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Analysis of Argo Parahyangan Train Passenger Interest to Jakarta-Bandung High-Speed Train

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Abstract: The Argo Parahyangan train is one of the services provided by PT.KAI (Persero) with Jakarta-Bandung relation is much in demand by the public. The newly commencement Jakarta-Bandung High-Speed Train, with a short time of 36-44 minutes, a maximum capacity of 601 passengers, and a ticket price similar to the Argo Parahyangan train make new competition with the Argo Parahyangan train. This study aims to determine the characteristics and factors influencing modal shifts and calculate the probability of switching Argo Parahyangan train passengers to the Jakarta-Bandung High-Speed Train. The research method used is quantitative. The data collection method used in this research is conducting an online interview survey using revealed preference and stated preference techniques. The total sample in this study was 165 respondents on the results of the slSlovinormula calculation of total Argo Parahyangan Train Passengers in one week mode shift analysis using the binomial logit analysis.

Keyword: Argo Parahyangan, Jakarta-Bandung High-Speed Railway, Moda Choice, Binary Logit Model.

INTRODUCTION

A train is a railway with movement power, either running alone or coupled with other means of railway which will or is moving on the railway associated with the train's journey. Based on their function, trains consist of general and special railways; general railways consist of urban and inter-city railways. Currently, intercity railways are managed by state-owned enterprise that operates in the field of rail transportation services in Indonesia, namely PT. Kereta Api Indonesia (PT.KAI (Persero)).

PT. KAI (Persero) serves various routes in several regions in Indonesia, one of which is the Jakarta-Bandung route, which is served by the Argo Parahyangan train. The Argo Parahyangan train competes with other land transportation modes, namely buses and travel

agent transportation. Until now, the Argo Parahyangan train has been very popular with the people of Jakarta and Bandung, so the total of passengers Argo Parahyangan train has increased yearly, however in 2018-2021 the pandemic of Covid-19 occurred so that Argo Parahyangan train passengers has decrase of 1564% with 140,310 passengers, in new normal Argo Parahyangan passangers increased by 84% with 901,551 passengers.

Based on the National Railway Master Plan, there is a plan to develop a High-Speed Railway network and service, which will soon be realized, namely the development of a High-Speed Railway connecting Jakarta-Surabaya. In order to realize the national railway master plan, the first stage carried out by the government is to build a high-speed train connecting Jakarta-Bandung to accommodate people who travel in a short time with a travel time of only 36-44 minutes and a maximum capacity for one trip 601 passengers. The proposed rail link will be 142,3 Km with an approximate train speed estimated to be between 200-350 km/h. The Indonesian Minister of Transportation said that the Jakarta-Bandung High-Speed Railway fare for the Argo Parahyangan train. Therefore, with the choice of a new mode of transportation that will compete with the Argo Parahyangan Train, research was conducted on "Analysis of Argo Parahyangan Train Passengers Interest to Jakarta-Bandung High-Speed Train" to determine the public's interest in using the Jakarta-Bandung High-Speed Train.

Literature Review

1. Transportation

Transportation is the transfer of people from one place to another using land, sea, or air vehicles whether public or private, whether using machine or not. According to (Miro, 2012) transportation is the business of moving, transporting or diverting an object from one place to another, where in another place, the object is more useful or can be useful for certain purposes. Meanwhile, according to (Nasution, 2008) transportation is the transfer of goods and people from origin to destination. From these two definitions, transportation is a tool that supports the movement of people and the structured movement of goods toward a predefined destination.

The transportation system is a combination of several interrelated components or objects. The transportation system consists of a complete transportation system (macro), which can be broken down into several smaller systems (micro), each of which is interrelated and influences each other. The micro transportation system consists of an activity system, a transportation infrastructure network system, and a traffic movement system (Tamin, 2000) and can be combined into several stages, starting from accessibility, trip generation, and attraction, movement distribution, Moda choice, route choice, and traffic flow.

