

# An Alternate Method to Evaluate Public Transportation Performance

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**Abstract**— *The quality of public transportation performance is a factor that influences citizens' desire to use the public transportation system rather than using their private vehicles. The appropriate strategy carried out by public transportation service providers in synergy with the Transportation Office of Jombang Regency can give a great influence on community decision-making in choosing public transportation mode as the main choice in making movements. Mix Marketing consisting of 7P can be used to influence people's interest in using public transportation. The variables used are product price, place, promotion, people, packaging and process. This study uses Partial Least Square (PLS) as an analysis tool. PLS is one method to model Structural Equation Modeling (SEM). Based on the results of the analysis, the value that has the highest influence on the interest in using public transport is a Packaging variable (path coefficient = 0.317). where the most influential indicator is equipped with AC Facility (loading factor = 0,825). The second highest influence is in the Process (path coefficient = 0.294), where the best indicator in forming the Process variable is willing to shuttle to the destination (loading factor = 0,855). The third highest influence is found in the Promotion variable (path coefficient = 0.279) where the strongest indicator is get information online that public transportation currently has satisfactory performance and service. (loading factor = 0,816).*

**Keywords**— *Transport, Interest, Structural Equation Modeling.*

## I. INTRODUCTION

The population growth rate in Jombang in recent times has experienced considerable growth. This population increase has increased the need for community movement. Public transportation which should play a role in facilitating the needs of the increasing community movement, in fact does not contribute much. People prefer to use private vehicles, both four-wheeled or two-wheeled vehicles. As a result of the growth of private vehicles that are not proportional to the growth of the length of the road, traffic problems began to be felt in several locations in the Jombang Regency area.

The high rate of growth of private vehicles in Jombang Regency is generally caused by public dissatisfaction with the operational performance of public transport. Some indicators of community dissatisfaction include the inappropriate timing of serving passengers, the condition of an old vehicle so it is no longer comfortable to sit in it. In addition, price issues are also indicated to play a role. The operating costs of vehicles using two-wheeled vehicles are considered more efficient than using public transportation. In addition, many people assume that using private vehicles is felt to be more efficient, effective and far faster in achieving one travel destination than using public transportation. The presence of application-based transportation modes (for example, *Grab* and *Gojek*) has made

the public's interest in using conventional public transport decrease.

There are three (3) factors indicated to play a role in decreasing public interest in public transport, namely: (1) public transport routes that are unable to serve the overall purpose of the trip, (2) public expectations of the quality of public transport services including driver factors and physical forms high vehicles, and (3) starting to emerge other types of transportation alternatives that offer better services. This is based on several previous studies that support the hypothesis. In fact, as part of a service business, public transportation needs introspective sensitivity to the quality of services offered by Randheer, Al-Motawa, and Vijay (2011). The quality of urban transportation system is a key factor that influences people's desire to use public transportation system rather than using their private vehicles by Androniceanu (2017).

This condition is contrary to conditions in other regions outside Indonesia. In the United States, Today's society tend to be interested in promoting sustainable modes of transportation to replace their dependence in using private cars in most urban areas by dell'Olio, Ibeas, and Cecin (2010). In the UK, 41% of private car users will reduce car use if public transportation is always available and reliable by Cullinane (1992). Similarly, the results of the study in Hong Kong showed that better public transportation could reduce private car ownership by 65% by Cullinane (2002).

The question now is why the condition of public transport in Indonesia has decreased dramatically, while in other regions? One hypothesis of this phenomenon is that evaluation methods that are currently generally carried out on public transport may not be on target, or are not in accordance with the causes of the existing decline. At present, the instrument for evaluating public transport in Indonesia is generally carried out using the Standard Guidelines issued by the Directorate General of Land Transportation. Based on these guidelines, the performance of public transport is measured based on : (1) travel time, (b) travel frequency, (c) load factor, and (d) headway. Seeing the phenomenon that exists today, by only measuring the four factors, it is considered insufficient. Another standard or measure is needed that can measure how the performance is expected by the user. This research is intended to look for alternative performance measurement instruments for public transport that are expected to complement existing measurement instruments, or can increase the potential for public transport use.

