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EVALUATION OF ELF PUBLIC TRANSPORTATION SERVICES IN CIREBON REGENCY: ABILITY TO PAY, SATISFACTION, AND CONVENIENCE BEFORE AND DURING THE PANDEMIC

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Abstract

The COVID-19 pandemic has disrupted various sectors in Cirebon Regency, including the transportation system, especially elf-type city transportation services. This study aims to analyze the ability to pay, level of satisfaction, and ease of public access to elf transportation services in Cirebon Regency. Data collection was conducted through an online questionnaire survey with 100 respondents, determined using the Slovin method with a margin of error of 10%. The results showed that the average tariff set by elf drivers was Rp3.038,46, while the majority of respondents were able to pay up to Rp 4.000,00. Before the pandemic, ease of access was considered quite good, but decreased during the pandemic due to operational restrictions and fleet reduction. User satisfaction levels have been stable, with the majority of respondents rating the service as adequate. These findings suggest that despite the pandemic, public acceptance of elf services remains high. Therefore, policies that support the sustainability of public transportation are needed, such as improving comfort, operational efficiency, and adjusting tariffs according to people's purchasing power. This has been proven in the field, with these improvements making it easier for people to access mobility and also having an impact on the regional economy.

Keywords: ***public transportation, COVID-19, ability to pay, satisfaction level, convenience level.***

1. INTRODUCTION

The Region is a territorial area with an understanding, boundaries, and character based on the administrative authority of the government determined by certain laws and regulations (Pontoh & Kustiwan, 2008). Regional development is integral to national development. According to Bratakusumah, in the introduction to urban planning (Pontoh & Kustiwan, 2008), regional development planning is a process of development planning intended to make changes towards better development for a community, government, and its environment in a certain area or region, by utilizing or utilizing various existing resources, and must have a comprehensive, complete orientation, but still adhere to the principle of priority. One of the plans for development in the region is the development of transportation infrastructure to build the economy, one of which is the transportation system (Alotaibi et al., 2025). The success of development is greatly influenced by the role of transportation as a driver of political, economic, socio-cultural, defense, and security life. The transportation network system can be considered efficient, safe, easily accessible, integrated, sufficient capacity, orderly, smooth and fast, easily accessible, timely (Zhang et al., 2024), comfortable, affordable, orderly, safe, low emissions(Speizer et al., 2024), and, in this sense, low advertising load. and high efficiency (Ataburo et al., 2024) in a uniform transportation system network (Ashraf & Idrisi, 2024).

Therefore, transportation development is very important to support and encourage development momentum, because transportation acts as a catalyst for economic growth and regional development. Transportation also play a strategic role in strengthening the territorial integrity of the Unitary State of the Republic of Indonesia (NKRI). From a public interest perspective, land, sea, and air transportation systems fulfill national and international public service duties. The COVID-19 pandemic that has spread, especially in Cirebon Regency, has made all designs and plans that have been made by the Cirebon Regency Government have to be rearranged, such as changes to the Regional Revenue and Expenditure Budget (APBD), improving the transportation system, and so on, so that economic recovery is needed due to the impact of by the COVID-19 Pandemic, one of which is by increasing the potential for

public transportation and Micro, Small and Medium Enterprises (MSMEs). However, because of the many central government policies regarding social restrictions, local governments must comply with these regulations, an addition, people who want to use public transportation services find it difficult because of policies that limit community mobility (Naderi et al., 2025). Based on these problems, the author conducted a study on the public's ability to pay for public transportation (Lee & Nguyen, 2025), namely elf, which was taken from the average cheapest transportation fare, the level of public satisfaction with public transportation services, namely elf, and the ease of obtaining public transportation, namely elf, before and during the COVID-19 pandemic in the Cirebon Regency, which in turn will have economic and social implications.

2. METHODOLOGY

The primary data collection method used was filling out a questionnaire in the form of Google Forms. The amount of data analyzed was obtained based on calculations using the Slovin formula. With an error rate of 10% and a population of Cirebon Regency of 2,189,785, as seen from data from the Central Statistics Agency (BPS) of Cirebon Regency, which was updated in December 2020, it was found that at least 100 respondents were required to be collected. The data collected were in the form of the cheapest fare data, the ability to pay for the cheapest fare, the level of convenience, and public satisfaction with public land transportation, namely, elf before and during the pandemic in the Cirebon Regency. The data analysis method used in analyzing the data was descriptive and inferential statistical analysis using STATA application.

