

## ANALYSIS OF PUBLIC SATISFACTION INDEX FOR ROAD PUBLIC SERVICES

### ANALISIS INDEKS KEPUASAN MASYARAKAT TERHADAP PELAYANAN PUBLIK JALAN

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#### ABSTRACT

One of the government's duties is to provide optimal public services for the community. To measure the level of public satisfaction with public services, an evaluation of the quality of public service delivery is needed, one of which is the highway which is under the authority of the PUPR Office of Banten Province. This study used a quantitative approach with respondents being provincial road users. with a total of 265 respondents, divided into 26 Provincial Roads in the Serang and Cilegon areas. The sampling technique used was purposive sampling with a combination of accidental sampling techniques. The results showed that the Importance Performance Analysis (IPA) method obtained the results from 29 questions, of which 5 questions were in quadrant I (High Interest, Low Satisfaction), Whereas 15 questions are in quadrant II (High Interest, High Satisfaction), while 5 questions are in quadrant III (Low Interest, Low Satisfaction) and there are 4 questions in quadrant IV (Low Interest, High Satisfaction). 3. Based on the analysis of the Customer Statistics Index (CSI), the results of the CSI Customer Statistics Index (CSI) were 74.75%. This shows that people who use provincial road services in the Primary Collector Area (WKP) II (Serang-Cilegon) feel satisfied.

*Keywords: Community Satisfaction, Public Services, Provincial Roads, Primary Collectors*

#### ABSTRAK

Salah satu tugas pemerintah adalah memberikan pelayanan publik yang optimal bagi masyarakat. Untuk mengukur tingkat kepuasan masyarakat terhadap pelayanan publik diperlukan evaluasi terhadap kualitas penyelenggaraan pelayanan publik, salah satunya jalan tol yang menjadi kewenangan Dinas PUPR Provinsi Banten. Penelitian ini menggunakan pendekatan kuantitatif dengan responden pengguna jalan provinsi. dengan jumlah responden sebanyak 265 orang yang terbagi dalam 26 Jalan Provinsi di wilayah Serang dan Cilegon. Teknik pengambilan sampel yang digunakan adalah purposive sampling dengan kombinasi teknik accidental sampling. Hasil penelitian menunjukkan bahwa metode Importance Performance Analysis (IPA) diperoleh hasil dari 29 pertanyaan, dimana 5 pertanyaan berada pada kuadran I (Minat Tinggi, Kepuasan Rendah), Sedangkan 15 pertanyaan berada pada kuadran II (Minat Tinggi, Kepuasan Tinggi), sedangkan 5 pertanyaan berada pada kuadran III (Minat Rendah, Kepuasan Rendah) dan terdapat 4 pertanyaan pada kuadran IV (Minat Rendah, Kepuasan Tinggi). 3. Berdasarkan analisis Customer Statistics Index (CSI) diperoleh hasil CSI Customer Statistics Index (CSI) sebesar 74,75%. Hal ini menunjukkan bahwa masyarakat pengguna jasa jalan provinsi di Wilayah Kolektor Primer (WKP) II (Serang -Cilegon) merasa puas.

Kata Kunci : Kepuasan Masyarakat, Pelayanan Publik, Jalan Propinsi, Kolektor Primer

## INTRODUCTION

In order to build an effective governance system with a system that is oriented to the interests of the community, it is necessary to build a governance model with reference to the concept of good governance. The United Nations Development Program (UNDP) in 1997 revealed at least 8 principles of good governance that could become characteristics of good governance.

These eight principles are the foundation for good governance in Indonesia because the Indonesian people have chosen a democratic system as the best system option in building the nation and state. In an effort to implement this system, the Government has issued various regulations, including Presidential Instruction of the Republic of Indonesia Number 12 of 2016 concerning the National Movement for "Mental Revolution", Law Number 25 of 2009 concerning Public Services and RI Law No. 14 of 2008 concerning Public Information Disclosure.

The design of good governance is also expected to be implemented at various levels of government. This is as stated in Law no. 23 of 2014 concerning Regional Government and Law no. 6 of 2014 concerning Villages. The hope is that the existence of the government can be felt by all levels of society. Optimizing public services will be the spearhead of indicators of good government management (Rohman and Hanafie 2019).

Banten Provincial Government as mandated by Law no. 25 of 2009 concerning Public Services and Government Regulation no. 96 of 2012 concerning the Implementation of Law Number 25 of 2009 concerning Public Services conducted a survey of all services provided to the people of Banten. The survey is used as an internal evaluation material for Banten government agencies in improving services.

