# REPORT

## SERVICE SATISFACTION IN THE IMPLEMENTATION OF RESEARCH PROCESS

(Lecturer Respondent)




## UNIVERSITAS NEGERI SURABAYA

### QUALITY ASSURANCE UNIT

### DATA AND INFORMATION SYSTEM CENTER

2021

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# LEGITIMATION SHEET

Declare that the Surabaya State University Research Process Service Satisfaction Survey Report was made truthfully.

Surabaya, 29 December 2021

Acknowledge by,
Head of Quality Assurance Division

Unit Head of Data and System Information

**Dr. Wiwik Sri Utami, M.P.**

NIP 196708051993022001

**Dr. Lilik Anifah, ST, MT.**

NIP 197909022003122003

# CHAPTER I

# INTRODUCTION

## 1.1. Background

Data and Division Information Systems is one of the divisions in the Quality Assurance Unit (SPM) unit at the University, which is tasked with assisting the implementation of quality assurance with Quality Planning, Quality Implementation, Quality Evaluation, Quality Control, and Quality Improvement (PPEPP) models. One of the tasks of this center is to conduct a Customer Service Satisfaction Survey, which is currently a need and demand for Study Program Accreditation and Higher Education Accreditation. Some of the surveys conducted are satisfaction surveys of all activities carried out by SPM so that the quality of the implementation of activities is evaluated periodically. This survey was conducted online and was carried out after the activity ended. The results of this survey will be followed up with an evaluation meeting whose results will be used to improve services for further activities.

Along with the increasing need to improve the quality of service at Unesa, it is necessary to have a satisfaction survey for students, lecturers, and staff. It is necessary to know what variables should be improved and maintained quality. The questionnaire consists of filling out expectations and realities for the services felt in 2021.

## 1.2. Problems

a. There is a statistical difference between expectations and reality based on analysis of data from Unesa lecturer satisfaction surveys for 2021 Research Process Servicess.
b. What is the result of comparing expectations and the reality of satisfaction. The research process service is based on the 2021 Unesa lecturer satisfaction survey using gap analysis.
c. What is the comparative analysis between expectations and reality of Research Process Service satisfaction based on the 2021 Unesa lecturer satisfaction survey using the *Importance-Performance Analysis* (IPA)

## 1.3. Objective

Knowing the quality of Service Process Service satisfaction for Unesa lecturers in 2021 based on a statistical analysis of different tests, gap analysis, and Natural Science analysis.

## 1.4. Report Systematics

The systematics of this report is the introduction which consists of the background, problems, objectives, and report systematics. Chapter II contains survey methods consisting of survey types and designs, variables, operational definitions, survey instruments, methods used, and data processing. Chapter III contains Results and Discussion, and Chapter IV contains conclusions.

# CHAPTER II

# SURVEY METHOD

## 2.1. Type and Design of Survey Implementation

Study This is a descriptive quantitative with-method survey. Method survey was chosen Because it can describe quantitative trends, attitudes, and opinions from population to variable with learn sample (Johnson & Christensen, 2014) ; (Creswell & Creswell, 2018).

This study uses a cross-sectional design to study the relationship between the independent and the dependent variables by taking measurements simultaneously ( *point time approach* ). At the same time, it means that each subject is only observed once, and the subject variables are carried out at the time of observation. The method used in data collection is a questionnaire.

## 2.2. Operational definition

Some operational definitions are as follows:

a. Consumers are all lecturers who used Unesa research process services in 2021.
b. Consumer expectations are lecturers who will receive Unesa research process services in 2021.
c. Consumer satisfaction is consumer recognition regarding Unesa's research process services in 2021.
d. The quality of service that will be examined is the expectations and reality of consumers on *reliability*, *responsiveness*, *assurance*, *empathy*, and *tangible*.

## 2.3. Survey Instruments

The instrument used is a questionnaire. Questionnaires collect data by providing written questions about consumer expectations and realities to be answered. The questionnaire instrument consists of 5 main aspects *reliability*, *responsiveness*, *assurance*, *empathy*, and *tangible*.

