Analysis of the Influence of the Tourism Sector on Regional Original Income in Batu City

Callista Vania Candraningtyas[1], Riko Setya Wijaya[2], Putra Perdana[3]

[1,2,3]East Java "Veteran" National Development University, Indonesia

Email author: 21011010017@student.upnjatim.ac.id[1], setyawijaya.ep@upnjatim.ac.id[2],
putra.perdana.ep@upnjatim.ac.id[3]

ABSTRACT

This study aims to determine the extent of influence of the number of tourists, hotel occupancy rates, and the number of restaurants on local revenue in Batu City for the period 2011-2023. The data used in this study were secondary data obtained using a quantitative approach. The data are in the form of Time Series data on the number of tourist visits, hotel occupancy rates, number of restaurants, and local revenue in Batu City. Data were processed using SPSS 25 with multiple linear regression analysis. Based on the results of the study, it can be concluded that the number of tourists, hotel occupancy rates, and number of restaurants have a significant effect on local revenue in Batu City. Partially or individually, the number of tourists has a significant effect, the hotel occupancy rate has a significant negative effect, and the number of restaurants has no significant effect on local revenue in Batu City for the period 2011-2023.

Keywords: Number of tourists, Hotel occupancy rate, Number of restaurants and Local Original Income.

INTRODUCTION

The official implementation of regional economic policies began on January 1, 2001. Through Law Number 32 of 2004 concerning Regional Government and Law Number 33 of 2004 concerning Fiscal Balance between the Central Government and the Regions, regions were given the authority to independently manage their natural resources to achieve optimal results. To strengthen the regional economy, each regional government is committed to increasing original regional income through the utilization of local potential.(Anggrayini, 2022).

Regional Original Income (PAD) is a source of revenue obtained by a regional government within its own territory and is used to finance governance, development, and public services in that region. PAD allows regions to be more independent in managing budgets and programs, eliminating their dependence solely on allocations from the central government. The greater a region's PAD, the greater is its capacity to improve public services and infrastructure development. PAD needs to increase continuously over time so that the burden of running the government does not always depend on the central government.

The tourism sector in Indonesia is currently developing and becoming a unique public attraction. Indonesia boasts a diverse range of tourist destinations, including natural, cultural, religious, and culinary attractions, featuring a variety of regional specialties. With diverse cultures, attractions and unique characteristics can be a unique draw for tourists, and this potential can be developed as a tourist attraction to improve the welfare of local communities and reduce poverty. This can also increase economic growth and regional incomes. In the context of developing the tourism sector, including the development of tourist attractions in general, it is a good plan to refine, improve, and develop conditions in the region, thus resulting in better and more beneficial changes for local communities, local governments, and tourists.

Tourism is a sector that can be used as a source of income for regions and their surrounding communities. This role is further strengthened by the enactment of Law No. 32 of 2004 and Law No. 33 of 2004, which grant broader authority to regional governments to manage their territories. This is done in an effort to support regional development, thus giving rise to greater responsibilities and demands for regional governments to explore and develop all potential resources owned by the region. With the existence of this law, regional governments have greater flexibility and freedom to develop tourist attractions.

Multiplier theory is a concept in economics that explores the impact of increase or change in one economic factor on other economic factors. In economics, a multiplier refers to economic activity that, when increased or changed, can cause changes or increases in many related economic variables. For example, in the tourism industry, tourism can stimulate other activities, such as the restaurant industry, local transportation, and other banking sectors, ultimately providing positive economic benefits to the regional economy and the well-being of the local population.

In the Keynesian Multiplier Effect concept, the multiplier effect refers to a mechanism by which an increase in spending results in an increase in overall income, which has an impact on national income growth. Thus this increase in spending is proportional to an increase in income. Keynes described the multiplier as a definite ratio between income and investment and as a result of a certain simplification between the number of jobs and the amount of labor used in direct investment.(Keynes, 1936).

Revenue collected by regional governments based on regional regulations in accordance with statutory regulations is referred to as the original regional revenue. In other words, the original regional revenue is the revenue received by regional governments from all sources within the regional economy. According to Law No. 33 of 2004, original regional revenue comes from regional taxes and levies, the management of separated regional assets, regional taxes, and other original revenues, aimed at providing flexibility to each region to explore funding for implementing regional autonomy as a manifestation of the principle of decentralization.