A survey conducted by the Indonesian Ombudsman in 2018 obtained the results that the Provincial Government of Banten was in the Green Zone regarding compliance with public service standards with a high compliance score with a score of 80.74 out of 50 administrative service products (<https://ombudsman.go.id/>). Even so, not all Regional Apparatuses (OPD) of the Banten Provincial Government have a Public Service Complaint Management Unit (UP4). The provisions are that UP4 needs to be managed by special officers and equipped with a good system so that every member of the public who has complaints against public service providers can complain about their problems easily. The problem of the urgency of improving public services in the Provincial Government of Banten is also conveyed in Nur et al's research (2019), especially regarding the problem that there are still very complicated public service requirements, a lack of personnel and supporting facilities. Based on the data and literature above, a simultaneous study is needed to evaluate public services by conducting a survey on the achievements of IKM in Banten Province.

One of the public services that needs to be surveyed as a form of evaluation of the services provided by the government is a survey on the provision of road facilities. A survey on the provision of road facilities was conducted to measure the level of satisfaction with the use of road services by the community. Therefore the quality of road provision needs to be a serious concern for the government.

Highways are service products that have an important and strategic role in providing services to the community. Meeting the needs of roads for the community is a basic need. Provision of roads as a form of service carried out by the government to the community to support the daily mobilization and transportation activities of citizens. Therefore, it is necessary to pay attention

to the physical quality in the provision of roads.

Public Works and Spatial Planning Office of Banten Province has carried out road construction in 2021 with a length of 762.02 KM with the following road conditions:

Table 1 Length of Roads and Conditions of Provincial Roads.

Year	Long Way	Unit	Good	Currently	Rugged Rigan	Heavily Damaged
2020	762.02	Km	597.35	139,21	10.25	15,21
2021	762.02	Km	614,40	132,42	6,14	9.06

Source: PUPR Office of Banten Province, 2022

From table 1, it is explained that the Public Works and Spatial Planning Office of the Province of Banten for two years has been continuously trying to improve its services in the form of improving the quality of road conditions. In addition to improving the quality of road conditions, the Public Works and Spatial Planning Office of Banten Province is also increasing the type of road surface through gradual concreting. As in table 2.

Table 2 Length of Provincial Roads Based on Surface Type.

Year	Long Way	Unit	On Asphalt	On Concrete	Gravel	Land
2020	762.02	km	221.32	524.81	15.90	0
2021	762.02	km	213.69	532,44	15.90	0

Source: PUPR Prov. Bantam, 2022

With reference to the performance of the Banten Province Public Works Service in carrying out continuous repairs and improving the quality of roads, it is necessary to carry out survey activities to measure and find out the benefits and satisfaction of the community with provincial road services. In addition, to determine the quality and construction as

well as the level of community satisfaction with the construction of roads by the Office of Public Works and Spatial Planning of Banten Province.

### Formulation of the problem

What is the level of community satisfaction with the implementation of public services in the form of Provincial Roads provided by the PUPR Office of Banten Province?; What are the efforts to increase public satisfaction with public services in the form of Provincial Roads provided by the PUPR Office of Banten Province?

### MATERIALS AND METHODS

Based on previous research mapping related to road user service satisfaction survey studies, there have been many researches in the 2012 to 2022 range, there are 12 research titles related to road user service satisfaction surveys.

This research faces several philosophical questions, with reference to the explanation from John W Creswell and Vicky L. Plano Clark (2018), the philosophical aspects of this research, the ontological dimension (what is the nature or reality?) is community satisfaction with Provincial Road services Banten. The epistemological dimension (what is the relationship between the researcher and that being researched?) is to place the researcher as an observer so that he can build objectivity and be value-free on the observed phenomenon. The axiological dimension (what is the role of values?) is to evaluate road public services which culminate in Improving the Quality of Public Services for road use from PUPR Banten Provincial Government

Quantitative research method. The focus of this study is the public service using the Banten Province highway from the service provider in the form of the PUPR Office of the Banten Province with details of service element items according

to service performance and the level of importance of provincial roads, referring to the opinion of Zeithaml, et al (1990) which measures service satisfaction. through the SERVQUAL model which is refined into the concept of a service quality loop (European Committee for Standardization, 2002). The disconfirmation paradigm explains the service gap, where positive disconfirmation occurs when the quality of service received is less than expected, resulting in customer dissatisfaction. Conversely, negative disconfirmation occurs when the quality of service received meets or exceeds expectations, resulting in customer satisfaction (Jain and Gupta, 2004). The indicators analyzed related to road user satisfaction with Provincial Road services are: Reliability, Responsiveness, Assurance, Empathy and Tangibles.

