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Analysis of Service Satisfaction and Complaint Handling Efforts of District Road Users in the Serang District Government

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ABSTRAK

Jalan raya merupakan layanan publik yang disediakan oleh pemerintah, sebagai infrastruktur penting untuk mobilitas masyarakat. Penelitian ini bertujuan menilai tingkat kepuasan masyarakat terhadap layanan jalan dan mengidentifikasi keluhan yang disampaikan oleh pengguna jalan. Penelitian ini menggunakan pendekatan kuantitatif dengan 196 responden, menggunakan rumus Lemeshow (populasi tidak diketahui), dan menggunakan teknik purposive sampling. Data dikumpulkan melalui kuesioner tertutup dan data dianalisis menggunakan metode: Importance Performance Analysis (IPA), Customer Satisfaction Index (CSI), dan Analisis Keluhan dan Saran. Hasil IPA bahwa dari 33 pernyataan, 2 item ada di Kuadran I, 9 item ada di Kuadran II, 15 item di Kuadran III, dan 7 item di Kuadran IV. Skor CSI dihitung sebesar 69,00%, menunjukkan pengguna jalan di Kabupaten Serang menyatakan cukup puas. Selain itu, analisis keluhan dan saran dari pengguna, meliputi perbaikan lubang jalan, bahu jalan dan jembatan yang rusak, pemasangan dan pemeliharaan penerangan jalan, pengadaan sistem drainase dan gorong-gorong. Temuan ini menjadi masukan penting dalam penyusunan program kerja maupun penganggaran di sektor infrastruktur jalan serta merumuskan kebijakan berbasis kebutuhan nyata pengguna jalan.

ABSTRACT

Highways are public services provided by the government, as an important infrastructure for community mobility. This study aims to assess the level of public satisfaction with road services and identify complaints submitted by road users. This study used a quantitative approach with 196 respondents, using the Lemeshow formula (population unknown), and using purposive sampling techniques. Data was collected through a closed questionnaire and data was analyzed using the following methods: Importance Performance Analysis (IPA), Customer Satisfaction Index (CSI), and Complaint and Suggestion Analysis. The results of the IPA are that of the 33 statements, 2 items are in Quadrant I, 9 items are in Quadrant II, 15 items are in Quadrant III, and 7 items are in Quadrant IV. The CSI score was calculated at 69.00%, showing that road users in Serang Regency were quite satisfied. In addition, the analysis of complaints and suggestions from users, including the repair of potholes, damaged road shoulders and bridges, installation and maintenance of street lighting, procurement of drainage systems and culverts. These findings are important inputs in the preparation of work programs and budgeting in the road infrastructure sector and formulating policies based on the real needs of road users.

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INTRODUCTION

Local governments play an important and strategic role in providing public services that are not limited to administrative functions, but also contribute significantly to improving the welfare of the community (Anzori et al., n.d.). Good and structured governance must be consistently implemented at all levels of central and regional government. This framework aims to ensure that each level functions effectively and efficiently, so that its impact can be felt by the public, both as active participants and as recipients of development outcomes. The government's task is not only to organize and implement development but also to provide optimal public services to the community. Public services, in this case, provide infrastructure. The provision of

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infrastructure is a crucial part of regional development.

Osborne, Radnor, and Nasi in (Anzori et al., n.d.) emphasize that effective public service management requires synergy between two main areas, namely public administration and service delivery. The provision of road infrastructure is a crucial public service that needs to be addressed and evaluated. Roads play a vital role because they strategically serve the needs of the community. Roads with adequate facilities are a major factor in supporting the mobility and daily transportation activities of citizens. Therefore, the development and management of good roads is an important responsibility of local governments, including the Serang Regency Government.

The Serang Regency Government of Banten Province carries out its duties in accordance with the mandate of Law Number 25 of 2009 concerning Public Services, which is reinforced by Government Regulation Number 96 of 2012 concerning the Implementation of Public Services. These regulations encourage the implementation of structured public satisfaction surveys in various public service provider agencies in the province. The aim is to assess the level of satisfaction of the public as service recipients, as well as to identify aspects that need improvement. The survey results are expected to improve public services so that the quality, efficiency, and responsiveness of services can be improved overall.

One important indicator that reflects the government's ability to meet the needs and expectations of the community is road infrastructure services. Therefore, the government needs to pay attention to the quality of road provision. From 2021 to 2023, the Serang Regency Public Works and Spatial Planning Agency will carry out various road construction projects. These programs are aimed at improving transportation infrastructure while encouraging regional development, the details of which can be seen in Table 1.

