

# THE EFFECT OF INCREASING FLIGHT TICKET PRICES DURING THE COVID-19 PANDEMIC ON THE NUMBER OF PASSENGERS

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## ABSTRACT

The research we conducted was motivated by the author's observations about the increase in airline ticket prices in 2020 to 2022 during the Covid-19 pandemic. Changes in air ticket prices cause the level of development of airline service users to fluctuate. The purpose of this study is to determine whether the increase in the selling price of airline tickets has a significant impact on the interest of airline service users. The data collection methods used are observation, questionnaires and literature studies. The object of this research is flight service users at Sam Ratulangi International Airport Manado. The independent variable is the ticket price while the dependent variable is the number of passengers. The analysis method of this study uses a Likert scale then calculated the total score and index%. The stages of quantitative analysis are validity and reliability tests. This research instrument is a calculation using a linear regression formula. Based on the results show that ticket prices have a significant effect on reducing the number of passengers at Sam Ratulangi International Airport Manado. Ticket prices are a variable that affects the decrease in passenger numbers by 50.7% based on regression analysis.

**Keywords:** Harga Tiket, Biaya Operasional, Pelayanan, Fasilitas.

## 1. INTRODUCTION

Technological advances and high economic growth are now followed by tight business competition between business actors in the field of air transportation. In this case, consumers are one of the important factors in the economic system, because with consumers, companies can sell, market and offer the products produced. The company's performance will be achieved if the marketing unit works optimally in an effort to attract potential consumers. Tight business competition between airline companies makes airlines have to think harder and creatively to maintain and increase their market share. There are many ways that airlines strengthen and increase market share, by highlighting points of *differentiation* and competitive advantage that are difficult to replicate by competing companies. In addition, by massively strengthening marketing, both conventional marketing and modern marketing.

Airports play a very important role for a country and region and its population. Airport is the entrance for something that connects one region with another. The role of airports according to the Directorate General of Civil Aviation includes: is a node in the air transportation network according to the airport hierarchy, the gateway to economic activity, a place for transportation mode transfer activities, drivers and supports of industrial, trade

and tourism activities, opening regional isolation, and infrastructure strengthening the insight of the archipelago and state sovereignty.

The increase in people's living standards socioeconomically and lifestyle changes where travel is a necessity for the community, this makes the demand for air transportation increase significantly, especially among the upper middle class. The government stipulates Regulation of the Minister of Transportation No. 126 of 2015 article 5 which facilitates public needs for domestic commercial air transportation consisting of Full Service, *Medium Service*, and *Low-Cost Carrier* [1]. This grouping is based on the services provided.

In order to provide protection for consumers and scheduled air transportation business entities from unfair business competition, the government has set the upper limit tariff and lower limit tariff for airline tickets. That is the determination of the upper limit tariff and the lower limit fare of airline tickets [2]. Likewise, to maintain the continuity of airline operations and to ensure connectivity between regions in Indonesia is not disrupted, due to the increase in world oil and avtur prices, the government allows airlines to make fuel surcharges on domestic air transportation at a rate of 10% above the Upper Limit Tariff (ULT) for jet aircraft and 20% above ULT for propeller aircraft.

The increase in the average ticket price of LCC aircraft from Jakarta to Manado after the enactment of Regulation of the Minister of Transportation No. 20 of 2019 [2] was recorded in 2020 at Rp. 1,160,000, in 2021 at 1,500,000 (up 29.3% from 2020), and in 2022 at 1,951,000 (up 23% from 2021). This was influenced by the increase in the price of avtur refueling at Sam Ratulangi Airport Manado.

The soaring price of airline tickets during the COVID-19 pandemic from 2020 to the end of 2022 greatly affected public interest in air transportation. Between 2020 and 2022, the number of domestic passengers at the arrival terminal of Sam Ratulangi Airport Manado still fluctuates. This is due to the increase in airline tickets exacerbated by the outbreak of the Corona virus outbreak, which is also called the COVID-19 pandemic. This is because the Government enforces a social distancing policy in the form of PSBB (Large-Scale Social Restrictions) and continues with PPKM (Enforcement of Restrictions on Community Activities).