Preparation of a questionnaire based on the service quality method, the questionnaire consists of several questions divided into several sections, namely: a) Questions that measure the level of importance. Respondents gave scores according to the level of importance using a Likert scale of 1 to 4 for each question. b) Questions that measure the level of satisfaction, this question measures the user's perception of satisfaction with the quality of the road the assessment is carried out by respondents using a Likert scale of 1 to 4 for each question.

The sampling technique was purposive sideways with a combination of accidental sampling techniques, with a sampling quota of 265 respondents divided into 26 Provincial Roads in the Serang and Cilegon regions. Scale of measurement using a Likert scale. The answer scoring options for the question items are as follows:

Expectations/Importance Level:

- |                     |         |
|---------------------|---------|
| 1. Very unimportant | Score 1 |
| 2. Not important    | Score 2 |
| 3. Important        | Score 3 |
| 4. Very important   | Score 4 |

Reality/Performance/Satisfaction Rate

- |                      |         |
|----------------------|---------|
| 1. Very Dissatisfied | Score 1 |
| 2. Not satisfied     | Score 2 |
| 3. Satisfied         | Score 3 |
| 4. Very satisfied    | Score 4 |

The research location was at the PUPR Office of Banten Province with a public assessment of Provincial Roads in the Primary Collector Area (WKP) II (Serang-Cilegon) on 26 roads. Research time will be held on 26 October-25 November 2022.

In analyzing the data, the researcher tested the validity of the data, tested the reliability of the data, analyzed the data using Data Importance Performance Analysis (IPA) and Analysis of the Customer Satisfaction Index (CSI) Method.

### Importance Performance Analysis (IPA) analysis

Data analysis to determine the attributes of road service quality was carried out using the Importance Performance Analysis (IPA) discovered by Martilla and James (1977). This analysis compares the expected value (importance) with the performance value of each service attribute. Stages of calculating the Importance Performance Analysis (IPA), namely

- 1 Make tabulation of interest and satisfaction level data
- 2 Calculating the average value of interest and satisfaction
- 3 Prepare the mean value used to be a position on the important performance matrix and calculate the overall importance and satisfaction as the limit in the Cartesian diagram.

$$X = \frac{\sum_i^n = i X i}{X}$$

Figure 3 Mean Value Formula in IPA

Information :

$\sum_i^n = i X i$  = average total interest and satisfaction

$X$  = total questions

The following is an explanation of the four quadrant Cartesian diagram:

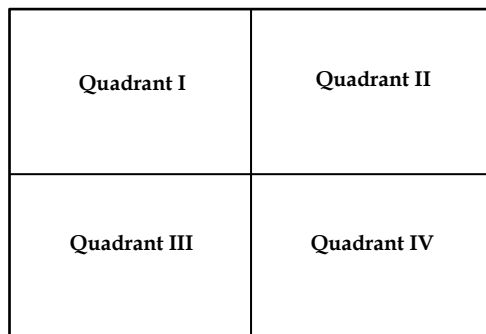


Figure 4 Cartesian diagram

Information: Quadrant I This means that the attributes located in quadrant I are very crucial attributes and must be followed up immediately. Quadrant II The attributes in this quadrant are quite good and can be maintained. Quadrant III Attributes located in this quadrant are attributes that do not really need special attention. Quadrant IV Attributes located in this quadrant are considered not too important so that the government needs to allocate resources related to these attributes to other attributes that have a higher priority for handling.

### Analysis of the Customer Satisfaction Index (CSI) Method

Analysis of the Customer Satisfaction Index (CSI) is used to determine the overall level of satisfaction with the following stages:

The first stage is to determine the mean importance score (MIS) the average importance of each attribute, this value comes from the average importance of each consumer:

$$MIS = \frac{\sum_{i=1}^n Y_i}{n}$$

The second stage is to calculate the Weighting Factor (WF) per attribute. This weight is the percentage of the MIS value per attribute to the total MIS of all attributes with the formula:

$$WF = \frac{MIS_i}{\sum_{i=1}^p MIS_i} \times 100\%$$

The third stage is to make a Mean Satisfaction Score (MSS) to average the satisfaction of each attribute with the formula:

$$MSS = \frac{\sum_{i=1}^n X_i}{n}$$

The fourth stage is to make a Weight Score (WS). This weight is a multiplication between WF and the Mean Satisfaction Score (MSS) with the formula:

$$WS_i = WFi \times MSS$$

The fifth stage is calculating the Customer Satisfaction Index. That is Total Weight (WT) divided by the maximum scale used, then multiplied by 100%. The level of satisfaction of respondents as a whole can be seen from the criteria for the level of satisfaction

$$CSI = \frac{\sum_{i=1}^p WSi}{HS} \times 100\%$$

After getting the CSI value, an analysis is carried out with reference to table 3.

