The Characteristics of Trans Metro Deli Bus Passengers in Medan

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ABSTRACT

As the government's response to the areas in developing countries, they took steps to reform the existing public transportation service system, one of which is by implementing the Trans Metro Deli (TMD) bus system, a revolutionary public transportation system. Intended to improve mobility and reduce congestion, TMD has become a symbol of transformation in urban transportation in Medan. TMD strives to provide reliable, affordable, and efficient public transportation services for Medan residents. The purpose of this study is to analyze the existing conditions of Trans Metro Deli buses and the characteristics of passengers by using questionnaires and descriptive analysis. The research results show that the existing conditions based on the Minimum Service Standards (*Standar Pelayanan Minimal PM 27 Tahun 2015*) regarding security, safety, and comfort are respectively 66,66%; 56,25%; and 72,72% which means that the existing conditions of the Trans Metro Deli bus have not been complied 100% based on the Minimum Service Standards PM 27 of 20115 (*Standar Pelayanan Minimal PM* 27 *Tahun 2015*). The results of the descriptive analysis study for the characteristics of passengers who use the Trans Metro Deli buses, based on gender which is 80% female, resides in Medan is 88%, are aged 15-25 years old is 78%, employment is 82% students, in-family roles as children is 90%, none ownership of vehicle is 49%, income < Rp500.000 is 49%, travel origination of house/boarding house/rent house is 61%, travel destination is 42% school/college, travel frequency 2 times per day is 53%, travel frequency 26-30 times per month is 38%, travel mode from the origin to the bus stop by walking is 37%, travel mode from the bus stop to the destination by walking is 52%, travel distance from the origin to the bus stop > 400 meter is 33%, travel distance from the bus stop to the destination > 400 meter is 37%, 15-30 minutes travel time by Trans Metro Deli bus is 37% , < 15 minutes travel time from the origin to the bus stop is 65%, < 15 minutes travel time from the bus stop to the destination is 33%, travel cost from the origin to the bus stop Rp2000 – 4000 is 45%, and travel cost from the bus stop to the destination Rp2000 – 4000 is 43%.

Keywords: public transport; characteristics of passengers; Trans Metro Deli; descriptive analysis; SPSS.

INTRODUCTION

Medan is one of the cities in Indonesia with a severe level of congestion, which is caused by the high use of private vehicles and the low performance of public transportation services resulting in unavoidable congestion. Good urban public transportation can be achieved through comprehensive transportation planning, which requires considering the characteristics of the city, both in terms of space and the characteristics of its users. Without considering these things, urban public transportation facilities and infrastructure may not functioning properly, thereby triggering the massive use of private transportation (Simanjuntak et al., 2023).

Trans Metro Deli serves a number of routes that traverse various strategic points in Medan, including business centers, education, and shopping centers, providing easy access for passengers to reach their destination. With a regular schedule and easily accessible stops, Trans Metro Deli ensures the passengers can enjoy a comfortable and smooth journey. Trans Metro Deli bus has started operating in Medan since November 22nd, 2020. Trans Metro Deli bus has a fleet of 72 units and serve 5 routes or corridors in Medan, including *Pinang Baris* Terminal – *Lapangan Merdeka*, *Amplas* Terminal – *Lapangan Merdeka*, *Belawan – Lapangan Merdeka*, *Tuntungan –*

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Lapangan Merdeka and *Tembung – Lapangan Merdeka*. It is hoped that the Trans Metro Deli bus will make it easier for people to travel from one place to another.

Factors that influence a person or prospective passenger in choosing a mode of transportation are the characteristics of traveler, the characteristics of travel, and the characteristics of the transportation facilities (Nur et al., 2021). The characteristic of traveler can be age, gender, number of family members, income, and expenses. The characteristics of travel can be travel time, travel destination, and travel distance. And the characteristics of the transportation facilities are cost, comfort, safety, and reliability (Nurdjanah & Haidar, 2024). Therefore, this study will examine the existing conditions of the Trans Metro Deli bus and the characteristics of passengers who use the Trans Metro Deli bus. The existing conditions will be analyzed based on the Minimum Service Standards (*Standar Pelayanan Minimal PM 27 Tahun 2015)* and the the characteristics of passengers will be analyzed descriptively using a measurement tool of a questionnaire that will be disseminated to the passengers of Trans Metro Deli bus and will collect the data with the help of SPSS.

RESEARCH METHODS

This study was conducted on the Trans Metro Deli in Medan on 5 corridors that have been operating to date, including *Pinang Baris – Lapangan Merdeka* Terminal, *Amplas – Lapangan Merdeka* Terminal, *Belawan – Lapangan Merdeka*, *Tuntungan – Lapangan Merdeka* and *Tembung – Lapangan Merdeka*. The stages conducted in this study were described as follows:

1. Surveyed for the study location of Trans Metro Deli bus in Medan. Based on the location survey, it was determined that the study location was carried out on 5 corridors of the Trans Metro Deli bus.
2. Determined the number of samples in the population to be used in the study in which the number of samples is calculated using Slovin Formula. From the Slovin Formula, The number of samples used in the 5 Trans Metro Deli bus corridors is 400 respondents.
3. Prepared measurement tools for the study using questionnaire with 2 categories of characteristics which are traveler behavior characteristics in terms of gender, residence, age, and employment.
4. Collected primary and secondary data. Primary data was obtained from the results of questionnaire distribution to the passengers of Trans Metro Deli bus in Medan whereby the distribution of questionnaires was adjusted to the percentage determined by the researcher in each corridor. Secondary data was obtained from PT Medan Bus Transport such as the total population of passengers who use Trans Metro Deli buses in January, February, and March 2024, and routes were obtained from literature studies.
5. Analyzed the data that has been collected. The analysis of the existing condition was carried out through direct observation by researcher, and the analysis of characteristics of passengers was carried out using descriptive statistical analysis methods described in tables and graphs with the help of Excel and SPSS programs.
6. Presented the results and discussion of the study that has been carried out using descriptive statistical methods.
7. Summarized the overall results and discussion of the study and provide suggestions for consideration in the hope of providing good and positive changes.

The study stages above are also depicted as a flow diagram which can be seen as follows:

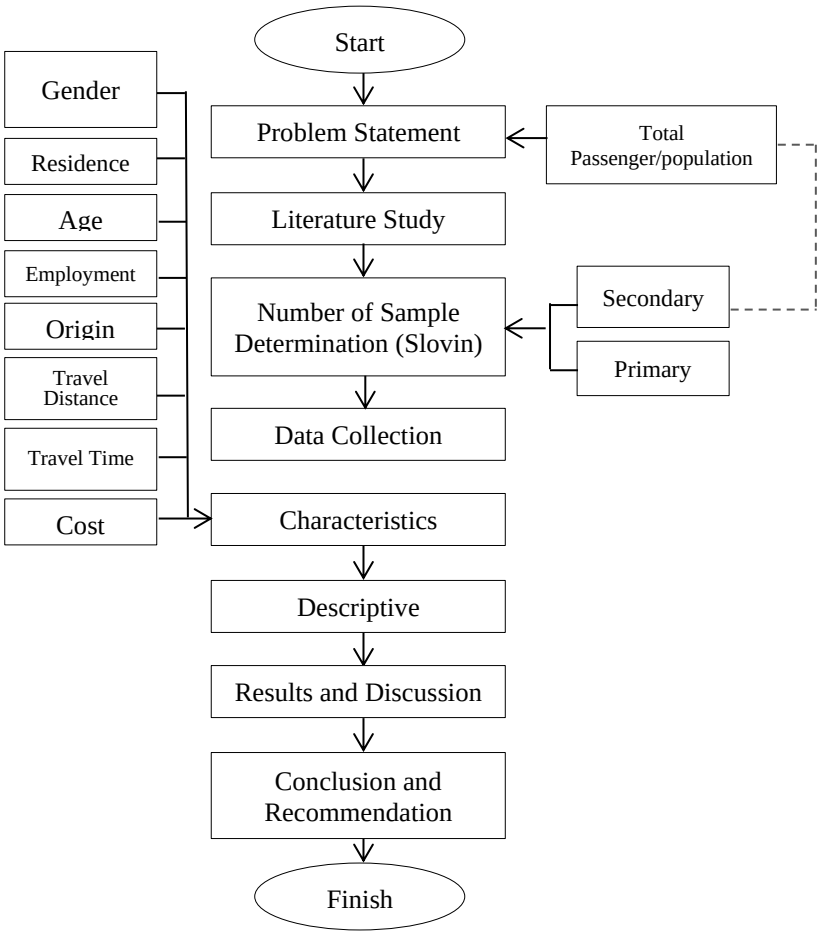

Figure 1. Flowchart research

Data Analysis

The techniques for taking the sample size using Slovin Formula is described in Table 1.

