

Analysis Of the Factors That Influence Tourist Visits and The GRDP In the Province of Sumatra

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Abstract. The goal of this study was to see how air, sea, and land transportation modes affected simultaneous tourist visits in Bangka Island Province, Jambi Province, Bengkulu Province, Lampung Province, Nangroe Aceh Darussalam Province, North Sumatra Province, and West Sumatra Province. Riau Province, South Sumatra Province, and Riau Islands Province are the three provinces of Riau. Secondary data from the provinces of Sumatra was used in this research. Every year, data from panels from the years 2009 through 2018 is evaluated. Regression analysis techniques were used to examine the study data, which were maintained using Eviews 9 software. The findings revealed that: a) The factors of air transportation method, sea transportation mode, land transportation mode, lodging, and inflation on tourist visits all had a positive and substantial impact at the same time. b.) The form of air transportation has a mixed but considerable influence on tourist visits. c) The method of transportation by sea has a partially positive and major impact on tourist visits; d) the mode of transportation by land has a partially positive and significant impact on tourist visits. e) Tourist visits contribute to the GRDP in a beneficial and meaningful way. In order to enhance tourist visits, it is vital to conduct quantitative evaluation efforts using the appropriate indicators, ensuring that policymaking is on track.

Keywords: tourist visits; air transport modes; land transport modes; sea transport modes

1 Introduction

Provinces in Sumatra in increasing tourist visits and GRDP experience obstacles that need to be solved together so that the synergy between these regions continues to support each other. From observations made by researchers at the national BPS in 2020, it can be seen that the existing transportation in the Sumatran region is indeed not optimal, such as air transportation modes, which on average differ from region to region. Of the ten provinces, visits to the air transportation mode were Riau Islands Province with an average of 19,601 times from 2009 to 2018.

While the smallest average visit was Bengkulu Province with an average of 3,154. While the sea transportation mode of Bengkulu province with an average of 1023, 3 times from 2009 to 2018. Meanwhile, the smallest average visit is the province of South Sumatra with an average of 3,153. Likewise, the land transportation mode of the province of Aceh with an average of 17.8597 times from 2009 to 2018. While the smallest average visit is the province of Bangka Belitung with an average of 42.224 visits.

Literature Review

According to Marpaung (2000) tourism is a travel activity to a place outside the daily environment with the aim of having fun. According to Yoeti (1997), tourism is a journey made by several or more people temporarily from one location to another with the aim of not only doing business or looking for a livelihood but more than that, namely enjoying a trip to fulfill their needs. Hunziger and Kraf (1942) tourism is all the symptoms caused by the travel and residence of foreigners for a while and no income by the foreigner.

2 Research Methods

The population in this study is the state of tourism in the Province of Sumatra covering all related data about the variables that have been set in the framework of thinking. The research sample was taken in the period 2009-2018. Supriyanto (2009) suggests that the research variable is an attribute and aspect that is owned by interrelated variables. The variables of this research are Air Transportation Mode (X1), Sea Transportation Mode (X2), Land Transportation Mode (X3) and tourist visits (Y) and GRDP (Z).

3 Results and Discussion

Multiple Regression Analysis

In this multiple regression research, a causal relationship will be obtained between the element that is not relevant (X) on the variable (Y) its influence on a factor (Z). According to Riduan & Kuncoro (2007), the analysis technique was selected hypothetically, the relationship model between variables, namely a causal model that was decomposed into consideration of the direction of the discussion to the contribution of the discussion. The reliant variable's required variable's dependent variable's relying variable's completely reliant variable's.

