



Projections of Cargo Transport by Air and Number of Fleets on Economic Growth at Soekarno Hatta Airport

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Abstract: Air cargo is one of the important sectors in the national economy, because it can support the mobility of goods and services between regions and countries. Soekarno Hatta Airport as the largest and busiest airport in Indonesia, has a strategic role in domestic air cargo services. This study aims to analyze the projection of cargo transportation by air and the number of fleets on the regional economic growth of Banten province at Soekarno Hatta Airport. The method used is a quantitative descriptive research method, by describing natural phenomena that occur during research and using secondary data / indirect data and conducting group discussions to obtain joint decisions. The data used include 2022 air transport data and 2022 Banten provincial report data. The results of forecasting the amount of cargo demand at Soekarno Hatta International Airport for the next 5 years in 2027 amounted to 386,957,736 Kg. The results of forecasting the number of fleets at Soekarno Hatta International Airport for the next 5 years in 2027 amounted to 12,063 fleets. The results of forecasting economic growth in Banten Province for the next 5 years in 2027 amounted to 2.03%. The air transportation and air cargo sector can be the most influential factor in the economic growth of Banten Province if there is cooperation to support the work programs of each institution.

Keywords: cargo transportation, projection, number of fleets, economic growth, Soekarno Hatta Airport

INTRODUCTION

The community's need for transportation facilities continues to grow in line with the increasing standard of economic life. The transportation sector has a very important role not only to facilitate the flow of goods and human mobility, but transportation services also help achieve the optimal allocation of economic resources. (Setyowati, 2015) However, the increase in the need for transportation facilities is inseparable from the desire of the community to get good transportation facilities with safe, fast, cheap, and comfortable criteria.

The needs of consumers continue to be large, the rapid development of the online store business or e-commerce makes the cargo service industry a very suitable target in shipping goods both from within and outside the country. The high number of e-commerce consumers is projected to increase the volume of air cargo this year by 5%. Making the freight forwarding industry grow positively every year as the development of e-commerce has recorded 500% in the last four years. (Ramadhani Pambudi et al., 2021) In modern times, human needs related to time efficiency and speed in activities are also very important in supporting all human activities both in terms of travel or cargo transportation. In addition, these two things can also be factors in economic growth in an area. So, an analysis is needed that is able to provide an overview of the amount of cargo transportation by air and the number of fleets for the upcoming period. (Rahmat Ramadhan et al., 2023)

In forecasting the amount of cargo transportation by air and the number of fleets both arriving and departing at Soekarno Hatta International Airport, the forecasting method to be used is the linear trend analysis method, which is a method that is often used to determine the movement of data both down and up in the amount of cargo and the number of fleets in the last 5 years and forecast time series data. Based on this, the purpose of this study is forecasting / projection for the next 5 years using the linear trend analysis method on data on the number of cargo transportation by air and the number of domestic fleets at Soekarno Hatta International Airport in 2023-2027.

Domestic air cargo demand at Soekarno Hatta International Airport has increased. Based on 2022 air transport statistics from the Ministry of Transportation, Directorate General of Civil Aviation, Soekarno Hatta International Airport for the domestic area in 2018 amounted to 331,961,737 Kg and in 2021 it decreased by 10.43%. Meanwhile, air cargo demand for domestic areas in 2022 increased by 22.85% to 365,255,621 Kg. Meanwhile, the number of domestic fleets at Soekarno Hatta International Airport has decreased. Based on 2022 air transportation statistics from the Department of Civil Aviation, Soekarno Hatta International Airport for the domestic area in 2018 amounted to 365,428 fleets and in 2021 experienced a decrease of 54.43%. While the demand for air cargo for domestic areas in 2022 increased by 54.57% to 257,398 fleets.

From an economic point of view, the aviation industry has a hard time surviving. Many are no longer thinking about profits, but think about how the business can survive so as not to go bankrupt. (Amanda et al., 2020) Based on data from BPS for 2018-2020, Banten Province in 2018 generated a Constant GRDP of IDR 433,782,714.- million with a total GRDP growth of 5.77%. And in 2020 when the COVID-19 Pandemic began to spread, Banten Province produced a Constant GRDP of IDR 441,148,577.- million with a total GRDP growth of -3.39%. It can be concluded that, Constant GRDP between 2018-2020 has decreased by 1.70%. Meanwhile, the Constant GRDP in 2020-2022 has increased by 9.75%. So that for Constant GRDP in 2022 it has a total of IDR 484,141,829.55, - million and GRDP growth to 5.03%.