Table 1. Number of Sample Characteristics of Trans Metro Deli Bus Passenger

Name	Route	Total Passenger	Contribution %	Total Questionnaire
Corridor I	Pinang Baris – Lapangan Merdeka Terminal	110.204	25%	100
Corridor II	Amplas – Lapangan Merdeka Terminal	125.691	28%	112
Corridor III	Belawan – Lapangan Merdeka	59.364	13%	52
Corridor IV	Medan Tuntungan – Lapangan Merdeka	103.024	23%	92
Corridor V	Tembung – Lapangan Merdeka	50.580	11%	44
	Total	448.863	100%	400

Based on Table 1, it is known that the number of samples used is 400 samples, which is calculated using the Slovin formula as follows:

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$$n=\frac{N}{1+N(e^2)}$$

Description:
n = number of study samples
N = total population
e = percentage of research error that can still be tolerated (5%)

$$n=\frac{448.863}{1+448.863(0,05^2)}$$
$$n=\frac{448.863}{1.123,1575}$$
$$n=399,64$$

RESULT AND DISCUSSION (10pt Bold)

The results of the existing conditions of Trans Metro Deli bus conducted by direct observation are as follows:

Security

Table 2. The Existing Conditions of Trans Metro Deli Bus on Security Based on Minimum Service Standards

No.	Type	Indicator	Value/Size/Quantity	Compliance with Standards	
				Compliant	Non-Compliant
1	Bus stop lighting	Number of functioning units	95% flash on and compliance with technical standards		✓
2	Bus stop security guard	Officer availability	A minimum of 1 officer		✓
3	Information of security disturbance at bus stop	Quantity	A minimum of 2 stickers		✓
4	Vehicle identity	Quantity	A minimum of 1	✓	
5	Driver's identity	Quantity	A minimum of 1	✓	
6	Blinker	Quantity	A minimum of 1	✓	
7	Lighting on the bus	Number of functioning units	100% working and compliance with technical standards	✓	
8	Bus security officer	Officer availability	A minimum of 1 officer	✓	
9	Bus Window film	Percentage of darkness	Maximum 60%	✓	

Six (6) security criteria are fulfilled in existing conditions out of a total of 9 criteria. To calculate the safety percentage of Trans Metro Deli Bus is as follows:

$$\text{Percentage value achieved} = \frac{\text{fulfilled criteria}}{\text{the number of SPM criteria}} \times 100\%$$

Therefore, security has percentage of compliance with Minimum Service Standards by 66,66%

Safety

Table 3. The Existing Conditions of Trans Metro Deli Bus of Safety Based on Minimum Service Standards

No.	Type	Indicator	Value/Size/Quantity	Compliance with Standards	
				Compliant	Non-compliant
1	SOP for operating vehicle	SOP implementation	SOP is 100% implemented	-	-
2	SOP for handling emergencies	SOP implementation	SOP is 100% implemented	-	-
3	Driver rest time	Driver's condition remain excellent	Implementation of driver rest hours	✓	
4	Vehicle feasibility	Roadworthy fulfillment	100% pass road worthiness test	✓	
5	Safety equipment	a. Number of functioning units b. Good condition	100% functionality and compliance with technical standards and operating standards	✓	
6	Health facility	Quantity	1 set is placed in each bus		✓
7	Emergency response information	Quantity	A minimum of 2		✓
8	Standing passenger hand grip facility	a. Number of functioning units b. Good condition	100% functionality and compliance with technical standards	✓	
9	Exit and/or entrance door for passenger	Availability and functionality	Ability to functioned well	✓	
10	Tire wheel	Front tires installed are not retreaded tires	Front tires are not retreaded	-	-
11	Curtain rails on the window	Curtain rail is installed on the top side of the window	Curtain rail has installed on the top side of the window	-	-
12	Speed limiter	Speed limiter installed	Functioning properly	-	-
13	Hand grip	Installation of handrail on each left and right side of the outermost seat	Installed	✓	
14	Driver's	a. Driver's	Not installed	✓	

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No.	Type	Indicator	Value/Size/Quantity	Compliance with Standards	
				Compliant	Non-compliant
	exit and entrance door at least for medium buses	door is not installed b. Not installed			
15	Electric for audio visual	Available	Cable is SNI (Indonesian National Standard)	✓	
16	Safety belt	Installation of safety belts at least 2 points on all seats	Available	✓	

There were 9 criteria out of 16 safety criteria assessed that have been fulfilled by the Trans Metro Deli bus management. The following is how the safety percentage on the Trans Metro Deli Bus is calculated.

$$\text{Percentage value achieved} = \frac{\text{fulfilled criteria}}{\text{the number of SPM criteria}} \times 100\%$$

Therefore, safety has percentage of compliance with Minimum Service Standards (*Standar Pelayanan Minimum PM 27 tahun* 2015) by 56,25%

Comfort

Table 4. Existing Conditions of Trans Metro Deli Bus of Comfort Based on Minimum Service Standards

No.	Type	Indicator	Value/Size/Number	Compliance with Standards	
				Compliant	Non-compliant
1	Lighting (bus stops)	Number of functioning units	Requires a minimum of 95% and complies with the technical standards		✓
2	Room temperature control and/or air ventilation facility (bus stops)	Availability	a. Required to be available b. The maximum room temperature is 27°C with air conditioning		✓
3	Sanitary facility (bus stops)	The number of facilities	A minimum of 1	✓	
4	Floor area per person	Size of the area	a. 4 persons/m^2 (peak time) b. 2 persons/m^2 (off-peak time)	✓	
5	Accessible passenger on/off facilities (bus stops)	The platform level of the bus stop is the same as the floor level of the bus	No significant difference in height		✓
6	Lighting (bus)	Number of functioning	100% functionality and compliance with	✓	

No.	Type	Indicator	Value/Size/Number	Compliance with Standards	
				Compliant	Non-compliant
		units	technical standards		
7	Bus capacity (bus)	Number of passengers loaded	Maximum 100% based on the capacity	✓	
8	Room temperature control facility (bus)	a. Availability b. Temperature	a. Required to be available b. Maximum in-cabin temperature 25°C-27°C	✓	
9	Sanitary Facility (bus)	The number of facilities	Minimum of 2	✓	
10	Floor standing area per person (bus)	Size of the area	a. 5 persons/m^2 (peak time) b. 4 persons/m^2 (off-peak time)	✓	
11	Smoking prohibition	Availability	Required to be available	✓	

There were 8 criteria out of 11 comfort criteria assessed that have been fulfilled by the manager. The following is how the percentage value of comfort on the Trans Metro Deli Bus in Medan City is calculated.

$$\text{Percentage value achieved} = \frac{\text{fulfilled criteria}}{\text{the number of SPM criteria}} \times 100\%$$

Therefore, the comfort percentage achieved in compliance with the Minimum Service Standards is 72.72%

The characteristics of Trans Metro Deli bus passengers based on the questionnaire are as follows:

Gender

Table 5. Characteristics of Passengers Based on Gender

Details	KM1	KM2	KM3	KM4	KM5	Total	%
Female	86	98	37	80	39	340	85%
Male	14	14	15	12	5	60	15%
Total	100	112	52	92	44	400	100%