Price is something needed to get a combination of service plus product by paying the amount of money that has become the benchmark [3]. The passengers preferences on the choice of buying ticket alternatives by its fares [4]. Customers are seeking to get the lowest price while airlines are trying to keep their overall revenue as high as possible and maximize their profit [5]. Our comfort level and journey time will be directly impacted by this price, when more capacity is needed to meet demand, the airline may raise the prices [6].

The COVID-19 pandemic is the major influence on the Tourism Management. Airline Industry is another major concern with unprecedented challenges [7]. The impact of COVID-19 for the Airport depend on airlines served, mix of traffic and location [8]. The connectivity between the impact of Covid-19 Pandemic to air fares is strong that Covid-19 affected the air transport sector [9]. The airline industry remains very fragile and one of the biggest casualties of the global COVID-19 pandemic [10]; [11]. Lau et al. [12] investigate the air traffic volume and COVID-19 and confirm a strong connection between the domestic case and passenger volume. Grawal [13] expresses that the pandemic has disrupted and threatened the airline industry because of lockdowns, and weak tourism condensed income.

According to the explanation above, the formulation of the problem in this writing is How did the increase in flight tickets during the Covid-19 pandemic affect the number of passengers at Sam Ratulangi Airport Manado?

## 2. METHOD

### 2.1. Data Collection Methods

#### 2.1.1. Observation

Observation is a research data collection technique with the process of recording behavior patterns of subjects (people), objects (objects) or events systematically without questions or communication with the individuals studied [14]. In order to provide accurate and useful data, observation as a scientific method must be carried out by researchers who have passed adequate training, and have made careful and complete preparations. In this study, the author made observations when the author carried out *On the Job Training* activities in January-March 2023.

#### 2.1.2. Survey

Survey means a research method carried out to conduct examinations and measurements of empirical symptoms that take place in the field or research location, generally carried out on the sample unit faced as a responder and not on the entire target population [15]. Survey is a method to obtain existing data at the time the research is carried out [16]. The objectives of *the survey* are as follows:

1. Search for detailed factual information that is happening.
2. Identify problems.
3. To find out the things done by people who are the target of research in solving problems, as material for preparing plans and making decisions in the future.

#### 2.1.3. Questionnaire

Questionnaire is a data collection technique carried out by giving a set of questions or written statements to respondents to answer [17].

The questionnaire used is an attitude scale test that refers to Likert scale parameters. Answer choices are categorized as SS (strongly agree), S (agree), KS (Disagree), TS (disagree), STS (strongly disagree). The questionnaire method that the author took aims to obtain information relevant to the author's problem.

#### 2.1.4. Object of Research

"The object of research explains what and or who is the object of research. Also where and when the research was conducted. Other things can also be added if deemed necessary" [18].

"The object of research is the scope or things that are the subject matter in a study" [19]

The object of research by the author is the time of increase in air ticket prices as an independent variable (X) and the interest of flight service users at Sam Ratulangi International Airport Manado as a dependent variable (Y).

#### 2.1.5. Population

Population is defined as a generalization area consisting of objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions [17]. The population is the overall subject of study. In this study, it took a population of as many as 100 passengers.

### 2.1.6. Sample

The sample is part of the number and characteristics possessed by the population [17].

Sampling technique in this study, the author took as many as 50 samples. This number of samples as many as 50 is considered sufficient to represent respondents, based on the normal distribution of the number of samples above 30 can already describe the population and analysis [17].

## 2.2. Research Variables and Indicators

*Research Variables* are something in any form set by a researcher to be studied so that information is obtained about it, then conclusions are drawn [17]. Independent variable (*Independent Variable*) or Variable X is a variable that causes or affects other variables (*dependent variable*). While the *dependent variable* or Variable Y is the variable that is influenced.