Literature review

Air Cargo

Majid & Warpani (2009) define cargo as all goods sent by air (airplanes), sea (ships), or land (container trucks) which are usually for trade, both between regions / cities within the country and internationally known as export-import. Air cargo is part of the supply chain process that serves to distribute goods until they are received at their destination. Indonesia with its status as a vast archipelago with a large population, is faced with considerable challenges in the transportation and logistics sector. Demand for air transportation and logistics services continues to increase from year to year along with the increase in population and public welfare.

Air Transportation

Transportation has a very important and strategic role in supporting, encouraging and supporting all aspects of human life. One of them is air transportation which is a means of transportation that can connect regions in the Republic of Indonesia with a faster travel time than other modes of transportation. In Government Regulation of the Republic of Indonesia Number 32 of 2021 concerning the Implementation of Aviation it is explained that "air transportation is any activity using aircraft to transport passengers, cargo, and / or post for one or more trips from one airport to another airport or several airports". Air transportation is one of the fastest modes of public transportation that can connect international boundaries. (Nur et al., 2021)

Forecasting / Projections

Forecasting is a guess or estimate about the occurrence of an event or event in the future. This forecast is very useful in various fields of life, especially in the context of planning to anticipate various circumstances that occur in the future. Forecasting will never be 100% correct, because the future contains uncertainty. However, with the selection of the right method, it can create forecasting with a small error rate or provide the best possible estimate of the future state. (Junaidi, 2014)

Economic Growth

Economic growth is one indicator of successful development in an economy. The welfare and progress of an economy is determined by the amount of growth indicated by changes in national output. The existence of output changes in the economy is a short-term economic analysis.

The positive effects of transportation on economic growth can be obtained through various transmissions. First, transportation facilitates the growth of both domestic and cross-border trade, tourism, and investment; thus, contributing to capital goods that can be used in the production process and drive economic growth. Secondly, transportation plays an important role in encouraging infrastructure investment so that accelerated economic growth will be achieved. (Brida et al., 2016)

The role of transportation infrastructure is also important for accelerating economic growth. Transportation in general is an important factor in realizing the economic potential of a country. In a theory that emphasizes the supply side, the implementation of transportation infrastructure and accessibility leads to economic growth. (Priyajati & Haryanto, 2020)

The results of research conducted by Dhista Ayunia et al. (2020) stated that there is a positive and significant effect of air cargo transportation on Gross Domestic Product. Research results by Artar et al. (2016) stated that there is a positive and significant relationship between air transportation and GDP. Where air transportation creates economic growth by facilitating tourism and trade, providing employment opportunities, improving living standards and alleviating poverty and increasing tax revenues. Efforts in developing demand forecasts by making proper planning to enable the healthy development of the air transportation sector, which survived the global financial crisis, are important for making concrete investment decisions. In doing so, it contributes to sustainable economic development.

