


## Serang Regency Infrastructure Service Satisfaction Index

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Article Info	ABSTRACT
<b>Keywords:</b> Community Satisfaction, Public Services, Infrastructure Services	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 infrastructure in Serang district (highways, bridges, land transportation, agricultural irrigation, clean water infrastructure and housing/settlement services). This study was conducted to measure the level of customer satisfaction (community) with public services in the field of infrastructure provided by the Regional Apparatus of Serang Regency, Banten Province. The methods used in this study are descriptive, exploratory, survey and evaluation research methods and with a non-experimental quantitative approach. The sample of this study was 96 respondents divided into 3 regional clusters, and the sampling technique used was a non-probability sampling technique with a type of purposive side combined with accidental sampling techniques. Data analysis techniques used in this study include validity tests, reliability tests, univariate analysis, and Importance Performance Analysis (IPA). The results of this study showed that a univariate analysis of infrastructure services (roads, bridges, land transportation, agricultural irrigation, clean water infrastructure and housing services) in Serang Regency obtained an average score of 78.54 with good service unit performance. The results showed that the Importance Performance Analysis (IPA) method obtained the results of 30 questions that became priorities for improvement, namely being in quadrant I (high importance while low satisfaction) with 9 questions. In this case, the Serang Regency Government should make improvements to services that prioritize services that have a high level of importance but low satisfaction, namely land transportation services, agricultural irrigation, and housing/settlement services.
This is an open access article under the <a href="#">CC BY-NC</a> license 	<b>Corresponding Author:</b> Mahmud Ali Sekolah Tinggi Ilmu Administrasi Banten <a href="mailto:ayep_mahmud_ali@icloud.com">ayep_mahmud_ali@icloud.com</a>

## INTRODUCTION

Public Service is the mandate of the Preamble of the 1945 Constitution Alenia 4, which is to protect the entire Indonesian nation and all Indonesian blood spills, advance public welfare, educate the nation's life and implement world order based on independence, eternal peace and social justice (Dwiyanto, 2018). In addition, the implementation of public services carried out by government officials in various service sectors is the fulfillment of civil rights and basic needs of the community. Therefore, public services should refer to the concept of good governance as referred to by the United Nations Development Program (UNDP) in 1997.

There are at least 8 principles of good governance that can characterize good governance, namely: 1.Equality to participate in policy making, 2.Responsiveness to the needs of stakeholders or stakeholders. 3.The ability to mediate if there are differences between stakeholders to reach a common consensus, 4.Accountability to the stakeholders served, 5.Transparent policy-making processes, 6.Rules or legal frameworks are used as the basis for all activities carried out, 7.There is a broad and long-term vision to improve governance processes that ensure sustainable social and economic development, 8.There is a guarantee of the right of all people to be able to improve their lives through fair and inclusive ways.

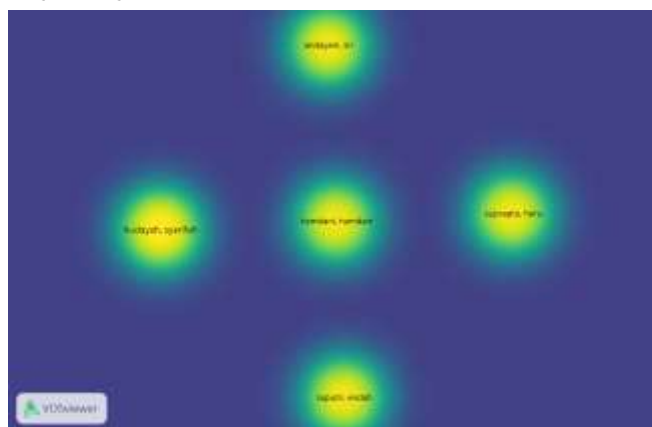
These eight principles are the foundation of good governance in Indonesia because the Indonesian people have chosen the democratic system as the best choice of system in building the nation and state. In an effort to implement this principle, the Government has issued various regulations, including Law Number 25 of 2009 concerning Public Services. Article 1 paragraph (1) explains that Public Services are activities in an effort to fulfill service needs in accordance with laws and regulations for every citizen and resident for goods, services and / or administrative services provided by public service providers. With the enactment of this regulation, it is hoped that it can provide communication and close relationships between local officials and the community to become more intensive. With the increasing demands for democratization and recognition of human rights that create demands for quality public service management, which is based on the principles of good governance (Rohman and Hanafie 2019). The objectives of Public Services are also outlined in Article 3, namely: a) the realization of clear boundaries and relationships regarding the rights, responsibilities, obligations, and authorities of all parties related to the delivery of public services, b) the realization of a proper public service delivery system in accordance with the principles of good governance and corporate objectives, c) the fulfillment of public service delivery in accordance with laws and regulations, and d) the realization of protection and legal certainty for the community in the delivery of public services.