Table 1.
Length of Serang Regency Authority Road (km)

Road	2021	2022	2023
District Road	610,33	610,33	1.004,39

Source: BPS Serang Regency, 2024

Based on Table 1, the Serang Regency Government, through the Public Works and Spatial Planning Agency, has affirmed its commitment to improving the quality of public services, with a focus on developing the road network and improving the quality and resilience of existing road infrastructure. These efforts aim to ensure better accessibility, smooth transportation, and long-term infrastructure sustainability for the community. Road improvement efforts are evident in the increase in road length and improving road conditions, as shown in Table 2.

Table 2.
Length of District Roads According to Road Conditions

Road conditions Candition of roods	2023
(1)	(4)
Good	614,27
Moderate	5,88
Damage	280,00
Severely Damage	104,23
Total number	1.004,39

Source: BPS Serang Regency, 2024

Based on Table 2 above, By 2023, the Serang Regency Government will manage 1,004.39 km of roads. Based on current conditions, 61.16% of these roads are in good condition, 0.59% are in moderate condition, 27.88% are damaged, and the remainder are in severe condition. It is recorded that 82.61% of the roads have been paved with concrete. To improve road services, the Regional Government conducted a survey to assess the level of satisfaction and benefits of road construction. Public complaints regarding road services were also collected to help identify improvement priorities.

Thus, analyzing road user satisfaction and efforts to address complaints are important aspects in assessing the extent to which the services provided meet standards, needs, and public expectations. Furthermore, the results of the analysis can be used as a reference for the government in formulating policies for infrastructure improvement, service quality enhancement, and the development of more effective public communication strategies. Therefore, the researcher formulated questions such as: How satisfied are local residents with the district road services provided by the Serang Regency Government? What are the main concerns or complaints expressed by the community? The main objective of this study is to assess the level of public satisfaction with the quality of district road services and identify complaints conveyed by road users.

Literature Review

Public service

Service is one of the primary functions of government, thus the government is obligated to provide services to the public according to their needs. Furthermore, service is also a right of every citizen. Public service reflects the role of state administrators as public servants, whose strategic position directly influences the quality of service and the effectiveness of state functions. Public service encompasses a series of coordinated activities or actions designed to meet public needs in accordance with statutory provisions and ensure accessibility for all citizens.

This includes the provision of goods, provision of services, and/or provision of administrative assistance by organizations officially recognized as public service providers in accordance with the provisions contained in Law No. 25 of 2009. According to Article 4 of Law No. 25 of 2009, the principles of public service include prioritizing public interests, guaranteeing legal certainty, guaranteeing equal rights, maintaining a balance of rights and obligations, professionalism, participation, equal treatment without discrimination, transparency, accountability, provision of facilities, special attention to vulnerable groups, timeliness, efficiency, convenience, and affordability. and residents.

Public service providers must work to simplify and clarify procedures and information so that citizens can easily understand and access the services they need. Doing so will increase public satisfaction with the services offered. (Ratminto Dan Winarsih, Atik Septi . (2005). (The dimensions of public service can be described as encompassing several key aspects, namely: simplicity in processes, clarity in communication and procedures, timeliness in service delivery, accuracy in information and actions provided, security in handling data and transactions, responsibility in fulfilling tasks, completeness and adequacy of facilities and infrastructure, accessibility for all levels of society, discipline in service delivery, friendliness in staff interactions, and overall comfort experienced by service users. These dimensions collectively form the foundation for providing quality public services that meet the expectations and needs of the community. Therefore, the literature is in accordance with the needs of the study related to the Analysis of Service

Satisfaction and Efforts to Handle Complaints of Regency Road Users in the Serang Regency Government related to public services.

Quality of Service

Public service evaluations typically use qualitative and quantitative methods, such as surveys, interviews, and data analysis. The use of information technology, such as e-government, digital feedback, and performance dashboards, is increasingly important for monitoring services, improving transparency, and supporting data-driven decision-making (Publik & 2025, n.d.). Service quality can be measured based on the standards of service provided. The highest quality is achieved through excellent service, which refers to service that goes above and beyond what other service providers offer. As representatives of the community and the state, government officials are responsible for providing high-quality services to the public. According to (Sianipar et al., n.d.) (1998), "excellent service" means providing superior service that exceeds what has been offered by other parties or previous services.