The transportation system is supported by tools that fully support the movement's process optimally, and transportation support includes infrastructure that provides a place and space for movement (road and railways). Those that carry out movement are facilities (buses, trains, and private vehicles) the place which is the starting and ending point of the journey (Terminal or station), and travel support from the management who controls and supervises the other three transportation supporters. Transportation is said to be good if the travel time is fast enough, there are no accidents, the frequency of service is sufficient, and the service conditions are safe and comfortable (Miro, 2012)

Transportation has a role in supporting equitable national development by reaching all corners of the country. Transportation is a benchmark for economic, business, and industrial development, which supports all economic support movements and almost influences all aspects of life. Transportation is an aspect that cuts distances with increasing technological developments that emerge to meet needs. Transportation should be used effectively and efficiently so there is no waste and waste energy

2. Railway Public Transportation

Railways are a unified system consisting of infrastructure, facilities, and human resources, as well as norms, criteria, requirements, and procedures for organizing rail transportation (UU No.23 Tahun 2007). Railways are a mode of transportation that has special characteristics and advantages, especially in its ability to transport both people and goods in bulk, save energy, save space, have a high safety factor, have a low level of pollution, and are more efficient compared to other modes of transportation. Road transportation for long-distance transportation and areas with heavy traffic, such as urban transportation.

According to Article 4 in the government regulation of the Republic of Indonesia Number 72 of 2009 concerning Railway Traffic and Transportation. Service routes, as referred to in Article 3 paragraph (1), are determined by taking into account the type of service needed by the community, the traffic capacity required by the community, the need for transportation service on the service line, the composition of the types of rail transportation according to the level of services, the integration of intra and inter-mode transportation. The time distance between trains (headway), the distance between stations and stops, the distance between activity centers and logistics centers to terminal/stations, and time availability for intra and intermodal transfers. Railway service performance indicators, according to (Ahmadi, 2011), consist of travel safety and reliability, punctuality, ease of service, comfort, and speed.

3. Moda Choice

Moda Choice is a stage of the transportation planning process that determines trips using various transportation modes. The mode choice model aims to determine the proportion of people who will use each mode to serve a journey from the point of origin to a particular destination in this research, namely Jakarta-Bandung.

Several factors influence the behavior of selecting travel modes or variables that can be assessed quantitatively and qualitatively, travel characteristic factors (Travel purpose, travel time, length of trip, and type of movement) and travel user characteristics factors income, vehicle ownership, and socioeconomic), transportation system characteristic factors, and transportation of system characteristics factors (relative travel time, relative travel costs, headway, and load factor).

The choice of transportation depends on the trip maker and the mode of transportation used. The choice of transportation mode can be grouped into two groups, transportation service users (captive or choice) and from transportation moda (private vehicle or public transportation) (Michael., 2019).

Mode Shift happens when a particular mode has more comparative advantages than other modes. Factors that can determine one has more comparative advantage than other are reasoning factors, such as current choice of mode, distance from station, and respondent's profile(Febriani., 2020)

4. Revealed Preference

The revealed preference technique is a method for obtaining data by analyzing the choices of individuals already in the field. The revealed preference technique has several areas for improvement in estimating respondents' responses to new options that still need to be available, where these options may be very different from existing options (Chrismasto et al., 2019)

The revealed preference technique uses observations of actual choices made by users to measure preferences for several options. In choosing a mode of transportation, revealed preference theory requires that if a user uses a mode of transportation, that mode is "revealed preference" or proven to be preferable compared to other moda choices with fixed income and costs (Nur, 2019)

5. Stated Preference

The Stated Preference Technique is a data collection technique that approaches respondents to find opinions about various choices. This stated preference questionnaire technique uses an experimental design to create many alternative imaginary situations.(Saputra, 2013)

Based on (Michael, 2019) the main characteristics of the stated preference technique survey are based on the respondent's opinion statement regarding the response to several alternative hypotheses, creating alternative hypotheses that influence the respondent (can be estimated), the interview tool must provide alternative hypotheses that are easy for the respondent to understand, responses that given by respondent are analyzed to obtain a quantitative measure of what is important for each attribute.