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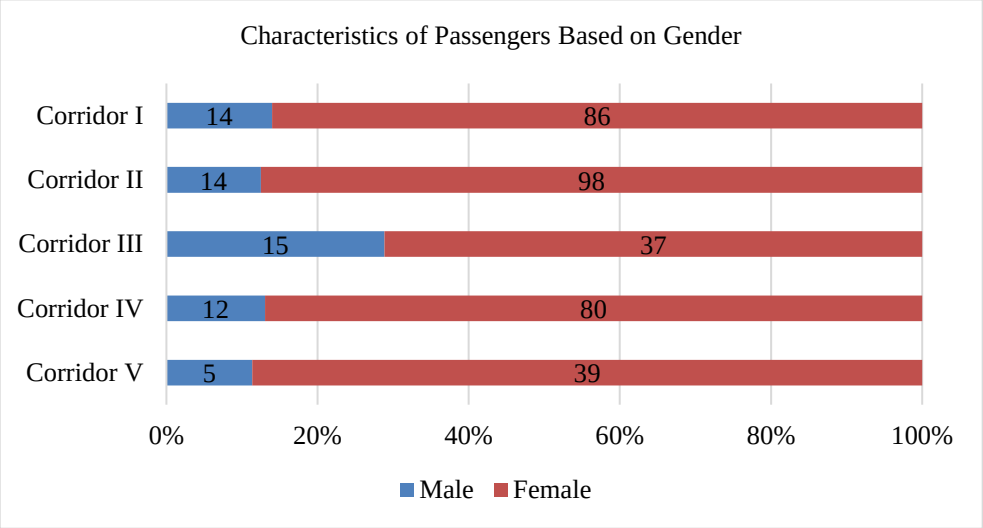

Figure 2. Characteristics of Passengers Based on Gender

Residence

Table 6. Characteristics of Passengers Based on Residence

Details	KM1	KM2	KM3	KM4	KM5	Total	%
Medan	87	100	49	81	35	352	88%
Others (not) Medan	13	12	3	11	9	48	12%
Total	100	112	52	92	44	400	100%

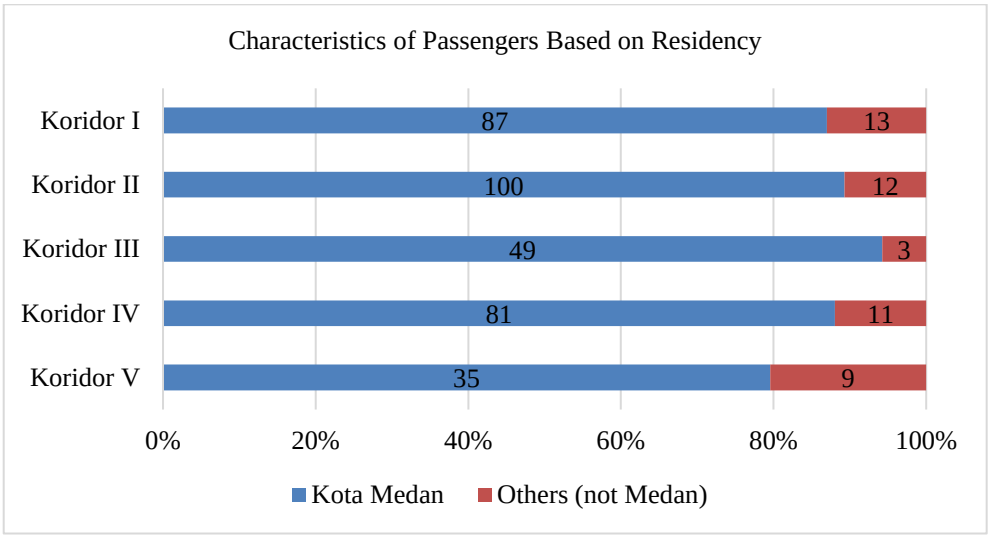

Figure 3. Characteristics of Passengers Based on Residency

Age

Table 7. Characteristics of Passengers Based on Age

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< 15 Years Old	8	12	9	8	1	38	10%
15-25 Years Old	76	85	43	70	38	312	78%
26-35 Years Old	10	11	0	10	3	34	9%
36-45 Years Old	6	4	0	4	2	16	4%

Details	KM1	KM2	KM3	KM4	KM5	Total	%
> 46 Years Old	0	0	0	0	0	0	0%
Total	100	112	52	92	44	400	100%

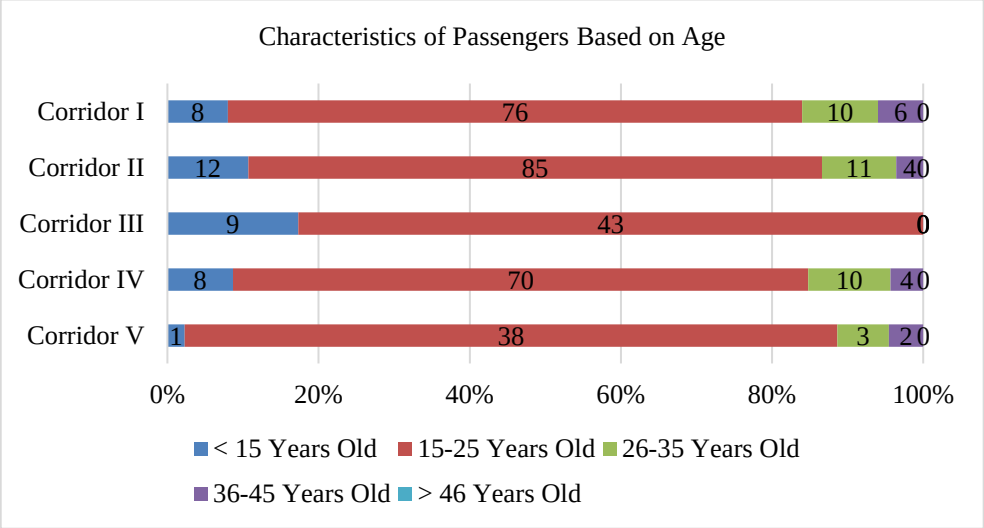

Figure 4. Characteristics of Passengers Based on Age

Employment

Table 8. Characteristics of Passengers Based on Employment

Details	KM1	KM2	KM3	KM4	KM5	Total	%
Student	76	89	52	77	35	329	82%
Private-sector/State-owned enterprise employee	12	14	0	6	3	35	9%
Civil Servants/ Police/National Army	4	2	0	3	0	9	2%
Entrepreneur	3	4	0	2	0	9	2%
Self-employed	1	1	0	1	2	5	1%
Housewives	3	2	0	3	2	10	3%
Others	1	0	0	0	2	3	1%
Total	100	112	52	92	44	400	100%

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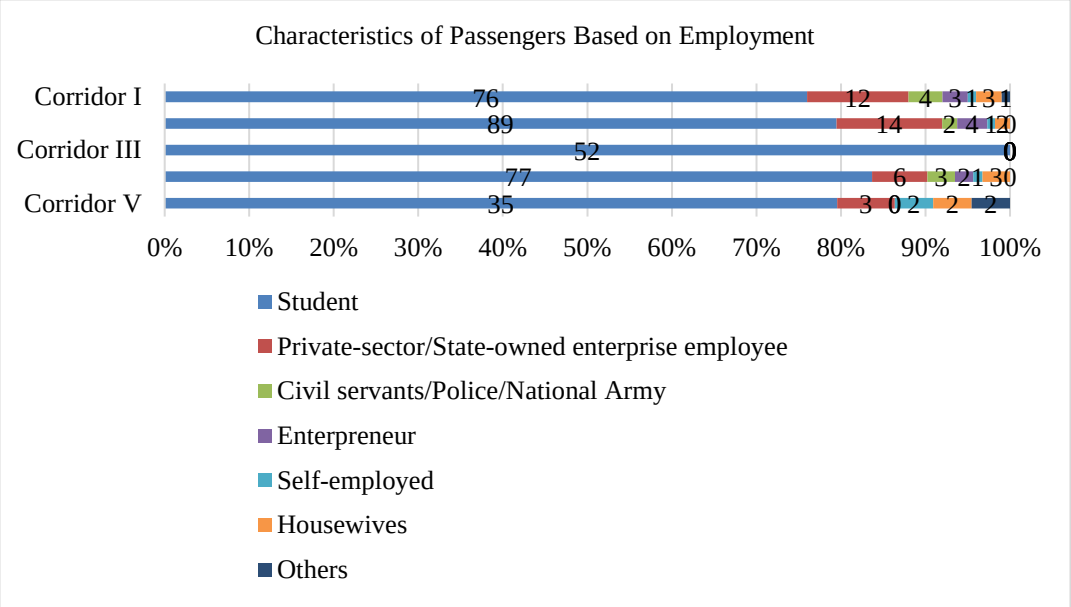