The design of the regulatory reference is expected that the pattern of public services based on good governance and can be implemented not only at the Central Government level but also at all levels of government, both provincial, district / city and village. This is in accordance with the principles of good governance also outlined in the regulations of Law No. 23 of 2014 concerning Regional Government and Law No. 6 of 2014 concerning Villages. With the hope that the government at various levels can run an effective and efficient government and its existence can be felt by the community as users of development. Because the task of the government is not only to organize government and carry out development but also to provide optimal public services for the community.

The Government of Serang Regency as mandated by Law No. 25 of 2009 concerning Public Services and Government Regulation No. 96 of 2012 concerning the Implementation of Law No. 25 of 2009 concerning Public Services is advised to carry out community satisfaction surveys in various agencies in the Government of Serang Regency. The survey activity is an effort to measure the level of community satisfaction as service users and improve the quality of public service delivery.

One of the public services that needs to be surveyed as a form of evaluation of the services provided by the government to the community is the survey of the provision of

infrastructure facilities. The survey of the provision of infrastructure facilities is conducted to measure the level of satisfaction of the use of infrastructure services. This is needed because the quality of infrastructure provision is a serious concern, very concerned and prioritizes infrastructure improvements for the community. Based on the description above, it is necessary to study the Infrastructure Service Satisfaction Index Survey of Serang Regency. State of the art novelty of the article



**Figure 1.** Density Visualization (IKLI)

Based on the Vos Viewer mapping tool, this study has not been widely researched.

## Literature Review

The formulation of the problem of this article is How is the level of community satisfaction (assessment) of the implementation of public services in the infrastructure sector provided by the Regional Apparatus of Serang Regency, Banten Province? How are efforts to increase public satisfaction with the delivery of public services in the infrastructure sector provided by the Regional Apparatus of Serang Regency, Banten Province? The article approach used in this article is a non-experimental quantitative method. Arikunto (2015) explains that non-experimental articles use descriptive, exploratory, survey and evaluation article methods. Descriptive articles are intended for careful measurement of certain social phenomena, without testing hypotheses or explaining causal relationships between variables. One of its uses is for the evaluation of various policies that have been implemented.

The sampling technique in the study of the Infrastructure Service Satisfaction Index in Serang Regency is the non-probability sampling method because the population under study is unknown. Therefore, the sampling technique is purposive sampling combined with accidental sampling technique, which is divided into 3 areas of Serang Regency that have economic characteristics that represent Serang Regency, namely tourism-based (anyer), industry-based (cikande) and agriculture-based (ciomas).

The number of samples in this article was measured by the Lemeshow formula with an unknown population. Data analysis for processing the article results data was carried out using descriptive statistics (univariate analysis). Data processing to determine the service quality attributes that are included in the priority category is done using Importance Performance Analysis (IPA) which has been done by Martilla and James (1977). This analysis compares the expected value (importance) with the performance or satisfaction value of each service attribute.

