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Analysis Of Public Satisfaction With Road Repairs In Banjarmasin City

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ABSTRACT : *With the increasing economic development in the city of Banjarmasin, the city government is trying to fulfill good traffic access conditions by repairing damaged roads, Therefore, research is needed to determine the level of public satisfaction with road repairs and what variables need to be improved by the Banjarmasin City Government in the implementation of road repair work.*
Using the Pilot Survey method to obtain variable questionnaire data, with the number of respondents determined using the Slovin formula, and using the Customer Satisfaction Index analysis method to determine the value of the level of public satisfaction and the Importance Perfomance Analysis method to determine the priority level of service improvement of each variable.
Based on the results of the analysis on 151 respondents divided into 10 road repair sections, there are 10 variables that need to be improved, namely Closure and diversion of traffic access, Spraying prime coat / tack coat on fence walls / residents' homes, Installation of work notification signs, Spraying the wind with a compressor to clean the road body causes a dusty environment, Installation of culverts, Work carried out at night or during residents' rest hours, Not carrying out work when there are worship activities or the like in the neighborhood, Workers are informative, communicative and professional, The suitability of the height of the repaired road and Holding socialization before the implementation of the work. With a total level of community satisfaction with road repair of 0.56 in the moderately satisfied category, so the government needs to improve its services to the road repair process.
KEYWORDS *Priority level, Road repair, Satisfaction analysis*

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I. INTRODUCTION

Banjarmasin City has a high economic growth rate. This is because Banjarmasin City is a traffic center between provinces and city districts, which indirectly makes the Banjarmasin city government strive to improve the quality and comfort of users of goods and services traffic, which each year spends a large enough regional budget, with the hope that people in Banjarmasin city can use traffic access comfortably. However, after road repairs are carried out, there are some people who feel dissatisfied with the road repair work process. These feelings of dissatisfaction, if left unaddressed and unaddressed, can lead to a decline in public trust in the city government. In today's era of globalization, government services must be sensitive to the quality of services offered. [1] (IF Radam, RH Kartadipura dan C Yuliana, 2018)

In the process of road works, the role of the community is closely related to the smooth implementation of the work process. This will br affected if local community support does not go well, one example is the closure of traffic access that is not obeyed by the community, it will have an impact on the results of road repair work such as not being optimal and hampered. Community disobedience will arise because the level of trust in the government has decreased, this must be anticipated early, to avoid greater impact. By analyzing public satisfaction with road improvements. So that it can be clearly known the main variables that are prioritized in improving the quality of services that can increase public satisfaction in road repair in the future.

II. LITERATURE REVIEW

Public service is a socially beneficial activity that brings satisfaction, the results of which are not tied to a specific product. [2] (Sinambala, 2011). Service characteristics have the ability to influence employee satisfaction and work performance based on the construction of characteristics proposed by experts. [3] (Fandy, Tjiptono, dan Diana, 2003). Meanwhile, service quality is divided into two, namely internal and external service quality, each of which is influenced by factors that are quite important. [4] (Barata, 2003). The preparation of the Public Satisfaction Survey of the Public Service Provider Unit aims to collect information related to the level of public satisfaction obtained through quantitative and qualitative measurements of public opinions in receiving services from public service providers by comparing their expectations and needs. [5] (KemenPAN-RB).

The Community Satisfaction Index designed by one government service unit to another is made to provide good benefits for the community and for the government agency itself. The benefits of the Community Satisfaction Index are often used to benchmark the performance of service delivery in government agencies. According to [6] (Harbani Pasolong, 2010), The better the government and the quality of services carried out, the higher the level of public trust. Public trust is higher if the community has received satisfactory service. Public satisfaction can be known using several measurement methods such as complaints and suggestions systems, community satisfaction surveys, *ghost shopping*, *lost customer analysis* [7] (Tjiptono, 2004).

