which has an average of stakeholder/student responses which stated that it was very good at (18.5%), good at (79.7%), and not good at (6.7 %). Based on the overall data of respondents' answers to the Guarantee/Certainty Indicator (Assurance) in the "high" category of 76.6%, it can be concluded that the staff shows a good level of assurance and certainty. This can be seen from the responses of the majority of respondents who stated that every service requested was always fulfilled, and if the service could not be taken care of in the relevant subsection, officers provided clear information regarding the steps that had to be taken.

The highest level of perception lies in the Assurance (Guarantee/Certainty) indicator, with a percentage of 76.6%. Although the differences are very slight, this indicator shows that respondents feel most confident that staff provide clear information and fulfill service promises well. This indicates that the aspects of guarantee and certainty in services are considered very satisfying by respondents, exceeding other indicators in terms of general satisfaction. However, all service indicators, including Tangible (74.15%), Responsiveness (72.8%), Reliability (74.3%), and Empathy (76.5%), also show a high level of perception and are close to the highest figures, reflects consistent satisfaction across all aspects of the services provided.

## B. Discussion

Based on the results of research on the Level of Stakeholders' Satisfaction with the Quality of Service and Education, Faculty of Education, State University of Malang. After distributing the questionnaire to respondents totaling 37 people consisting of different study programs at FIP. After conducting research using questionnaire results, the researchers identified that FIP UM students had satisfaction regarding the quality of service and education in the high category with a score of 76.5% in empathy where when students experienced difficulties related to academic administration services, officers were willing to help with explanations that were easy to understand and service. appropriate and on time.

The respondent's score from the questionnaire results with the lowest indicator was 72.8% with the responsiveness indicator where sometimes the officers greeted students in a less friendly manner and the information needed and provided was ignored by the officers so that the officers were not alert in carrying out their work. This can be seen from the results of the responsiveness questionnaire filled out by students. The hope for this responsiveness indicator is that officers will be more alert in carrying out their work to provide administrative and academic service needs and information to students.

With this research, the results can provide benefits for universities, staff, lecturers and students in carrying out administrative and academic matters. Based on service quality indicators such as Tangible (physical evidence), Responsiveness (responsiveness), Reliability (reliability), Empathy (empathy), and Assurance (certainty), students gave positive responses regarding service and satisfaction with academic and administrative services. This is in accordance with Hill's Perception theory in Tantrisa (2006:38), which states that perceptions of services received by consumers can be different from reality due to differences in consumers' understanding and interpretation of facts. Each individual has a different way of receiving, organizing, and transmitting information, so their perceptions may vary.

Based on the results of this research, it can be concluded that the level of satisfaction among stakeholders regarding the quality of services and education at the Faculty of Education, State University of Malang is in the "satisfied/high" category. This shows that students' perceptions of these services are positive, which means students feel satisfied with the quality of academic and administrative services provided by the faculty.

## CONCLUSION

Based on the results of the research and discussion, it can be concluded that based on the overall research data, the respondents' answers to the level of stakeholder satisfaction with the quality of service and education at the Faculty of Education, Malang State University are seen from the service quality indicators Tangible, Responsiveness, Reliability, Empathy and Assurance, the respondents' answers most of them were in the "high" category at 76.6% in the Assurance category and the smallest category was 72.8% in the Responsiveness category.

Overall, the results of this research indicate that the Faculty of Education, State University of Malang has succeeded in providing satisfactory service with fairly good quality, however improvements in the responsiveness aspect need to be made so that the service can be more optimal. By improving performance on indicators that are considered lacking, the faculty is expected to continue to improve service quality and stakeholder satisfaction in the future.

## REFERENCES

- Anonymous. (n.d.). Service quality method (SERVQUAL).
- Bernardin, H. J., & Russell, J. E. A. (1993). Human resource management: An experiential approach. McGraw-Hill, Inc.
- Lemeshow, S. (1997). Sample size in health research. Gadjah Mada University Press.
- Lupiyoadi, R. (2001). Services marketing management: Theory and practice. Salemba Empat.
- Nasution, M. N. (2004). Total service management: Integrated service management (1st ed.). Ghalia Indonesia.
- Ramaswati, N. L. (2014). Stakeholders analysis: A step toward designing effective relations during changes. *Scientific Journal of the Faculty of Social and Political Sciences*, 5(1).
- Singarimbun, M., & Effendi, S. (2008). Survey research methods. LP3ES.
- Sugiyono. (2012). Educational research methods: Quantitative, qualitative, and R&D approaches. Alfabeta.
- Supranto, J. (2006). Measuring the level of customer satisfaction. Rineka Cipta.
- Thoifah, I. (2015). Educational statistics and quantitative research methods. Madani.
- Tjiptono, F., & Chandra, G. (2012). Service, quality, satisfaction. Andi Offset.
- Wakka, A. K. (2014). Stakeholder analysis of forest area management with special purposes (KHDTK) in Tana Toraja Regency.
- Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1985). Problems and strategies in service marketing. *Journal of Marketing*, 49(Spring), 33-46.