## 2.4. Method

The method used is *Servqual Service Quality* Method (Parasuraman et al., 1985). The dimensions of the service quality characteristics are:

1. *Tangibles* (Real) include physical appearance, equipment, employees, and means of communication.
2. *Reliability*, namely the ability to provide the promised service promptly, accurately, and satisfactorily.
3. *Responsiveness*, namely the desire of staff to shape customers and provide responsive service.
4. *Assurance* (Guarantee) Covers the knowledge, ability, courtesy, and trustworthy nature of the staff, free from danger, risk, or doubt.
5. *Empathy* Includes ease in making relationships, good communication, personal attention, and understanding customer needs.

The stage is to use the *Importance Performance Analysis method,* first introduced by (Martilla & James, 1977), to measure the relationship between consumer/customer perceptions and product/service quality improvement priorities, also known as *Quadrant Analysis*.

**2.5. Data processing**

**a. Gap Analysis and Conformity Level (Tki)**

The level of consumer satisfaction is explained by using gap analysis (gap). This analysis compares the mean between expectations and the reality consumers receive from the service dimensions: reliability, *responsiveness*, *assurance*, *empathy*, and *tangible*. The highest satisfaction occurs when reality exceeds expectations, namely when the service provided is maximum (4) while the minimum expectation is (1). The formula for calculating the gap is

$$\text{Gap} = \text{Reality} - \text{Expectations}.$$

As for the level of conformity (Tki) between Expectations and Reality, you can use the formulation:

$$\text{Tki} = (\text{Reality}/\text{Expectation}) \times 100\%$$

*Gap Score* shows the gap between reality and expectations (Parasuraman et al., 1985). This shows that there is a problem of mismatch between customer expectations and the reality they feel. If *the gap score* is positive (+) indicates that reality can meet customer expectations. Otherwise, if the gap value is negative (-) indicates that customer expectations have not been met (Parasuraman et al., 1988).

**b. Normality test**

The data normality test was carried out by statistical analysis. This test was carried out by entering the average reality and expectations of each statement contained in the questionnaire. This test was conducted to determine whether the data used is normally distributed so that the next statistical test can be determined to be used. The test used to determine whether the data is normally distributed or not is by using Kolmogorov-Smirnov for large samples (more than 50 respondents) or Shapiro-Wilk for small samples (less than 50 respondents). If the significance value is > 0.05, the data is normally distributed (parametric data) and can be analyzed by paired t-test. If the significance value is <0.05, then the data is not normally distributed (non-parametric data) and can be analyzed using the Wilcoxon test.

**c. Wilcoxon test**

This test was conducted to find out o that it could be whether there were significant differences or not from the reality and expectations studied s determine whether Ho was rejected or accepted. If the results obtained are significant differences, then Ho is rejected, but if the differences that occur are not significant, then Ho is accepted. The paired t-test is performed if the two data being compared are normally distributed or the Wilcoxon test if at least one of the compared is not normally distributed, which can be from reality and expectations.

**d. Cartesian diagram**

The Cartesian diagram describes the level of statements into four parts. With this diagram, several factors influencing consumer satisfaction can be determined, which can then be prioritized for the company to improve further.

# CHAPTER III

# RESULTS AND DISCUSSION

## 3.1. Statistic analysis

The survey was conducted by taking respondents who were Lecturers at Surabaya State University who were conducted randomly through *Single Sign On* (SSO). The data obtained amounted to 954 respondents. This number of samples has fulfilled the sample adequacy requirements using the Slovin formula. Suppose the total population of Lecturers at Unesa is 1045, and it is assumed that the tolerated error is 5%. In that case, the minimum sample that must be fulfilled is:

$$n = \frac{N}{1+Ne^2} = \frac{1045}{1+(10450)(0.05^2)} = 289,27 \approx 289$$

The data adequacy requirements have been met with a total sample of 954 respondents.