3. RESULT AND DISCUSSION

The research data were obtained based on the results of the primary data, by filling out a questionnaire using Google forms. The data were obtained from 117 respondents. Sampling as many as 117 because taking into account one of the sampling theories, namely the Slovin approach for quantitative research, the sampling must be representative so that the research results can be generalized. The results will be analyzed using several statistical analysis approaches in the form of descriptive analysis to produce data obtained from questionnaires, and inferential statistical analysis (non-parametric) in the form of sign and Wilcoxon signed-rank tests (Sawitri & Maryati, 2014).

3.1. DESCRIPTIVE ANALYSIS OF QUESTIONNAIRE DATA RESULTS

Descriptive Analysis of Ability to Pay for Public Transportation (Elf) Data

From the results of the reduction of basic data on the ability to pay for public transportation, namely, elf in Cirebon Regency, 117 respondents were obtained or in this case all respondents (100%), answered that they were willing to pay a tariff of Rp4.000,00. The tariff of Rp4.000,00 is an assumption that researchers use because researchers are people in Cirebon Regency and the assumptions determined are close to the actual results.

Table 1. Frequency Distribution of Data on Ability to Pay for Public Transportation (Elf)

Willingness to Pay	Frequency	Percentage (%)
Able	117	100
Unable	0	0
Total	**117**	**100**

Source: Processed from Primary Data (2022)

The measures of central tendency for the ability to pay for transportation variable are all spread over the intensity of being able to afford as well as being the most prevalent data.

Descriptive Analysis of Lowest Cost Data for Public Transportation Fares (Elf)

From the results of the basic data reduction of the cheapest tariff data for public transportation (elf) in Cirebon Regency, out of 117 respondents, the highest frequency answered with the cheapest tariff of Rp 2.000, namely 35 respondents or 29.91%. The average cheapest public transportation fare (elf) in the Cirebon Regency was Rp3.038,46.

Table 2. Frequency Distribution of Lowest Cost Data for Public Transportation Fares (Elf)

Cheapest Rate (Rp)	Frequency	Total Cheapest Fare (Rp)	Percentage (%)
2.000	35	70.000	29,91
2.500	12	30.000	10,26
3.000	33	99.000	28,21
3.500	13	45.500	11,11
4.000	11	44.000	9,40
5.000	11	55.000	9,40
6.000	2	12.000	1,71
Total	**117**	**355.000**	**100**
Average		**3038.46**	

Source: Processed from Primary Data (2022)

The measure of central tendency for the cheapest public transportation tariff variable (elf), the average data are spread at a tariff of Rp2.000,00, with the lowest tariff appearing most at a tariff of Rp2.000,00.

Descriptive Analysis of Ease of Public Transportation (Elf) Data

From the results of the reduction of basic data on the level of convenience of public transportation (elf) before the pandemic in Cirebon Regency, out of 117 respondents, the highest frequency answered the level of convenience of 8, namely 37 respondents or 31.62% while from the results of the reduction of basic data on the level of convenience of public transportation (elf) during the pandemic in Cirebon Regency, out of 117 respondents, the highest frequency answered the level of convenience of 7, namely 32 respondents or 27.35%.

Table 3. Frequency Distribution of Data on Level of Ease of Public Transportation (Elf)

Level of Ease	Before Pandemic		After Pandemic	
	Frequency	Percentage (%)	Frequency	Percentage (%)
1	0	0,00	0	0,00
2	0	0,00	1	0,85
3	0	0,00	10	8,55
4	1	0,85	14	11,97
5	7	5,98	23	19,66
6	20	17,09	17	14,53
7	30	25,64	32	27,35
8	37	31,62	14	11,97
9	18	15,38	6	5,13
10	4	3,42	0	0,00
Total	**117**	**100**	**117**	**100**

Source: Processed from Primary Data (2022)

For the centralizing tendency for the variable level of convenience of public transportation (elf) before the pandemic, the average data are spread at a level of convenience of 8, with the most convenience appearing at a level of convenience of 8. While the centralizing tendency for the variable level of convenience of public transportation (elf) during a pandemic, the average data are spread at a level of convenience of 7, with the most convenience appearing at a level of convenience of 7.