Non probability sampling is a sampling technique that does not provide equal opportunities or opportunities for each element or member of the population to be selected as a sample [8] (Sugiyono, 2015). The type of non probability sampling used in this study is incidental sampling. Incidental sample is a technique in determining a sample based on chance, which means that anyone who happens to be encountered (residing at the location of road repair)..

Customer Satisfaction Index is an index that can measure the value of the level of public satisfaction based on certain variables [9] (Asfary, Oggi Rahmat, 2018). The variables measured vary according to the needs in the field. The overall satisfaction level of road improvement assessment has a weakness because the value obtained from the overall satisfaction statement does not take into account the significance of each variable. While variables with a higher level of general satisfaction than other variables will affect overall satisfaction compared to other variables that are considered less important.

The Importance Perfomance Analysis method translates what the community wants to measure based on what the company/agency needs to do to create quality services [10] (Janreza, Dwinur, 2019). In Importance Perfomance Analysis, the relationship between the level of interest and the performance perceived by the audience can be determined using a Cartesian diagram divided into four parts and bounded by two perpendicular lines (x and y) where x is the average of the average performance score and y is the average of the n weighted averages, then the magnitude of these factors will be displayed and depicted in a Cartesian diagram.

III. RESEARCH METHODS

In this writing, research methods are needed for reference to analyze data and present data, so that the processed data can be combined into one thought. This type of research is descriptive and aims to explain specifically social events in society, with a combination of quantitative and qualitative data analysis approaches obtained through distributing questionnaires and direct interviews. Examining the results of the analysis of responses collected through questionnaires filled out by respondents with their responses, then analyzing them using the Customer Satisfaction Index analysis method to get the value of the overall level of community satisfaction, then continued using the Importance Performance Analysis method in order to get a satisfaction value on each variable and also get variables that are prioritized in improving the level of service. Thus, the variables that must be improved can be clearly identified with the priority level from the results of the Importance Performance Analysis. The final result of this research is the view or quality of the road repair process carried out by the government, which aims to improve the quality of work from the point of view of the people in Banjarmasin City.

The following are some explanations of the stages of data analysis:

1. Conduct a Pilot Survey to obtain variables other than those contained in KepmenPAN-RB Number 14 of 2017.
2. Determining the sample of respondents using the Slovin formula which refers to the number of houses located at the location of road repair work by determining the average value of the distribution of the number of respondents on each repaired road section.
3. Conduct Validity Test and Reliability Test of respondent data that has been obtained.
4. Analyzing respondent data to get the value of the level of community satisfaction with the Customer Satisfaction Index analysis method.

5. Analyzing priority variables for improving service quality using the Importance Peformance Analysis method to Indonesia accurately to find the value of the level of conformity, followed by calculating variables that need to improve service quality and maintain quality using Action & Hold analysis. To find out the variables that need to be improved according to the interests of the community, the Cartesian Diagram method is used by taking the variables in quadrant I.

IV. ANALYSIS RESULTS

IV. 1. Population and Sample

Determine the number of sample respondents using the Slovin formula with the first step determining the population size value (N) by summing up all road repair locations obtained through survey results.

N = population size
N = 242

Then, the results of the population size value (N) obtained are 242 which can be seen in Table 1. from the population value, it is processed using the Slovin formula and the error tolerance limit is 5%.

$$n = \frac{N}{1+Ne^2}$$
$$n = \frac{242}{1+242(0,05)^2}$$
$$n = \frac{242}{1+242(0,0025)}$$
$$n = \frac{242}{1+0,605)}$$
$$n = \frac{242}{1,605}$$
n = 150,77

Based on the results of the calculation of the number of samples using the Slovin formula, the number of accurate and efficient samples to be used in distributing questionnaires is 151 samples. However, to divide the average number of respondents in each location in 10 (ten) road repair locations, first find the percentage value between the value of N and the value of the number of samples (n).

$$\text{Mean value} = \frac{n}{N}$$
$$\text{Mean value} = \frac{151}{242}$$
Mean value = 62%

The sample size data table from the results of population calculations using the Slovin formula can be seen in Table 1.

