



Study of Economic Activities of the Affected Community Toll Road Development

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ABSTRACT

The construction of toll roads in Indonesia until September 2021 has reached a length of 4420.6 km with 2127.54 km in operation. The toll road construction has provided a fairly high movement of people and goods. Data were collected from the Terbanggi Besar toll road in Lampung Sumatera, user community and the community in the Sragen sub-district, Central Java by filling out a questionnaire about their perceptions and Central Java by filling out a questionnaire about public perceptions and expectations regarding toll road construction. By utilizing the Importance Performance Analysis (IPA) method, a mapping of the expectations desired by residents for the construction of toll roads is obtained to increase their economic activities. The results of public perceptions obtained are that there are 13% of people aged 60-70 years; 35.71% of people wish to take part in entrepreneurship training while 53.7% of them wish to continue to carry out activities as before.

Keywords: *Economic Activities; Toll Road Construction; Entrepreneurship Training*

1. INTRODUCTION

The construction of toll roads in Indonesia until September 2021 has reached a length of 4420.6 km with 2127.54 km in operation [1]. This development has also been felt by the community in terms of economic activities, recreational activities and other activities that require trips with short travel times. In addition to being perceived as a supporting factor for community activities, the construction of toll roads also changes the behaviour of the surrounding communities affected by the construction of toll roads.

This study aims to map the community in Sragen whose residence is adjacent to the Solo – Kertosono toll road, Central Java, and the impacts caused by the construction of the toll road.

Mitigating the economic impact of the Medan-Tebing Tinggi toll road construction on the economy centre on Arterial Road received a recommendation from the Head of the Research and Development Agency of North Sumatra Province in 2017. The recommendations are: economic impact recommending the relocation of entrepreneurs to areas that will become business zones, the government and business owners fixing regional pro-business development management by providing information and policies that are definite and clear;

encourage services and trade; Make a policy priority scale to solve problems related to the construction of the Medan Tebing Tinggi toll road [2].

A previous researcher studied the impact of the operation of Section II Pejagan-toll road on social, economic, and environmental factors that occurred in the village of Kaligangsa Kulon, Brebes Regency. Indicators of social factors are land prices, security and order, new arrivals, kinship relations, and citizen access. Economic Indicators are livelihoods, professional changes, business opportunities, business turnover, and new job opportunities. Indicators of environmental factors are air quality, traffic congestion, noise, the volume of waste, and land use. The most dominant variables are social factors of 34.454%, then economic factors of 21.351%, and environmental factors of 13.913% [3].

2. METHOD

This study uses primary data from the study area of the community around the Terbanggi Besar Lampung toll road and the Sragen-Kertosono toll road. Data were collected by filling out questionnaires which were distributed directly and distributed online.

2.1. Sampling method

Sampling was done randomly. The minimum number of samples taken can be calculated using the purposive sampling method based on the existing population. The respondents obtained were 50, namely users of the Trans Sumatra Toll Road (Bakauheni – Terbanggi Besar) and residents in the city of Bandar Lampung and residents of Sragen who were affected by the toll road construction.

2.2. Purposive Sampling

Purposive sampling is a non-random sampling technique where the researcher determines the sampling by determining specific characteristics that are following the research objectives so that they can answer the research problem. Based on the explanation of purposive sampling, two things are essential in using the sampling technique, namely non-random sampling and setting specific characteristics according to the research objectives by the researchers themselves.

2.3. Data Collection

The method of collecting data in this study was to collect primary data in the form of distributing questionnaires consisting of several statements regarding the Trans Sumatra Toll Road on the Bakauheni – Terbanggi Besar section. Manual deployment technique. Questionnaires distributed are performance and expectations (IPA). To describe the respondents' answers using a Likert scale of 1 to 5 with the lowest number

meaning strongly disagree (1 = STS) to the highest number which means strongly agree (5 = SS).

2.4. Importance Performance Analysis (IPA)

This technique was proposed by Martilla and James in 1977 in their article "Importance Performance Analysis" published in the Journal of Marketing. In this technique, respondents are asked to rate the level of expectation and performance, then the average value of importance and performance is analysed in the Importance Performance Matrix, where the x-axis represents perception while the y-axis represents expectations [4]. Then the results will be obtained in the form of four quadrants.

3. RESULT AND DISCUSSION

3.1. Research Data

The data processing process is carried out to determine the results of the research. There were 60 questionnaires distributed to respondents and only 50 questionnaires could be processed because there were 10 questionnaires that were not returned and were damaged. The profiles of the respondents who were asked were age, gender, last education, level of use of the Trans Sumatra Toll Road on the Bakauheni-Terbanggi Besar section, and the vehicles used [5].

