

ANALISIS PENDAPATAN ASLI DAERAH DARI SEKTOR PARIWISATA DI KABUPATEN SERDANG BEDAGAI

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<p>Receive: 15/10/2025</p> <p>Accepted: 29/10/2025</p> <p>Publish: 31/10/2025</p>  <p>This work is licensed under the Creative Commons Attribution 4.0 International License.</p>	<p>Abstract - The development of the tourism sector in an area will have a positive impact on increasing the economy of the area, one of the indicators of which is through Regional Original Income. The high tourism potential in Serdang Bedagai Regency is still underutilized to increase Regional Original Income (PAD). Factors that are thought to influence Regional Original Income in the Province of Serdang Bedagai Regency are the Number of Tourist Visits, Hotel Occupancy Rate, and the Number of Restaurants and Eateries. This study aims to analyze the influence of the tourism sector on Regional Original Income in Serdang Bedagai Regency in 2021-2023. This study uses secondary data with panel data regression analysis with the Fixed Effect Model (FEM) approach as the best model. The independent variables used are the Number of Tourist Visits (X1), Hotel Occupancy Rate (X2), and the Number of Restaurants and Eateries (X3), while the dependent variable used is Regional Original Income (Y). The results of this study indicate that the Number of Tourist Visits (X1) has an effect on the Regional Original Income of Serdang Bedagai Regency in 2021-2023. The Hotel Occupancy Rate variable (X2) has a positive and significant effect. And the Number of Restaurants and Eateries (X3) has a positive and significant effect. Simultaneously, the Number of Tourist Visits, Hotel Occupancy Rate, and the Number of Restaurants and Eateries have a significant effect on Regional Original Income in Serdang Bedagai Regency in 2021-2023.</p> <p>Keywords : Local Original Income (LOI); Number of Tourist Visits; Hotel Occupancy Rate; Number of Restaurants and Eateries</p>
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INTRODUCTION

Serdang Bedagai Regency is a regency in the province of North Sumatra, Indonesia. The capital of this district is located in Sei Rampah sub-district, and it was newly formed from Deli Serdang district in accordance with Law of the Republic of Indonesia Number 36 of 2003 on December 18, 2003, concerning the establishment of Samosir and Serdang Bedagai districts during the administration of President Megawati Soekarno Putri. The geographical location of Serdang Bedagai Regency is geographically situated at 3°01'2.5" North Latitude - 3°46'33" North Latitude and 98°44'22" East Longitude - 99°19'01" East Longitude, with an altitude ranging from 0 - 500 meters above sea level. Divided into seventeen sub-districts, the capital of Serdang Bedagai Regency is located in Sei Rampah sub-district. Serdang Bedagai Regency has great potential in the tourism sector, including both beach tourism objects and other natural and cultural tourism objects. There are many favorite tourist attractions for both foreign and domestic tourists. Tourist attractions in Serdang Bedagai Regency include: Cermin Beach, Pondok Permai Beach, Bali Lestari Beach,

Mangrove Beach, Bah Damanik Waterfall, Nipah Village, and Bahbolon Natural Hot Springs. Hotel facilities are available in various classes and are quite complete, along with restaurants and other entertainment venues. Out of the many tourist attractions in Serdang Bedagai Regency, its tourism sector has great potential to increase regional revenue sources, which can then become the largest contributor to the economic growth of Serdang Bedagai Regency.

Increased tourism will impact regional income, foreign exchange earnings from international tourists, and more, highlighting the need to improve tourism support facilities. Tourism is an industry that depends on the number of tourist arrivals. With that, the management and improvement of the utilization of Tourist Destination Areas (DTW) must be well-organized and managed. In the current era, the tourism sector has become a potential sector for boosting one of the region's sources of revenue, so it is hoped that the program for developing and utilizing potential tourism resources can contribute to economic development.

In Law No. 10 of 2009 concerning tourism, it is aimed at increasing national income in order to improve the welfare and prosperity of the people, expand and distribute business opportunities and employment, promote regional development, introduce and utilize tourism destinations and attractions in Indonesia, and foster a sense of patriotism and strengthen friendship between nations for Indonesia with other country. Local government revenue is related to prevailing economic conditions, such as the number of tourists, hotel occupancy rates, and the number of restaurants. Therefore, the author chose the title "Analysis of Regional Original Revenue from the Tourism Sector in Serdang Bedagai Regency" for this study.