Descriptive Analysis of Public Transportation (Elf) Satisfaction Data

From the results of the reduction of basic data on the level of satisfaction with public transportation (elf) before the pandemic in Cirebon Regency, out of 117 respondents, the highest frequency answered the level of convenience of 70, namely as many as 26 respondents or 22.22% From the results of the reduction of basic data on the level of satisfaction with public transportation (elf) during the pandemic in Cirebon Regency, out of 117

respondents, the highest frequency indicated the level of convenience of 70, namely as many as 23 respondents or 19.66%.

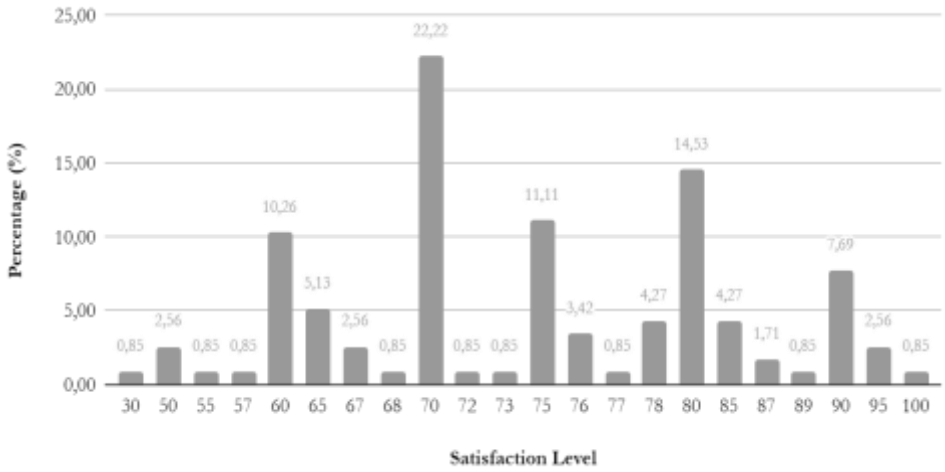

Figure 1. Satisfaction Level of Public Transportation (Elf) before Pandemic in Cirebon Regency
Source: *Processed from Primary Data (2022)*

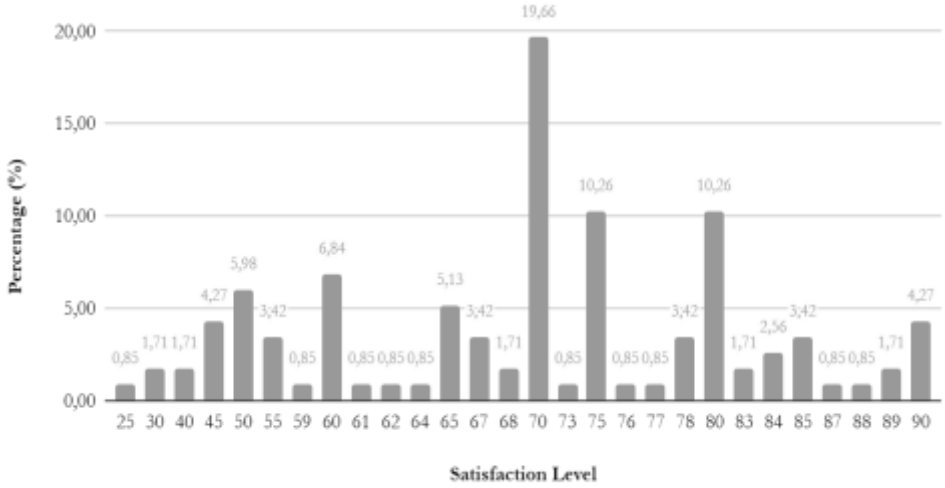

Figure 2. Satisfaction Level of Public Transportation (Elf) during Pandemic in Cirebon Regency
Source: *Processed from Primary Data (2022)*

For the centralizing tendency for the variable level of satisfaction with public transportation (elf) before the pandemic, the average data were scattered at a convenience level of 70, with the most convenient level appearing at a convenience level of 70. While the centralizing tendency for the variable level of satisfaction with public transportation (elf) during a pandemic, the average data are scattered at a convenience level of 70, with the most convenient level appearing at 70.