Table 1 Sample Quantity Data

No	Road Repair Location	Number of Homes	Percentage Average value	Sample Quantity
1	Jl. Jahri Saleh Gg. Barito	19	62%	12
2	Jl. Jahri Saleh Gg. Keluarga	13	62%	8
3	Jl. Jahri Saleh Gg. Ruhuy Rahayu	11	62%	7
4	Jl. Jahri Saleh Gg. Mahligai Sejahtera	42	62%	26
5	Jl. Mahat Kasan Gg. Permata Bunda	16	62%	10
6	Jl. Tunjung Maya Jalur 2	27	62%	17
7	Jl. A. Yani Km. 5 Komp. Dharma Bakti VD	25	62%	16
8	Jl. A. Yani Km. 5 Komp. Dharma Bakti VF	34	62%	21
9	Jl. Bumi Mas Raya Komp. Pertiwi I	28	62%	17
10	Jl. HKSN Komp. Surya Gemilang Blok Q	27	62%	17
	Total	242		151

IV. 2. Validity Test

The first stage in validating the respondent's data is to determine the value of the "r" table first with a significance level of 0.05, the critical value (r) of the Moment Product is juxtaposed with the value of the degree of freedom degree of freedom to determine the value. r_{table}.
df = (n-2), the value of "n" which is the number of sample respondents.
df = (151-2)
df = 149 with the significance level of 0.05
According to the value of "r" _table with (r) Produckt Moment significance level 0.05 is 0.1598.
From the results of the validity test of 151 questionnaires filled out by respondents in 10 (ten) road repair locations scattered in Banjarmasin City, valid results were obtained for 29 variables.

IV. 3. Reliability Test

Based on the results of the reliability test, the respondent's data is declared reliable because the Cronbach's Alpha value is 0.8 for the Performance instrument and 0.80 for the Expectation instrument. This shows that the question variables used in the distributed questionnaires can show the stability of the field review results when measured by these variables. asked many times, the questionnaire question variables are submitted to different respondents, the results will not be far from the average respondent's response to these variables. The results of the Reliability test measurement can be seen in Table 2.

Table 2 Reliability Test Measurement Results

Dimensions	Nilai Cronbach Alpha	N of Ithems	Description
Performance/Interests	0,830	0,60	*Reliable*
Expectation/Satisfaction	0,841	0,60	*Reliable*

IV. 4. *Customer Satisfaction Index*

Based on the results of calculations carried out by the Customer Satisfaction Index, it can be seen that the level of public satisfaction with road repairs in Banjarmasin city is 0.56 on a scale range of 0.51 to 0.65, which means that this data has a value of the level of public satisfaction with road repairs in Banjarmasin City in the moderately satisfied category which can be seen in Table 3.

Table 3 Perhitungan Customer Satisfaction Index

Code	Variabel	*Weighted Score*
X1	Organize socialization before work implementation	6,02%
X2	Report to the local neighborhood association when carrying out work	19,20%
X3	Installing job information boards	18,87%
X4	Workers have identification	4,55%
X5	Appropriateness of the road improvement proposal submitted with the type of road improvement work carried out	15,64%
X6	Use of LFA type of work for road elevation	12,18%
X7	Installation of culverts	5,64%
X8	Work is only carried out from morning to evening	14,00%
X9	Work is carried out at night or during residents' rest hours	5,78%
X10	Work is completed before the end of the contract period	9,26%