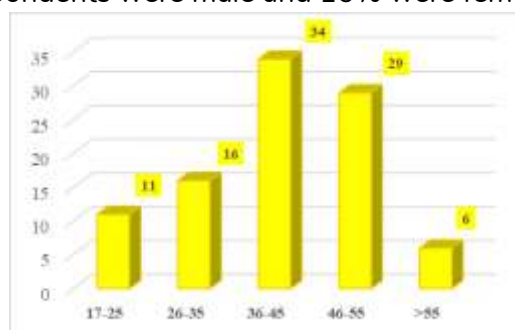
## RESULTS AND DISCUSSION

### Socioeconomic Characteristics of Respondents



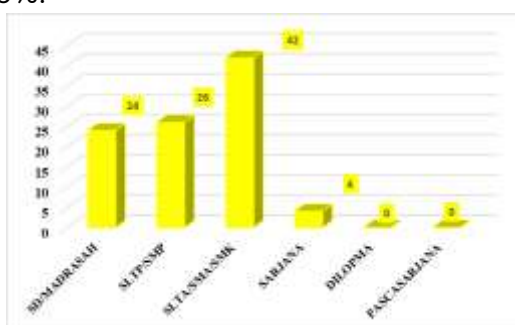
**Figure 2.** Gender of Respondents

The infrastructure service satisfaction index (IKLI) survey in Serang district was conducted in 3 sub-districts (Anyer sub-district, Cikande sub-district and Ciomas sub-district). The total number of respondents involved in this survey was 96. Based on the gender category, 80% of the respondents were male and 16% were female.



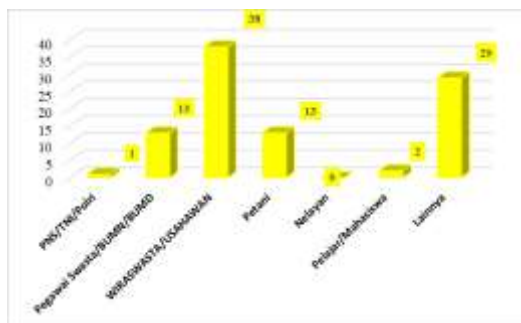
**Figure 3.** Age of Respondents

As for age, IKLI respondents from 17-25 are 11%, 26-35 are 16%, 36-45 are 34%, 45-55 are 29% and >55 are 6%.



**Figure 4.** Education of Respondents

In the respondent education category, most of the respondents had a high school / high school / vocational school background, namely 42%. Furthermore, 26% took elementary / middle school education, 24% took junior high school / junior high school education, and 4% took undergraduate education.



**Figure 5.** Occupation of Respondents

In the occupation category, most respondents worked as entrepreneurs at 38%. Furthermore, 1% work as civil servants / TNI / Polri, 13% work as private employees, BUMN / BUMD, 2% as students, 13% as farmers and 29% work as laborers, carik, IRT, project and village officials. Based on the results of the field survey, measurement of the infrastructure service satisfaction index per respondent and per service element in Serang Regency.

#### Road Infrastructure

**Table 1.** Highway IKLI

No.	Service Element	Highway IKLI Average Value	Weighted Average Value
1	Availability of physical conditions	3.29	0.66
2	Physical quality	3.20	0.64
3	Compatibility	3.32	0.66
4	Level of usefulness	3.44	0.69
5	Impact on the economy	3.52	0.7
Total Weighted NRR			3.55
Highway Infrastructure Service Satisfaction Index			83.85
Service Quality			B
Highway Infrastructure Performance			Good

Based on the results of a survey in the field, the Infrastructure Service Satisfaction Index (IKLI) in the highway sector of the Serang Regency community recorded a score of 83.85. This score indicates that the quality of service on highway infrastructure is in category B (Good). The IKLI for roads is assessed based on the elements of the availability of physical road conditions, the quality of physical road services, the suitability of road infrastructure for community needs, the level of utilization for the community, and the contribution of roads to the economic development of the community. Based on data in the field, the availability of physical conditions of highways in Kabupaten Serang has an average value of 3.29. In the aspect of the physical service quality of highways, the average score obtained is 3.20. In the aspect of suitability and the level of highway utilization, the scores were 3.32 and 3.44, respectively. The influence of the highway on the community economy scored 3.52 on this element.