Table 3. Interpretation of Intervals

Scale Range	Percentage %	Interpretation
1 .00-1.75	0-25	Very Dissatisfied
1 .76-2.50	26-50	Not satisfied
2 .51-3.25	51-75	Satisfied
3 .26-4.00	76-100	Very satisfied

## RESULTS AND DISCUSSION

### Validity test

The results of testing the validity of 30 questionnaires for Community Satisfaction Index for Provincial Road Public Services in the Primary Collector Area (WKP) II (Serang-Cilegon) have a value above 0.3610. So it can be concluded that the Community Satisfaction Index instrument/questionnaire for Provincial Road Public Services in the Primary

Collector Area (WKP) II (Serang-Cilegon) is declared valid.

**Reliability Test**

To test the reliability of an instrument data, researchers conducted a Cronbach'Alpha statistical test. Based on the results of the analysis, the condition is reliable if the Cronbach'Alpha value is greater than 0.60.

Table 4. Reliability Test

Item No	Correlati on Value	R Critic al	Informati on
Interest	0978	0.60	Reliable
Satisfacti on	0.845	0.60	Reliable

In table 4.3, the results of the reliability test of the instrument/questionnaire Community Satisfaction Index for Provincial Road Public Services in the Primary Collector Area (WKP) II (Serang-Cilegon) have an alpha value of  $\geq 0.60$ , so that the instrument is declared reliable.

**Importance Performance Analysis (IPA) Analysis**

The results of the analysis using the IPA method can be described in table 5.

Table 5 GAP Values Per Attributes of Interest and Satisfaction

No	Attribute/ Question	Interes t	Satisf action
1	The quality and smoothness of the road surface	3.13	3.18
2	Road surface resistance	3.16	3.19
3	Road shoulder surface quality	3.09	3.10
4	Geometric quality (bend position, descent, incline, straight)	3.12	3.13
5	Road width quantity	3.13	3.14

6	Bridge quality	3.12	3.17
7	Quality and availability of culverts	3.15	3.16
8	Environment and road cleanliness	3.03	3.06
9	Side road barrier	3.11	3.14
10	Road maintenance quality	3.15	3.17
11	Roads support faster travel aspects in carrying out citizen mobility	3.18	3.20
12	Officers have carried out road construction planning properly	2.98	3.11
13	Officials pay serious attention to the quality of road construction/ maintenance materials	3.12	3.14
14	Officers provide information to road users in the implementation of road construction/ maintenance	2.51	2.85
15	Officers have supervised road construction properly	2.80	2.85
16	The road that was built pays attention to the safety aspects of road users	2.80	3.12

17	Officers provide guarantees and certainty of time in road repairs	3.19	3.20
18	Officers provide guarantees and certainty of time in road construction	2.61	2.72
19	The information provided by officers is accurate and easily understood by road users	3.19	3.20
20	Road construction pays attention to aspects of justice for persons with disabilities (guiding block); Gender, elderly and children (Chairs waiting for the elderly, pregnant women, children, etc.);	3.41	2.17
21	Environmentally friendly road construction (Greening Road Shoulders)	3.45	2.62
22	Road construction/repair is friendly to road users (Provide information on road	3.55	2.91