3.2. INFERENTIAL STATISTICAL ANALYSIS

Inferential statistical analysis using sign testing, it will identify the level of convenience and public satisfaction with public transportation (elf) in Cirebon Regency before and during the pandemic. Data analysis was conducted to determine the level of convenience and community satisfaction with public transportation (elf) in Cirebon Regency before the pandemic and during the pandemic using STATA, namely the Sign Test for one variable and two variables and the following results were obtained.

Sign Test with 1 Variable Level of Ease

In this case, it is assumed that the ease of obtaining public transportation (elf) is good and easy to obtain if it reaches a value of 7. There following three hypotheses are proposed

(1) One-tailed hypothesis (1)
- H0 : Median value in the population ≤ 7 (Sign ≥ 0.05)
- H1: Median value in the population > 7 (Sign < 0.05)

(2) One-tailed hypothesis (2)
- H0 : The median value in the population ≥ 7 (Sign ≥ 0.05)
- H1 : The median value in the population < 7 (Sign < 0.05)

(3) Two-tailed hypothesis (2)
- H0 : The median value in the population = 7 (Sign ≥ 0.05)
- H1: The median value in the population ≠ 7 (Sign < 0.05)

Write the command signtest kemudahan_sb = 7 to see the sign test on the level of ease of public transportation (elf) before the pandemic in the Cirebon Regency and obtain the results shown in Figure 3.

sign test

sign	observed	expected
positive	59	43.5
negative	28	43.5
zero	30	30
all	117	117

One-sided tests:
Ho: median of kemudaha~b - 7 = 0 vs.
Ha: median of kemudaha~b-7 > 0
Pr (#positive >= 59)
Binomial (n = 87, x >= 59, p = 0.5)= 0.0006
Ho: median of kemudaha~b - 7 = 0 vs.
Ha: median of kemudaha~b - 7 < 0
Pr (#negative >= 28) =
Binomial (n=87, x>= 28, p = 0.5)= 0.9997
Two-sided test:
Ho: median of kemudaha~b - 7 = 0 vs.
Ha: median of kemudaha~b7 != 0
Pr (#positive >= 59 or #negative >= 59) =
min (1, 2*Binomial (n = 87, x >= 59, p = 0.5)) = 0.0012

Figure 3. Ease Level Analysis Before Pandemic with STATA

Source: *Processed from Primary Data with STATA (2022)*

To determine the accepted initial hypothesis, H0 was accepted if the significance value was > 0.05. In the two-sided test results, H0 was rejected and H1 was accepted since 0.0012 < 0.05. When viewed from the first one-sided tests, 0.0006 < 0.05, H0 is accepted, and H1 is rejected. With the acceptance of H1, the second one-sided test does not need to be re-examined. This means that, because the median reaches 7, the level of convenience of public transportation (elf) before the Pandemic in Cirebon Regency can be considered good and easy for the community to obtain. Then, write the command signtest kemudahan_st = 7 to see the sign test on the level of ease of public transportation (elf) during a pandemic in the Cirebon Regency and obtain the results shown in Figure 4

sign test

sign	observed	expected
positive	20	42.5
negative	65	42.5
zero	32	32
all	117	117

One-sided tests:
Ho: median of kemudaha~t - 7 = 0 vs.
Ha: median of kemudaha~t-7 > 0
Pr (#positive >= 20)
Binomial (n = 85, x >= 20, p = 0.5)= 1.0000
Ho: median of kemudaha~t - 7 = 0 vs.
Ha: median of kemudaha~t - 7 < 0
Pr (#negative >= 65) =
Binomial (n=85, x>= 65, p = 0.5)= 0.0000
Two-sided test:
Ho: median of kemudaha~t - 7 = 0 vs.
Ha: median of kemudaha~t7 != 0
Pr (#positive >= 65 or #negative >= 65) =
min (1, 2*Binomial (n = 85, x >= 65, p = 0.5)) = 0.0000

Figure 4. Analysis of Convenience Level during Pandemic with STATA
Source: *Processed from Primary Data with STATA (2022)*

To determine the accepted initial hypothesis, H0 was accepted when the significance value was > 0.05. In the two-sided test results, because 0.0000 < 0.05, H0 was rejected, and H1 was accepted. When viewed from the first one-sided tests, 1.0000 > 0.05, H0 is rejected, and H1 is accepted, when viewed from the second one-sided tests, 0.0000 < 0.05, H0 is rejected, and H1 is accepted. This means that the median has not reached 7, so the level of convenience of public transportation (elf) during the Pandemic in Cirebon Regency can be assessed as still not good and not easy for the community to obtain.