One that has the potential to be used is by incorporating marketing elements into the concept of performance measurement. The method that is widely used is using the Mix

Marketing method. Mix Marketing is a set of marketing tools used by service providers to achieve their marketing goals (Kotler and Keller 2011). According to Kotler, Mix Marketing consists of 7P (*Product, Place, Price, Promotion, People, Process, dan Packaging*). This concept provides a view to service providers about variables and indicators that can be used to influence public interest. Thus, it can be interpreted that the decision to use public transportation is influenced by Mix Marketing variables such as products, prices, route distribution, promotions, drivers, features and processes.

II. RESEARCH OBJECTIVE

The objectives of this study are: (1) To find out the performance of public transport in the eastern route of Jombang Regency at this time, (2) Knowing the indicators and variables that most influence people's interest in Jombang Regency public transport, (3) Obtain recommendations for the development of Jombang Regency public transportation.

III. RESEARCH LOCATION

The study was conducted by taking research locations in Jombang Regency, East Java Province, Indonesia. The selection of research locations in Jombang with consideration that this location can represent environmental conditions, population, and socio-economic conditions in most locations in Indonesia. The vehicles used also represent the most conditions in Indonesia. Figure 1 shows the location of the study.

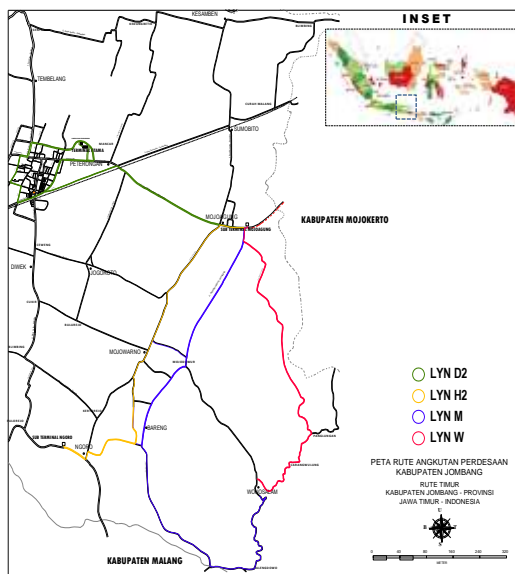


Fig. 1. Research Location

IV. RESEARCH INSTRUMENT

There are 2 (two) main parameters measured in this study, namely: (a) operational performance of public transport, and (b) other factors indicated to influence the interest of the community to use the eastern route of public transportation in Jombang Regency at present.

Measurement of the first parameter uses 5 (five) sub performance parameters, namely: travel time, travel frequency, load factor, headway and Vehicle Speed. While the second parameter measurement uses elements of marketing, which

consists of 7 sub parameters. For measurement of marketing elements, conceptually shown in Figure 2.

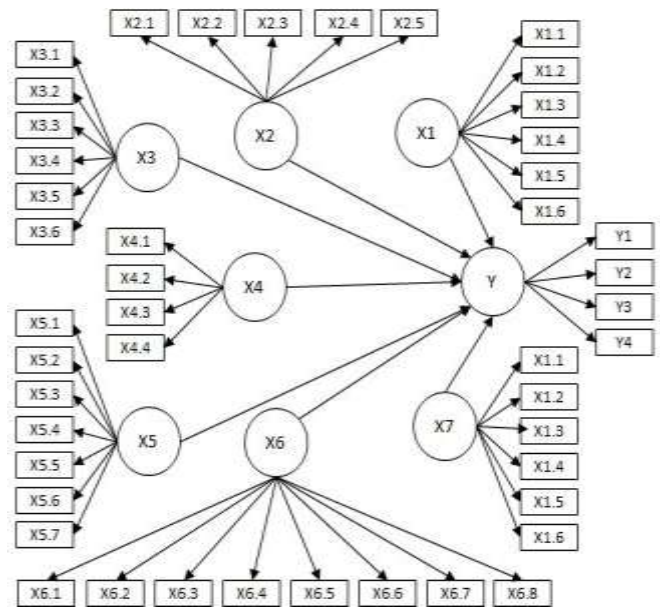


Fig. 2. Chart of the Variable and Indicator Concept

As shown in Figure 2, Product (X1), Price (X2), Route Distribution (X3), Promotion (X4), Driver (X5), Features (X6) and Proses (X7) are placed as independent variables adjusted for justification-justification obtained through theories and sufficient empirical evidence. The indicators of each independent variable are explained in Table 1.