In general, the sample size for the stated preference survey should be large enough to accommodate at least 75-100 numbers for each attribute or segment, example of which include gender, income level, job, age and trip purpose, which are determined by the intention and purpose of the analysis(Nurhidayat et al., 2018)

6. Logit Binomial Method

According to (Tamin, 2000) the ratio binary logit model assumes that Z is a function of joint costs only and C1ij and C2ij are known parts of the joint costs of each mode and origin-destination pair. In binary logit modeling, the ratio is obtained in the proportion of choices for each mode for each pair (origin-destination). The parameters in the ratio binary logit model are α and β, which can be calibrated using linear regression analysis, so the linear equation is obtained:

$$Yi = A + B_{xi} \quad \dots(1)$$

Calculating α and β values is carried out using a linear regression estimation approach with total combined cost data for each mode and combination and known existing proportions. Next, look for the dependent and independent variables to produce a linear regression equation. Then enter the ratio binary logit regression formula to get the probability of moda use for each scenario, with the formula:

$$P_1 = \frac{1}{1 + \mathrm{a}\,(\frac{C_1}{C_2})^{\beta}} \quad \dots(2)$$

7. Sensitivity Test

The sensitivity test is a test conducted to determine the change in the probability value moda choice of Argo Parahyangan and Jakarta-Bandung High-Speed train if there is a change in the value of the attributes of cost, travel time, and frequency of train travel (Khollilurahman, 2022). The model's sensitivity is done by changing one of the trip indicators while leaving the other indicators fixed. Calculation of model sensitivity by reducing each indicator to be tested by 50%.

METHOD

Research design is a plan for collecting, processing, analyzing, and presenting data to answer or solve problems systematically and directly manner. The type of research used in this research is descriptive quantitative research. This research was conducted at Gambir Station with the object of researching Passengers of the Argo Parahyangan Train Jakarta – Bandung relation. The survey was conducted from September to October 2023.

The population in this study is the highest weekly average total of passengers on the Argo Parahyangan Train Jakarta-Bandung Relation in 2022, totaling 26,353 passengers. The population is a large part, it is impossible to study everything in the population due to limited time, cost, and energy; so in the process of collecting this interview data, the author uses a sample used by the Slovin method with an error factor of 10%, which means that the

correctness of the data reaches 90% so that from several samples taken it is considered capable of representing all existing data, a total of 100 passenger. The formula used is as follows:

$$n = \frac{N}{1 + N\,(e)^2} \ldots (3)$$

This study is based on the conceptual definition of each variable, for independent variables the overall cost of each mode, which includes cost, travel time, and headway (X) for the dependent variable, moda choice (Y)

Logit Binomial Method were used to analyse how much the Argo Parahyangan Passengers' willingness will move using the Jakarta-Bandung High-Speed Train, which are divided into five semantic scale, there is definitely choose Argo Parahyangan, maybe choose Argo Parahyangan, Balanced choice, maybe choose Jakarta-Bandung High-Speed Train, Definitely choose Jakarta-Bandung High-Speed Train.(Sugiyanto et al., 2009)

Data analysis, according to (Sugiyono, 2013), is the process of systematically searching and compiling data obtained from interviews, field notes, and documentation by organizing data into categories, breaking it down into units, synthesizing, compiling it into patterns, choosing which ones are important and which ones will be studied, and making conclusions so that are easily understood by oneself and other. Data analysis used in this research is linear regression, binomial logit test, and sensitivity test. The reseach flow chart used in this research is follows:

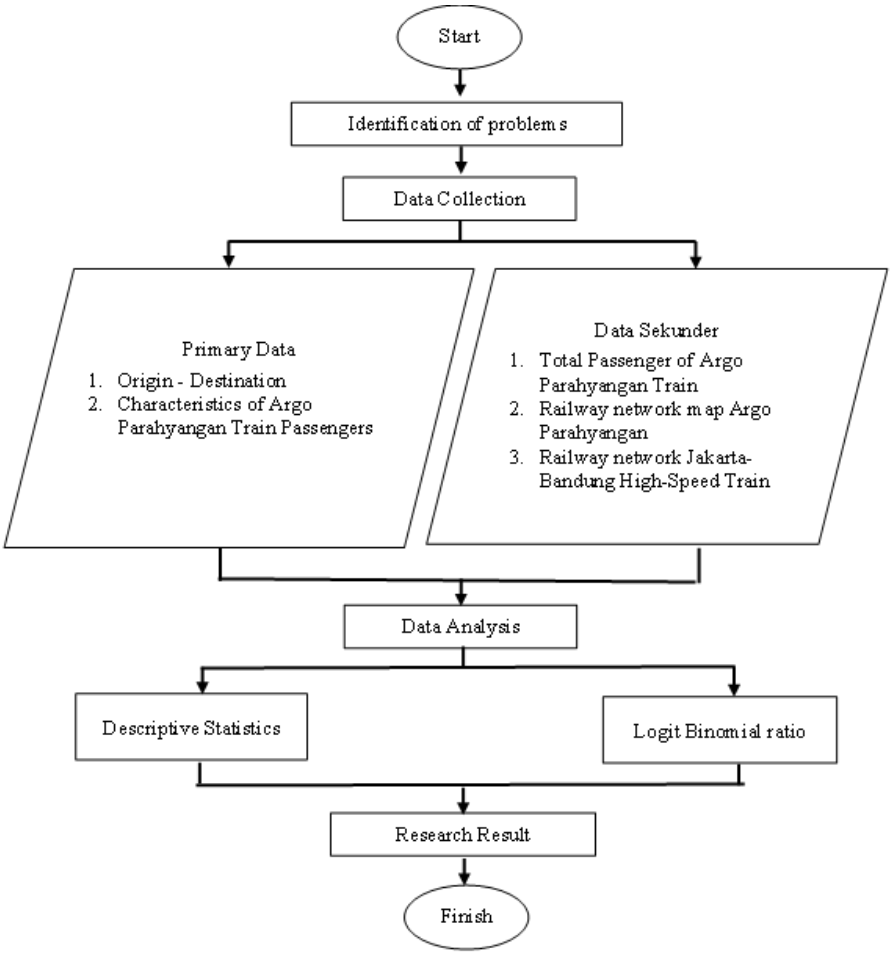

Figure 1. Flow Chart

RESULTS AND DISCUSSION

Analysis of Argo Parahyangan passenger interest in Jakarta-Bandung High-Speed Train, an interview survey was conducted with revealed preference and stated preference techniques on all Argo Parahyangan Train Passengers. With limited time, energy, and cost a representative sample of Argo Parahyangan Train Passenger was taken using random sampling techniques from the Slovin method. The Slovin formula calculation data used has a significant level/error rate of α = 10% with the intention that the sample data for the calculation is 90% close to correct and can represent the population of Argo Parahyangan Train Passenger in the Jakarta-Bandung relation in 2022, which is 26,353 passengers, so the sample obtained from equation (3) can be determined 99,62 respondents with rounded up to 100 respondents. In realization total of respondents obtained was 165 respondents with the following characteristics of travelers:

Table 1. Characteristic Argo Parahyangan Passengers (1)