Code	Variabel	*Weighted Score*
X11	Temporarily stopping work when the call to prayer is announced	17,52%
X12	Not carrying out work when there are worship activities or the like in the neighborhood	5,81%
X13	Workers are friendly and polite	14,06%
X14	Workers are informative, communicative and professional	4,73%
X15	Workers do not use illegal drugs/alcoholic beverages	14,43%
X16	Workers do not use the yard/basement of residents' houses as a place to rest	9,31%
X17	Air pollution such as dust	3,17%
X18	Vibration pollution during compaction	4,77%
X19	Obstructed traffic access	8,86%
X20	Closure and diversion of traffic access	5,70%
X21	Vacant land / yard is used as a parking lot for heavy equipment	7,67%
X22	Spraying prime coat/tack coat on fence walls/residents' houses	7,00%
X23	Spraying wind with a compressor to clean the roadside causes a dusty environment	6,15%
X24	Cleanliness of remaining piles of work materials	7,06%
X25	Workers wearing shoes, helmets and vests	4,69%
X26	Installation of work notification signs	5,97%
X27	Appropriateness of the height of the repaired road	12,19%
X28	The quality of the asphalt is not bumpy or has no holes after the work is completed	16,11%
X29	Maintenance is still carried out after the work is completed	14,48%
	Total	280,80%

$$\text{Community Satisfaction Index} = \frac{\text{Total WS}}{\text{Maximum scale}} \text{ x } 100\%$$

$$= \frac{280{,}80\%}{5} \text{ x } 100\%$$

$$= 0{,}56$$

IV. 5. ***Importance Performance Analisys***

To find out which variables are prioritized in improving service quality, the Importance Peformance Analysis method is used to produce a suitability level value. The scale table of customer satisfaction criteria can be seen in table 4.

Table 4 Customer Satisfaction Criteria Scale

No	Suitability Level (%)	Customer Satisfaction Level
1	>100,00	Very Satisfied
2	100,00	Satisfied
3	73,34 s.d. <100,00	Less Satisfied
4	46,68 s.d. 73,33	Not Satisfied
5	20 s.d. 46,67	Very Dissatisfied

After analyzing with the Importance Peformance Analysis method, it produces variables with a very satisfied category of 11 variables, less satisfied 5 variables, dissatisfied 3 variables and very dissatisfied 9 variables. Can be seen in table 5.

Table 5 Suitability Level

Code	Variable	Suitability Level	Category
X1	Organize socialization before work implementation	49,53%	Not Satisfied
X2	Report to the local neighborhood association when carrying out work	94,48%	Less Satisfied
X3	Install a work information board	109,29%	Very Satisfied
X4	Workers have identification	75,94%	Less Satisfied
X5	The suitability of the road improvement proposal submitted with the type of road improvement work carried out	120,33%	Very Satisfied
X6	Use of LFA type of work for road elevation	135,08%	Very Satisfied
X7	Installation of culverts	35,75%	Very Dissatisfied
X8	Work is only carried out from morning to evening	116,82%	Very Satisfied
X9	Work carried out at night or during residents' rest hours	32,97%	Very Unsatisfied
X10	Work completed before the end of the contract period	135,84%	Very Satisfied
X11	Temporarily stop work when the call to prayer is announced	86,21%	Less Satisfied
X12	Not carrying out work when there are worship activities or the like in the neighborhood	38,98%	Very Dissatisfied
X13	Workers are friendly and polite	77,97%	Less Satisfi
X14	Workers are informative, communicative and professional	36,17%	Very Dissatisfied
X15	Workers do not use illegal drugs/alcoholic beverages	107,87%	Very Satisfied
Code	**Variable**	**Suitability**	**Category**