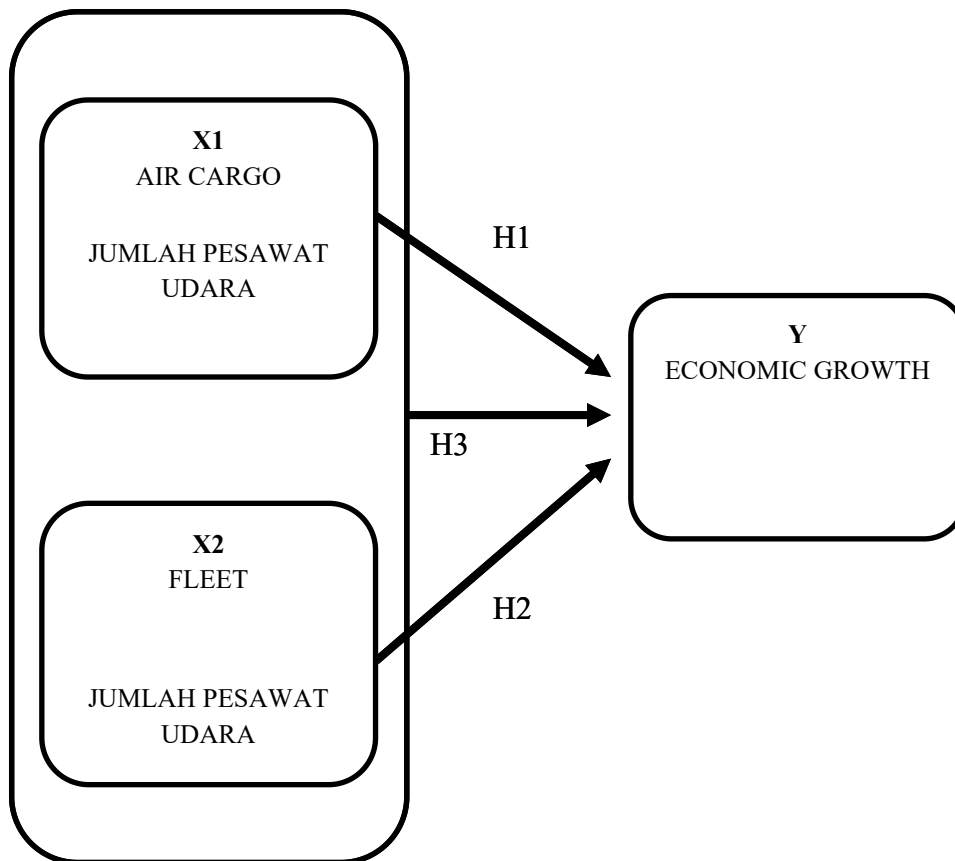
However, in the study conducted by Subbaniyah & Fauzy (2017) states that air freight transportation has no effect on GDP. Where, it does not make the transportation sector a contributor to state income. The largest state revenues on average come from the agriculture, mining, and manufacturing sectors.

Gross Regional Domestic Product

According to BPS-Statistics Indonesia, Gross Regional Domestic Product (GRDP) is one of the important indicators to determine the economic conditions in a region in a certain period, both at current prices and at constant prices. GRDP is basically the amount of added value generated by all business units in a certain area, or is the total value of final goods and services produced by all economic units in a region.

GRDP at current prices reflects the value added of goods and services calculated using prices in the current year, while GRDP at constant prices reflects the value added of those goods and services calculated using prices prevailing in a given year as the base year. GRDP at current prices is used to determine the ability of economic resources, shifts, and the economic structure of a region. Meanwhile, constant GRDP is used to determine economic growth in real terms from year to year or economic growth that is not influenced by price factors.

Based on the theoretical basis above, a framework of mind and hypothesis can be made as follows:



Hypothesis

- 1) H1: There is influence of air cargo volume on regional economic growth of Banten Province at Soekarno Hatta International Airport
- 2) H0: There is no influence of air cargo volume on regional economic growth of Banten Province at Soekarno Hatta International Airport.
- 3) H2: There is an influence of the number of aircraft on the regional economic growth of Banten Province at Soekarno Hatta International Airport
- 4) H0: There is no effect of the number of aircraft on the regional economic growth of Banten Province at Soekarno Hatta International Airport.

- 5) H3: There is an influence of air cargo volume and the number of aircraft on the regional economy of Banten Province at Soekarno Hatta International Airport.
- 6) H0: There is no effect of air cargo volume and the number of aircraft on the regional economy of Banten Province at Soekarno Hatta International Airport.

METHOD

This research uses descriptive quantitative research methods and focus discussion groups (FDG) using secondary data / indirect data on the number of fleets and cargo from the 2022 Air Transport Statistics book of the Indonesian Ministry of Transportation and the growth of gross regional domestic product and constant gross regional domestic product from the BPS-Statistics Indonesia 2018-2022 and conducting group discussions to obtain joint decisions using data collection techniques in the form of literature studies and library research. This literature study was obtained from various articles as well as several documents, annual reports and others.

Trend Analysis

The trend analysis method is a statistical technique used for forecasting or estimating the future. Trend analysis can reveal the extent of fluctuations that occur and what influences them. The quality and accuracy of the data obtained and the time period over which the data is collected are very important in time series analysis. The more data collected, the more accurate forecasting or estimation can be done. Conversely, the less data collected, the less accurate the forecasting or estimation results will be. (Fauzi et al., 2023)

$$Y = \beta_0 + \beta_1 T$$

- Yt = data value in year t
- β_0 = constant, which shows the value of data in the initial year
- β_1 = the amount of data change from one period to another
- T = year