TABLE 1. Research Indicator

No.	Indicator	Explanation
1.	X1.1	Interested in using public transportation if the quality can be superior
2.	X1.2	Interested in using if it's better than <i>Gojek</i>
3.	X1.3	Interested if the type of vehicle is still a <i>mikrolet</i>
4.	X1.4	Interested in using transportation if the vehicle color is different for each route
5.	X1.5	Interested if the name changed is more interesting
6.	X1.6	Interested if the brand used is more modern
7.	X2.1	Interested in using if rates are cheaper than <i>Gojek</i>
8.	X2.2	Interested if the specified rate is accessible
9.	X2.3	Interested if the price is in accordance with the facility
10.	X2.4	Interested if there is a discount (discount)
11.	X2.5	Interested in using if discounts are given everyday
12.	X3.1	Interested in using if the route taken is consistent
13.	X3.2	Interested if it is always at the correct departure location
14.	X3.3	Interested if the stop location is not far from the destination
15.	X3.4	Interested if the stop location is consistent with a designated stop
16.	X3.5	Interested if it is integrated with connecting modes of transportation
17.	X3.6	Interested if there is a guarantee to change modes
18.	X4.1	Interested if you get information from users who have experienced it directly
19.	X4.2	Interested in using if you get information from family or relatives
20.	X4.3	Interested in using if you get information online
21.	X4.4	Interested in using if you get information from television or media
22.	X5.1	Interested if the driver is not inconsiderate
23.	X5.2	Interested if the driver does not often brake suddenly

No.	Indicator	Explanation
24.	X5.3	Interested if the driver shows driving certification
25.	X5.4	Interested if the correct driver is an employee of the transport service provider
26.	X5.5	Interested if the driver gives greetings
27.	X5.6	Interested if the transport driver is not in a hurry when dropping passengers
28.	X5.7	Interested if the driver is not easy to swear or say rude while driving
30.	X6.1	Interested if there is a member card to get a discount
31.	X6.2	Interested if you are given music or television facilities
32.	X6.3	Interested in using if given Wi-fi facilities
33.	X6.4	Interested if the seat is facing the front and is comfortable
34.	X6.5	Interested in using public transportation if there are AC facilities
35.	X6.6	Interested in if there is a seat belt
36.	X6.7	Interested in using public transportation if the driver is in neat uniform and shoes
37.	X6.8	Interested in using public transportation if the driver shows identification clearly
38.	X7.1	Interested in using public transportation if the operation is in accordance with the designated departure and arrival hours
39.	X7.2	Interested in using public transportation if the location of the passenger decreases at the specified bus stop and terminal
40.	X7.3	Interested if it doesn't slow down just to find additional passengers
41.	X7.4	Interested if the speed of the vehicle does not tend to speed up and is in a hurry
42.	X7.5	Interested in using if you are willing to transfer to the destination
43.	X7.6	Interested in using if you don't stop anywhere in a long time
44.	Y1.1	Interested in using public transportation after searching for detailed information to trusted friends, relatives and colleagues
45.	Y1.2	Interested in using public transportation after searching for more information through the internet and other reference sources in detail and clearly
46.	Y1.3	Interested in using public transportation if in terms of service and price are better than online motorcycle taxibike
47.	Y1.4	Interested if it is faster to the destination than using a private vehicle.

**A. Instrument of Study**

Based on the parameters described above, the research instrument consists of two, namely survey form to measure operational performance and a questionnaire to measure the level of interest of users towards public transport using marketing parameters. The survey form for measuring operational performance consists of measurement items in accordance with the guidelines for measuring public transport performance from the Ministry of Transportation. While the questionnaire for measuring marketing parameters using forms that have been prepared based on variables and indicators adjusted to scientific justification obtained through theory and empirical evidence.