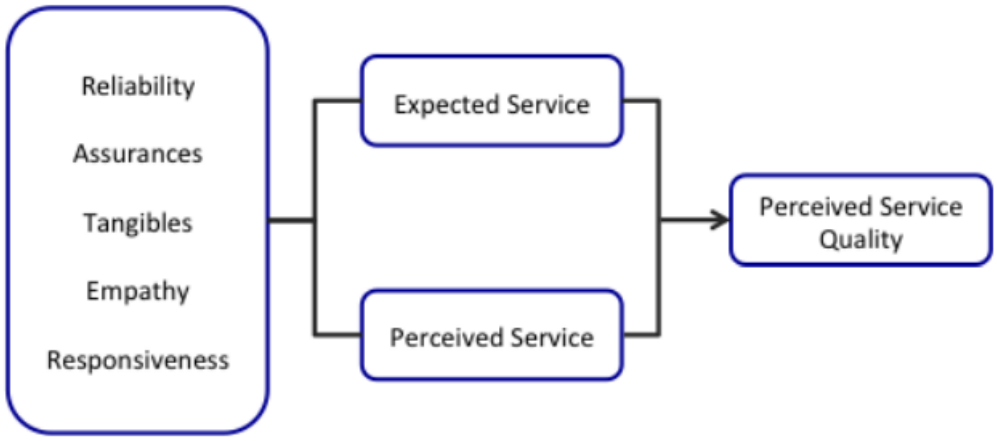
Service quality is influenced by the alignment between customer expectations and experiences. If the service received meets or even exceeds expectations, it is considered good to ideal. However, if it falls short of expectations, the quality is considered poor. In other words, service quality is highly dependent on the service provider's ability to meet user expectations (Tjiptono dalam (Press & 2018, n.d.). Service quality refers to efforts made to meet customer needs with accuracy and sincerity in delivery in order to meet customer satisfaction expectations. Public service providers are all state institutions that provide services to the public, both directly and indirectly. To assess public service, indicators or parameters of public service quality are needed. Service quality, according to Parasuraman et al. (quoted from (Hardiyansyah, 2018), can be seen in five dimensions, namely:

1. Reliability refers to an organization’s ability to consistently provide services exactly as promised, ensuring accuracy, precision, and dependability in fulfilling customer expectations.
2. Responsiveness denotes the readiness and proactive willingness of service providers to assist customers, address their inquiries, and deliver solutions or assistance without unnecessary delays.
3. Assurance encompasses the competence, professionalism, courtesy, and confidence demonstrated by service personnel, as well as the trust and respect they convey to customers throughout the service experience.
4. Empathy highlights the service provider’s sincere effort to connect with customers, safeguard their interests, and fully comprehend their individual needs, preferences, and expectations.
5. Tangibles refer to the visible and physical aspects of service delivery, including the appearance and demeanor of staff, as well as the condition and quality of facilities, tools, and equipment that support the service process.

So the literature is in accordance with the required study related to the Analysis of Service Satisfaction and Complaint Handling Efforts of District Road Users in the Serang Regency Government related to service satisfaction which is connected to service quality, good service quality will increase service satisfaction. Among these models, the SERVQUAL framework by Parasuraman and his colleagues has emerged as the most widely adopted and applied model, both in academic research and practical assessment of service quality

(Ghotbabadi et al., n.d.). This model measures service quality based on five dimensions, which are generally called RATER.

Figure 1.
Model SERVQUAL



Source: (Parasuraman et al., n.d.), 1998

Based on Figure 1 above, this is a conceptual framework of service quality (Service Quality/SERVQUAL Model) that is often used to measure service quality based on customer perceptions and expectations.