Figure 5. Characteristics of Passengers Based on Employment

In-family Roles

Table 9. Characteristics of Passengers Based on In-family Roles

Details	KM1	KM2	KM3	KM4	KM5	Total	%
Husband	4	3	0	3	1	11	3%
Wife	9	8	0	7	1	25	6%
Children	86	100	52	81	42	361	90%
Relatives	0	0	0	0	0	0	0%
Parents	1	1	0	1	0	3	1%
Total	100	112	52	92	44	400	100%

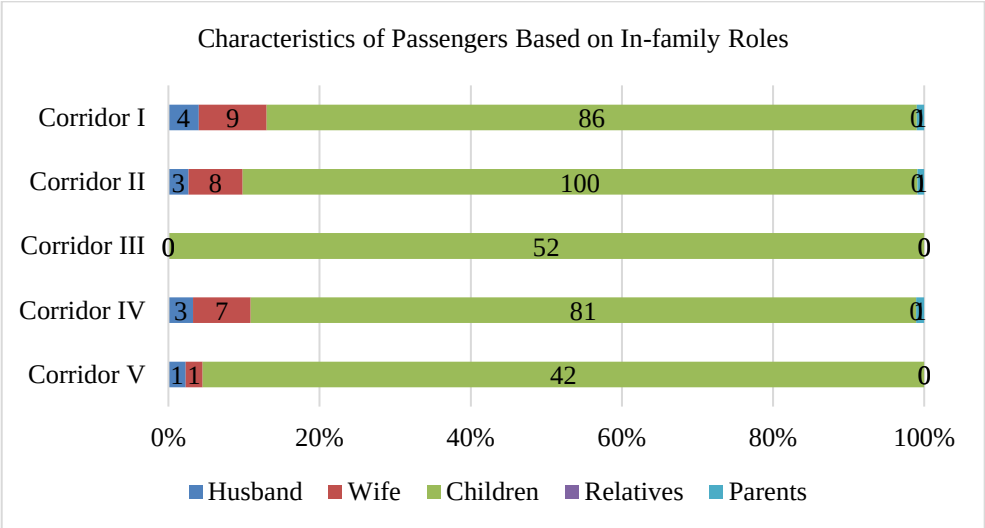

Figure 6. Characteristics of Passengers Based on In-family Roles

Ownership of Vehicles

Table 10. Characteristics of Passengers Based on Ownership of Vehicles

Details	KM1	KM2	KM3	KM4	KM5	Total	%
None	45	53	27	47	22	194	49%
Car	15	14	3	13	1	46	12%
Motorcycle	40	45	20	32	20	157	39%
Cycle	0	0	2	0	1	3	1%
Total	100	112	52	92	44	400	100%

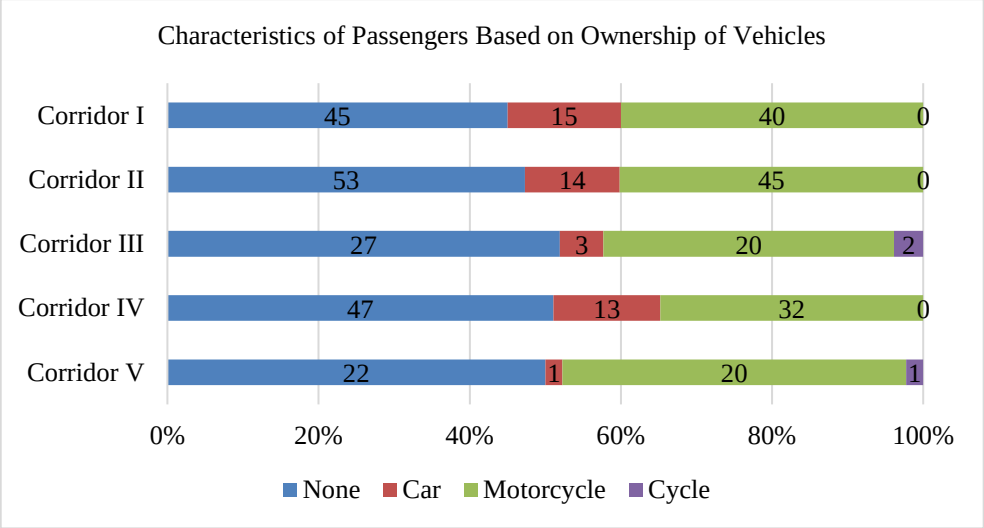

Figure 7. Characteristics of Passengers Ownership of Vehicles

Income

Table 11. Characteristics of Passengers Based on Income

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< Rp. 500.000	40	53	37	45	23	196	49%
Rp. 500.000-1.000.000	26	22	8	22	11	89	22%
Rp. 1.000.000-2.000.000	6	9	2	7	6	30	8%
Rp. 2.000.000-3.000.000	8	8	2	5	3	26	7%
Rp. 3.000.000-4.000.000	7	9	2	4	2	24	6%
Rp. 4.000.000-5.000.000	4	4	0	2	1	11	3%
Rp. 5.000.000-10.000.000	9	7	1	7	0	24	6%
> Rp. 10.000.000	0	0	0	0	0	0	0%
Total	100	112	52	92	44	400	100%

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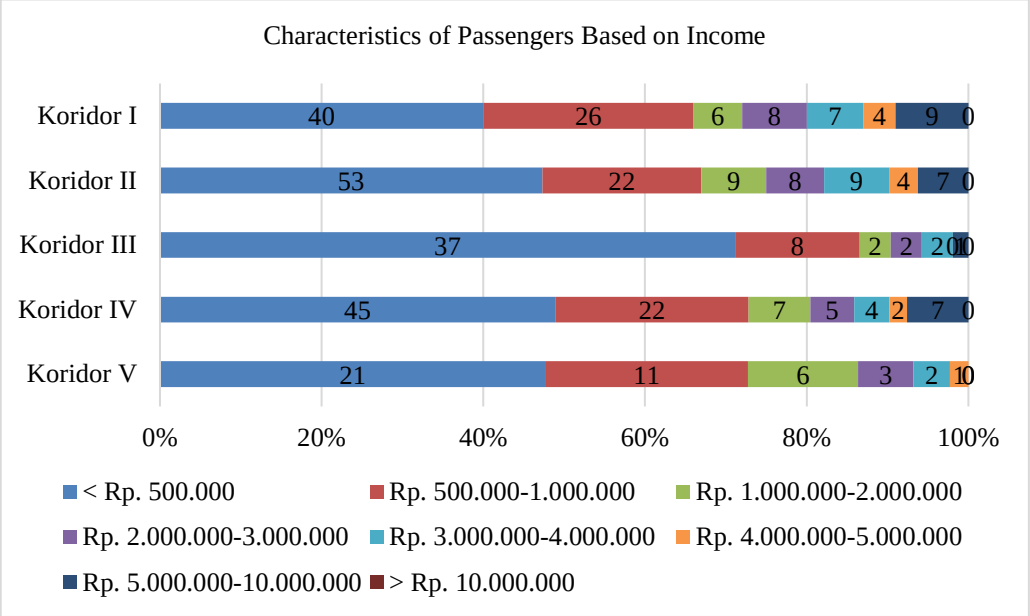

Figure 8. Characteristics of Passengers Based on Income

Travel Origination

Table 12. Characteristics of Passengers Based on Travel Origination

Details	KM1	KM2	KM3	KM4	KM5	Total	%
House/Boarding House/Rent House	65	72	19	57	30	243	61%
Office	7	7	0	7	3	24	6%
School/College	25	28	29	25	11	118	30%
Shopping Center	2	3	2	2	0	9	2%
Others	1	2	2	1	0	6	2%
Total	100	112	52	92	44	400	100%