**B. Study Sample**

There are two samples in this study, namely a sample for data collection for the performance of public transport and samples to estimate public interest in public transport. Retrieval of data for the performance of public transport for

dynamic surveys is carried out in public transport by taking notes, and second for static surveys carried out at the entrance to the Kepuhsari Terminal and the Mojoagung sub terminal by recording the arrival time of public transport. The number of routes planned is carried out with 9 (nine) routes that serve the eastern route of Jombang Regency. However, the research conducted is 4 (four) routes that are still active. Retrieval of data for the estimation data in order to control public transport is carried out in the areas of offices, markets, schools and settlements in the eastern region of Jombang. In this study respondents were people in Jombang District in the eastern region of Jombang district who had used Public Transport and are currently using private vehicles as the main modes of transportation. Determination of the number of respondents in this study using a random sampling technique using the Slovin formula:

$$n = \frac{N}{1 + Ne^2} \tag{1}$$

Description:

n = Sample size

N = Population size of the eastern region of the regency

E = Error rate (10%)

then a sample of 150 respondents was set.

**V. COLLECTING DATA METHOD**

Data relating to the measurement of operational performance of transportation is obtained from dynamic surveys and static surveys of public transport. Data obtained from the results of dynamic public transport surveys are (a) Time and duration of surveys, (b) Vehicle number signs, (c) Code and number of routes and departments, (d) Vehicle departure hours, (e) Vehicle capacity, (f ) The number of passengers going up on each segment, (g) The number of passengers who descend on each segment, (h) Travel time for each segment. Data obtained from static surveys of public transport are (a) Vehicle route numbers, (b) Vehicle capacity, (c) Vehicle number signs, (d) Arrival and departure hours. Data is obtained by observation directly by calculating the actual performance of public transport. Recording performance results is tabulated in accordance with the Urban Public Transport Data Collection Guide.

Data related to measuring user interest is obtained by doing several stages, namely (1) distributing questionnaires to people who have used public transportation. (2) Interview with respondents. (3) Documentation techniques by taking pictures of the situation at the research site. The data is used to examine the effect of the Mix Marketing variable on interest in public transport based on indicators arranged in a questionnaire. Other data needed is obtained from the Jombang District Transportation Office. Data obtained include (a) Route Route Data, (b) Public Transport Ownership Data, and (c) Data on Public Transport Vehicle Numbers. While the Literature Study data through library studies related to the research taken.

**VI. ANALYSIS METHOD OF PUBLIC TRANSPORT OPERATIONAL PERFORMANCE**

Analysis of the results of dynamic surveys and static surveys is carried out based on the Urban Public Transport

Data Collection Handbook. After calculation, the results of each route are then weighted to compare the results of the analysis with the standard public transportation services recommended by the World Bank in 1987 and Decree of

Directorate General of Land Transportation No. 687 of 2002. To get the right weight, a measurement scale is carried out based on previous research. Performance weighting is explained in the following table 2:

TABLE 2. Public Transportation Performance Parameter Weighting Technique

No	Parameter	Unit	Standard	Criteria				
				E	G	F	B	P
1	Travel Time	hour	1-3	1'-1.30'	1.30'-2.00'	2.00'-2.30'	2.30'-3.00'	>3.00'
2	Frequency/Hour	vehicle	6-12	≥ 12	12-9	9-6	6-3	< 3
3	Load factor	%	≤ 100	100-90	90-80	80-70	70-50	< 50
4	Time Headway	minute	5-10	≤ 5	5-10	10-15	15-20	> 20
5	Speed	minute		Consistent (Con.) or Inconsistent (Inc.)				
<b>Route Weight</b>				<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

Description:

E: Excellent, G: Good, F: Fair, B: Bad, P: Poor.

VII. ANALYSIS METHOD OF INTEREST

To analyze community interest using the Structural Equation Modeling (SEM) method. Structural model equations in SEM are formulated to state causal relationships between various constructs. In general, this analysis technique includes the following steps : (a) Development of path diagrams (b) Conversion of flowcharts into structural model equations, (c) Selection of input and estimation matrices, (d) Assessing problem identification, (e) Model evaluation, (f) Interpretation and modification of the model. Structural model equation (Inner Model), which describes the influence relationship between latent variables studied. The equation of the structural model of this study is as follows:

$$\eta_1 = (\gamma_{11} * \xi_1) + (\gamma_{12} * \xi_2) + (\gamma_{13} * \xi_3) + (\gamma_{14} * \xi_4) + (\gamma_{15} * \xi_5) + (\gamma_{16} * \xi_6) + (\gamma_{17} * \xi_7) + \zeta_1 \dots \dots \dots (2)$$