Previous studies have examined the Community Satisfaction Index (CSI) related to public road services conducted by a number of academics. One relevant example is a study by (Marzan et al., n.d.) (2024) entitled Survey of the Community Satisfaction Index for Public Road Services in the Development Work Area (WKP I). The research area covered Tangerang Regency, Tangerang City, and South Tangerang City. In this study, a quantitative approach was used to systematically measure and assess the quality of public road services. The SERVQUAL model was applied, which focuses on five main dimensions of service quality, namely reliability, responsiveness, assurance, empathy, and physical aspects. The data obtained was then analyzed by combining the Importance Performance Analysis (IPA) and Customer Satisfaction Index (CSI) techniques. The integration of these methods allows for analysis from two sides, namely how important service attributes are to the community and how well the service is perceived. Through this combination, the study not only identified the gap between expectations and service performance but also provided a more in-depth picture of the overall level of public satisfaction. This comprehensive approach provides important insights for improving service quality while strengthening public trust in provincial road management. The Important Performance Analysis (IPA) results show that the gap between the level of importance and satisfaction is in the positive category. Of the 32 questions analyzed using the IPA method, they were divided into four quadrants: 8 questions in quadrant I (top priority for improvement), 9 questions in quadrant II (services must be maintained or improved), 5 questions in quadrant III (less need for special attention), and 10 questions in quadrant IV (excessive satisfaction so that the budget can be diverted to other needs). In addition, the results of the Customer Satisfaction Index (CSI) analysis show a value of 82.50%, which indicates that the majority of road users are very satisfied with the services provided.

In 2023, (Hakim et al., n.d.) conducted research to assess public satisfaction with public services, particularly those related to highways. This study used a quantitative approach utilizing the SERVQUAL model as the main analytical framework to measure various dimensions of service quality, such as reliability, responsiveness, assurance, empathy, and physical aspects. To obtain a more comprehensive picture of public perception, this study combined Interest-Performance Analysis (IPA) with the Customer Satisfaction Index (CSI) method. This approach helps researchers identify service attributes that need improvement and those that meet or even exceed user expectations. The results of the IPA measurement of 29 service attributes show that 24 attributes have a positive GAP value, which means that public expectations have been met or exceeded, while the other 5 attributes have a negative GAP value, indicating potential dissatisfaction. In the priority mapping, Quadrant I contains 5 attributes with a high level of importance but low satisfaction, making them a top priority for improvement. Meanwhile, Quadrant II contains 15 attributes that received high ratings in terms of both importance and satisfaction, so they need to be maintained to keep the current quality of service. Quadrant III included 5 attributes with low importance and low satisfaction, indicating that they require further evaluation to determine their relevance. Meanwhile, Quadrant IV consisted of 4 attributes considered low in importance but high in satisfaction, suggesting the potential for resource reallocation without significantly impacting public perception. The CSI analysis produced an overall score of 74.75%, signifying that the public generally holds a favorable view of road public services, although certain areas still present opportunities for targeted enhancement.

RESEARCH METHODS

This study uses a quantitative and qualitative approach (mixed methods). The power used in the study uses primary data, which is obtained directly from selected informants/respondents. The data collection technique uses purposive sampling with the criteria of age above 17 years and passing through the roads of Serang Regency more than 3 times. The study population consists of all road users in Serang Regency, including public transportation passengers, drivers of two-wheeled vehicles, four-wheeled vehicles, or other motorized vehicles, and pedestrians. The population size is not known with certainty. Therefore, it is difficult to determine a representative sample size and conduct accurate statistical analysis. To determine the sample size, the Lemeshow Formula is used with an alpha value of 0.07 (sampling error 7%). The formula is:

$$n = \frac{Z^1 1.\, a/2 P1(1-P)}{d^2}$$

Information:

n = sample size
Z = z-score at 95% confidence level (1.96)
P = maximum estimate (0.5)
d = alpha (0.07) or sampling error = 7%
Using the formula, the calculation is:

$$n = \frac{1{,}96^2 .\, 0{,}5(1-0{,}5)}{0{,}07^2}$$

$$n = \frac{3{,}8416\ .\ 0{,}25}{0{,}0049}$$

$$n = 196 \text{ Respondents}$$

The total sample was 196 respondents, with 276 roads in Serang Regency with a total road length of 1.0034.39 Km. The study instrument that will be used is a questionnaire developed based on service quality theory (SERVQUAL) by considering the dimensions of road user satisfaction, including:

1. Tangibles
2. Reliability
3. Responsiveness
4. Assurance
5. Emphaty

This study used a Likert scale with answers ranging from “dissatisfied” to “very satisfied” to measure respondents' satisfaction levels with various indicators in the dimensions used in assessing road user satisfaction. Data collection was conducted using a structured, closed-ended questionnaire to ensure consistency in respondents' answers, with the study period lasting two months. To improve the reliability of the results, this study also applied validity and reliability tests. The instrument was declared valid if the calculated r value was greater than the table r, while reliability was considered adequate if the Cronbach Alpha value exceeded 0.60 (Imam Ghozali in Erni Widiaanti, 2013). This reliability test was also intended to ensure the accuracy and consistency of the data obtained. Furthermore, the information collected was analyzed using the Interest-Performance Analysis (IPA) approach, which aims to identify areas of service that need improvement, while assessing the relative significance and performance of various factors. This analysis is then combined with the Customer Satisfaction Index (CSI) method to obtain a quantitative picture of the overall level of satisfaction. The combination of IPA and CSI provides a more comprehensive and multidimensional perspective, enabling a deeper understanding of service performance and satisfaction levels across all indicators evaluated.