Next, a normality assumption test will be carried out to test the mean difference between Expectations and Reality. The hypothesis is defined as follows:

$H_0$: The data follows the Normal Distribution

$H_1$: The data does not follow the Normal Distribution

**One-Sample Kolmogorov-Smirnov Test**

| | | HARAPAN | KENYATAAN |
|---|---|---|---|
| N | | 954 | 954 |
| Normal Parameters[a,b] | Mean | 3.7838 | 3.3867 |
| | Std. Deviation | .41146 | .54828 |
| Most Extreme Differences | Absolute | .418 | .132 |
| | Positive | .300 | .132 |
| | Negative | -.418 | -.124 |
| Test Statistic | | .418 | .132 |
| Asymp. Sig. (2-tailed) | | .000[c] | .000[c] |

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Figure 3.1. Data Normality Test Results

By using a significance value of 5%, from Figure 3.1, it can be seen that the asymptotic value or p-value is less than 0.05, so it can be concluded that the results of hypothesis testing are Reject $H_0$, which means the data does not follow the Normal distribution.

The Wilcoxon test is an alternative method of testing two paired samples in addition to testing with the paired t-test. If the sample meets the normal distribution assumption, the parametric statistical test approach can be used with the paired sample t-test. In contrast, if the assumption of normality is not met, then the Wilcoxon test can be tested. From the normality test results, it was concluded that the survey data did not meet the normal distribution assumptions. Therefore the non-parametric approach to the Wilcoxon sign test was used.

**Ranks**

| | | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| KENYATAAN - HARAPAN | Negative Ranks | 550[a] | 319.30 | 175617.00 |
| | Positive Ranks | 63[b] | 199.59 | 12574.00 |
| | Ties | 341[c] | | |
| | Total | 954 | | |

a. KENYATAAN < HARAPAN

b. KENYATAAN > HARAPAN

c. KENYATAAN = HARAPAN

**Test Statistics[a]**

| | KENYATAAN - HARAPAN |
|---|---|
| Z | -18.612[b] |
| Asymp. Sig. (2-tailed) | .000 |

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Figure 3.2. Wilcoxon test results

Based on the results of the Wilcoxon Test using SPSS for Windows 26, the Asymp results were obtained. Sig. (2-tailed) < 0.05 so that it can be stated Reject $H_0$ with the following hypothesis:

$H_0$: There is no difference between the value of Expectations and Reality

$H_1$: There is a difference between the value of Expectations and Reality

Thus it can be concluded that there is a significant difference between the expectations and reality of lecturer satisfaction with research process services at Unesa in 2021.

### 3.2.Gap Analysis and Conformity Rate

The results Calculating reality, expectations, gap analysis, and service quality of the research process at Unesa in 2021 are described in Table 3.1.

Table 3.1. Calculation results of Reality, Expectations, Gap Analysis, and Service Quality of Unesa Research Process in 2021

| Dimensions | Code | Statement | Reality | Hope | GAP | Tki (%) |
|---|---|---|---|---|---|---|
| *Assurance (* Responsibility) | P4 | Consistency of rules and implementation of submission and evaluation of proposals and/or research monitoring and evaluation | 3.79 | 3.37 | -0.42 | 88.92 |
| | | ***Means*** | **3.79** | **3.37** | **-0.42** | **88.92** |
| Empathy (Accountability) | P5 | Disclosure of proposal evaluation results and research reports | 3.80 | 3.39 | -0.41 | 89.21 |
| | P6 | Disclosure of information rights and obligations of researchers | 3.79 | 3.46 | -0.33 | 91.29 |
| | P14 | Ease of guidance in achieving research output | 3.78 | 3.36 | -0.42 | 88.89 |
| | P15 | Research output can be used in problem-solving | **3.78** | **3.38** | **-0.40** | **89.42** |
| | | ***Means*** | 3.79 | 3.40 | -0.39 | 89.70 |
| *Reliability* (Credibility) | P2 | Ease of facilities for submitting research proposals | 3.79 | 3.45 | -0.34 | 91.03 |
| | P10 | Consistency of rules on the implementation of research and monitoring and | 3.77 | 3.38 | -0.39 | 89.66 |