Regional Economic Growth

Regional economic growth is the development of activities in the regional economy that causes goods and services produced in society to increase so that it will increase the prosperity of the community. Regional economic growth is also defined as an increase in GDRP / GNRP regardless of whether the increase is greater or less than the population growth rate, and whether there is a change in economic structure or not. (Pambudi & Miyasto, 2013)

In general, the equation that is often used to calculate economic growth is the formula by arithmetic calculation or method, which calculates the increase in GRDP (per capita) from one year to another. The formula is :

$$GRDP\ Growth = \frac{GRDP_n - GRDP_{n-1}}{GRDP_{n-1}} \times 100\%$$

GRDP Growth = Economic growth in Banten Province

GRDP_n = GRDP of the following year

GRDP_{n-1} = GRDP last year

Multiple Linear Regression

The regression method is a statistical method that makes predictions using a mathematical relationship between variables, namely the independent variable (X) or the variable that affects and the dependent variable (Y) or the variable that is affected. (W. K. Majid & Dzikria, 2023)

$$Y_t = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e$$

- Y_t = Economic Growth
- X₁ = Cargo
- X₂ = Fleet
- β₀ = Number Constant
- β₁ = Cargo Coefficient
- β₂ = Fleet Coefficient
- e = Error Term *MAPE*

MAPE (Mean Absolute Percentage Error)

This MAPE test is carried out to test the accuracy of the forecasting carried out by testing the existing hypothesis. Accuracy can be seen from the size of the error resulting from the forecasting performed. The MAPE value is interpreted by category according to the table below (Miefthawati & Ramlah, 2023) :

Table 1 Standard MAPE calculation value

Presented	Information
< 10%	Highly Accurate Forecasting
10% - 20%	Good Forecasting
20% - 50%	Reasonable Forecasting
> 50%	Weak and Inaccurate Forecasting

In this study using MAPE (Mean Absolute Percentage Error) to calculate the value of the error rate of the forecasting method from the comparison of the forecasting data that has been carried out against the actual data as a reference. The equation formula is as follows:

$$MAPE = \sum \left| \frac{Actual - Forecast}{Actual} \right| \times \frac{100\%}{N}$$

- Actual = Actual data from the research source
- Forecast = Forecast data from forecasting results
- N = Number of time periods (years)

RESULTS AND DISCUSSION

The data is taken from the 2022 air transportation statistics data from the Department of Civil Aviation for Soekarno Hatta International Airport domestic area from 2018 - 2022.

Table 2 Data of number of fleets, cargo and GRDP (Gross Regional Domestic Product) in 2018–2022

Indicators	2018	2019	2020	2021	2022	
Cargo	Arrival	112.909.271	72.515.074	85.404.370	118.434.044	113.101.608
	Departure	219.052.466	156.825.634	154.569.216	178.875.360	252.154.013
	Total	331.961.737	229.340.708	239.973.586	297.309.404	365.255.621
Fleets	Arrival	185.634	149.510	91.039	84.592	129.853
	Departure	179.794	144.554	88.460	81.932	127.545

Total	365.428	294.064	179.499	166.524	257.398
GRDP Constant (in million rupiah)	433.782.714	456.620.03	441.148.57	460.963.02	484.141.83
GRDP Growth	5,77	5,26	-3,39	4,49	5,03

Source: Air Transport Statistics of 2022 from the Ministry of Transportation Directorate General of Civil Aviation and the BPS-Statistics Indonesia 2018-2022

The data is taken from 2018 to 2022, from the data above it can be seen that between 2018-2020 the growth of cargo, the number of fleets, and economic growth has decreased. Especially in 2020 due to the COVID-19 pandemic, it has an unfavorable impact on the aviation sector and the economic sector. Based on the table above, the number of operating fleets has decreased due to large-scale social restrictions. Meanwhile, cargo transportation is experiencing unstable conditions but has increased even though it is not significant. In addition, the economic growth of Banten Province experienced a very significant decline to touch minus conditions due to limited community mobility due to large-scale social restrictions in Indonesia and Banten Province whose economic structure relies solely on industry when there is a work from home policy, the relative decline is very impactful.

In 2020-2021, which was the time of the COVID-19 pandemic, several airlines, both domestic and foreign, almost experienced bankruptcy, even flag carrier airlines were affected by this pandemic. So that in that year the number of operating fleets also decreased significantly when compared to previous years and the load factor carried was also not full 100%. For cargo transportation, there was a significant increase, due to the limited movement of the community, when people in fulfilling their needs could be fulfilled through online shopping platforms. And for the economic growth of Banten Province, there has also begun to increase due to other factors such as the progress of vaccinations which will encourage household consumption, investment, both private and government, and export performance both regionally and abroad.