		Level	
X16	Workers do not use the yard/basement of residents' houses as a place to rest	154,67%	Very Satisfied
X17	Air pollution such as dust	65,97%	Not Satisfied
X18	Vibration pollution during compaction	41,07%	Very Dissatisfied
X19	Obstructed traffic access	167,05%	Very Satisfied
X20	Closure and diversion of traffic access	29,46%	Very Unsatisfied
X21	Vacant land / yard is used as a parking lot for heavy equipment	204,39%	Very Satisfied
X22	Spraying prime coat/tack coat on fence walls/residents' houses	34,94%	Very Dissatisfied
X23	Spraying wind with a compressor to clean the roadside causes a dusty environment	31,89%	Very Dissatisfied
X24	Cleanliness of remaining piles of work materials	234,72%	Very Satisfied
X25	Workers wearing shoes, helmets and vests	83,20%	Less Satisfied
X26	Installation of work notification signs	31,04%	Very Unsatisfied
X27	Appropriateness of the height of the repaired road	65,55%	Not Satisfied
X28	The quality of the asphalt is not bumpy or has no holes after the work is completed	101,81%	Very Satisfied
X29	Maintenance is still carried out after the work is completed	114,73%	Sangat Puas

From this value, the Action & Hold analysis is continued with the results of 16 variables in the Action / improvement category and 13 variables in the Hold / maintain category with a value threshold of 90.13%.

$$\frac{\text{Average number of suitability level scores}}{\text{Number of variables}}$$

$$= \frac{49{,}53\% + 94{,}48\% + 109{,}29\% + 75{,}94\% \ldots + 114{,}73\%}{29}$$

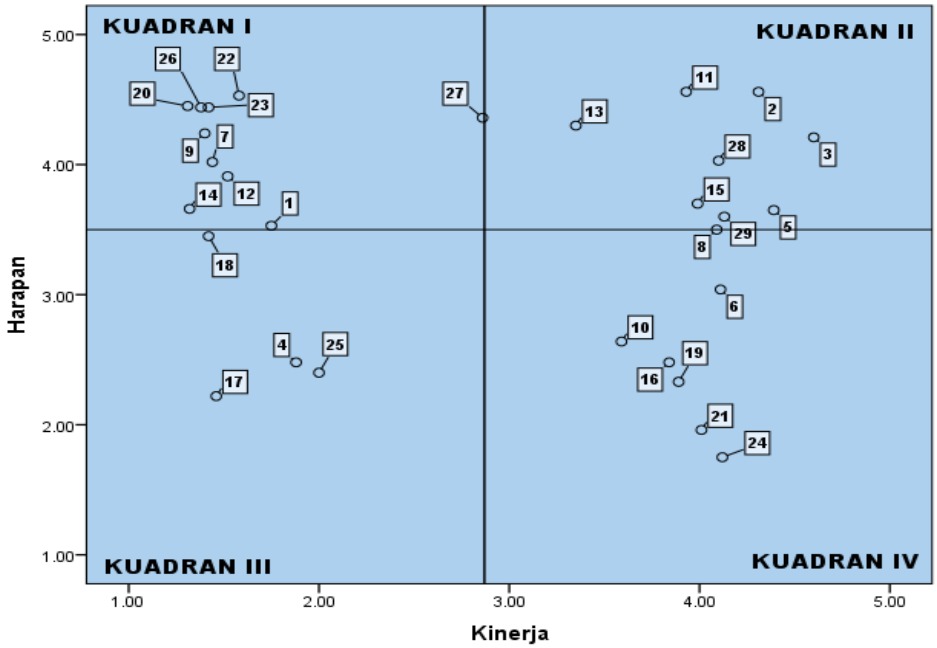
= 90,13%

The basic limit of the decision value is 90.13%, which is the benchmark for the average value of the level of conformity for each variable. The basis for the decision is as follows:

1. If the level of conformity is < 90.13%, it is necessary to make improvments (Action)
2. If the level of conformity > 90.13% then it will maintain the achievement (Hold)

Furthermore, using the Cartesian Diagram to find out important variables for the community that need to be improved services, and from the results of the analysis resulted in 10 variables that need to be improved service levels. Details of the distribution of variables on the Cartesian Diagram can be seen in Figure 1.