## Bridge Infrastructure

**Table 2. IKLI Bridge**

No.	Service Element	IKLI Bridge	
		Average Value	Weighted Average Value
1	Availability of physical conditions	3.06	0.61
2	Physical quality	3.04	0.61
3	Compatibility	3.00	0.60
4	Level of usefulness	3.17	0.63
5	Impact on the economy	3.30	0.66
Total Weighted NRR			3.11
Highway Infrastructure Service Satisfaction Index			77.86
Service Quality			B
Highway Infrastructure Performance			Good

Based on the results of a survey in the field, the Infrastructure Service Satisfaction Index (IKLI) in the bridge sector of the Serang Regency community was recorded to have a score of 77.86. This score indicates that the quality of service in bridge infrastructure is in category B (Good). IKLI bridges are assessed based on the elements of the availability of physical bridge conditions, the physical quality of bridge services, the suitability of bridge infrastructure to community needs, the level of utilization for the community, and the contribution of bridges to the economic development of the community. Based on data in the field, the availability of physical conditions of bridges in Serang Regency has an average value of 3.06. In the aspect of the physical quality of bridge services, the average score obtained is 3.04. In the aspect of suitability and the level of bridge utilization, each received a score of 3.00 and 3.17. The influence of the bridge on the community's economy received an assessment score in this element of 3.30.

## Land Transportation Infrastructure

**Table 3. IKLI Land Transportation**

No.	Service Element	IKLI Land Transportation	
		Average Value	Weighted Average Value
1	Availability of physical conditions	2.77	0.55
2	Physical quality	2.77	0.55
3	Compatibility	2.90	0.58
4	Level of usefulness	2.90	0.73
5	Impact on the economy	3.63	0.73
Total Weighted NRR			3.14
Highway Infrastructure Service Satisfaction Index			78.49
Service Quality			B
Highway Infrastructure Performance			Good

Based on the results of a survey in the field, the Infrastructure Service Satisfaction Index (IKLI) in the land transportation sector of the Serang Regency community was recorded to have a score of 78.49. This score indicates that the quality of service in land transportation



infrastructure is in category B (Good). IKLI land transportation is assessed based on the elements of the physical availability of land transportation, the physical quality of land transportation, the suitability of land transportation infrastructure to the needs of the community, the level of utilization for the community, and the contribution of land transportation to the economic development of the community. Based on field data, the physical availability of land transportation in Kabupaten Serang has an average score of 2.77. In the physical quality aspect of land transportation, the average score obtained is 2.77. In the aspect of suitability and the level of utilization of land transportation, each received a score of 2.90 and 3.63, respectively. The effect of land transportation on the community's economy received an assessment score in this element of 3.64.

#### Clean water infrastructure

**Table 4.** IKLI Clean Water

No.	Service Element	IKLI Clean Water	
		Average Value	Weighted Average Value
1	Availability of physical conditions	2.92	0.58
2	Physical quality	2.97	0.59
3	Compatibility	2.96	0.59
4	Level of usefulness	3,30	0.66
5	Impact on the economy	3.31	0.66
Total Weighted NRR			3.09
Highway Infrastructure Service Satisfaction Index			77.29
Service Quality			B
Highway Infrastructure Performance			Good

Based on the results of a survey in the field, the Infrastructure Service Satisfaction Index (IKLI) in the clean water sector in Serang Regency recorded a score of 77.29. This score indicates that the quality of service in clean water infrastructure is in category B (Good). IKLI clean water is assessed based on the elements of the availability of physical conditions of clean water, the physical quality of clean water services, the suitability of clean water infrastructure with community needs, the level of utilization for the community, and the contribution of clean water to the economic development of the community. Based on data in the field, the availability of the physical condition of clean water in Kabupaten Serang has an average value of 2.92. In the aspect of the physical quality of clean water, the average score obtained is 2.97. In the aspect of suitability and the level of clean water utilization, the scores were 2.96 and 3.30, respectively. The influence of clean water on the community's economy received a good assessment from the community. The score on this element is 3.31.