Table 3 Projection of number of fleets, cargo and GRDP (Gross Regional Domestic Product) in 2023-2027

Indicators	2023	2024	2025	2026	2027	
Cargo	Arrival	114.363.967	118.994.331	123.624.695	128.255.060	132.885.424
	Department	218.771.184	227.596.466	236.421.748	245.247.030	254.072.312
	Total	333.135.150	346.590.797	360.046.443	373.502.090	386.957.736
Fleets	Arrival	75.182	57.534	39.886	22.238	4.590
	Department	74.321	57.609	40.897	24.185	7.473
	Total	149.503	115.143	80.783	46.423	12.063
GRDP Constant (in million rupiah)	486.849.602	497.355.724	507.861.846	518.367.968	528.874.090	
GRDP Growth	0,56	2,16	2,11	2,07	2,03	

Source: Air Cargo Projections at Soekarno Hatta International Airport

The projections cargo demand at Soekarno Hatta International Airport are presented below:

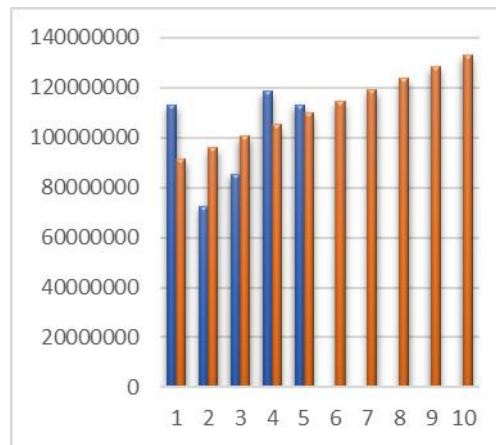


Figure 2. Cargo Arrival

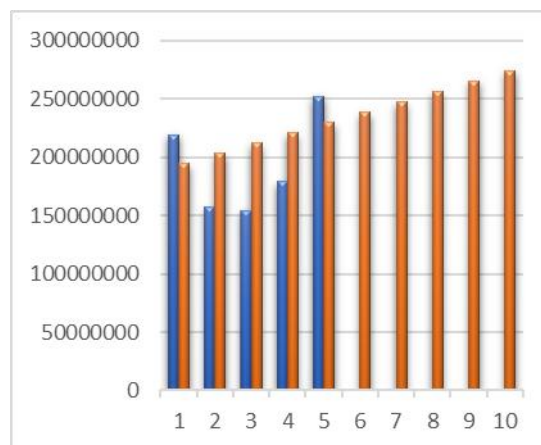


Figure 3. Cargo Departure

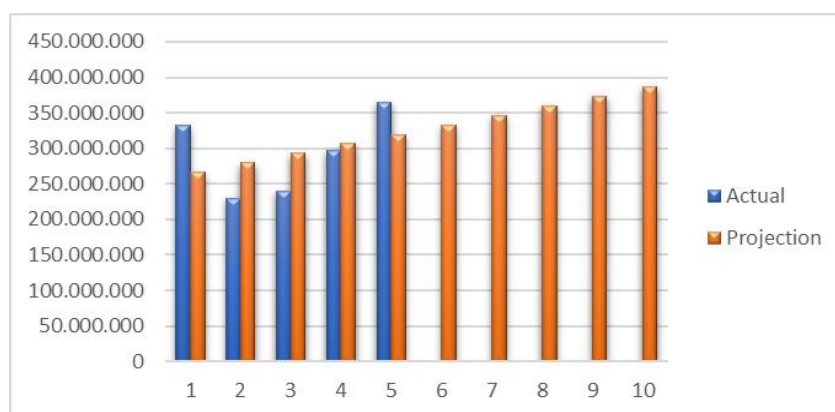


Figure 4. Total Cargo

In Figure 2, the comparison between actual and projection values fluctuates, where in 2018-2019 the incoming cargo demand at Soekarno Hatta International Airport decreased but the range of 2019-2021 the incoming cargo demand increased. However, in 2022 the amount of cargo coming decreased to 113,101,608 Kg. For the projection of incoming cargo demand at Soekarno Hatta International Airport in 2027 (5 years) as much as 132,885,424 Kg. The results of this analysis are based on a linear regression model in the equation $Y = 86,581,780.20 + 4,630,364.40X$.