Method Importance Performance Analysis (IPA)

Performance and Importance Analysis (IPA) is a strategic evaluation method used to assess consumer perceptions of a product or service by focusing on its level of importance and performance. This method was chosen based on its suitability with the literature related to public satisfaction indices, as IPA can help identify attributes that are considered important by customers while assessing the extent to which these attributes have been implemented. The information obtained through IPA enables organizations to determine improvement priorities that are expected to have a significant impact on overall satisfaction and service quality.

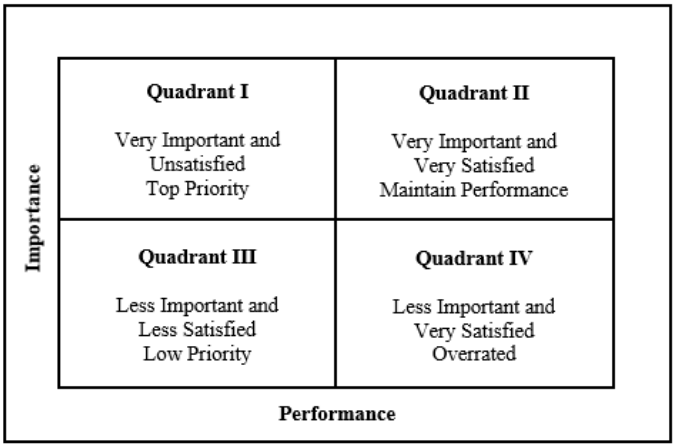
This method is visualized into four different quadrants, known as Quadrant Analysis (Brandt, 2000; Latu & Everett, 2000). Furthermore, IPA develops a Performance and Importance Matrix to understand the actual conditions and highlight priority areas that need improvement. Thus, the steps of implementing IPA can provide a comprehensive picture of which aspects should be maintained or improved. (1)

1. Prepare MS Excel software and SPSS application
2. Tabulating data on levels of importance and satisfaction
3. Calculating the average value of importance and satisfaction
4. Prepare the mean value used as a position in the important performance matrix and calculate the overall importance and satisfaction as a limit in the Cartesian diagram.

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

Information :
$\sum_i^n = i\ X\ i$ = total average importance and satisfaction
X = total questions

Figure 3.
Kartesius Diagram



Source: Qholisa and Nudin dalam (Haerani et al., n.d.) (2019:848)

Based on Figure 3 above, this is an analysis diagram for evaluating customer satisfaction with a service or product by comparing the level of importance/expectations of customers and the performance/perceptions of customers, which are divided into four quadrants.

Method Customer Satisfaction Index (CSI)

According to Irawan in A Sinnun (2017), the Customer Satisfaction Index (CSI) method is used to assess the overall level of public satisfaction. This method was chosen based on previous literature and research that widely used CSI in measuring public satisfaction indices. This method serves to help identify the extent of public satisfaction with the services provided by the government. In the data analysis process, researchers used MS Excel software, which is currently used with certain stages as described below:

1. **Determine the Mean Importance Score (MIS):**

$$\boldsymbol{MIS} = \frac{(\sum_{i=1}^{n} \boldsymbol{Yi})}{\boldsymbol{n}}$$

Information:
MIS = Average Importance
$\sum_{i=1}^{n} Yi$ = Total importance score for all attributes
n = Number of respondent

2. **Calculate the Weighting Factor (WF) for each attribute:**

$$\boldsymbol{WF} = \frac{\boldsymbol{MISi}}{\sum_{i=1}^{P} \boldsymbol{MISi}}\ \boldsymbol{x\ 100\%}$$

Information:
WF = Weighting Factor
MISi = Average importance for attribute i

$\sum_{i=1}^{P} MISi$ = Total average importance of all attributes

3. **Determine the Mean Satisfaction Score (MSS):**

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

Information:
MSS = average satisfaction
$\sum_{i=1}^{n} Xi$ = Total satisfaction score for all attributes
n = number of respondents