Choice Factor	Variable	Attribute	Total
Characteristics Of Travelers	Age	<20	3
		20 - 30	112
		31 - 40	23
		41 - 50	15
		>50	12
		Total	165
	Gender	Male	99
		Female	66
		Total	165
	Domicile	Jakarta	99
		Bogor	7
		Depok	12
		Tangerang	13
		Tangerang Selatan	6
		Bekasi	28
		Total	165
	Education	Sma	14
		D3	62
		D4/S1	77
		S2/S3	12
		Total	165
	Work	Pns/Tni/Polri	43
		Bumn Employees	27
		Private Employee	67
		Wirausaha	5
		Student	10
		Lain-Lain	13
		Total	165
	Income	<Rp.2.000.000	15
		Rp.2.000.000-Rp.4.000.000	13
		Rp.4.000.000-Rp.6.000.000	61
		Rp.6.000.000-Rp.8.000.000	33
		Rp.8.000.000-Rp.10.000.000	20
		>Rp.10.000.000	23
		Total	165
	Vehicle Ownership	Car	24
		Motorcicle	56
		Car Dan Motorcicle	63
		Nothing	22
		Total	165
	Driver's License Ownership	Sim A	12

Choice Factor	Variable	Attribute	Total
		Sim C	40
		Sim A & Sim C	96
		Nothing	17
		Total	165

Table 2. Characteristic Argo Parahyangan Passengers (2)

Choice Factor	Variable	Attribute	Total
Travel Characteristics	Frequency	1-2	150
		3-4	11
		>4	4
		Total	165
	Purpose	Work	74
		Bussines	10
		Education	4
		Family Event	23
		Vacation	50
		Another	4
		Total	165
	Reason	Cheaper Costs	53
		Safety Factor	16
		Safety And Comfort Factor	33
		Access Time Using Shorter Mode	63
		Total	165
	Another Mode	Travel	56
		Bus	37
		Private Vehicle	72
		Total	165

Table 3. Characteristic Argo Parahyangan Passengers (3)

Choice Factor	Variable	Attribute	Total
Characteristics Of Transport Systems	Cost (Gambir)	Rp.0 (Free)	6
		Rp.0 -Rp.15.000	28
		Rp.15.000-Rp.30.000	66
		>Rp.30.000	65
		Total	165
	Time (Gambir)	< 10 Minutes	3
		10 - 20 Minutes	37
		20 - 30 Minutes	41
		> 30 Minutes	84
		Total	165
	Distance (Gambir)	< 5 Km	12
		5 - 15 Km	62
		15 - 30 Km	53
		> 30 Km	38
		Total	165
	Time (Halim)	<10 Minutes	16
		10 - 20 Minutes	39
		20 - 30 Minutes	39
		>30 Minutes	71
		Total	165
	Distance (Halim)	<5 Km	17
		5 - 15 Km	64
		15 - 30 Km	53
		>30 Km	31
		Total	165

Proportion of Moda Choice

A model can be good if the results of the model can reflect reality accurately (Tamin, 2000). In this study based on the results of direct interviews, many respondents felt bored with the long waiting time, therfore headway was used as one of the scenarios in this research, so variables affect the interest in moda choice from Argo Parahyangan Train to Jakarta-Bandung High-Speed Train there variable travel costs, travel time, and headway. Based on these variables, six scenarios are given as choice by changing the travel variables to responses from travelers. The scenarios given to respondents are as follows:

Table 4. Scenario Stated Preference

No	Travel Cost		Travel Time (Ivt)		Headway (Ovt)		Presents	
	Gopar (Rp)	Kcjb (Rp)	Gopar (Menit)	Kcjb (Menit)	Gopar (Menit)	Kcjb (Menit)	Gopar	Kcjb
1	200000	350000	167	60	65	24	54%	46%
2	200000	325000	167	70	65	28	53%	47%
3	200000	300000	167	80	65	32	47%	53%
4	200000	275000	167	90	65	38	42%	58%
5	200000	250000	167	100	65	48	31%	69%
6	200000	225000	167	110	65	64	26%	74%