Sign Test with 1 Variable Satisfaction Level

In this case, it is assumed that the satisfaction value of public transportation (elf) is considered good and easy to obtain if it reaches a value of 70. The following three hypotheses are proposed

(1) One-tailed hypothesis (1)
- H0 : Median value in the population ≤ 70 (Sign ≥ 0.05)
- H1: Median value in the population > 70 (Sign < 0.05)

(2) One-tailed hypothesis (2)
- H0 : The median value in the population ≥ 70 (Sign ≥ 0.05)
- H1 : The median value in the population < 70 (Sign < 0.05)

(3) Two-tailed hypothesis (2)
- H0 : Median value in the population = 70 (Sign ≥ 0.05)
- H1: The median value in the population ≠ 70 (Sign < 0.05)

Write the command signtest kepuasan_sb = 70 to see the sign test on the level of satisfaction with public transportation (elf) before the pandemic in Cirebon Regency and obtain the results shown in Figure 5.

sign test

sign	observed	expected
positive	63	45.5
negative	28	45.5
zero	26	26
all	117	117

One-sided tests:
Ho: median of kepuasan~b - 70 = 0 vs,
Ha: median of kepuasan~b-70 > 0
Pr (#positive >= 63)
Binomial (n = 91, x >= 63, p = 0.5)= 0.0002
Ho: median of kepuasan~b - 70 = 0 vs,
Ha: median of kepuasan~b - 70 < 0
Pr (#negative >= 28) =
Binomial (n=91, x>= 28, p = 0.5)= 0.9999
Two-sided test:
Ho: median of kepuasan~b - 70 = 0 vs,
Ha: median of kepuasan~b - 70 != 0
Pr (#positive >= 63 or #negative >= 63) =
min (1, 2*Binomial (n = 91, x >= 63, p = 0.5)) = 0.0003

Figure 5. Pre-Pandemic Satisfaction Level Analysis with STATA
Source: *Processed from Primary Data with STATA (2022)*

To determine the accepted initial hypothesis, H0 was accepted when the significance value was > 0.05. In the two-sided test results, when 0.0003 < 0.05, H0 was rejected and H1 was accepted. If seen from the first one-sided tests, 0.0002 < 0.05, H0 is accepted, and H1 is rejected. With the acceptance of H1, the second one-sided test does not need to be reexamined. This means that, because the median reaches 70, the level of public satisfaction with public transportation (elf) before the Pandemic in Cirebon Regency can be assessed as good and people are satisfied with public transportation services (elf) in Cirebon Regency. Then, write the command signtest kepuasan_st = 70 to see the sign test on the level of satisfaction with public transportation (elf) during the pandemic in Cirebon Regency and obtain the results shown in Figure 6.

sign test

sign	observed	expected
positive	49	47
negative	45	47
zero	23	23
all	117	117

One-sided tests:
Ho: median of kepuasan~t - 70 = 0 vs.
Ha: median of kepuasan~t-70 > 0
Pr (#positive >= 49)
Binomial (n = 94, x >= 49, p = 0.5)= 0.3786
Ho: median of kepuasan~t - 70 = 0 vs.
Ha: median of kepuasan~t - 70 < 0
Pr (#negative >= 45) =
Binomial (n=94, x>= 45, p = 0.5)= 0.6969
Two-sided test:
Ho: median of kepuasan~t - 70 = 0 vs.
Ha: median of kepuasan~t - 70 != 0
Pr (#positive >= 49 or #negative >= 49) =
min (1, 2*Binomial (n = 94, x >= 49, p = 0.5)) = 0.7572

Figure 6. Satisfaction Level Analysis during Pandemic with STATA
Source: *Processed from Primary Data with STATA (2022)*

To determine the accepted initial hypothesis, H0 was accepted when the significance value was > 0.05. In the two-sided test results, as 0.7572 > 0.05, H0 was accepted and H1 was rejected. This means that the median reaches 70, so there is no need to look at one-sided test results. This means that because the median has reached 70, the level of satisfaction with public transportation (elf) during the Pandemic in Cirebon Regency can be assessed as well, and people are satisfied with public transportation services (elf) in Cirebon Regency.