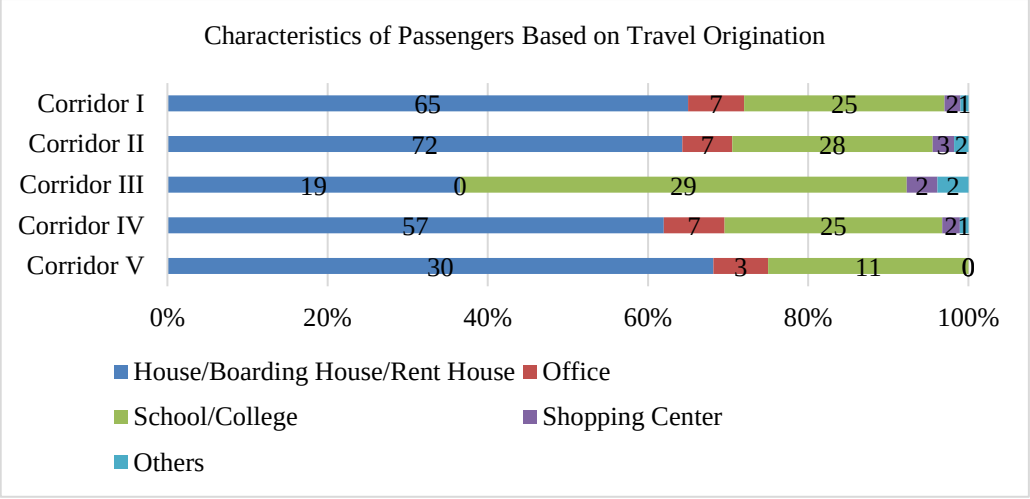

Figure 9. Characteristics of Passengers Based on Travel Origination

Travel Destination

Table 13. Characteristics of Passengers Based on Travel Destination

Details	KM1	KM2	KM3	KM4	KM5	Total	%
House/Boarding House/Rent House	31	34	19	31	19	134	34%
Office	17	17	0	9	4	47	12%
School/College	40	46	24	38	18	166	42%
Shopping Center	9	13	9	12	1	44	11%
Others	3	2	0	2	2	9	2%
Total	100	112	52	92	44	400	100%

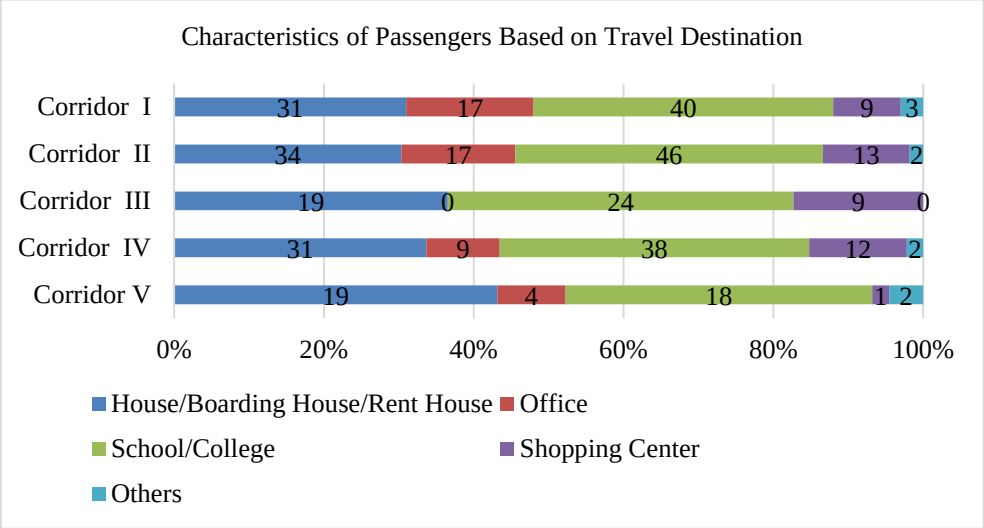

Figure 10. Characteristics of Passengers Based on Travel Destination

Travel Frequency per Day

Table 14. Characteristics of Passengers Based on Travel Frequency per Day

Details	KM1	KM2	KM3	KM4	KM5	Total	%
1 Time	24	25	18	20	8	95	24%
2 Times	54	60	26	50	23	213	53%
3 Times	5	6	2	4	1	18	5%
4 Times	17	21	6	18	12	74	19%
Total	100	112	52	92	44	400	100%

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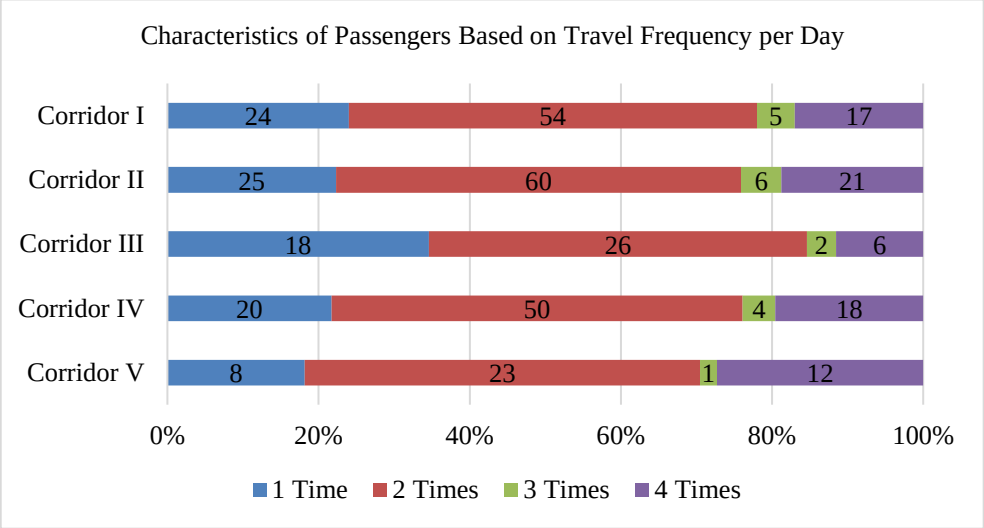

Figure 11. Characteristics of Passengers Based on Travel Frequency per Day

Travel Frequency Per Month

Table 15. Characteristics of Passengers Based on Travel Frequency per Month

Details	KM1	KM2	KM3	KM4	KM5	Total	P%
1-5 Times	16	16	7	13	7	59	15%
6-10 Times	11	13	4	13	7	48	12%
11-15 Times	9	10	7	7	2	35	9%
16-20 Times	14	16	8	14	8	60	15%
21-25 Times	12	14	5	12	4	47	12%
26-30 Times	38	43	21	33	16	151	38%
Total	100	112	52	92	44	400	100%

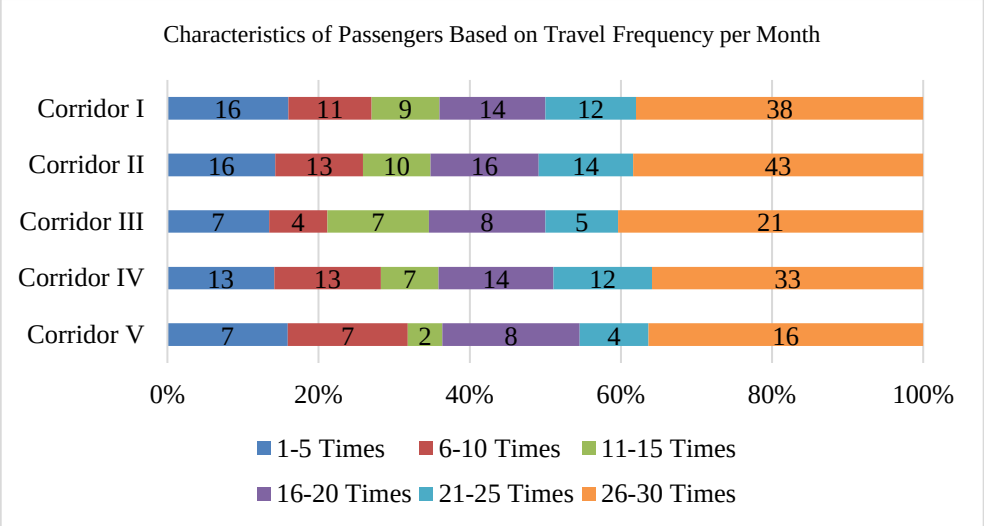

Figure 12. Characteristics of Passengers Based on Travel Frequency per Month

Travel Mode from the Origin to the Bus Stop

Table 16. Characteristics of Passengers Based on Travel Mode from the Origin to the Bus Stop