Value of Time

Value of time is a unit of money used by transportation service users for one unit of travel time (Tamin, 2000) or the average income of Argo Parahyangan train passenger respondents divided by standard working hours per mounth expressed in rupiah (Rp.) per minute with the following formula:

$$VOT = \frac{Average\ Income}{Work\ hour\ Standart} \quad \dots(4)$$

Based on (PP No. 35 Tahun 2021) concerning specific time work agreements, outsourcing, working time, rest time, and termination of employment, it is stated that the working hour time for five days is eight working hours, so the value (60X8X26) is obtained 12.480 hours. So that the value of time is obtained as follows:

Table 5. Value Of Time

Income	User	Average	Total
0 - 2.000.000	15	Rp 1.000.000	Rp 15.000.000,00
2.000.000 - 4.000.000	13	Rp 3.000.000	Rp 39.000.000,00
4.000.000 - 6.000.000	61	Rp 5.000.000	Rp 305.000.000,00
6.000.000 - 8.000.000	33	Rp 7.000.000	Rp 231.000.000,00
8.000.000 - 10.000.000	20	Rp 9.000.000	Rp 180.000.000,00
>10.000.000	23	Rp 11.000.000	Rp 253.000.000,00
Total	**165**		**Rp 1.023.000.000,00**
Average		**Rp 6.200.000**	
Vot Value		**Rp 516,67**	

Generalized Cost

Generalized cost is the total of travel time and travel costs expressed as money (rupiah). The combined cost, including travel time and headway, is calculated based on the scenario that has been made. The generalized cost values obtained from the scenarios in this study are as follows:

Table 6. Generalized Cost

No	Travel Cost		Traveling Cost (Ivt)		Headway (Ovt)		Generalized Cost	
	Gopar (Rp)	Kcjb (Rp)	Gopar (Menit)	Kcjb (Menit)	Gopar (Menit)	Kcjb (Menit)	Gopar	Kcjb
1	Rp 200.000	Rp 350.000	167	60	65	24	Rp 353.450,00	Rp 405.800,00
2	Rp 200.000	Rp 325.000	167	70	65	28	Rp 353.450,00	Rp 390.100,00
3	Rp 200.000	Rp 300.000	167	80	65	32	Rp 353.450,00	Rp 374.400,00
4	Rp 200.000	Rp 275.000	167	90	65	38	Rp 353.450,00	Rp 360.766,67
5	Rp 200.000	Rp 250.000	167	100	65	48	Rp 353.450,00	Rp 351.266,67
6	Rp 200.000	Rp 225.000	167	110	65	64	Rp 353.450,00	Rp 347.966,67

The generalized cost ratio compares the total cost of traveling using the Jakarta-Bandung High-Speed Train and the Argo Parahyangan Train, calculated by dividing each alternative trip. The following is the value of the combined cost comparison between the Jakarta-Bandung High-Speed Train and The Argo Parahyangan Train:

Table 7. Nisbah Generalized Cost

Condition	Generalized Cost		Gencost Ratio
	Gopar	Kcjb	
Kondisi 1	Rp 353.450,00	Rp 405.800,00	0,870995564
Kondisi 2	Rp 353.450,00	Rp 390.100,00	0,906049731
Kondisi 3	Rp 353.450,00	Rp 374.400,00	0,944043803
Kondisi 4	Rp 353.450,00	Rp 360.766,67	0,979719117
Kondisi 5	Rp 353.450,00	Rp 351.266,67	1,006215601
Kondisi 6	Rp 353.450,00	Rp 347.966,67	1,015758214

The proportion ratio of Railway transportation is obtained by comparing the proportion of users of the Jakarta-Bandung High-Speed Train and The Argo Parahyangan Train. The following are the results of the comparison of the proportion of the Jakarta-Bandung High-Speed Train with the Argo Parahyangan Train:

Table 8. Choice Proportion

Choice Proportion		Proportion Gopar Ratio
Gopar	Kcjb	
0,540	0,460	0,8519
0,532	0,468	0,8793
0,470	0,530	1,1290
0,416	0,584	1,4017
0,307	0,693	2,2544
0,255	0,745	2,9192