Sign Test with 2 Variables of Level of Convenience and Satisfaction

(1) One-tailed hypothesis (1)
- H0: The median value of convenience/satisfaction during the pandemic - convenience/satisfaction before the pandemic ≤ 0 (sig ≥ 0.05)
- H1: Median value of convenience/satisfaction during the pandemic - convenience/satisfaction before the pandemic > 0 (sig < 0.05)

(2) One-tailed hypothesis (2)
- H0: The median value of convenience/satisfaction during the pandemic - convenience/satisfaction before the pandemic ≥ 0 (sig ≥ 0.05)
- H1: Median value of convenience/satisfaction during the pandemic - convenience/satisfaction before the pandemic < 0 (sig < 0.05)

(3) Two-tailed hypothesis (2)
- H0: Median value of convenience/satisfaction during the pandemic - convenience/satisfaction before the pandemic = 0 (sig ≥ 0.05)
- H1: The median value of convenience/satisfaction during the pandemic - convenience/satisfaction before the pandemic ≠ 0 (sig < 0.05)

After determining the hypothesis of the level of convenience and satisfaction of transportation, the next step is to write the signtest command kemudahan_st = kemudahan_sb to see if there is a change in the level of convenience of public transportation (elf) before and after the pandemic in Cirebon Regency and the results are obtained as shown in Figure 7 below.

sign test

sign	observed	expected
positive	16	51.5
negative	87	51.5
zero	14	14
all	117	117

One-sided tests:
Ho: median of kemudaha~t - kemudahan_sb = 0 vs.
Ha: median of kemudaha~t - kemudahan_sb > 0
Pr (#positive >= 16)
Binomial (n = 103, x >= 16, p = 0.5)= 1.0000
Ho: median of kemudaha~t - kemudahan_sb = 0 vs.
Ha: median of kemudaha~t - kemudahan_sb < 0
Pr (#negative >= 87) =
Binomial (n=103, x>= 87, p = 0.5)= 0.0000
Two-sided test:
Ho: median of kemudaha~t - kemudahan_sb = 0 vs.
Ha: median of kemudaha~t - kemudahan_sb != 0
Pr (#positive >= 87 or #negative >= 87) =
min (1, 2*Binomial (n = 103, x >= 87, p = 0.5)) = 0.0000

Figure 7. Analysis of Convenience Level Before and During Pandemic with STATA
Source: *Processed from Primary Data with STATA (2022)*

To determine the accepted initial hypothesis, H0 was accepted when the significance value was > 0.05. In the two-sided test results, because 0.0000 < 0.05, H0 was rejected, and H1 was accepted. This means that the difference in the median value of the ease of transportation before and during the pandemic in the Cirebon Regency is not equal to 0. This means that the ease of obtaining public transportation (elf) changed between before and during the pandemic in the Cirebon Regency. Changes can be observed in the results of the one-sided tests. In the first one-sided test, because 1.0000 > 0.05, H0 was accepted and H was rejected. This means that there was a decrease in the perception of the assessment of the level of convenience during and before the pandemic in the Cirebon Regency. Then, the command signtest kepuasan_st = kepuasan_sb was used to see if there was a change in the level of satisfaction with public transportation (elf) before and after the pandemic in Cirebon Regency and obtain results as shown in Figure 8 below.

sign test

sign	observed	expected
positive	48	57
negative	66	57
zero	3	3
all	117	117

One-sided tests:
Ho: median of kepuasan~t - kepuasan_sb = 0 vs.
Ha: median of kepuasan~t - kepuasan_sb > 0
Pr (#positive >= 48)
Binomial (n = 114, x >= 48, p = 0.5)= 0.9627
Ho: median of kepuasan~t - kepuasan_sb = 0 vs.
Ha: median of kepuasan~t - kepuasan_sb < 0
Pr (#negative >= 66) =
Binomial (n=114, x>= 66, p = 0.5)= 0.0555
Two-sided test:
Ho: median of kepuasan~t - kepuasan_sb = 0 vs.
Ha: median of kepuasan~t - kepuasan_sb != 0
Pr (#positive >= 66 or #negative >= 66) =
min (1, 2*Binomial (n = 114, x >= 66, p = 0.5)) = 0.1109

Figure 8. Analysis of Satisfaction Level Before and During Pandemic with STATA
Source: *Processed from Primary Data with STATA (2022)*

To determine the accepted initial hypothesis, H0 was accepted when the significance value was > 0.05. In the two-sided test results, because 0.1109 > 0.05, H0 is accepted and H1 is rejected. This means that the difference in the median value of the level of convenience of transportation before and during the pandemic in Cirebon Regency was equal to 0. This means that there was no change in the perception of the assessment of the level of convenience during and before the pandemic in the Cirebon Regency.