Details	KM1	KM2	KM3	KM4	KM5	Total	%

Details	KM1	KM2	KM3	KM4	KM5	Total	%
Walking	33	37	29	32	16	147	37%
Online Driver	14	11	4	8	5	42	11%
Urban Transportation *(Angkot)*	24	30	2	24	12	92	23%
Motorized Pedicab *(Betor)*	3	7	2	7	1	20	5%
Ride Hailing	26	27	15	21	10	99	25%
Total	100	112	52	92	44	400	100%

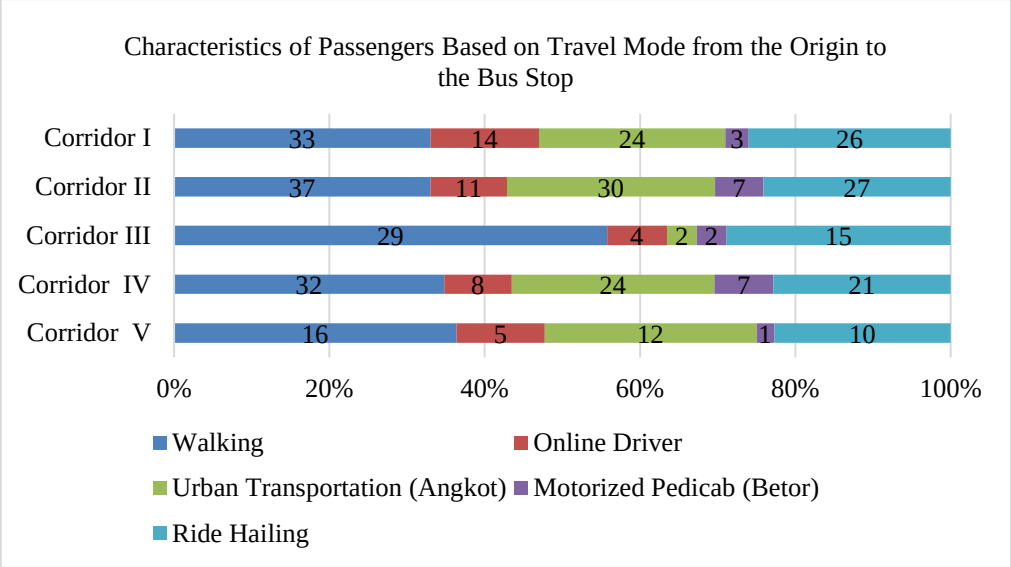

Figure 13. Characteristics of Passengers Based on Travel Mode from the Origin to the Bus Stop

Travel Mode from the Bus Stop to the Destination

Table 17. Characteristics of Passengers Based on Travel Mode from the Bus Stop to the Destination

Details	KM1	KM2	KM3	KM4	KM5	Total	%
Walking	53	56	36	44	19	208	52%
Online Driver	13	16	7	13	6	55	14%
Urban Transportation *(Angkot)*	27	31	5	26	16	105	26%
Motorized Pedicab *(Betor)*	5	7	2	7	1	22	6%
Ride Hailing	2	2	2	2	2	10	3%
Total	100	112	52	92	44	400	100%

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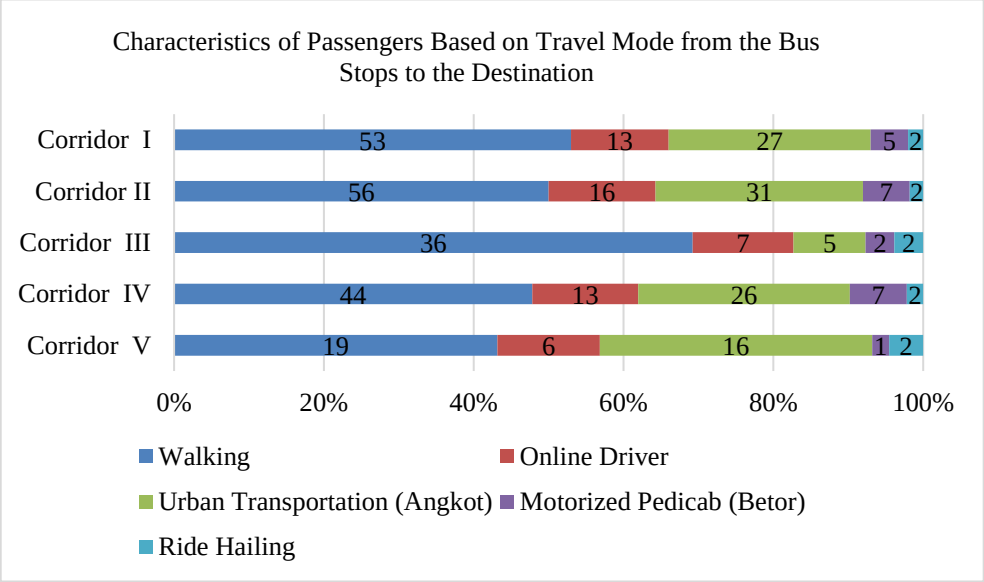

Figure 14. Characteristics of Passengers Based on Travel Mode from the Bus Stop to the Destination

Travel Distance from the Origin to the Bus Stop

Table 18. Characteristics of Passengers Based on Travel Distance from the Origin to the Bus Stop

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< 50 Meter	21	22	18	19	7	87	22%
50-100 Meter	17	17	12	13	7	66	17%
100-200 Meter	13	16	6	15	5	55	14%
200-300 Meter	10	15	4	9	4	42	11%
300-400 Meter	4	4	2	4	5	19	5%
> 400 Meter	35	38	10	32	16	131	33%
Total	100	112	52	92	44	400	100%

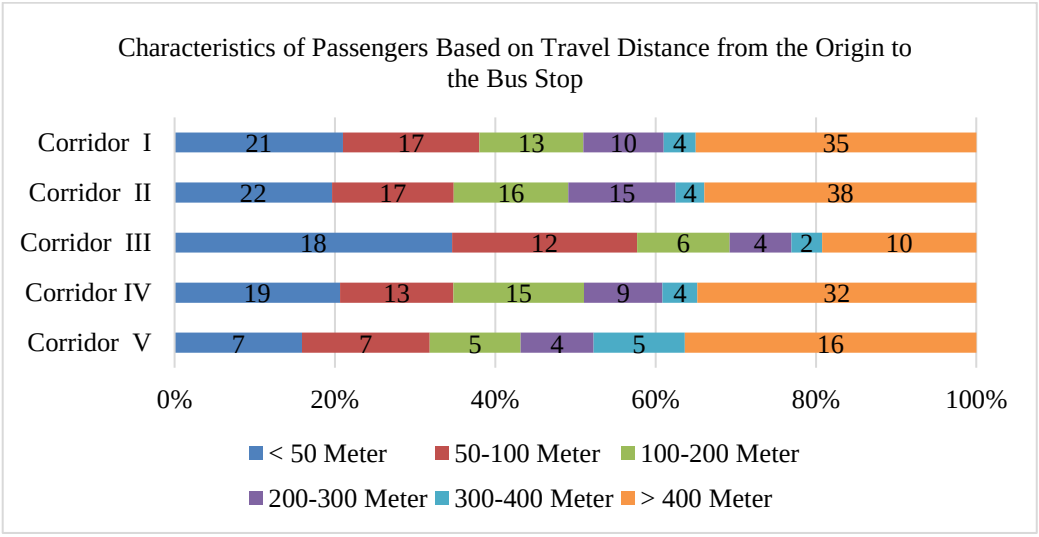

Figure 15. Characteristics of Passengers Based on Travel Distance from the Origin to the Bus Stop

Travel Distance from the Bus Stop to the Destination

Table 19. Characteristics of Passengers Based on Travel Distance from the Bus Stop to the Destination