Description:

- ξ1 = Exogenous Variable Product
- ξ2 = Exogenous Variable Price
- ξ3 = Exogenous Variable Route Distribution
- ξ4 = Exogenous Variable Promotion
- ξ5 = Exogenous Variable Driver
- ξ6 = Exogenous Variable Feature
- ξ7 = Exogenous Variable Process
- η1 = Exogenous Variable Interest in use
- γ11 = The coefficient of influence of exogenous variables on products towards endogenous variables Interests
- γ12 = The coefficient of influence of exogenous variables on Price towards endogenous variables Interests
- γ13 = The coefficient of influence of exogenous variables on Route Distribution towards endogenous variables Interests
- γ14 = The coefficient of influence of exogenous variables on Promotion towards endogenous variables Interests
- γ15 = The coefficient of influence of exogenous variables on Driver towards endogenous variables Interests
- γ16 = The coefficient of influence of exogenous variables on Feature towards endogenous variables Interests
- γ17 = The coefficient of influence of exogenous variables on Process towards endogenous variables Interests

ζ = Opportunities for model errors on endogenous variables Interest in use

VIII. RESULT AND DISCUSSION

Table 3 and Table 4 display the results of the analysis of public transport performance. Based on these tables it can be concluded that the performance of public transport is indeed bad. Of the 5 (five) performance parameters none of the routes have good value. Similarly, the calculation of the average speed is below 20 km / hour. This value is far below the average speed of recommended by the World Bank in 1987 and Decree of Directorate General of Land Transportation No. 687 of 2002 which is 30-50 km / hour.

TABLE 3. Performance Results Recapitulation

No.	Parameter	Unit	Standard	Route Code			
				D2	H2	M	W
1	Travel Time	hour	1-3	3.55	3.16	3.12	3.59
2	Vehicle Frequency	Vhc./hour	6-12	2	4	2	1
3	Load factor	%	≤ 100	49.29	51.52	41.37	51.89
4	Time Headway	minute	5-10	00.26	00.15	00.21	00.27
5	Average Speed	km/hour	30-50	14.93	14.90	14.86	14.86

TABLE 4. Performance Weighting

No	Parameter	Unit	Standard	Route Code			
				D2	H2	M	W
1	Travel Time	hour	1-3	1	1	1	1
2	Frequency	Vhc./hour	6-12	1	2	1	1
3	Load factor	%	≤ 100	1	2	1	2
4	Time Headway	minute	1-12	1	2	1	1
5	Average Speed	km/hour	30-50	Inc.	Inc.	Inc.	Inc.

A. Evaluation of the Measurement Model / Outer Model

Table 5 displays the results of the Evaluation of the Measurement Model / Outer Model. It can be seen that each indicator has an influence on the variable. This means that by prioritizing the most influential indicators, there is potential for improvements in the performance of public transport.