In Figure 3, the comparison between actual and projection values fluctuates, where in 2018-2019 the demand for cargo arriving at Soekarno Hatta International Airport decreased but the range of 2019-2022 the demand for cargo arriving increased, even in 2022 the amount of cargo arriving reached 252,154,013 Kg. For the projected demand for cargo departing from Soekarno Hatta International Airport in 2027 (5 years) as much as 254,072,312 Kg. The

results of this analysis are based on a linear regression model in the equation $Y = 165,819,491.80 + 8,825,282X$.

In Figure 4, the comparison between actual and projection values fluctuates, where in 2018-2019 the incoming cargo demand at Soekarno Hatta International Airport decreased but the range of 2019-2022 the incoming cargo demand increased, even in 2022 the amount of cargo arriving reached 365,255,621 Kg. For the projection of total cargo demand at Soekarno Hatta International Airport in 2027 (5 years) as much as 386,957,736 Kg. The results of this analysis are based on a linear regression model in the equation $Y = 325,401,272 + 13,455,464.40X$.

Fleet Projections at Soekarno Hatta International Airport

The projections for the number of fleets at Soekarno Hatta International Airport are presented below:

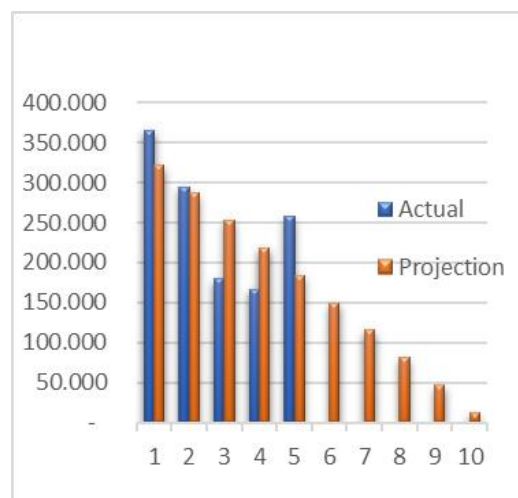


Figure 5. Fleet Arrival

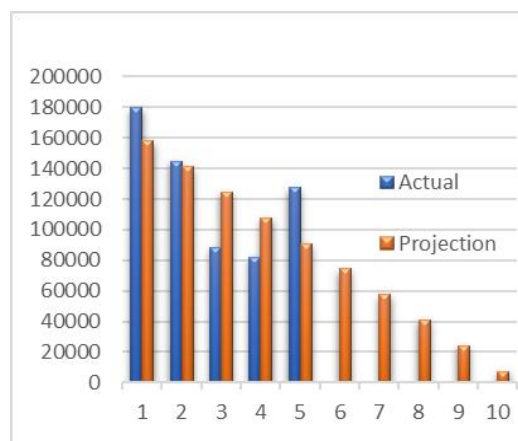


Figure 6. Fleet Departure

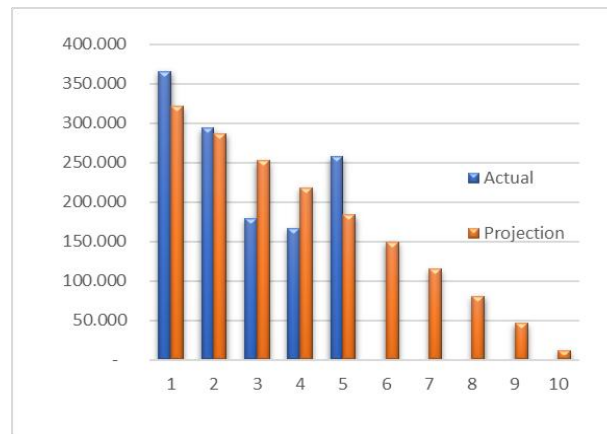


Figure 7. Total Fleet

In Figure 5, the comparison between actual and projection values is very significant, where the range of 2018-2021 the number of arriving fleets at Soekarno Hatta International Airport decreased but began to recover in 2022. Meanwhile, the forecasting value for the 2018-2027 range tends to decrease. For the projected number of arriving fleets at Soekarno Hatta International Airport in 2027 (5 years) as many as 4,590 fleets. The results of this analysis are based on a linear regression model in the equation $Y = 181069.60 - 17648X$.