From the examination of several regressions, it Following are the results :

Tabel 1. Coefficient analysis of independent variables

Variabel	Koefisien	Std. error	t-statistik	Prob.
X_X1_MODAL_TRANSPOR TASI_U	0.147431	0.006787	1.980601	0.003194
X2_MODAL_TRANSPORT ASI_LAU	-0.038397	0.000375	2.116991	0.019036
X3_MODAL_TRANSPORT ASI_DAR	0.039058	0.011445	5.409218	0.014028
C	-0.332669	0.086627	0.133783	0.044080
R-squared	0.782205	Mean dep. Var		14.82029
Adjusted R- squared	0.757549	SD.dep. var		8
				0.655227

From the analysis of table 1, the multiple linear regression formula is

$$\ln Y = \beta_0 + \beta_{x1y} \ln X_1 + \beta_{x2y} \ln X_2 + \beta_{x3y} \ln X_3 + \varepsilon_1$$

$$\ln Y = -0,332 + 0,147 \ln X_1 - 0,038 \ln X_2 + 0,039 \ln X_3 \dots\dots\dots [1]$$

based on the multiple regression equation above, it is analyzed as follows:

- The constant $\beta_0 = -0.332$ means that if the variable mode of air transportation (X_1), sea transportation mode (X_2) and land transportation mode is zero (0) then the visit does not change
- The coefficient of air transportation is 0.147, the coefficient of sea transportation and land transportation is zero, so tourist visits will increase by 0.147 units or vice versa.
- The coefficient of sea transportation mode is - 0.038, the coefficient of air transportation and land transportation is 0 (zero), so tourist visits have decreased by 0.038 or vice versa
- The coefficient of land transportation mode is 0.039, air and sea transportation is 0 (zero), so tourist visits will experience an increase of 0.039 and vice versa.
- The coefficient of determination adjusted R - squared is 0.757 or 75.75 percent showing the simultaneous effect of the variables of air transportation mode, sea transportation mode, land transportation mode on tourist visits in the Province of Sumatra and the remaining 24.25 is influenced by other factors.

Simple Regression analysis

The simple regression that the researchers did was to use panel data and the tests that had been carried out, the simple regression was obtained as follows:

Table 2. Simple Regression analysis

variable	coefisien	Std error	t-statistic	Prob.
C	13.18450	0.291665	45.20426	0.0000
Y__KUNJUNGAN__WISATAWAN__	3.96E-07	0.98E-08	6.615332	0.0000
W-s				
R-squared	0.570931	Mean dp. var		2.541569
F-statistic	37.25760	D-W		0.246126
Prob. F	0.000001			

Based on table 2 above, the simple regression formula is as follows:

$$\ln Z = \beta_{01} + \beta_1 \ln Y + \varepsilon_2$$

$$\ln Z = 13,184 + 3,960 \ln Y \dots\dots\dots [2]$$

from equation above then :

- The constant coefficient of 13.184 means that if tourist visits are zero (0) then the GRDP growth is 13.184 units.
- The magnitude of the coefficient of tourist visits of 3.960 means that if you raise the variable by one unit, GRDP will increase by 3.960 and vice versa.
- The effect of tourist visits on GRDP is 0.57 percent, this is from the coefficient of determination R squared 0.57.

4 Conclusion

The conclusion of this research is:

- a. Air transportation modes, sea transportation modes, land transportation modes make a good and big impact at the same time effect on tourist visits in the Provinces of Bangka Belitung, Jambi, Bengkulu, Lampung, North Sumatra, Aceh, Riau, Riau Islands and South Sumatra
- b. Air transportation mode partially has a strong and beneficial impact on tourist arrivals in the provinces of Bangka Belitung, Jambi, Bengkulu, Lampung, North Sumatra, Aceh, Riau, Riau Islands and South Sumatra
- c. Sea transportation mode partially has a strong and beneficial impact on tourist arrivals in the provinces of Bangka Belitung, Jambi, Bengkulu, Lampung, North Sumatra, Aceh, Riau, Riau Islands and South Sumatra
- d. Mode of land transportation partially positive and significant effect on tourist arrivals in Bangka Belitung Province, Jambi, Bengkulu, Lampung, North Sumatra, Aceh, Riau, Riau Islands and South Sumatra
- e. From the conclusion that all stakeholders must ensure the availability of tourism infrastructure such as modes of transportation, connectivity and integrated management of physical infrastructure and tourism supporting facilities, including institutions related to the development and management of tourism areas.

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