#### Agricultural Irrigation Infrastructure

**Table 5.** IKLI of Agricultural Irrigation

No.	Service Element	IKLI Agricultural Irrigation	
		Average Value	Weighted Average Value
1	Availability of physical conditions	2.93	0.59
2	Physical quality	2.96	0.59
3	Compatibility	2.98	0.60

No.	Service Element	IKLI Agricultural Irrigation	
		Average Value	Weighted Average Value
4	Level of usefulness	3.24	0.65
5	Impact on the economy	3.23	0.65
Total Weighted NRR			3.07
Highway Infrastructure Service Satisfaction Index			76.67
Service Quality			B
Highway Infrastructure Performance			Good

Based on the results of a survey in the field, the Infrastructure Service Satisfaction Index (IKLI) in the field of agricultural irrigation in Serang Regency recorded a score of 76.67. This score indicates that the quality of service in agricultural irrigation infrastructure is in category B (Good). IKLI for agricultural irrigation is assessed based on the elements of the physical availability of agricultural irrigation, the physical quality of agricultural irrigation, the suitability of agricultural irrigation infrastructure with community needs, the level of utilization for the community, and the contribution of agricultural irrigation to the economic development of the community. Based on field data, the physical availability of agricultural irrigation in Kabupaten Serang has an average value of 2.93. In the aspect of the physical quality of agricultural irrigation, the average score obtained is 2.96. In the aspect of suitability and the level of utilization of agricultural irrigation, each received a score of 2.98 and 3.24. The influence of agricultural irrigation on the community's economy received an assessment score on this element of 3.23.

#### Infrastructure Housing/settlement services

**Table 6.** IKLI Housing/Settlement Services

No.	Service Element	IKLI Housing/Settlement Services	
		Average Value	Weighted Average Value
1	Availability of physical conditions	3.08	0.62
2	Physical quality	3,04	0.61
3	Compatibility	3.07	0.61
4	Level of usefulness	3.09	0.62
5	Impact on the economy	3.13	0.63
Total Weighted NRR			3.08
Highway Infrastructure Service Satisfaction Index			77.08
Service Quality			B
Highway Infrastructure Performance			Good

Based on the results of the survey in the field, the Infrastructure Service Satisfaction Index (IKLI) in the field of housing / settlement services in Serang Regency was recorded to have a score of 77.08. This score indicates that the quality of service in housing / settlement service infrastructure is in category B (Good). IKLI housing/settlement services are assessed based on the elements of physical availability of housing/settlement services, physical quality of housing/settlement services, suitability of housing/settlement services infrastructure to



community needs, level of utilization for the community, and the contribution of housing/settlement services to the economic development of the community. Based on field data, the physical availability of housing/settlement services in Kabupaten Serang has an average score of 3.08. In the aspect of the physical quality of housing/settlement services, the average score obtained is 3.04. In the aspect of suitability and the level of utilization of housing/settlement services, the scores are 3.07 and 3.09 respectively. The effect of housing/settlement services on the community economy received an assessment score on this element of 3.13.

### Importance Performance Analysis (IPA) Analysis

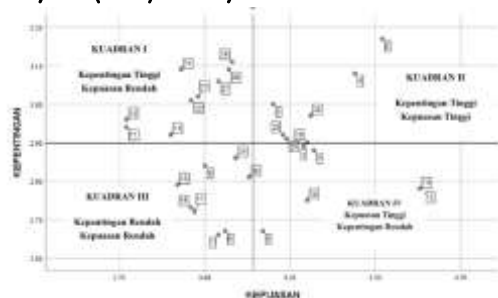


Figure 6. Cartesian diagram

Quadrant I (High Importance while Low Satisfaction So that the government must prioritize service improvement), there are the following questions:

- Availability of physical condition of land transportation infrastructure (terminals, bus stops, traffic signs, PJU, markings and zebra crossings) used
- Physical quality of land transportation infrastructure services (terminals, bus stops, traffic signs, street lights, markings and zebra crossings) used
- Suitability (location and position for easy access to community mobilization) of land transport infrastructure (terminals, bus stops, traffic signs, PJU, markings and zebra crossings) with the needs of road users.
- Availability of physical condition of agricultural irrigation infrastructure used
- Physical quality of agricultural irrigation infrastructure services used
- Suitability of agricultural irrigation infrastructure (location and position of agricultural irrigation for community convenience) with user needs
- Availability of physical condition of sanitation, waste, drainage infrastructure in housing/settlement environment
- Physical quality of sanitation, solid waste, drainage services in the housing/settlement environment used
- Suitability of sanitation, waste, drainage infrastructure (location/position of housing/settlement services for community needs) with the needs of housing service users

Quadrant II (High Importance and High Satisfaction so that it needs to be maintained, and it is better if it is improved), there are the following questions:

- Physical quality of highway infrastructure services (smoothness of road body and shoulder surfaces, durability of road body and shoulder surfaces, geometric quality (position of bends, descents, climbs, straight roads) in use

- b. The usefulness of the road infrastructure used
- c. The effect of highway infrastructure on improving the community's economy
- d. Usefulness of clean water infrastructure used
- e. The effect of clean water infrastructure on improving the community's economy
- f. Usefulness of agricultural irrigation infrastructure
- g. The effect of agricultural irrigation infrastructure on improving the community's economy

Quadrant III (Low Importance and Low Satisfaction So it doesn't really need special attention), there are the following questions:

- a. Availability of physical condition of bridge infrastructure (quantity of bridge width) used
- b. Physical quality of bridge infrastructure services (smoothness of bridge surfaces, durability of bridge surfaces) used
- c. Suitability of bridge infrastructure (location and position of the bridge for easy access to community mobilization) with the needs of road users
- d. Availability of physical condition of clean water infrastructure used
- e. Quality of clean water infrastructure services used
- f. Compatibility of clean water infrastructure (location and position of clean water for community convenience) with the needs of clean water users
- g. The usefulness of sanitation, waste, drainage infrastructure in the housing/settlement environment
- h. The influence of sanitation, waste, drainage infrastructure in the residential environment on improving the community's economy

Quadrant IV (Low Importance and High Satisfaction so that there is a Surplus of Satisfaction. Therefore, the government needs to allocate a budget that has a higher priority for handling, found in the following questions:

- a. Availability of physical condition of road infrastructure (quantity of road width) used
- b. Suitability of road infrastructure (location and position of roads for easy access to community mobilization) with the needs of road users
- c. Usefulness of bridge infrastructure used
- d. The effect of bridge infrastructure on improving the community's economy
- e. The usefulness of land transportation infrastructure (terminals, bus stops, traffic signs, PJU, markings and zebra crossings) used
- f. The effect of land transportation infrastructure (terminals, bus stops, traffic signs, PJU, markings and zebra crossings) on improving the community's economy

## CONCLUSIONS

The value of the serang district infrastructure service satisfaction index in 2023 is 78.54 with a good service quality category (B). Based on the Importance Performance Analysis (IPA) analysis of 30 questions, the following results are obtained: There are 9 questions whose value results are in quadrant I (High Importance, Low Satisfaction) There are 7 questions whose value results are in Quadrant II (High Importance, High Satisfaction) There are 8 questions whose value results are in quadrant III (Low Importance, Low Satisfaction) There are 6 questions whose value results are in quadrant IV (Low Importance, High Satisfaction).

The results of the analysis show that most questions have satisfaction that matches their level of importance. However, there are areas that need attention, especially in quadrant I, where high importance is not matched by adequate satisfaction.

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