| Dimensions | Code | Statement | Reality | Hope | GAP | Tki (%) |
|---|---|---|---|---|---|---|
| | | evaluation activities | | | | |
| | P11 | Clear guidelines and SOPs regarding the obligation to have research output | 3.79 | 3.45 | -0.34 | 91.03 |
| | Q12 | Ease of facilitation in realizing research output | 3.78 | 3.37 | -0.41 | 89.15 |
| | | ***Means*** | **3.78** | **3.41** | **-0.37** | **90.22** |
| *Responsiveness* ( Fair ) | P3 | The alertness of LPPM's administrative services in dealing with problems in the field of research | 3.80 | 3.39 | -0.41 | 89.21 |
| | Q8 | Alertness of administrative services during research | 3.78 | 3.38 | -0.40 | 89.42 |
| | P13 | Accuracy of research output | 3.78 | 3.38 | -0.40 | 89.42 |
| | | ***Means*** | **3.79** | **3.38** | **-0.40** | **89.35** |
| *Tangible (* Transparent) | P1 | Disclosure of grant program information | 3.78 | 3.41 | -0.37 | 90.21 |
| | Q7 | Ease of research facilities | 3.78 | 3.38 | -0.40 | 89.42 |
| | Q9 | Accuracy of disbursement of research funds | 3.78 | 3.25 | -0.53 | 85.98 |
| | | ***Means*** | **3.78** | **3.35** | **-0.43** | **88.54** |
| | | ***Grand Mean*** | **3.78** | **3.38** | **-0.41** | **89.29** |

*the Gap Score* calculation in table 3.1, it shows that all dimensions are negative, this means that the results of the service performance value have not met user expectations. The dimension with the largest negative gap is *the Tangible (Transparent)* dimension, precisely the P9 variable, namely the accuracy of disbursing research funds with a gap value of -0.53. According to the respondents, the level of conformity between expectations and the reality of

this variable is 85.98%. The second biggest gap is the Assurance (responsibility) issue, namely the consistency of rules and the implementation of submitting and evaluating proposals and research monitoring and evaluation with a gap value of -0.42 and a conformity level with expectations of 88.92%. However, overall, the total correspondence between reality and expectations felt by respondents for the 2021 research service process is 89.29%.

### 3.3.Quadrant Analysis (IPA)

Quadrant analysis or *Importance Performance Analysis* (IPA) is a descriptive analysis technique used to identify what important performance factors an organization must demonstrate to meet the satisfaction of their service users (consumers). In general, the quadrant diagram model can be shown in Figure 3.3.

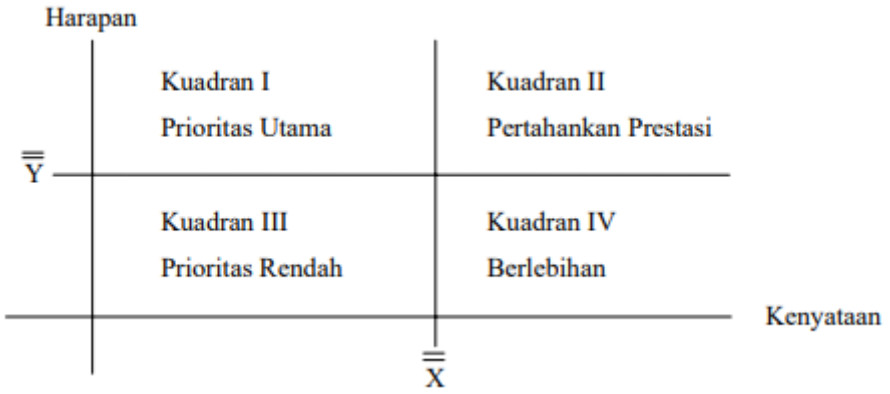



Figure 3.3. Cartesian Diagram (Supranto, 2001)

The interpretation of each quadrant in Figure 3.3 can be explained as follows:

a. Quadrant I (Top Priority)