Figure 1 Research Variable

## 2.3. Research Flow

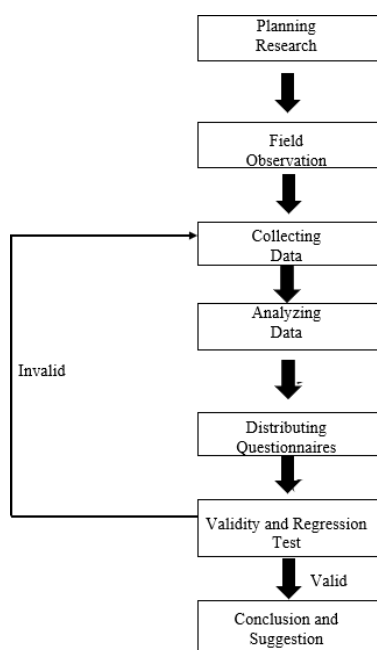


Figure 2 Research Design (sugiyono)

## 2.4. Data Analysis Methods

The method used in analyzing the writing of this Final Project is quantitative. Quantitative research is research by obtaining data in the form of numbers [17]. Data kuantitatif didapatkan dengan cara mengambil sampel dari populasi untuk mengetahui jawaban secara menyeluruh [20]. After the data obtained by the author from the results of research in the field is collected, the next process is to analyze the data with Likert scale techniques.

Likert scale is a measurement method used to measure the attitudes, opinions and perceptions of a person or group of people about a phenomenon [21]. In this study, the author uses a research instrument in the form of a Likert scale to measure the increase in airline ticket prices on the interest of flight service users at Sam Ratulangi Airport Manado at this time. Here is the scoring system on the Likert scale.

Table 1 Likert Scale

No.	Symbol	Description	Score
1	SS	Very Agree	5
2	S	Agree	4
3	KS	Less Agree	3
4	TS	Disagree	2
5	STS	Very Disagree	1

From the data obtained then processed by multiplying each answer point by the predetermined weight with a table of value weights, the results of the calculation of respondents' answers as follows, for example:

1. The respondent who answered strongly agreed (5) =  $5 \times n = n$
2. The respondent who answered agreed (4) =  $4 \times n = n$
3. Respondents who answered neutral (3) =  $3 \times n = n$
4. Respondents who answered disagreed (2) =  $2 \times n = n$
5. The respondent who answered disagreed strongly (1) =  $1 \times n = n$

$$\text{Total Score} = n$$

Information:

$n$  = value obtained from respondent's answers

To get the interpretation results, you must first know the highest score (X) and the lowest number (Y) for the assessment item with the following formula:

(X) Highest likert score x number of respondents (Highest Number 5)

(Y) Lowest likert score x number of respondents (Lowest Number 1)

Then after finding the total score value, the next step is to determine the assessment of respondents' interpretation using the Index% formula as follows:

$$\text{The Formula Index \%} = \frac{\text{Total Score}}{x} \times 100\%$$

**Figure 3** Formula Index

### 2.4.1. Quantitative Analysis Stage

#### 1. Validity Test

How to test validity is done with the *product moment pearson correlation correlation* formula with a significant level of 0.05. The reason for using the validity test is intended to determine the level of accuracy of the measuring instrument used in measuring the measured variable.

#### 2. Realibility Test

Reliability is an index that shows the extent to which a measuring instrument is produced greater than 0.60 (>0.60) or 60%). The reason for using reliability tests is to determine the reliability of a measuring instrument used on variables.

#### 3. Linear Regression test

The reason for using a linear regression test is to find out the equation for a continuous response variable known as Y that would be a function of one or more variables (X).

### 2.5. Research Instruments

To answer / test the hypothesis used simple linear regression analysis using the following equation:

$$Y = a + bx + e \dots\dots\dots (1)$$

Where:

$Y$  = *Dependent Variable*

$a$  = *Intercept*

$x$  = *Independent Variable*

$b$  = *Koefisient Regresi*

$e$  = *Residual*

The application of the model is further conditioned by this research so that a simple linear regression equation is obtained in the form of an estimate as follows:

$$Y = a + bX \dots\dots\dots (2)$$

Where:

$Y$  = Number of Passengers

$a$  = constant number

$b$  = Regression Coefficient

$X$  = Ticket Price Increase

The results of the regression calculation are then tested using the t test at a confidence level of 0.95 or a real level = 0.05. The hypothesis tester is established as follows

- a. When  $t$  counts >  $t$  table then the hypothesis is accepted.
- b. If  $t$  counts <  $t$  table then the hypothesis is rejected.