Table 1 Performance Data, Expectations and Gaps of the community around the Terbanggi Besar toll road

No	Service	Performance	Expectation	Gap
1	Maintenance of the Trans Sumatra Bakauheni - Terbanggi Besar Toll Road is good	3.52	4.78	-1.26
2	The traffic flow of the Trans-Sumatra Toll Road is smoother from Trans-Sumatera Highway	4.3	4.8	-0.5
3	Response speed to emergency calls (operator / police / ambulance / tow truck)	3.66	4.66	-1
4	Official toll road towing service that always reliable	3.66	4.68	-1.02
5	Services from Highway Officers (Petugas Jalan Raya / PJR) make you feel safe	3.6	4.76	-1.16
Convenience and Security				
6	The level of security on the Trans Sumatra Toll Road is better from The Trans-Sumatra Highway	3.74	4.82	-1.08
7	Travel time of the Trans Sumatra Toll Road is shorter than Trans-Sumatra Highway	4.58	4.92	-0.34
8	Quick and accurate resolution of customer complaints/problems	3.54	4.32	-0.78
9	All officers on duty in the toll road environment are friendly and polite	3.6	4.62	-1.02
10	The toll road hotline can provide information or answers to questions	3.74	4.62	-0.88
Completeness				
11	toll booths that are opened during peak hours meet the large traffic volume	3.66	4.56	-0.9

No	Service	Performance	Expectation	Gap
12	Neat and polite staff	3.92	4.56	-0.64
13	Convenient street lighting when using toll road services at night	2.74	4.68	-1.94
14	Toll road facilities (signs, toll booths, etc.) are modern	3.48	4.58	-1.22
15	Strategic location and sufficient number of rest areas	3.38	4.7	-1.32
16	Availability of a rest area with complete and comfortable facilities	3.18	4.62	-1.44
Economic value				
17	Trans Sumatra toll road reduces logistics costs	3.16	4.62	-1.46
18	Trans Sumatra toll road causes commodity prices to decrease / stable	3.3	4.54	-1.26
19	The cost for the Trans Sumatra Bakauheni – Terbanggi Besar Toll Road is affordable	2.72	4.52	-1.8
20	The Trans Sumatra Bakauheni – Terbanggi Besar Toll Road is the user's choice	3.7	4.74	-1.04
Average		3.22	4.61	

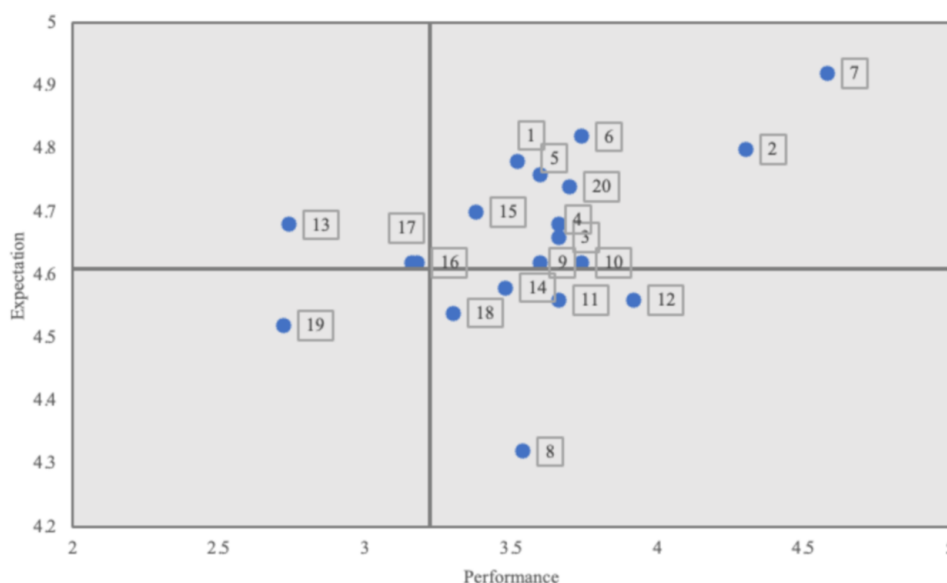


Figure 1 Cartesian plot on the performance and expectation of the Sragen residents (processed by author)

The distribution results of performance and expectations show that:

3.1.1. Quadrant A

Indicates factors or attributes that are considered important by respondents but are not implemented properly. The variables included in this quadrant are:

- The care and maintenance of the Trans Sumatra Bakauheni - Terbanggi Besar Toll Road is good. (no. 1)
- Toll road facilities (signs, toll booths, etc.) are modern. (no. 14)
- Strategic location and sufficient number of rest areas (no. 15)
- Trans Sumatra Bakauheni – Terbanggi Besar Toll Road is the user's choice. (no. 20)

3.1.2. Quadrant B

Shows the factors or attributes that are considered important and satisfying the respondents that have been implemented properly. The variables included in this quadrant are:

- The traffic flow of the Trans Sumatra Toll Road is smoother than that of the Trans Sumatra. (no. 2)
- Response speed to emergency calls (operator / police / ambulance / crane). (no. 3)
- Official toll road towing service that always reliable. (no. 4)
- Service from Highway Officers (PJR) makes you feel safe. (no. 5)
- The level of security on the Trans Sumatra Toll Road is better than the Trans Sumatra highway (no. 6)
- The travel time of the Trans Sumatra Toll Road is shorter than that of the Trans Sumatra. (no. 7)