4. **Calculate the Weight Score (WS):**

$$\boldsymbol{WSi} = \boldsymbol{WFi\ x\ MSS}$$

Information:
WSi = Weight Score
WF = Weighting factor for the attribute
MSS = Average satisfaction score for the attribute

5. **Determine the Customer Satisfaction Index (CSI):**

$$\boldsymbol{CSI} = \frac{\sum_{i=1}^{P} \boldsymbol{WSi}}{\boldsymbol{HS}} \boldsymbol{X}\ \boldsymbol{100\%}$$

Information:
CSI = Customer Satisfaction Index
$\sum_{i=1}^{P} WSi$ = total Weight Score
HS = Maximum possible scale

Once the CSI value is obtained, it can be interpreted according to a percentage-based satisfaction level table

Table 3.
Customer Satisfaction Category

Scale Range	Mark	Satisfaction Category
1,00 - 1,75	0 - 25	Very Dissatisfied
1,76 – 2,50	26 - 50	Not satisfied
2,51 – 3,25	51 - 75	fairly satisfied
3,26 – 4,00	76 - 100	Very satisfied

Source: (Fernando et al., 2022)

Based on table 3, the customer satisfaction category is divided into four levels based on the scale and value range. A scale of 1.00-1.75 (value 0-25) indicates very dissatisfied customers, 1.76-2.50 (value 26-50) indicates dissatisfied, 2.51-3.25 (value 51-75) indicates moderately satisfied, and 3.26-4.00 (value 76-100) indicates very satisfied. This category is used to assess the level of user satisfaction with the services provided.

Analysis of Complaints and Suggestions

This analysis is used to obtain information from customers in the form of complaints and suggestions. These complaints and suggestions are analyzed using qualitative methods. Qualitative methods are more exploratory, capable of identifying new ideas, obtaining

comprehensive opinions on a problem, and can also help understand the findings of quantitative research. This method is used to deepen the material studied in quantitative methods and serves as supporting data for quantitative research results.

RESULTS AND DISCUSSIONS

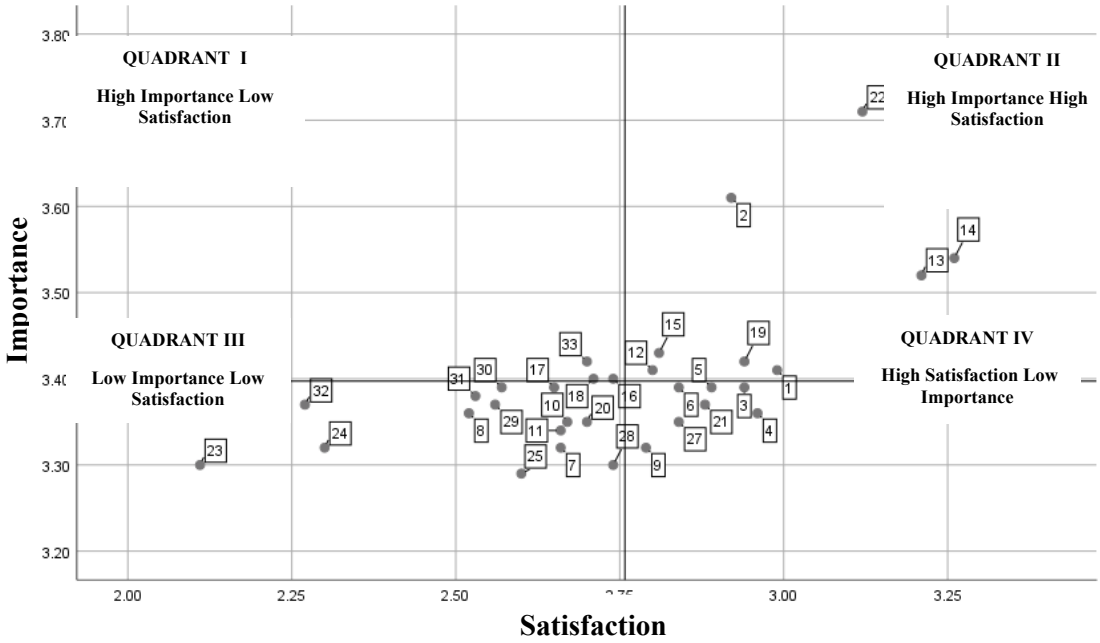
Instrument Validity and Reliability Test Results

The validity test results show that each statement item has an rrr count greater than the table value (0.361) and a positive coefficient, indicating that all items are valid. With n=30, this confirms that the research statements given to respondents are 100% valid. Furthermore, the reliability test results indicate that the Hope Score (Interest Variable) has a Cronbach's Alpha of 0.917, and the Reality Score (Satisfaction Variable) has a value of 0.948. Since both exceed the 0.600 threshold, it can be concluded that both instruments are reliable.