RESEARCH METHODS

This research was conducted to test the proposed hypothesis using a research method designed according to the variables to be studied in order to obtain accurate results. This type of research is descriptive quantitative. Descriptive quantitative research is a type of research that aims to systematically, factually, and accurately describe the facts and characteristics of a specific object or population. Quantitative research methods are methods that use statistical procedures or measurements, focusing on phenomena with specific characteristics and breaking them down into several components, variables, and indicators (Sugiyono, 2018). This research aims to describe the influence of the number of tourist visits, hotel occupancy rates, and the number of restaurants and eateries on Serdang Bedagai Regency's local revenue from 2021-2023, which was conducted thru data collection and quantitative analysis. In this study, a quantitative method was used as a tool for processing data using E-Views.

RESULT AND DISCUSSION

1. Model Specification Test Results Chow Test

The Chow test is conducted to choose between the common effect model and the fixed effect model, by selecting the best model between the two, using the following hypotheses: H₀: Choose to use the common effect model H₁: Choose to use the fixed effect model The best model between the common effect model and the fixed effect model is selected by looking at the significant p-value (less than $\alpha=5\%$ or 0.05). If the p-value is significant, then the best model to use in the Chow test is the fixed effect model. Conversely, if the p-value is not significant (greater than $\alpha=5\%$ or 0.05), then the best model is the common effect model.

Table 1.
Hasil Regresi Chow Test

Redundant Fixed Effects Tests Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.981250	(4,32)	0.0038
Cross-section Chi-square	18.320983	3	0.0019

Source: *Eviews 10*

In the Chow test table from the regression results with EViews 10, the chi-square probability value is 0.0019, which means the probability ($0.0019 < 5\%$ or 0.05), so the best model from the Hausman test is the fixed effects model.

2. Hausman Test

The Hausman test aims to select the best model between the random effects model (REM) and the fixed effects model (FEM). Using the following hypothesis.

H_0 = Choosing to use a random effects model

H_1 = Choosing to use a fixed-effects model

The best model between the random effects model and the fixed effects model is determined by a significant p-value $< \alpha=5\%$ or 0.05 . If the p-value is significant, then the best model to use in the Hausman test is the fixed effects model. However, if the p-value is not significant $> \alpha=5\%$ or 0.05 , then the best

Table 3.2. Hasil Regresi Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	16.459023	3	0.0018

Source: *Eviews 10*

3. Panel Data Regression Test (*Fixed Effect Model*)

Table 3
Regression Results *Fixed Effect Model*

Cross-sections included: 4

Total panel (balanced) observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.213732	1.023899	5.843200	0.0000
LOGJKW	0.236487	0.058993	5.683299	0.0000
LOGTHH	0.064388	0.029932	2.128994	0.0275
LOGJRRM	0.004377	0.035855	0.190998	0.0492

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.912889	Mean dependent var	17.22987
Adjusted R-squared	0.912883	S.D. dependent var	0.763299
S.E. of regression	0.182299	Akaike info criterion	-0.328870
Sum squared resid	1.218994	Schwarz criterion	-0.089923
Log likelihood	18.87211	Hannan-Quinn criter.	-0.209883
F-statistic	113.3298	Durbin-Watson stat	1.209883
Prob(F-statistic)	0.000000		

Sumber : *Eviews 10*

Based on Table 3.3, the regression equation is as follows: $LOGPAD = 5.213732 + 0.236487 LOGJKW + 0.064388 LOGTHH + 0.004377 LOGJRRM + (4.1)$ This study uses the Fixed Effect Model (FEM). Based on the FEM regression equation, it is explained that if the variables of Number of Tourist Visits (JKW), Hotel Occupancy Rate (THH), and Number of Restaurants and Eateries (JRRM) are assumed to be 0, then the value of local revenue (PAD) is 5.213732. The regression coefficient for the tourist visit variable (JKW) is 0.236487, meaning that if the number of tourist visits (JKW) increases by one unit, assuming the variables is zero or no value for another variables.

4. Hypothesis Testing Results

a. Individual Parameter Significance Test (t-test)

Based on the regression results using the Fixed Effect Model and to draw conclusions regarding the formulated hypotheses, the following hypothesis tests can be conducted: a. Individual Parameter Significance Test (t-test). According to (Ghozali, 2005), the t-test is used to determine the extent to which each independent variable individually influences the explanation of the dependent variable. With a significance level of 5% or 0.05.