   This quadrant shows the factors that affect customer satisfaction and includes service elements that are considered very important to consumers. However, service providers still need to implement it in accordance with the wishes of consumers, causing disappointment/dissatisfaction. Variables in this quadrant need serious attention.

b. Quadrant II (Maintain Achievement)

   This quadrant shows that the factors that are considered important by consumers have been implemented properly and can satisfy consumers. Service providers should maintain their performance.

c. Quadrant III (Low Priority)

This quadrant shows the factors considered less important by consumers, and the performance by service providers is mediocre. Variables included in this quadrant do not need to be questioned even though they do not satisfy consumers because consumers do not consider them very important

d. Quadrant IV (Excessive)

This quadrant shows factors considered less important by consumers but have been implemented very well by service providers.

Based on the interpretation of each of these quadrants, the results of calculating the average Expectations and Reality in Table 3.1 are plotted in a Cartesian diagram, as shown in Figure 3.4.

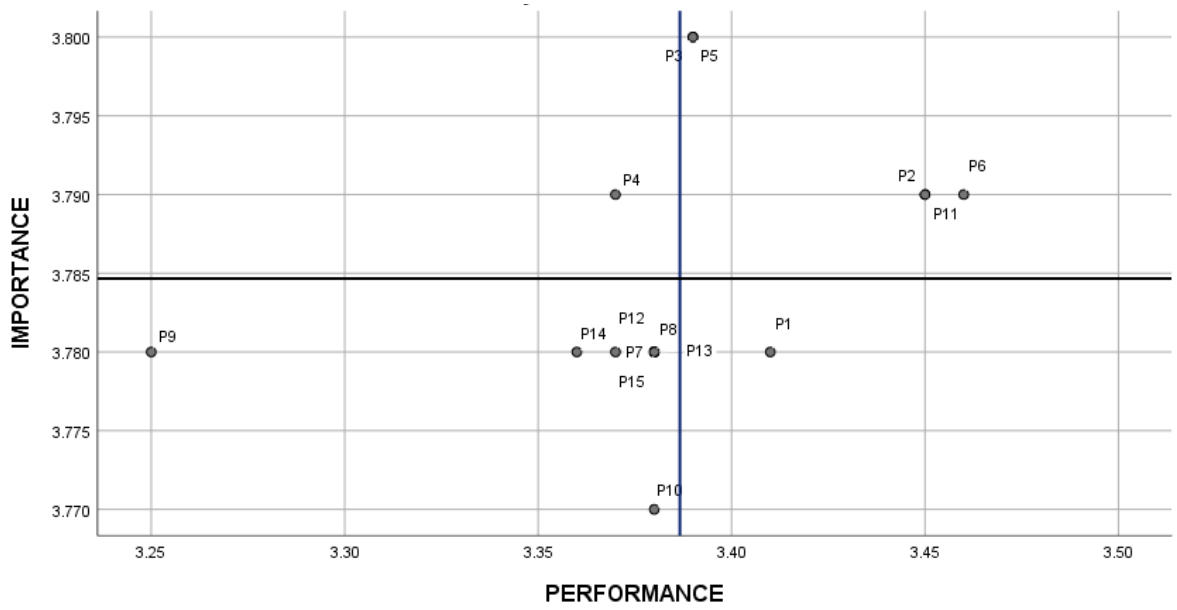



Figure 3.4.

Cartesian Diagram of Research Process Service Satisfaction Survey of Unesa Lecturers in 2021

Based on the visualization of the Cartesian diagram of the relationship between the expectations and reality indicators that the lecturer respondents have assessed, it was found that the variables in the quadrant I area were P3 and P4. This means two factors need to be prioritized, which are considered urgent and main by the response. These two factors are the

alertness of LPPM's administrative services in dealing with problems in the field of research and the consistency of rules and the implementation of submitting and evaluating proposals and/or research monitoring and evaluation.

Whereas in quadrant II, it was found that there were variables P2, P6, and P11. Users consider these variables important and have been implemented properly to satisfy consumers. The higher education management should maintain the performance running so far. The seven variables are (1) Ease of facilities for submitting research proposals; (2) Disclosure of information on the rights and obligations of researchers and (3) Clear guidelines and SOPs regarding the obligation to have research output, service providers are good, and their service performance must be maintained.