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< 50 Meter	16	19	7	15	10	67	17%
50-100 Meter	16	18	13	12	4	63	16%
100-200 Meter	21	21	9	18	5	74	19%
200-300 Meter	7	11	0	6	4	28	7%
300-400 Meter	5	6	2	5	3	21	5%
> 400 Meter	35	37	21	36	18	147	37%
Total	100	112	52	92	44	400	100%

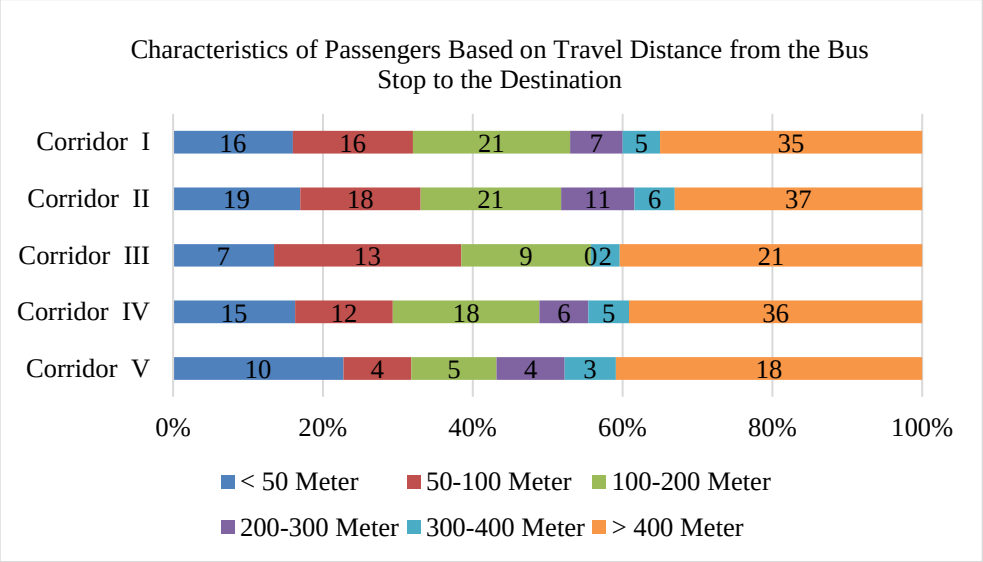

Figure 16. Characteristics of Passengers Based on Travel Distance from the Bus Stop to the Destination

Travel Time by Trans Metro Deli

Table 20. Characteristics of Passengers Based on Travel Time by Trans Metro Deli

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< 15 Minutes	10	9	4	7	4	34	9%
15-30 Minutes	38	42	24	34	10	148	37%
30-45 Minutes	22	25	6	18	16	87	22%
45-60 Minutes	20	24	9	21	9	83	21%
> 60 Minutes	10	12	9	12	5	48	12%
Total	100	112	52	92	44	400	100%

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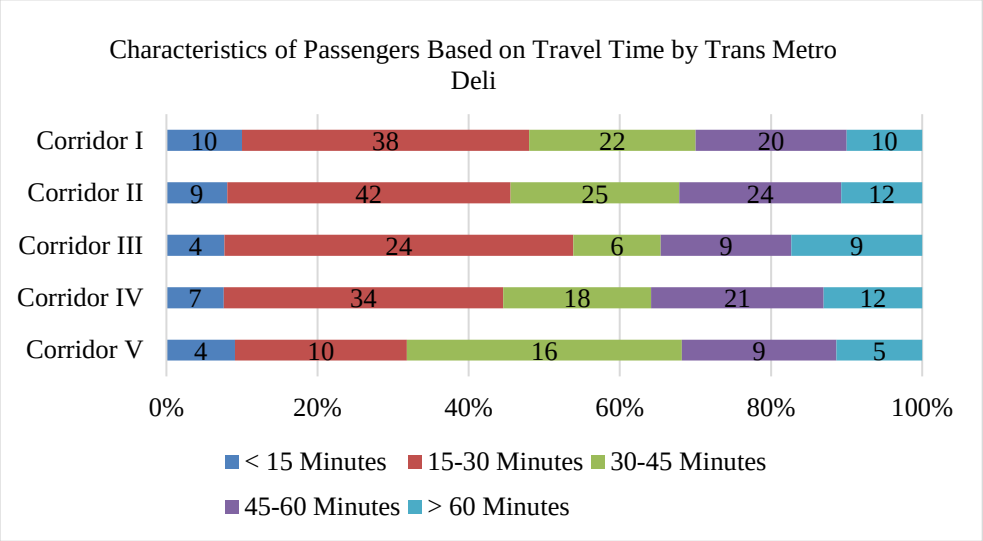

Figure 17. Characteristics of Passengers Based on Travel Time by Trans Metro Deli

Travel Time from the Origin to the Bus Stop

Table 21. Characteristics of Passengers Based on Travel Time from the Origin to the Bus Stop

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< 15 Minutes	69	66	37	63	25	260	65%
15-30 Minutes	21	24	9	20	13	87	22%
30-45 Minutes	4	6	6	5	3	24	6%
45-60 Minutes	4	4	0	2	3	13	3%
> 60 Minutes	2	12	0	2	0	16	4%
Total	100	112	52	92	44	400	100%

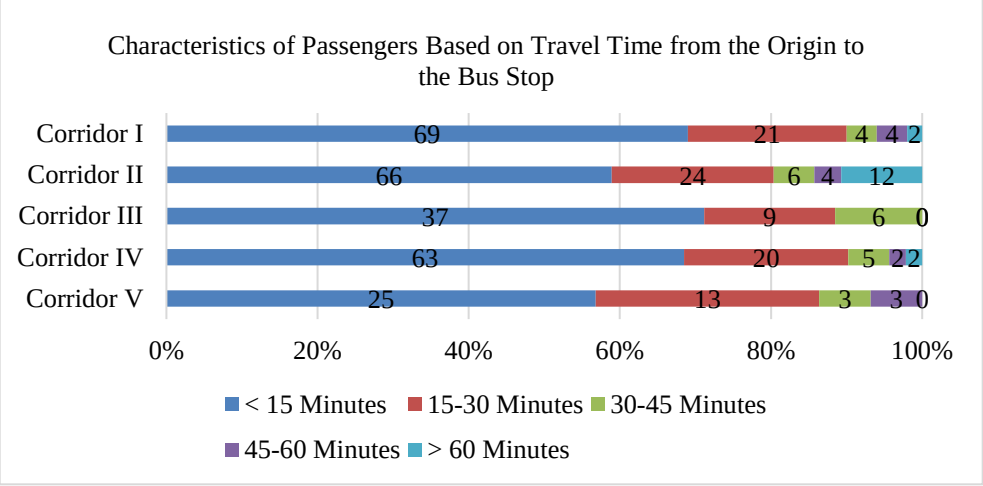

Figure 18. Characteristics of Passengers Based on Travel time from the Origin to the Bus Stop

Travel Time from the Bus Stop to the Destination

Table 22. Characteristics of Passengers Based on Travel Time from the Bus Stop to the Destination

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< 15 Minutes	34	39	21	28	8	130	33%

Details	KM1	KM2	KM3	KM4	KM5	Total	%
15-30 Minutes	29	31	18	29	11	118	30%
30-45 Minutes	19	19	6	14	11	69	17%
45-60 Minutes	11	12	1	10	5	39	10%
> 60 Minutes	7	11	6	11	9	44	11%
Total	100	112	52	92	44	400	100%