Based on Law No. 33 of 2004 concerning the financial balance between central and regional governments, Article 6 states that sources of original regional income include the following:

1. Regional Tax

   Mandatory contributions paid by individuals or groups to the region without any direct compensation are used to finance the implementation of the government and regional development.

2. Regional Retribution

   According to Law No. 28 of 2009 concerning Regional Taxes and Regional Retributions, regional levies are payments for services or granting of certain permits specifically provided or granted by the Regional Government for the benefit of individuals or bodies.

3. Other Legitimate Regional Income

   Other Legitimate Regional Original Income is defined as Regional Original Income outside of regional levies, regional taxes, and the result of managing separated regional assets.

According to Law No. 9 of 2021 concerning Tourism, Article 1 states that tourism comprises a variety of activities supported by facilities and services provided by local communities, fellow tourists, the government, local governments, and businesses. The primary function of tourism is to increase regional income through tourist visits from various regions to these tourist destinations for recreation. From an industrial perspective, tourism can help reduce unemployment in the productive workforce by encouraging entrepreneurship in the tourism sector.

Tourism is a travel activity undertaken by one person or group of people over a specific period of time, involving relocation to another area. The goal is not to work or conduct business, but rather to vacate, recreate, seek new experiences, and broaden knowledge and horizons, fulfilling various needs and desires.

The tourism sector is the largest contributor, acting as a driver of Regional Original Income (PAD). Indonesia currently boasts numerous exotic and attractive tourist destinations. Not only is its natural beauty outstanding but its cultural and historical heritage is also unique and captivating. This is because of the diverse ethnicities and cultures found throughout Indonesia, from Sabang to Merauke.

Batu City's diverse destinations attract tourists, including natural, man-made, and cultural attractions. According to data from the Batu City Central Statistics Agency (BPS), Batu City boasts a diverse range of tourist attractions, comprising 60 attractions: 10 natural attractions, 24 cultural attractions, one religious attraction, and 15 man-made attractions. Batu City's abundant tourism potential impacts regional revenue. The following are the data on Batu City's original regional income.
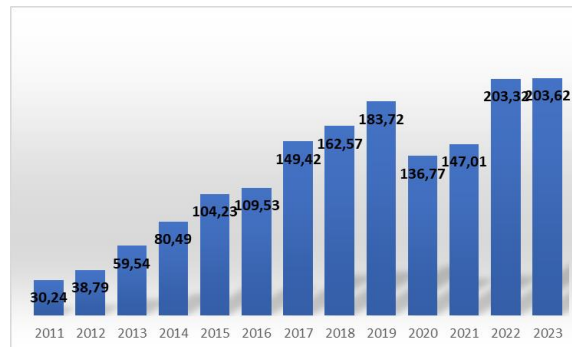
Figure 1 Realization of Batu City's Original Regional Income 2011-2023
Source: djpk.kemenkeu.go.id 2011-2023

Based on the graphic above, it shows that in 2019, the original regional income183 of.72M, this amount experienced an increase of 504.54% from the previous year's original regional income in 2011, which was 38.24M. In 2020, it reached 138.77M, a decrease of 25.5% due to the Covid-19 pandemic, and several regions were restricted from carrying out many outside activities, resulting in a decrease in original regional income. Then in 2021, it experienced an increase in the recovery period after the Covid-19 pandemic by 7.8% to 147.01M, the Batu City government is striving to increase original regional income and the economy in the region can recover. In 2022, it increased from 38.8% to 203.32M and in 2023 it also experienced an increase again to 222.28M.

The tourism sector in Batu City is considered to have considerable potential and is expected to have a positive impact on regional revenue. Regional taxes and levies originate from the tourism sector. Tourists visiting Batu City will be charged with a levy in an effort to utilize the region's potential. This is similar to the situation in the hotel and restaurant sectors. The distribution of tourism in Batu City is characterized by its mountainous terrain, making it a unique attraction for tourists. Tourism in Batu City fluctuates annually depending on current events. The following data show the number of tourist visits to Batu City.
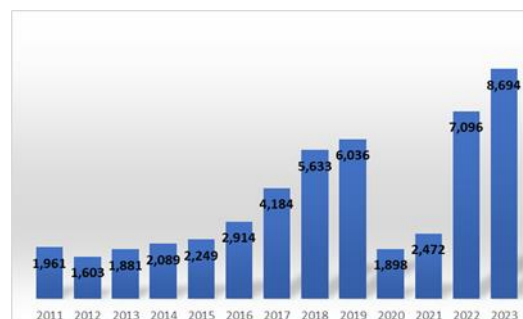