### 2.6. Questionnaire Variables

Varibael on the questionnaire is divided into 2, namely bound variables and independent variables. The independent variable is marked with the letter X while the dependent variable is marked with the letter Y. Based on the questions on the questionnaire, the questions included in the X or Y variables can be seen on **Table 2**.

**Table 2** Questionnaire Table

No.	Statement	Variable
1.	The convenience of good flight services increases passenger interest	Y
2.	Free baggage service can increase passenger interest	Y
3.	Tickets are cheapened by eliminating snacks and soft drinks.	X
4.	Tickets are cheapened by eliminating snacks and soft drinks.	X
5.	Price discounts can increase passenger interest.	X
6.	The increase in airline ticket prices is still within reasonable limits.	X
7.	The accuracy of flight schedules can increase interest in aircraft services.	Y
8.	Promotions and Advertisements can increase passenger interest.	Y
9.	When the price of airline tickets increases, you will switch to another mode of transportation.	X
10.	Will you still use air transport?	Y

Variable X : Relates to the ticket price.

Variable Y : Relates to interest or number of passengers

### 3. RESULT AND DISCUSSION

Passenger movements at Sam Ratulangi International Airport Manado have decreased due to the Covid-19 Pandemic. This is because there are policies that limit aircraft departures. The number of passenger movements can be seen in **Table 3**.

**Table 3** Amount of Passenger Movement

Month	Passenger Movement
March 2020	62.153
April 2020	11.290
May 2020	813
June 2020	8.963
July 2020	19.819
August 2020	24.946
September 2020	30.034
October 2020	34.290
November 2020	40.953
December 2020	45.562
January 2021	41.326
February 2021	31.152
March 2021	42.259

The calculation of the percentage decrease in the number of passengers starting from March 2020 – March 2021 is as follows:

1. March 2020 – April 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * \$ \$ .'' \text{O}}{!''.\$ \% \&} \times 100\% = 81,84\%$$

2. March 2020 – May 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * \$ \$ }{!''.\$ \% \&} \times 100\% = 98,69\%$$

3. March 2020 – June 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * . \text{C} \& }{!''.\$ \% \&} \times 100\% = 85,57\%$$

4. March 2020 – July 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * \$ \text{C} * * \$ \text{C}}{!''.\$ \% \&} \times 100\% = 68,11\%$$

5. March 2020 – August 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * + . ( + ! }{!''.\$ \% \&} \times 100\% = 59,86\%$$

6. March 2020 – September 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * \& . ) \& + }{!''.\$ \% \&} \times 100\% = 51,67\%$$

7. March 2020 – October 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * \& + . '' \text{O}}{!''.\$ \% \&} \times 100\% = 44,82\%$$

8. March 2020 – November 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * . ( \% \& }{!''.\$ \% \&} \times 100\% = 34,10\%$$

9. March 2020 – December 2020

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * + . \% !'' }{!''.\$ \% \&} \times 100\% = 26,69\%$$

10. March 2020 – January 2021

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * + \$ \& * !'' }{!''.\$ \% \&} \times 100\% = 33,50\%$$

11. March 2020 – February 2021

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * \& \$ . \$ \% }{!''.\$ \% \&} \times 100\% = 49,87\%$$

12. March 2020 – March 2021

$$\text{Percentage (\%)} = \frac{!''.\$ \% \& * * + . '' \% \text{C}}{!''.\$ \% \&} \times 100\% = 32,01\%$$