Figure 1 Cartesian Diagram of Public Satisfaction with Road Improvement in Banjarmasin City



The first quadrant shows variables that greatly affect public satisfaction with road improvements but the performance of service providers is still less than what respondents want. This illustrates that the performance provided by service providers related to road repairs is considered less satisfactory than the wishes or expectations of the community, so the government must prioritize efforts or steps to improve performance on the variables included in this first quadrant. Can be seen in Table 6.

Table 6 Service Quality Variables in the First Quadrant (I)

Variable Code	Variable
X1	Organizing socialization before work implementation
X7	Installation of culverts
X9	Work carried out at night or during residents' rest hours
X12	Not carrying out work when there are worship activities or the like in the neighborhood
X14	Workers are informative, communicative and professional
X20	Closure and diversion of traffic access
X22	Spraying prime coat/tack coat on fence walls/residents' houses
X23	Spraying wind with a compressor to clean the road body causes a dusty environment
X26	Installation of work notification signs
X27	Appropriateness of the height of the repaired road

IV.6. Analysis GAP

Make a priority order on the variables generated by the Quadrant I Cartesian Diagram using GAP Analysis with the results of the priority order can be seen in Table 7.

Table 7 Gap Analysis Calculation Results

No	Code Variabel	Variabel
1	X20	Closure and diversion of traffic access
2	X26	Installation of work notification signs
3	X23	Spraying wind with a compressor to clean the road body causes a dusty environment
4	X22	Spraying prime coat / tack coat on fence walls / residents' homes
5	X9	Work carried out at night or during residents' rest hours
No	**Code**	**Variabel**

	Variabel	
6	X7	Installation of culverts
7	X27	Appropriateness of the height of the repaired road
8	X12	Not carrying out work when there are worship activities or the like in the neighborhood
9	X14	Workers are informative, communicative and professional
10	X1	Organizing socialization before work implementation

V. CLOSING

V.1 Conclusion

Based on the results of the analysis of public satisfaction with road repairs in Banjarmasin city on 10 (ten) road sections carried out in the 2022 fiscal year, several things can be concluded in this study, namely:

1. The value of the level of public satisfaction with road improvements in Banjarmasin city based on the analysis of the Customer Satisfaction Index method is 0.56 with the category "quite satisfied".
2. From the results of analyzing the level of conformity with the Importance Peformance Analysis method on 29 variables, 10 (ten) variables are in quadrant I which is the top priority in improving the level of performance expected by the community.
3. The strategy used to prioritize the right handling to improve the performance of the 10 (ten) variables is to use GAP analysis and produce a variable priority sequence, namely Closing and diverting traffic access, Spraying prime coat / tack coat on the walls of fences / residents' homes, Installation of work notification signs, Spraying wind with a compressor to clean the road body causes a dusty environment, Installation of culverts, Work carried out at night or during residents' rest hours, Not carrying out work when there are worship activities or the like in the neighborhood, Workers are informative, communicative and professional, The suitability of the height of the repaired road and Holding socialization before the implementation of the work.

V.2 Advice

In this study, which analyzes public satisfaction with road repairs in Banjarmasin city, of course, still has many limitations and shortcomings, so it is necessary to make improvements in future studies. The limitations, shortcomings and suggestions for improvement that the authors can convey include:

1. The types of work items in this study are limited to LFA and Asphalt work, so there is a need for research examining the types of Concrete work items to complement the results of this study and also as a comparison in knowing the level of public satisfaction with road repairs.
2. Due to time and cost constraints, this study sampled only 151 respondents spread across ten road repair locations in Banjarmasin city.
3. Maintain variables that are considered satisfactory according to respondents and focus on improving service performance which is considered still unsatisfactory according to the results of data analysis.
4. We recommend that in an effort to measure the quality of public satisfaction with road repairs, it still refers to the IKM while still considering the needs that are in accordance with the conditions in the field.

The results of this study can be applied to related SKPDs using the same analysis method, so as to measure the level of public satisfaction with the performance carried out by the government.

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