In Figure 6, the comparison between actual and projection values is very significant, where the range of 2018-2021 the number of fleets departing at Soekarno Hatta International Airport decreased but began to recover in 2022. Meanwhile, the forecasting value for the 2018-2027 range tends to decrease. For the projected number of fleets departing from Soekarno Hatta International Airport in 2027 (5 years) as many as 7,473 fleets. The results of this analysis are based on a linear regression model in the equation $Y = 174,593 - 16,712X$.

In Figure 7, the comparison between actual and projection values is very significant, where the range of 2018-2021 the total number of fleets departing at Soekarno Hatta International Airport decreased but began to recover in 2022. Meanwhile, the forecasting value for the 2018-2027 range tends to decrease. For the projection of the total number of fleets at Soekarno Hatta International Airport in 2027 (5 years) as many as 12,063 fleets. The results of this analysis are based on a linear regression model in the equation $Y = 355.663 - 34.360X$.

Projections of Economic Growth in Banten Province

The projections of economic growth in Banten Province are presented below:

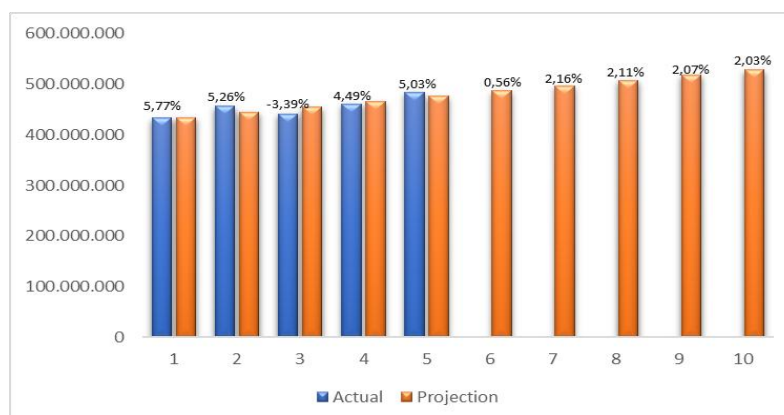


Figure 8. GRDP

In Figure 8, a comparison of economic growth in Banten Province from year to year can be seen, in 2020 economic growth in Banten Province experienced a decline of -3.39% where the main factor was due to the COVID-19 global health problem. Apart from 2020, every year Banten Province shows positive and significant economic growth. For the

projection of economic growth in Banten Province in 2027 (5 years) amounted to 2.03%. The results of this analysis are based on a linear regression model in the equation $Y = 4.11 - 0.22X$.

MAPE Accuracy Assessment

Table 4 Mean Absolute Percentage Error Result

Variable	MAPE
Cargo	15,84
Fleets	22,97
GRDP	1,72

From the results of the MAPE calculation, it can be seen:

1. If the result of the MAPE value for the cargo variable is 15.84%, it can be said that the forecasting is good forecasting and the accuracy value is known by the formula $100 - 15.84$, the result is 84.16%.
2. While the result of the MAPE value for the fleet variable is 22.97%, so it can be said that the forecasting is reasonable forecasting and the accuracy value is $100 - 22.97$ the result is 77.03%.
3. The last, the MAPE value for the GRDP variable is 1.72%, so it can be said that the forecasting is highly accurate forecasting and the accuracy value is known as $100 - 1.72$, the result is 98.28%.

Multiple Liner Regression

Table 5 Multiple Linear Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	426879583.298	60141554.518		7.098	.019
Total Cargo	.183	.201	.547	.912	.458
Total Fleet	-99.730	142.070	-.421	-.702	.555

a. Dependent Variable: GRDP Constant

From the data analysis above, the multiple regression equation is obtained as follows:
 $Y = 426.879.583,298 + 0,813 X_1 + (-99,730) X_2 + 15,84 + 22,97 + 1,72$

The constant of 426,879,583.298 states that if there is a value of Air Cargo Transportation (X_1) then the value of Economic Growth (Y) is 426,879,583.298. While the regression coefficient of 0.813 (X_1) states that each addition of one (1) variable value in Air Cargo Transportation (X_1) will not increase the Economic Growth variable (Y) by 0.813 times at a constant 426,879,583,298.