3.1.3. Quadrant C

Indicates factors or attributes that are considered less important by respondents and are not implemented properly. The variables included in this quadrant are:

- Resolve customer complaints / problems quickly and accurately. (no. 8)
- The condition of the street lighting makes it comfortable when using toll road services at night. (no. 13)
- Availability of rest area with complete and comfortable facilities. (no. 16)
- Trans Sumatra toll road reduces logistics costs. (no. 17)
- The Trans Sumatra toll road causes commodity prices to decrease/stable. (no. 18)

- The cost for the Trans Sumatra Bakauheni – Terbanggi Besar Toll Road is affordable. (no. 19)

3.1.4. Quadrant D

Indicates factors or attributes that are considered less important but are carried out excessively. The variables included in this quadrant are:

- All officers on duty in the toll road environment are friendly and polite. (no. 9)
- The toll road hotline can provide information or answers to questions. (no. 10)
- The number of toll booths opened during peak hours is sufficient for the large traffic volume. (no. 11)
- The appearance of the officer looks neat and polite. (no. 12)

Table 2 Performance Data, Expectations and Gaps of the people around the Sragen - Kertosono toll road

Attribute	Expectation (Y)	Performance (X)	Gap
1	4.4	3.8	0.6
2	4.2	3.7	0.5
3	4.2	3.4	0.8
4	4.3	3.4	0.9
5	3.6	3.1	0.5
6	4.3	3.4	0.9
7	4.6	3.9	0.7
8	4,3	3.8	0.6
9	4.3	3.6	0.7
10	4.3	3.3	1.0
11	4.1	3.4	0.7
12	4.2	3.4	0.8
13	4.5	3.5	1.0
14	4.4	3.6	0.8
15	4.1	3.2	0.9
16	3.6	2.2	1.4
17	3.8	2.3	1.5
18	3.9	2.6	1.3
19	4.5	3.1	1.4
20	4.7	3.4	1.3

Table 3 Types of occupation of Sragen community respondents

Type of Work	Amount
trader	7 7%
farmer	22 42%
agricultural extension	2 3.80%
private employees	10 19.20%
state employees	8 15.40%
animal breeder	1 1.90%
laborer	2 3.80%

Table 4 Age range of respondents

Age		Amount
20-30	(3)	5.8 %
31-40	(6)	11.5 %
41-50	(19)	36.5 %
51-60	(13)	25.0 %
61-70	(7)	13 %
>71	(4)	7.7 %

From the mapping of the people of Sragen, it can be seen that:

- 31.5% of the people still want to be entrepreneurs
- 14.8% will carry out economic activities according to the needs of the community around the toll road.
- 35.71% intend to take entrepreneurship training
- 21.43% want to develop a horticulture business,
- 7.14% will join micro, small and medium enterprises (UMKM)

Economically, the people of Sragen want to:

- 53.7% continue their activities as before
- 31.5% want to be entrepreneurs
- 14.8% adjusts to the needs of the community around the toll road

3.2. Discussion

From the results of a questionnaire to the community on the Terbanggi Besar toll road, it shows that quadrant A is the one that needs attention. The community hopes that the facilities provided need to be cared for and maintenance is not yet felt by the toll road users. Likewise, regarding markings and signs, the community wants modern equipment. The community still needs to increase the number of rest areas on toll roads. From these conditions, the community still expects additional facilities.

Quadrant B shows community satisfaction with the available facilities. In quadrant C, input from the community is that existing facilities do not need to be improved, because the community considers the facilities provided are appropriate.

Meanwhile, in quadrant D, the community considers that the facilities provided by the toll road manager are excessive. The facilities in question are the number and performance of toll booths. Meanwhile, service officers both on the road and as hotline operators have performed very well.

The toll road construction that crosses Sragen is part of the 853 km Trans Java toll road. The impact of the development is felt very positively by the community, who have lived in the area for their whole lives. However, the surrounding community, most of whom work as farmers and employees, hope that there will be additional street lighting facilities, additional toll gates,

improvement of drainage channels, and normalization of farming roads.

From the economic activity data, there is a desire in the community to change their livelihoods to become entrepreneurs, considering that the age group of the surrounding community is in the 51–70-year age group (38%). The surrounding community expects assistance in economic activities that are suitable for their physical condition.

4. CONCLUSION

The study concluded that toll road users and communities around toll roads agree that the construction of toll roads has a positive impact on people's lives in terms of social and economic activities. While the negative impact that arises is that residents feel that development is not paying attention to drainage channels in residential areas resulting in an overflow of water during the rainy season.

The community wants assistance for entrepreneurship for residents in the 51–70-year age group that is adjusted to their physical abilities. Some residents want to open a business to meet the needs of toll road users. The desire to keep doing business around the toll road is reasonable considering that some residents (approx. 38%) have lived in this location for more than 50 years.

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