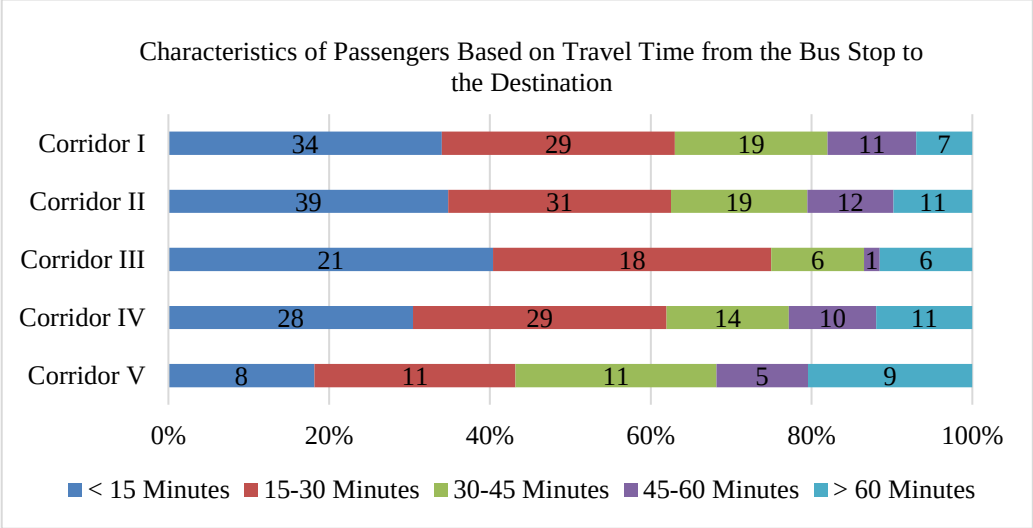

Figure 19. Characteristics of Passengers Based on Travel Time from the Bus Stop to the Destination

Travel Cost from the Origin to the Bus Stop

Table 23. Characteristics of Passengers Based on Travel Cost from the Origin to the Bus Stop

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< Rp. 2.000	23	26	18	19	6	92	23%
Rp. 2.000-4.000	43	47	24	42	24	180	45%
Rp. 4.000-6.000	13	16	2	13	7	51	13%
Rp. 6.000-8.000	6	8	5	7	3	29	7%
Rp. 8.000-10.000	10	11	3	8	2	34	9%
> Rp. 10.000	5	4	0	3	2	14	4%
Total	100	112	52	92	44	400	100%

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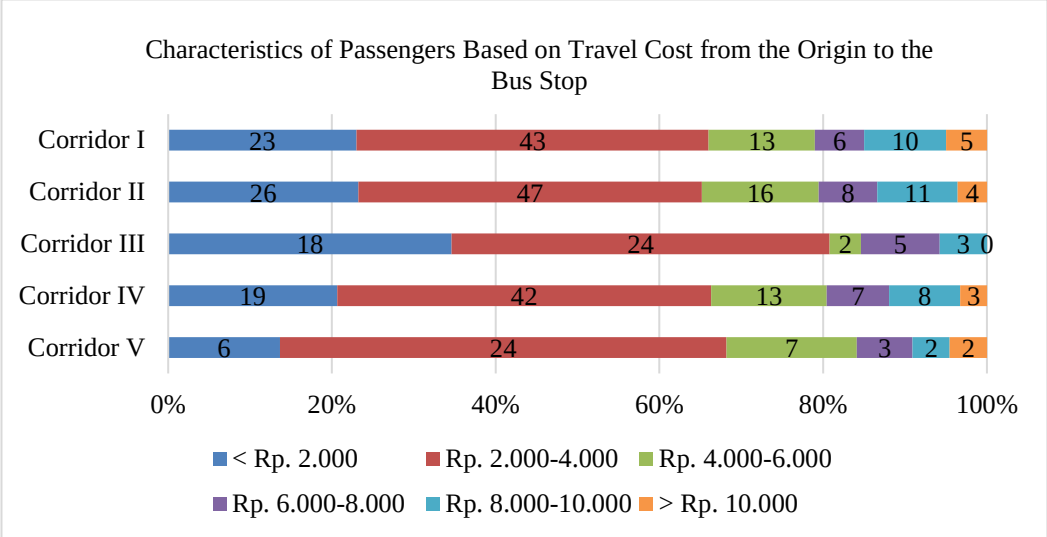

Figure 20. Characteristics of Passengers Based on Travel Cost from the Origin to the Bus Stop

Travel Cost from the Bus Stop to the Destination

Table 24. Characteristics of Passengers Based on Travel Cost from the Bus Stop to the Destination

Details	KM1	KM2	KM3	KM4	KM5	Total	%
< Rp. 2.000	25	31	13	23	8	100	25%
Rp. 2.000-4.000	41	45	25	38	24	173	43%
Rp. 4.000-6.000	13	11	3	9	7	43	11%
Rp. 6.000-8.000	5	7	6	7	3	28	7%
Rp. 8.000-10.000	12	12	3	10	2	39	10%
> Rp. 10.000	4	6	2	5	0	17	4%
Total	100	112	52	92	44	400	100%

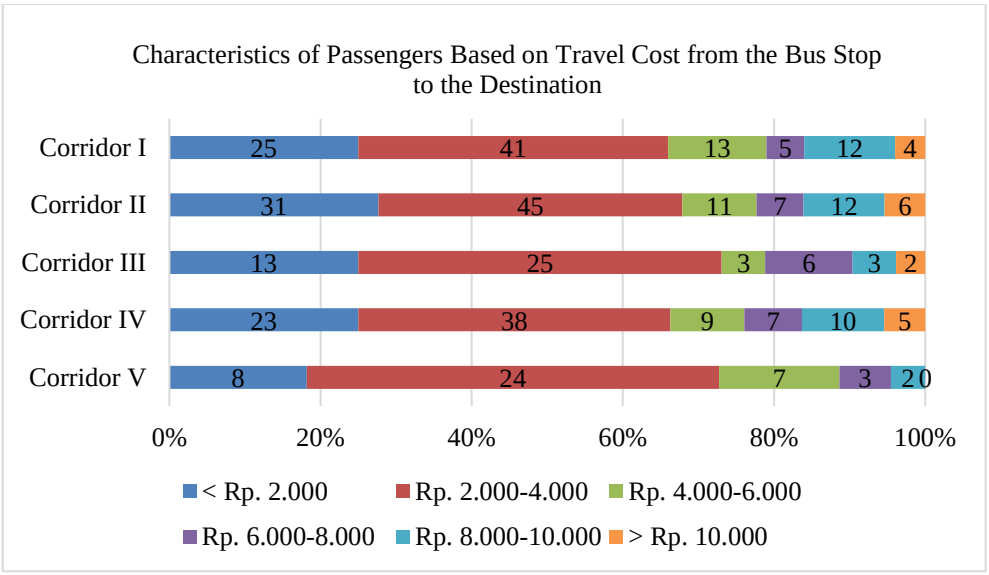

Figure 21. Characteristics of Passengers Based on Travel Cost from the Bus Stop to the Destination

CONCLUSION

The percentage value in the existing conditions of the Trans Metro Deli bus based on the Minimum Service Standards PM 27 of 2015. Trans Metro Deli bus services currently do not meet the Minimum Service Standards. Trans Metro Deli buses still have shortcomings in terms of security, safety, and comfort. As an input suggestion for the operator and the Medan city government to improve services that have a poor assessment, which is related to security attributes, safety attributes, and comfort attributes by making improvements to the current bus stop conditions and pedestrian paths around the bus stop. The results of the descriptive analysis method show that the characteristics of passengers who traveling by Trans Metro Deli buses indicate more female passengers at 85% with an origin from Medan City by 88%, while travelers are passengers with an age range of 15-25 years by 78%, and in general mostly boarded by students by 82% and with a status as a child by 90%, many passengers who ride the Trans Metro Deli bus do not yet/ do not own personal vehicles by 49% and those who own motorcycle 39% with a monthly income below Rp500.000 is 49%. Based on the origin of the trip, passengers are dominated by traveling from house/boarding house/rent house by 61% with the destination of the trip dominated by going to school/college at 42% where the travel frequency per day is 2 times by 53% and the travel frequency per month of passengers is 26-30 times by 38%. The transportation mode that is used by passengers from the origin to the bus stop and from the bus stop to the destination is by waking with 37% and 52% respectively. There are 33% and 37% of passengers travel the distance from the origin to the bus stop and from the bus stop to the destination respectively with a travel time spent on the bus of 15-30 minutes by 37%, and the distance traveled by the passengers from the origin to the bus stop and from the bus stop to the destination respectively for <15 minutes by 65% and 33%. The cost that passengers have to spend is relatively cheap from the origin to the bus stop and from the bus stop to the destination with a price range of Rp2.000-4.000 at 45% and 43%.

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