Importance Performance Analysis (IPA) Results

The results of the IPA (Importance–Performance Analysis) are displayed in the form of a Cartesian diagram (IPA). The Cartesian diagram (IPA) visualization can be seen in the following image.

Figure 4.
Kartesius Diagram



Source: Data Processed, 2024

Based on Figure 4, the results of the Performance and Importance Analysis (IPA) mapping can be explained as follows:

1. Quadrant I (High importance but low satisfaction – the government needs to prioritize improvement) was found in two questions: Officers conduct road repairs and maintenance according to procedures.
2. Officers supervise road construction.

Quadrant II **(High Importance and High Satisfaction – Needs to Be Maintained, and Better if Improved),** Found in 9 questions :

1. Road safety and smoothness.
2. Safe road conditions.
3. Road surface maintenance.
4. Roads support faster travel for citizens.
5. Roads help government and community planning.
6. Roads provide benefits to road user safety.
7. Roads make travel easier for people in the area.
8. Roads contribute to the local community's economic development.
9. Evidence that roads are a factor in regional growth.

Quadrant III **(Low Importance and Low Satisfaction – Does Not Require Special Attention),** Found in 15 questions:

1. Availability and quality of culverts.
2. Availability of water channels to handle overflow (rainwater, waste water from residents).
3. Cleanliness of the street environment
4. Road aesthetics.
5. Officers pay attention to material quality in construction/maintenance.
6. Officers provide information to residents about road construction/maintenance.
7. Officers conduct routine patrols to monitor road conditions.
8. Roads have guide rails for the safety of riders, pedestrians, and persons with disabilities.
9. Roads include signs for specific needs (safety for children, pregnant women, etc.).
10. Gender, age, and child-friendly facilities (road shoulder permitting).
11. Evidence of environmental management during construction.
12. Speed of response for road handling after disasters.
13. Officers provide emergency help after disasters.
14. Handling of specific road incidents.
15. Media/socialization for residents about road user guidance.

Quadrant IV **(Low importance but high satisfaction – can be positioned as a low priority)** was found in 7 questions:

1. Roads are built with minimal bends, slopes, or inclines.
2. Road width sufficiency.
3. Road curvature is higher than the water channel.
4. Clear road markings for drivers.
5. Easy-to-read road signs for users.
6. Officers carry out periodic inspections.
7. Officers adjust repair services to user needs.

Customer Statistics Index (CSI) Analysis Results

Furthermore, the Customer Satisfaction Index (CSI) serves to assess overall customer satisfaction by considering the relative importance of various service attributes. This method not only measures satisfaction levels, but also identifies the factors that most influence user perceptions:

Table 4.
Integrated Results From The Application Of The CSI Method

Attribute/Question	MIS	MSS	WF (%)	WS	WT	CSI
1	3.41	2.99	0.03	0.09	2.76	69.00
2	3.61	2.92	0.03	0.09		
3	3.39	2.94	0.03	0.09		
4	3.36	2.96	0.03	0.09		
5	3.39	2.89	0.03	0.09		
6	3.39	2.84	0.03	0.09		
7	3.32	2.66	0.03	0.08		
8	3.36	2.52	0.03	0.08		
9	3.32	2.79	0.03	0.08		
10	3.35	2.67	0.03	0.08		
11	3.34	2.66	0.03	0.08		
12	3.41	2.80	0.03	0.09		
13	3.52	3.21	0.03	0.10		
14	3.54	3.26	0.03	0.10		
15	3.43	2.81	0.03	0.09		
16	3.40	2.74	0.03	0.08		
17	3.39	2.65	0.03	0.08		
18	3.40	2.71	0.03	0.08		
19	3.42	2.94	0.03	0.09		
20	3.35	2.70	0.03	0.08		
21	3.37	2.88	0.03	0.09		
22	3.71	3.12	0.03	0.10		
23	3.30	2.11	0.03	0.06		
24	3.32	2.30	0.03	0.07		
25	3.29	2.60	0.03	0.08		
26	3.44	3.13	0.03	0.10		
27	3.35	2.84	0.03	0.08		
28	3.30	2.74	0.03	0.08		
29	3.37	2.56	0.03	0.08		
30	3.39	2.57	0.03	0.08		
31	3.38	2.53	0.03	0.08		
32	3.37	2.27	0.03	0.07		
33	3.42	2.70	0.03	0.08		
Total Average	**112.10**			**2.76**		