TABLE 5. Measurement Model/Outer Model Evaluation Recapitulation

Latent Variable	Observed Variable	Convergent Validity			Composite Reliability (CR > 0.7)			
		(LF > 0.5 =Valid)		Rank	(AVE > 0.5=Valid)		CR	Remark
		Load factor	Conclusion		AVE	Conclusion		
Product (X1)	X1.1	0.754	Valid	3	0.558	Valid	0.883	Reliable
	X1.2	0.694	Valid	5				
	X1.3	0.750	Valid	4				
	<b>X1.4</b>	<b>0.813</b>	<b>Valid</b>	<b>1</b>				
	X1.5	0.773	Valid	2				
	X1.6	0.691	Valid	6				
Price (X2)	X2.1	0.717	Valid	5	0.532	Valid	0.851	Reliable
	X2.2	0.724	Valid	3				
	X2.3	0.730	Valid	2				
	<b>X2.4</b>	<b>0.759</b>	<b>Valid</b>	<b>1</b>				
	X2.5	0.717	Valid	4				
Place (X3)	X3.1	0.800	Valid	3	0.598	Valid	0.899	Reliable
	<b>X3.2</b>	<b>0.828</b>	<b>Valid</b>	<b>1</b>				
	X3.3	0.637	Valid	6				
	X3.4	0.821	Valid	2				
	X3.5	0.775	Valid	4				
	X3.6	0.763	Valid	5				
Promotion (X4)	X4.1	0.755	Valid	4	0.632	Valid	0.873	Reliable
	X4.2	0.810	Valid	2				
	<b>X4.3</b>	<b>0.816</b>	<b>Valid</b>	<b>1</b>				
	X4.4	0.797	Valid	3				
People (X5)	X5.1	0.843	Valid	2	0.672	Valid	0.935	Reliable
	X5.2	0.797	Valid	6				
	<b>X5.3</b>	<b>0.864</b>	<b>Valid</b>	<b>1</b>				
	X5.4	0.802	Valid	5				
	X5.5	0.812	Valid	4				
	X5.6	0.773	Valid	7				
	X5.7	0.842	Valid	3				
Packaging (X6)	X6.1	0.610	Valid	8	0.544	Valid	0.904	Reliable
	X6.2	0.773	Valid	3				
	X6.3	0.761	Valid	4				
	X6.4	0.667	Valid	7				
	<b>X6.5</b>	<b>0.825</b>	<b>Valid</b>	<b>1</b>				
	X6.6	0.717	Valid	5				
	X6.7	0.698	Valid	6				
	X6.8	0.822	Valid	2				
Process (X7)	X7.1	0.545	Valid	6	0.531	Valid	0.868	Reliable
	X7.2	0.843	Valid	2				
	X7.3	0.772	Valid	3				
	X7.4	0.577	Valid	5				
	<b>X7.5</b>	<b>0.855</b>	<b>Valid</b>	<b>1</b>				
	X7.6	0.718	Valid	4				
Interest in Using (Y)	Y.1	0.743	Valid	3	0.578	Valid	0.845	Reliable
	Y.2	0.736	Valid	4				
	<b>Y.3</b>	<b>0.795</b>	<b>Valid</b>	<b>1</b>				
	Y.4	0.766	Valid	2				

Based on the results of the analysis tabulated in Table 5, it is concluded as follows:

- The color of the vehicle is different for each route which has the most influence on the Product variable.
- Discounted rates have the most effect on the Price variable.
- Always at the correct departure location of passengers and not allowed the most influential place on the Route Distribution variable.
- Get information from online media that public transport currently has satisfactory performance and services that have the most influence on Promotion.
- The driver shows the driving expert certification and the SIM has the most influence on the People variable

There is the most influential AC facility on the Feature variable.

- Willing to shuttle to the destination location has the most influence on the Process variable.
- People are interested in using public transport if in terms of service and price are better compared to online motorcycle taxibike, the most influential is the Interest in Use.

**B. Structural Model Evaluation (Model Fit Test)**

After the estimated model meets the convergent validity and discriminant validity criteria, then the structural model (inner model) is tested. Assessing the inner model is to see the relationship between latent constructs by looking at the estimation results path parameter coefficients and their level of significance.

From the table 6 can be seen that the accuracy of Product measurement (X1), Price (X2), Route Distribution (X3), Promotion / Information (X4), Driver (X5), Feature (X6),

Process (X7) has considerable influence Against Interest in Use (Y), as from the results of the analysis which obtained a determination coefficient of 0.746. That is, by intensifying the above matters, there is potential for improvements in the performance of public transportation.

TABLE 6. Coefficient of Determination

Influence	R <sup>2</sup>
Product (X1) -->	Interest in Using (Y) 0.746
Price (X2) -->	
Place (X3) -->	
Promotion (X4) -->	
People (X5) -->	
Packaging (X6) -->	
Process (X7) -->	

From Table 7 it can be seen that the total determination coefficient is 0.746, where the value is in the range 0.650 - 1,000. Based on the standard R-Square testing criteria, the constructed model is relatively strong to confirm the theory. So