Wilcoxon Sign-Rank Test 1 Variable Level of Convenience

This test is used to determine the distribution of data and the data used are the level of convenience and satisfaction of transportation during a pandemic in the Cirebon Regency. The hypotheses used were as follows:

- H0 : Population median value = 7 (sig ≥ 0.05)
- H1: Population median value ≠ 7 (sig < 0.05)

Write the command signrank kemudahan_st = 7 to see if the median value at the level of convenience of public transportation (elf) during a pandemic has reached 7 which is a good assessment of the level of convenience and the results are obtained as shown in Figure 9 below.

wilcoxon signed-rank test

sign	obs	sum ranks	expected
positive	20	1140	3187.5
negative	65	5235	3187.5
zero	32	528	528
all	117	6903	6903

unadjusted variance	135183.75
adjustment for ties	-1205.00
adjustment for zeros	-2860.00
adjustment variance	131118.75

Ho : kemudahan_st = 7
z = -5.654
Prob > |z| = 0.0000

Figure 9. Sign Rank Analysis of Convenience Level during Pandemic with STATA
Source: *Processed from Primary Data with STATA (2022)*

Based on the test results, it is found that the level of convenience of public transportation (elf) during a pandemic in Cirebon Regency> 7 → Positive Rank = 20, The level of convenience of public transportation (elf) during a pandemic in Cirebon Regency < 7 → Negative Rank = 65, The level of convenience of public transportation (elf) during a pandemic in Cirebon Regency = 7 → Zero = 32. Based on the test results, it is found that the Prob> |z| value is 0.0000 <0.05, so H0 is rejected. This means that the median value in the population is not equal to 7.

Wilcoxon Sign-Rank Test 1 Satisfaction Level Variable
The hypothesis used is as follows

- H0 : Population median value = 70 (sig ≥ 0.05)
- H1: Population median value ≠ 70 (sig < 0.05)

Write the command signrank kepuasan_st = 70 to see if the median value of the satisfaction level of public transportation (elf) during a pandemic has reached 70 which is a good assessment of the level of convenience and the results are obtained as shown in Figure 10 below.

wilcoxon signed-rank test

sign	obs	sum ranks	expected
positive	49	3265	3313.5
negative	45	3262	3313.5
zero	23	276	276
all	117	6903	6903

unadjusted variance	135183.75
adjustment for ties	-342.38
adjustment for zeros	-1081.00
adjustment variance	133760.38

Ho : kemudahan_st = 70
z = -0.133
Prob > |z| = 0.8945

Figure 10. Sign Rank Analysis of Satisfaction Level During Pandemic with STATA
Source: *Processed from Primary Data with STATA (2022)*

Based on the test results, it was found that the level of satisfaction with public transportation (elf) during the pandemic in Cirebon Regency > 70 → Positive Rank = 49, the level of satisfaction with public transportation (elf) during the pandemic in Cirebon Regency < 70 → Negative Rank = 45, the level of satisfaction with public transportation (elf) during the pandemic in Cirebon Regency = 70 → Zero = 23. Based on the test results, it was found that the Prob value> |z| is 0.8945> 0.05, so H0 is accepted. This means that the median value in the population is equal to 70.

3.3. INTERPRETATION OF DATA PROCESSING RESULTS

There was a decrease in the perceived ease of access to public transportation (elf) in the Cirebon Regency between the periods before and during the COVID-19 pandemic. This decline reflects the pandemic's impact on public transportation services, especially in terms of availability and accessibility. Although the community has experienced difficulties obtaining public transportation (elf) during the pandemic, the Cirebon District Government is still trying to maintain the level of user satisfaction. This is evidenced by the results of the analysis, which show that despite a decrease in perceived ease of access, the level of satisfaction with public transportation (elf) is relatively stable. From the average data, the level of ease of obtaining public transportation (elf) before the pandemic was 7.41, while during the pandemic it decreased to 5.94. Meanwhile, the level of satisfaction with public transportation services (elf) before the pandemic reached 73.72, and experienced a slight decrease to 68.79 during the pandemic.