Source: Processed Data, 2024

Based on the CSI analysis results in Table 4, the level of satisfaction with road services and handling of user complaints scored 69.00%. This shows that the community is quite satisfied with the road services available in Serang Regency.

Information :

MSI = Average Importance
MSS = Average Satisfaction
WF = Factor Weight
WS = Score Weight
WT = Total Weight
CSI = Customer Satisfaction Index

Analysis of Complaints and Suggestions

Furthermore, word cloud analysis of respondents' answers to open-ended questions about the strengths, weaknesses, and suggestions for road improvements in the district yielded the following findings:

Figure 5.
Word Cloud Service Excellence

Source: Data Processed, 2024

Figure 6.
Word Cloud 2-Grams Service Advantage

Source: Data Processed, 2024

Based on figures 5 and 6 The advantages of this highway service are stated by highway users that it really makes people's activities easier and helps people with mobility and carrying out

daily activities. Respondents also stated that the existing highways were quite good and easy to navigate, connected many areas, were easy to access and were of quite good quality.

Figure 7.
Road User Advice Word Cloud

Source: Data Processed, 2024

Based on Figure 7 the word cloud visualization, it was found that respondents focused on providing advice on culverts, channels, bridges, lighting and lamps, maintenance and upkeep.

Figure 8.
Word Cloud 2-Grams Road User Advice

Source: Data Processed, 2024

Based on Figure 8 It can be clearer that the respondents' suggestions include repairing damaged roads, lack of lighting, maintenance and repair of roads, lack of culverts and water channels. This highway repair includes repairing potholes, road connections, damaged bridges. Related to

culverts and water channels include construction of culverts and water channels, cleaning of waste from culverts and water channels.

CONCLUSIONS

1. Based on the Importance Performance Analysis (IPA) results, the findings are as follows:

   a. Quadrant I (High Importance but Low Satisfaction – The Government Must Prioritize Improvements). This category covers two main aspects, namely officer compliance with road repair and maintenance procedures, as well as supervision of road construction implementation.
   b. Quadrant II (High Importance and High Satisfaction – Needs to be Maintained and, if Possible, Improved). Aspects included in this category include traffic safety and flow, road durability, maintenance quality, support for faster travel, ease of mobility, connectivity with community activities, proper road planning, attention to user safety aspects, easier travel access, and contribution to regional economic growth.
   c. Quadrant III (Low Importance and Low Satisfaction – Does Not Require Special Attention). This covers: culvert availability, roadside water channels for runoff (rainwater and residential waste), street cleanliness, road aesthetics, use of quality materials, public information on road projects, officer attention to service quality, justice for vulnerable groups (guiding blocks, waiting areas for elderly/pregnant women/children), environmentally friendly road construction, disaster-response road repairs, accessibility for people with disabilities, and responsiveness to complaints via various communication channels.
   d. Quadrant IV (Low Importance and High Satisfaction – Lower Priority). This includes: road shoulder quality, geometric design (curves, slopes, straight tracks), road width, building positioning relative to roads, clarity and ease of road information, and officers' repair services aligned with user needs.

2. The Customer Satisfaction Index (CSI) analysis resulted in a score of 69.00%, indicating that users of Serang Regency's road services feel fairly satisfied.

3. From the analysis of complaints and suggestions regarding road improvements in Serang District, responses on service quality and user feedback were obtained. The community expressed that the Serang Regency road network significantly facilitates daily activities, improves mobility, and makes travel easier. The existing highways are generally in good condition, connect many areas, and are easily accessible, with overall good quality. However, road users suggested repairs for damaged roads, addressing lighting issues, regular maintenance, and the addition or repair of culverts and water channels. Specific roadwork recommendations include fixing potholes, improving road connections, and repairing damaged bridges. For culverts and water channels, suggestions include construction, cleaning, and waste removal.

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