Table 4
Hasil Regresi Pengujian Hipotesis

Variabel	<i>T-statistic</i>	Prob	Keterangan
JKW	5.683299	0.0000	Signifikan
THH	2.128994	0.0275	Signifikan
JRRM	0.190998	0.0492	Signifikan

Source : *Eviews 10*

Based on the results of the t-test, it can be concluded that:
1. The number of tourist visits (X1) has a t-statistic probability value of $0.0000 > \alpha=5\%$. Therefore, it can be concluded that the hypothesis result is to accept H0 and reject H1, meaning that there is a significant relationship between the number of tourist visits and local revenue in Serdang Bedagai Regency Province from 2021-2023.

2. The hotel occupancy rate (X2) has a t-statistic probability value of $0.0275 < \alpha=5\%$. Therefore, it can be concluded that the hypothesis result is to reject H0 and accept H2, indicating a significant relationship between the hotel occupancy rate and local revenue in Serdang Bedagai Regency from 2021-2023.
3. The number of hotels and restaurants (X3) has a t-statistic probability value of $0.0492 < \alpha=5\%$. Therefore, it can be concluded that the hypothesis result is to reject H0 and accept H3, indicating a significant relationship between the number of restaurants and eateries and local revenue in Serdang Bedagai Regency from 2021-2023.

b. Simultaneous Significance Test (F-test)

The F-test is used to determine whether the independent variables collectively influence the dependent variable or have no effect.

Tabel 5 F Test Result

F-statistic	113.3298
Prob(F-statistic)	0.000000

Source: *Eviews 10*

Based on the results of the Fixed Effect Model regression above, the F-statistic value is 113.3298. Looking at the probability value of the F-statistic, it is 0.000000, which is smaller than the 5% or 0.05 significance level ($0.000000 < 0.05$).

With these results, it is concluded that the independent variables (Number of Tourist Visits, Hotel Occupancy Rate, and Number of Restaurants and Eateries) simultaneously have a significant effect on the Regional Original Revenue (PAD) variable in Serdang Bedagai Regency from 2021-2023.

c. Coefficient of Determination (R^2)

The coefficient of determination examines the extent to which all independent variables can explain the variance of the dependent variable. If the value of the coefficient of determination approaches one, it can be concluded that the independent variables can explain the dependent variable well, and conversely, if it approaches zero, the independent variables cannot explain the dependent variable well. From the regression results on the influence of the Number of Tourist Visits, Hotel Occupancy Rate, Number of Restaurants and Eateries on the Regional Original Revenue of Serdang Bedagai Regency Province for the Years 2021-2023. With the Fixed Effect Model, the coefficient of determination value is as follows:

Tabel 6
Coefficient of Determination

R-squared	0.912889
Adjusted R-squared	0.912883

Based on the results of the coefficient of determination test in table 4.15, if there are more than 2 independent variables in the study, then what is examined in the coefficient of determination test is R-Square, and in this study, the R-Square value is 0.912889 or 91.29%. In this case, the variation in the number of tourist visits, hotel occupancy rates, and the number of restaurants and eateries can be explained by these variables. The remaining 8.71% is explained by other variables outside the research model.

CONCLUSION

This research aims to analyze the influence of the tourism sector on local revenue in Serdang Bedagai Regency, North Sumatra Province. The time period used is 3 years, from 2021 to 2023. Based on the data that has been tested, the author can draw the following conclusions:

1. The number of tourist visits as X1 significantly affects the Regional Original Revenue of Serdang Bedagai Regency for the period 2021-2023. This means

that when the tourist visit variable increases, it will influence the increase in Regional Original Revenue in Serdang Bedagai Regency.

2. Hotel Occupancy Rate (THH) as X2 significantly affects the Regional Original Revenue of Serdang Bedagai Regency for the period 2021-2023. This means that when the THH variable increases, it will influence the increase in Regional Original Revenue in Serdang Bedagai Regency.
3. The number of restaurants and eateries as X3 significantly affects the Regional Original Revenue of Serdang Bedagai Regency for the period 2021-2023. This means that when the number of restaurants and eateries increases, it will influence the increase in Regional Original Revenue in Serdang Bedagai Regency.

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