Meanwhile, the other variables, namely P7, P8, P9, P10, P12, P14, and P15, are in quadrant III, meaning that they do not need to be questioned and are in accordance with consumer expectations so that they are not too much of a focus of attention in improving the service process for further research. Meanwhile, from the respondent's perspective, only variable P1 is located in quadrant IV, meaning that the service has been carried out very well, namely the information disclosure aspect of the grant program.

# CHAPTER IV

# CONCLUSIONS AND RECOMMENDATIONS

Based on the results of data analysis, it can be concluded that the service of the research process at Unesa in 2021 from the perspective of lecturers is as follows:

a. There is a significant difference between Expectations and Reality based on the results of the Wilcoxon test with a significance value of <5% and concluding that Ho is rejected.
b. The dimension with the largest negative gap is the Tangible (Transparent) dimension, precisely the P9 variable, namely the accuracy of disbursing research funds with a gap value of -0.53. According to the respondents, the level of conformity between expectations and the reality of this variable is 85.98%. The second biggest gap is the issue of Assurance (responsibility), namely the consistency of rules and the implementation of submitting and evaluating proposals and/or research monitoring and evaluation, with a gap value of -0.42 and a conformity level with expectations of 88.92%.
c. It was found that the variables in the quadrant I area were P3 and P4. This means two factors need to be prioritized, which are considered urgent and main by the respondent. These two factors are the alertness of LPPM's administrative services in dealing with problems in the field of research and the consistency of rules and the implementation of submitting and evaluating proposals and/or research monitoring and evaluation.

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## Attachment

### I. Service Satisfaction Instrument and Implementation of the Research Process (Criterion 7)

INSTRUCTION

Please fill in by putting a tick (√) on "Expectations for answers" and "Existing facts" in the field in real terms.

| No | Question | Hope for an answer | | | | Existing facts | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Very good | Good | Enough | Not enough | Very good | Good | Enough | Not enough |
| **A** | **Submission of Proposals** | | | | | | | | |
| 1. | Disclosure of grant program information ( *Tangibles* ) | | | | | | | | |
| 2. | Ease of facilities for submitting research proposals ( *Reliability* ) | | | | | | | | |
| 3. | Readiness of LPPM administrative services in dealing with problems in the field of research ( *Responsiveness* ) | | | | | | | | |
| 4. | Consistency of rules and implementation of submission and evaluation of proposals and/or research monitoring and evaluation ( *Assurance* ) | | | | | | | | |
| 5. | Disclosure of proposal assessment results and research reports ( *Empathy* ) | | | | | | | | |
| | | | | | | | | | |
| **B** | **Research Implementation** | | | | | | | | |
| 1. | Disclosure of information rights and obligations of researchers ( *Empathy* ) | | | | | | | | |
| 2. | Ease of research facilities ( *Tangibles* ) | | | | | | | | |

| No | Question | Hope for an answer | | | | Existing facts | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Very good | Good | Enough | Not enough | Very good | Good | Enough | Not enough |
| 3. | Responsiveness of administrative services during the research ( *Responsiveness* ) | | | | | | | | |
| 4. | Accuracy of disbursement of research funds ( *Tangibles* ) | | | | | | | | |
| 5. | Consistency of rules on the implementation of research and *Monev* activities ( *Reliability* ) | | | | | | | | |
| | | | | | | | | | |
| **C** | **Research outputs** | | | | | | | | |
| 1 | Clear guideline and SOPs regarding the obligation to have research output ( *Reliability* ) | | | | | | | | |
| 2 | Ease of facilitation in realizing research output ( *Reliability* ) | | | | | | | | |
| 3 | Accuracy of research output ( *Responsiveness* ) | | | | | | | | |
| 4 | Ease of guidance in achieving research output ( *Empathy)* | | | | | | | | |
| 5 | Research output can be used in problem-solving ( *Empathy)* | | | | | | | | |