The ratio binary logit model can be formed using a liner regression estimation method approach to estimate the intercept parameters (A) and regression coefficients (B), which will later be used for the α and β parameter calibration process in forming a binary logit model of the ratio of the Jakarta-Bandung Hi-Speed Train and Argo Parahyangan Train options. The following is the value of the linear regression equation:

Table 9. Linear Regression

No	Gencost Ratio (Wi)	Proportion Gopar ((1-P1)/P1) Ratio	Log (Wi)	Log (Yi)
1	0,871	0,852	-0,060	-0,070
2	0,906	0,879	-0,043	-0,056
3	0,944	1,129	-0,025	0,053
4	0,980	1,402	-0,009	0,147
5	1,006	2,254	0,003	0,353
6	1,016	2,919	0,007	0,465

Table 10. Regression Statistics

Regression Statistics	
Multiple R	0,930462
R Square	0,86576
Adjusted R Square	0,8322
Standard Error	0,089879
Observations	6

Table 11. Significance F

	df	SS	MS	F	Significance F
Regression	1	0,208399	0,208399	25,7973	0,007085
Residual	4	0,032313	0,008078		
Total	5	0,240712			

Table 12. Regression Equation

Intercept (A)	0,312521584
Determinan (B)	7,724207214
α (10^A)	2,053627088
β = B	7,724207214
Regression Equation	Y = 2,05363 + 7,72421X

Based on the data above, it can be seen that the results of the linear regression model are as follows: Y=2.05363 + 7.72421X …(5) with a coefficient of determination (R Square), which has a value of 0.8657 and a significance F value of 0.007085<0.05 which shows a moderate and significant relationship between the two variables. A value of 0.8657 means that the combined cost ratio influences 86.57% of the Jakarta-Bandung High-Speed Train moda choice proportion.

The values α and β are parameters in the binary logit ratio, which uses simple linear regression and obtains the values A and B, which then produces a model or formula for mode selection as follows:

$$P_{GOPAR} = \frac{1}{1 + 2{,}05363\ (\frac{C_{GOPAR}}{C_{KCJB}})^{7{,}72421}} \ldots (6)$$

Table 13. Probability Moda Choice

Nisbah GT (Wi)	Wi^7,72421	$P_{GOPAR} = \frac{1}{1 + 2,05363\ (\frac{C_{GOPAR}}{C_{KCJB}})^{7,72421}}$	P KCJB = (1 - P Gopar)
0,871	0,344	59%	41%
0,906	0,467	51%	49%
0,944	0,641	43%	57%
0,980	0,854	36%	64%
1,006	1,049	32%	68%
1,016	1,128	30%	70%

Sensitivity Test

Sensitivity tests are carried out by changing one of the travel indicators,making a 50% decrease in each indicator to be tested. Condition A is a 50% decrease inf fares, conditon B is a 50% decrease in travel time, and condition C is a 50% decrease in headway. The following data is obtained:

Table 14. Generalized Cost Changes in Each Condition

No	Before		Condition A (50% Tarif)		Condition B (50% Travel Time)		Condition C (50% Waiting Time)	
	Gopar	Kcjb	Gopar	Kcjb	Gopar	Kcjb	Gopar	Kcjb
1	Rp353.450,00	Rp405.800,00	Rp253.450,00	Rp230.800,00	Rp310.308,33	Rp390.300,00	Rp319.866,67	Rp393.400,00
2	Rp353.450,00	Rp390.100,00	Rp253.450,00	Rp227.600,00	Rp310.308,33	Rp372.016,67	Rp319.866,67	Rp375.633,33
3	Rp353.450,00	Rp374.400,00	Rp253.450,00	Rp224.400,00	Rp310.308,33	Rp353.733,33	Rp319.866,67	Rp357.866,67
4	Rp353.450,00	Rp360.766,67	Rp253.450,00	Rp223.266,67	Rp310.308,33	Rp337.516,67	Rp319.866,67	Rp341.133,33
5	Rp353.450,00	Rp351.266,67	Rp253.450,00	Rp226.266,67	Rp310.308,33	Rp325.433,33	Rp319.866,67	Rp326.466,67
6	Rp353.450,00	Rp347.966,67	Rp253.450,00	Rp235.466,67	Rp310.308,33	Rp319.550,00	Rp319.866,67	Rp314.900,00