These data show a decrease in both the ease of access and user satisfaction, although the decrease is not very significant, this is in line with research in Seoul (Lee et al., 2024). Further analysis using the sign testing method shows that the level of public satisfaction with public transportation (elf) during the pandemic is still relatively good and satisfactory. Therefore, better transportation infrastructure development planning is needed to support the regional economy, one of which is to improve land transportation services, such as self-cars. However, the results of this study have limitations because the number of respondents was only 117, with a margin of error of 10%. Nevertheless, these findings can still be the basis for the government to improve public transportation infrastructure (elf) so that people are encouraged to use it. With the increased use of public transportation, it is expected that the regional economy is expected to grow (Ju et al., 2025), and air pollution due to the use of private vehicles can be reduced (Rosell, 2024; Sahu et al., 2023; Xu et al., 2025). In some cases in the social context, improved public transportation services have proven to provide significant benefits, especially for people living in peripheral areas or areas that are located relatively far from the main centers of activity. This is crucial as limited access to transportation

is often a barrier to mobility and economic activity in these areas. This finding is also reinforced by the results of statistical analysis that shows a linear relationship between improving the quality of public transportation services, in this case Elf vehicles, with community satisfaction and ease of mobility (Sogbe et al., 2025), as also confirmed from field observations. The Cirebon District Government is also aware of the importance of the transportation sector in supporting regional development. Therefore, in both medium and long-term development planning documents, improving the quality and coverage of public transportation services is one of the main priorities. This commitment is also evident in the Cirebon District Road Traffic and Transport (LLAJ) Forum, where various parties involved agreed to continue to encourage improvements in transportation services and accelerate the process of realizing the transportation plans that have been prepared. During the forum, the Regent of Cirebon Regency also expressed his hope that Cirebon Regency in the future can develop into a region that is increasingly crowded and economically advanced, but still organized, smooth, especially in the aspect of transportation, and beautiful. (Informatika, 2024). In the surrounding areas, such as Cirebon City, improving the quality of transportation is a positive thing. A wide range of services and affordable fares support the ease of mobility of the community. According to the World Bank, ease of mobility is one of the main keys in driving economic growth, because good mobility along with inclusiveness is an important foundation for creating a productive city (Bank, 2019), It can be concluded that the results of statistical analysis are in line with the real conditions in the field, which show the implications for social and economic aspects. Therefore, the Regional Government, especially Cirebon Regency, needs to continue to evaluate and improve the service and quality of public transportation. This effort is important so that more and more people are helped in their daily mobility, which in turn will encourage economic growth along with increased community activity (mobility).

4. CONCLUSIONS

Based on the results of the analysis and identification that has been carried out, it is found that the average tariff determined by the elf driver to users, as seen from the average cheapest public transportation fare (elf) for the community in Cirebon Regency, is Rp3.038,46, which is also seen in the range of Rp4.000,00 between the cheapest transportation tariff of Rp2.000,00 and Rp6.000,00. Based on the results of the analysis and identification that has been done, it was found that of the 117 respondents who answered that they were able to pay a transportation fare of Rp4.000,00, namely 100%, or it can be said that all respondents were able to afford the transportation tariff in Cirebon Regency. Based on the results of the analysis and identification that has been carried out, it is found that the level of convenience of public transportation (elf) before the pandemic in Cirebon Regency is considered good and easy to obtain, with an average value of 7.41, which shows a value of> 7, but the level of convenience of public transportation (elf) during the pandemic in Cirebon Regency is considered less good and difficult to obtain with an average value of 5.94, which shows a value of < 7., This is also tested using the 2 variable sign test that there is a decrease in the perception of the level of convenience, which is also due to government policies regarding social restrictions and community mobility during the pandemic. Based on the results of the analysis and identification that has been carried out, it is found that the level of satisfaction of public transportation (elf) before the pandemic in Cirebon Regency is considered good and the community is satisfied with the services and facilities provided, and the average value obtained is 73.71, which shows that the value is> 70. The level of satisfaction of public transportation (elf) during the pandemic in Cirebon Regency is also considered quite good and the community is quite satisfied with the services and facilities of public transportation (elf), but there is a decrease in value, with an average of 68.79.In this field condition in line with statistical calculations, that the improvement in the quality and service of this transportation itself has a significant impact, especially in terms of mobility for daily activities and this will ultimately also have an impact on the economy.

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