### 3.1. Data Analysis Results

#### 3.1.1. Validity Test

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	TOTAL
P1	1.000	.483	.413	.161	.154	.219	.492	.242	.492	.483	.678
P2	.483	1.000	.761	.345	.425	.248	.162	.474	.162	1.000	.755
P3	.413	.761	1.000	.222	.319	-.112	.129	.459	.129	.761	.615
P4	.161	.345	.222	1.000	.406	.187	.200	.466	.200	.345	.527
P5	.154	.425	.319	.406	1.000	.288	.166	.914	.166	.425	.632
P6	.219	.248	-.112	.187	.288	1.000	.192	.270	.192	.248	.398
P7	.492	.162	.129	.200	.166	.192	1.000	.245	1.000	.162	.653
P8	.242	.474	.459	.466	.914	.270	.245	1.000	.245	.474	.718
P9	.492	.162	.129	.200	.166	.192	1.000	.245	1.000	.162	.653
P10	.483	1.000	.761	.345	.425	.248	.162	.474	.162	1.000	.755
TOTAL	.678	.755	.615	.527	.632	.398	.653	.718	.653	.755	1.000

**Figure 4** Validity Test (SPSS)

Based on the results of the analysis shows that all statement items are valid. This is because the value of R. Calculate > R. Table (0.2778). All valid statements can then be used as material in the questionnaire.

#### 3.1.2. Reliability Test

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.757	.880	11

**Figure 5** Reliability Test (SPSS)

Based on the results of the analysis shows that the data is said to be reliable because the value of *Cronbach's Alpha* is above 0.600.

#### 3.1.3. Linear Regression Results

The passenger count data is described as follows:

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.	
1	(Constant)	2,118	,387		5,471	,000
	Ticket Fares	,507	,097	,603	5,234	,000

**Figure 6** Linear Regression Results

**Table 4** Regression Analysis

Y	R-Square
$Y = 2,118 - 0,507 X$	50,7 %

Explain the method to find the relationship between passengers symbolized by Y and ticket prices symbolized by X. Based on the results of the analysis shows that if the price of airline tickets increases by one unit, passengers decrease by 0.507 units on average or as much as 50.7%.

### 3.2. Questionnaire Results

Based on the results of the questionnaire that has been distributed, the results are analyzed as follows to determine the % Index value of each statement.

**Table 5** Recapitulation of Likert scale calculation results

No.	Statement	Hasil Perhitungan Skala Likert Kuesioner
1.	The convenience of good flight services increases passenger interest	74,4%
2.	Free baggage service can increase passenger interest	82,8%
3.	Tickets are cheapened by eliminating snacks and soft drinks.	85,6%
4.	Tickets are cheapened by eliminating snacks and soft drinks.	78%
5.	Price discounts can increase passenger interest.	83,6%
6.	The increase in airline ticket prices is still within reasonable limits.	87,6%
7.	The accuracy of flight schedules can increase interest in aircraft services.	74,8%

8.	Promotions and Advertisements can increase passenger interest.	82,4%
9.	When the price of airline tickets increases, you will switch to another mode of transportation.	75,2%
10.	Will you still use air transport?	82,8%

## 4. CLOSING

### 4.1. Conclusion

Based on the results and analysis, it was concluded that based on the results of the analysis showed that if the price of airline tickets increased by one unit, passengers fell by 0.507 units on average or as much as 50.7%. Based on the results of the analysis, it is known that the number of passengers at Sam Ratulangi International Airport Manado with airline ticket prices significantly affects each other. It was recorded that in the domestic terminal, the number of aircraft passengers at Sam Ratulangi Airport Manado decreased in 2020, which was 447,309 passengers, in 2021 it also decreased by 442,587 passengers. This is due to the increase in airline tickets exacerbated by the outbreak of the Corona virus outbreak, also called the COVID-19 pandemic. This is because the Government enforces a social distancing policy in the form of PSBB (Large-Scale Social Restrictions) and continues with PPKM (Enforcement of Restrictions on Community Activities).

### 4.2. Suggestion

Based on the conclusion, it can be suggested that prospective airplane passengers must choose the right time to travel according to the circumstances because state conditions affect the increase in airline ticket prices.

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