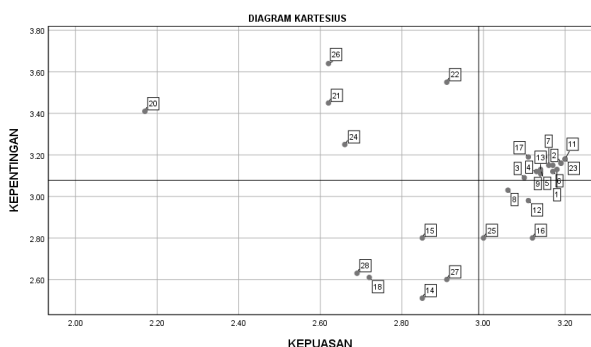
	construction/repair to users)		
23	Officers provide road repair services according to the needs of road users	3.18	3.20
24	The friendliness of the officers in handling complaints from road users	3.25	2.66
25	Response speed in handling road user complaints	2.80	3.00
26	Speed of action in road maintenance and repair	3.64	2.62
27	Officers responded quickly in handling road damage due to disasters	2.60	2.91
28	Responsiveness of officers in handling road user complaints either through call centers, email, mass media, social media, or directly	2.63	2.69
29	Officers perform road repair and maintenance actions in accordance with the procedure	3.16	3.19

Average value	3.08	2.99
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Based on the GAP value of the Importance - Performance Analysis (IPA) method on 29 questions, there are 24 positive questions indicating that the community feels satisfied with the Provincial Road public services in the Primary Collector Area (WKP) II (Serang-Cilegon) and 5 question items with negative values. shows that the community is not satisfied with the five provincial road public service items in the Primary Collector Area (WKP) II (Serang-Cilegon).

From the GAP values of interest and satisfaction, a Cartesian diagram can be drawn up as shown in Figure 5

Figure 5. Cartesian diagram



Quadrant I (High Interest and Low Satisfaction So Must Be Repaired); Quadrant II (High Interest and High Satisfaction So Performance is Improved); Quadrant III (Low Interest and Low Satisfaction Hence the Need for Evaluation); Quadrant IV (Low Interest and High Satisfaction resulting in a Surplus of Satisfaction)

**Analysis of Customer Statistics Index (CSI)**

The results of the calculations in the stages of the CSI method are as follows:

The first stage is to determine the mean importance score (MIS) the average importance of each attribute, this value comes from the average importance of each consumer:

$$MIS = \frac{\sum_{i=1}^n Y_i}{n}$$

$$MIS = \frac{(829)}{265} = 3.13(\text{up to 29 questions})$$

The second stage is to calculate the

Weighting Factor (WF) per attribute. This weight is the percentage of the MIS value per attribute to the total MIS of all attributes with the formula:

$$WF = \frac{MIS_i}{\sum_{i=1}^p MIS_i} \times 100\%$$

$$WF = \frac{3.13}{89.22} \times 100\%$$

$$= 0.04(\text{up to 29 questions})$$

The third stage is to make the Mean Satisfaction Score (MSS) the average satisfaction for each attribute with the formula:

$$MSS = \frac{(\sum_{i=1}^n X_i)}{n}$$

$$MSS = \frac{(842)}{265} = 3.18(\text{up to 29 questions})$$

The fourth stage is to make a Weight Score (WS). This weight is a multiplication between WF and the Mean Satisfaction Score (MSS) with the formula:

$$WS_i = WF_i \times MSS$$

$$WS_i = 0.04 \times 3.18 = 0.11(\text{up to 29 questions})$$

Then, adding up the average WS value, there is an average value of 2.99 The fifth stage is calculating the Customer Satisfaction Index. That is Total Weight (WT) divided by the maximum scale used, then multiplied by 100%. The level of satisfaction of respondents as a whole can be seen from the criteria for the level of satisfaction

$$CSI = \frac{\sum_{i=1}^p WS_i}{HS} \times 100\%$$

$$CSI = \frac{2.99}{4} \times 100\%$$

$$CSI = 74.75 \%$$

After obtaining the CSI value, it can be analyzed that the Community Satisfaction Index for Provincial Road Services in the Primary Collector Area (WKP) II (Serang-Cilegon) has a value of 74.75%. This shows that the community is satisfied with the services of the WKP II Serang-Cilegon provincial road.

**KESIMPULAN**

Based on the comparative GAP analysis between interests and satisfaction, with 29 questions, it is obtained that the GAP value



as a whole is dominant in the positive GAP. There are 24 question items that are positive. There are 5 question items that have a negative value, namely gender-based road conditions, greening of road shoulders, friendly road repairs to road users, friendliness of officers handling complaints and speed of road repair actions.

Based on the Importance Performance Analysis (IPA) method, the results obtained from 29 questions, 5 questions are in quadrant I (High Interest, Low Satisfaction), while 15 questions are in Quadrant II (High Interest, High Satisfaction), while 5 questions are in Quadrant III (Low Interest, Low Satisfaction), And there are 4 questions in quadrant IV (Low Interest, High Satisfaction).

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