Table 15. Generalized Cost Changes in Each Condition

No	Generalized Cost Ratio			
	Before	Condition A	Condition B	Condition C
1	0,870995564	1,098136915	0,795050816	0,813082528
2	0,906049731	1,11357645	0,834124815	0,851539622
3	0,944043803	1,129456328	0,877238032	0,893815201
4	0,979719117	1,135189609	0,919386697	0,937658784
5	1,006215601	1,12013848	0,953523507	0,979783541
6	1,015758214	1,07637316	0,971079122	1,015772203

Based on the data, it is known that the value of the generalized cost ratio which is close to “1”, is in the scenario with condition C, which is 1,015772203.

Tabel 16. Changes in Passenger Probablitiy in Each Condition

No	Before		Condition A		Condition B		Condition C	
	GOPAR	KCJB	GOPAR	KCJB	GOPAR	KCJB	GOPAR	KCJB
1	0,585949961	0,414050039	0,191126128	0,808873872	0,741146025	0,258853975	0,706553999	0,293446001
2	0,510616183	0,489383817	0,175006337	0,824993663	0,664039745	0,335960255	0,627555479	0,372444521
3	0,431722523	0,568277477	0,159772112	0,840227888	0,572506554	0,427493446	0,536804034	0,463195966
4	0,363236669	0,636763331	0,154591388	0,845408612	0,48240732	0,51759268	0,444626373	0,555373627
5	0,31702675	0,68297325	0,168550274	0,831449726	0,412896724	0,587103276	0,363119199	0,636880801
6	0,301455143	0,698544857	0,216176681	0,783823319	0,379205299	0,620794701	0,301432744	0,698567256

Based on the results of the sensitivity test conducted, it is concluded that fare affects the interest in moda choice by 78,38%, travel time affects the interest in moda choice by 62,08%, and headway affects the interest in moda choice by 69,86%.

CONCLUSION

Based on the results of the analysis of Argo Parahyangan passengers' interest in the Jakarta-Bandung High-Speed Train, it was concluded that the characteristics of the passengers on the Argo Parahyangan train Jakarta-Bandung were mostly aged 20-30 years with 99 males. The most recent educational is D4/S1, and the highest average income is Rp.4.000.000-Rp.6.000.000. Based on the travel characteristics of the highest frequency of travel 1-2 times a week, the biggest reason for using the Argo Parahyangan Train is because of access time using shorter mode and cheaper cost. Based on the characteristics of the transportation system for Argo Parahyagangan train users, the cost to go to Gambir station is Rp.15.000-Rp.30.000 with a travel time of>30 minutes and distance of 5-15km, and to go to Halim Station the travels time is >30 minutes with a distance of 5-15Km.

Based on the results of the analysis with a significance level/error level α = 5%, R Square 0,8657, and value of F significance 0,007085<0,05, it can be seen that the results of the linear regresion model are follows Y= 2.05363 + 7.74221X … (5) which shows a moderate and significant relationship between the two variables and has the interpretation that generalized cost influence the moda choice of passengers from the Argo Parahyangan train to Jakarta-Bandung High-Speed Train.

The proportion of passenger movements from the Argo Parhyangan train to Jakarta-Bandung High-Speed Train is 70% with scenario 6 the fare for Jakarta-Bandung High-Speed Train is Rp.225.000, with a travel time 110 Minutes, and headway 64 minutes. Based on sensitivity tests, the influencing factors moda choice from Argo Parahyangan Train to Jakarta-Bandung High-Speed Train, the fare is 78,38%, the travel time 62,08%, and the headway is 69,86%.

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