TABLE 8. Hypothesis Estimation and Testing Results

Influence among latent variable		Route Coefficient	Rank	t-value	p-value	Conclusion
Cause Var.	Effect Var.					
Product (X1) -->	Interest in Using (Y)	0.205	4	1.780	0.077	Insignificant
Price (X2) -->	Interest in Using (Y)	0.042	5	0.353	0.725	Insignificant
Place (X3) -->	Interest in Using (Y)	-0.077	6	0.478	0.633	Insignificant
<b>Promotion (X4) --&gt;</b>	Interest in Using (Y)	0.279	<b>3</b>	2.175	0.032	<b>Significant</b>
People (X5) -->	Interest in Using (Y)	-0.123	7	0.785	0.434	Insignificant
<b>Packaging (X6) --&gt;</b>	Interest in Using (Y)	0.317	<b>1</b>	2.087	0.039	<b>Significant</b>
<b>Process (X7) --&gt;</b>	Interest in Using (Y)	0.294	<b>2</b>	2.421	0.017	<b>Significant</b>

Based on the results of the above analysis (table 8.), there are several conclusions:

- Product have a positive value on interest in public transportation, so by making improvements to the product will affect the interest of the community. However, the product has an insignificant influence on interest in public transportation.
- Price have a positive value on interest in public transportation, so making improvements to aspects of Price will affect the interest of the community. However, tariffs have an insignificant influence on interest in public transportation.
- Route distribution has a negative value on interest in public transportation. By making improvements to aspects of route distribution will not affect the interest of the community. Route distribution also has an insignificant influence on interest in public transportation.
- Promotion have a positive value on interest in public transport, so making improvements to aspects of promotion will affect the interest of the community. Promotion also has a significant influence on interest in public transportation.
- Driver have a negative value on interest in public transportation. By making improvements to aspects of the Driver will not affect the interest of the community. Drivers also have a significant influence on interest in public transportation.
- Feature have a positive value towards interest in public transportation. By making improvements to aspects of the Feature will affect the interest of the community. The

that the use of the path construction is declared appropriate and feasible to test the hypothesis.

TABLE 7. Level of Structural Model Strength

No.	Standard of R-Square Criteria Interval	Category	Total R <sup>2</sup>	Remark
1	0.000 – 0.249	Very Weak	0.746	Strong
2	0.250 – 0.499	Weak		
3	0.500 – 0.649	Moderate		
4	<b>0.650 – 1.000</b>	<b>Strong</b>		

C. Hypothesis Testing

A causal relationship was declared to be influential and significant if the T-Statistics value >1.96 or <-1.96 with a significance level of 0.05. If the results are stated to be significant, the conclusions of the study in this sample are able to represent the population so that it can be applied in general (Generalization), but conversely if the influence is declared insignificant then the effect only applies to the sample under study. The calculation results are presented in table 8:

- feature also has a significant influence on interest in public transportation.
- The process has a positive value towards interest in public transportation. By making improvements to aspects of the process it will affect the interest of the community. The process also has a significant influence on interest in public transportation.



Fig. 3. Path Diagram (Outer and Inner Model)

The path coefficients on the structural model and the weight value of variable factors manifested in the measurement model can be explained by Figure 3, namely the path diagram of the measurement model and structural model.

#### IX. CONCLUSION

Based on the results of the field study, it can be concluded that the performance of 4 (four) routes in the study on east route public transportation in Jombang Regency is categorized as bad. All performance parameters of route D2 and route M are categorized as poor. For route H2, the departure-return performance parameter is categorized as poor, while 3 (three) other parameters (1) frequency, (2) load factor, and (3) time headway are categorized as bad. For route W, the load factor performance parameter is categorized as bad while the other parameters are categorized poor. For vehicle speed parameter, all routes have values below the public transportation performance standard.

Based on the Path Diagram, the estimated results of each Exogenous Variable on Endogenous Variables and the most dominant indicators in measuring the variable constructs.

- It is known that the highest influence value is in the Feature variable with a path coefficient of 0.317, the best indicator in forming the Feature variable is equipped with AC Facility with the highest load factor of 0.825.
- The second highest influence value is in the Process variable with a path coefficient of 0.294, the best indicator in forming the Process variable is willing to shuttle to the destination with the highest load factor of 0.855.
- The third highest influence value is in the Promotion variable with a path coefficient of 0.279, the best indicator in forming the Promotion variable is get information online that public transportation currently has satisfactory performance and service with the highest load factor of 0.816.

The results of the study obtained can be seen as having great potential for the improvement and renewal of the

performance of public transportation at this time. So that people will choose public transportation as the main choice in carrying out daily movements.

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