The constant of 426,879,583.298 states that if there is a value of Number of Fleets (X_2) then the value of Economic Growth (Y) is 426,879,583.298. While the regression coefficient of -99.730 (X_2) states that each addition of one (1) variable value in Number of Fleets (X_2) will not increase the Economic Growth variable (Y) by -99.730 times at a constant 426,879,583,298.

F Test

Known $df_1 = k = 2$, $df_2 = n - k = 4 - 2 = 2$, then $F_{Table} = 19.00$

Table 6 F Test

ANOVA ^a					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5,23105E+14	2	2,61553E+14	0,520	.658 ^b
Residual	1,00581E+15	2	5,02905E+14		
Total	1,52891E+15	4			

a. Dependent Variable: GRDP

b. Predictors: (Constant), Total Cargo, Total Fleet

Using computer processing based on the calculation of the SPSS version 29.0 for windows program, it is obtained that $F_{count} (0.520) < F_{Table} (19.00)$, so it is clear that **H0** is accepted and H1; H2; H3 is rejected. With a significance level of 0.658, it can be concluded that the resulting significance value is greater than the significant level of 0.05. This means that together or simultaneously the air cargo transportation variable and the number of fleets have a negative and insignificant effect on the economic growth variable. So, the regression model is not suitable to be used to explain the projection of air cargo transportation and the number of fleets on economic growth in Banten Province.

CONCLUSION

Forecasting research using the linear trend analysis method on cargo variables (X1), fleet (X2) and Economic Growth (Y) has a MAPE forecasting accuracy test result value of 15.84%; 22.97%; and 1.72%, respectively. Based on these results, it can be concluded that the linear trend analysis forecasting method used can be proven that the forecasting is good forecasting, reasonable forecasting, and highly accurate forecasting. The results of forecasting the amount of cargo demand at Soekarno Hatta International Airport for the next 5 years 2023 to 2027 are 333,135,150; 346,590,797; 360,046,443; 373,502,090; 386,957,736 Kg. The results of forecasting the number of fleets at Soekarno Hatta International Airport for the next 5 years 2023 to 2027 are 149,503; 115,143; 80,783; 46,423; 12,063 fleets. The results of forecasting economic growth in Banten Province for the next 5 years 2023 to 2027 are 0.56%; 2.16%; 2.11%; 2.07%; 2.03%.

Based on this statement, the results of the projection of the number of fleets and cargo at Soekarno Hatta International Airport and the value of economic growth in Banten Province produce information that can be used as a reference to estimate how much cargo demand will be received, how much fleet is needed, and how much economic growth in the next 5 years in Banten Province.

In accordance with the theory of Subbaniyah and Fauzy in 2017, it is clear that the H₀ hypothesis is accepted and H₁, H₂, H₃ are rejected, which means that the air freight transportation sector and also the air transportation sector have no influence on the GRDP of Banten Province. Because, for Banten Province itself has 4 leading sectors in increasing its economic growth including the manufacturing sector, the land transportation and warehousing sector, wholesale and retail trade, and the real estate sector.

Implications

As an implication obtained from this research, there are several implications for the Regional Economic Growth of Banten Province at Soekarno Hatta International Airport, as described below:

- 1) The air transportation and air cargo sector at this time cannot be an influential factor in the economic growth of Banten Province. However, in the future it can be an influential factor in the economic growth of Banten Province if there is cooperation to support the work programs of each agency so that the work programs of the air transportation and air cargo sectors can be carried out properly.

- 2) Banten Province's economic growth will increase if there is cross-sectoral coordination that supports each other so that the supporting factors for economic growth are not only focused on a few sectors but can make other sectors contribute to economic growth itself.

Research limitations

This research was prepared based on research references by following standardized procedures and by using literature that is in accordance with the objectives of this research, and this research is intended as an effort to disclose the true phenomenon of the problem defined as the research variable. In this study, the authors have several limitations including the following:

1. Time limitations make this research only intended for ITL Trisakti Management majors with the hope that it can be used as a research comparison with the same theme and as information material for further research.
2. Limitations on secondary data from the Ministry of Transportation Directorate General of Civil Aviation per quarter.
3. Lack of supporting literature that can be obtained by the author regarding the projection of air cargo transportation and the number of fleets on the regional economic growth of Banten Province.
4. Limitation of the scope of research only at Soekarno Hatta International Airport in the domestic area and Banten Province.

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