Figure 2 Number of Tourist Visits 2011-2023

The figure shows that the number of tourist visitors in Batu City, namely, in 2012, as many as 1,603,341 people, decreased by 18.24% from 2011 and increased in 2019; as many as 6,036,724 people experienced an increase of 220.79% from the number of tourists the previous year in 2013, which was 1,881,446. In 2020, there was another decline of 68.55%, which was due to the Covid 19 pandemic, where all Indonesian people were restricted in their activities which also had an impact on the tourism sector. Slowly, the number of tourists in 2021 increased again by 2,472,923, and this increase was still slow because it was still in the recovery period after the Covid 19 outbreak. In 2022, there was a significant increase of 7,096,034 people. It then increases again from 2023 to 8,964,430. Therefore, the number of tourist visits from 2011 to 2023 will fluctuate.

Previous research byFadhila Pravitasari et al., (2025) discussing a number of variables, including the number of tourist attractions, tourists, hotels, and restaurants, shows how the tourism industry affects local revenue in the Special Region of Yogyakarta (DIY) Province. The research results show that the number of hotels has a positive and significant effect on local revenue, the number of tourist attractions has a negative and significant effect, and the number of tourists and restaurants have a positive but insignificant effect. The Pasaribu, (2024)results of the study indicate that the number of tourists, number of tourist attractions, hotel

1088

room occupancy rate, and hotel and restaurant taxes have a positive and significant effect on PAD; the variable number of tourist attractions has a positive and significant effect on PAD, while the variable hotel room occupancy rate and hotel and restaurant taxes have no effect on PAD. The definition above is the basis for this study, which examines how the tourism industry affects local revenue, especially in Batu City, which has developed optimally, and identifies deficiencies that can be improved in the future to improve the management of local revenue in Batu City, especially in the tourism sector. Research on the influence of the tourism sector on local revenue in Batu City for the period 2011-2023 is currently lacking; therefore, this study was conducted to serve as a reference for subsequent researchers who want to conduct research with a similar theme.

Relationship between Number of Tourists and Regional Original Income

Tourists who visit a tourist spot at a certain time spend money on accommodation, food, goods, and services at tourist sites. Such spending can create and support local economic activities. Therefore, the amount of money tourists spend is positively correlated with their visits to a destination.(Sihotang, 2021).

Relationship between Hotel Occupancy Rate and Local Original Income

Hotel occupancy rateHigh hotel occupancy rates indicate that a large number of tourists stay at hotels in the area. This can have a positive impact on the Regional Original Income (PAD) because hotel guests spend money on accommodation, food, transportation, and other activities in the area. The hotel sector revenue also increases with increasing hotel occupancy. This revenue comes from room rates, additional services, such as restaurants or spas, and tourism or accommodation taxes, which can also increase PAD.(Khaerunnizam & Dzul Fadli, 2025).

The Relationship between the Number of Restaurants and Regional Original Income

An increase in the number of restaurants or eateries in an area will impact Regional Original Income through various taxes, such as restaurant, land and building, and employee taxes. The increasing number of restaurants in an area can reflect its development, especially in terms of the infrastructure needed by tourists. The presence of adequate restaurants can also impact the Regional Original Income by attracting more visitors and increasing their spending in the area.(Septiana, 2025).

METHOD

This study employed a quantitative method. The measurements were based on numbers and statistical analyses. Secondary data, utilizing time-series data, are sourced from the Indonesian Central Bureau of Statistics, which can be accessed and published there. This study was conducted from 2011 to 2023, spanning a period of 13 years. The study was conducted in Batu City, East Java Province. Batu City has potential as a tourist destination because of its high ground location. The analysis used multiple linear regression, while data processing was performed SPSS 26.

The regression equation in this study can be explained by the following equation:

$$Y = \alpha + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + e$$

Information:
Y   :Regional Original Income (PAD) Variable
α   : Regression Constant
β   :Regression Coefficient
$X1$: Number of Tourists
$X2$: Hotel Occupancy Rate
$X3$: Number of Restaurants
e   :*Standard Error*

Data Analysis Techniques

The main findings of the research are presented in the Results and Discussion section, which is written systematically. This section contains only data or information related to the research objectives. The discussion in this article provides an explanation of the results obtained from the study.

Table 1. SPSS Output Results for Multiple Linear Regression

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	11451.067	3206.871		3.571	.006					
	Jumlah Wis	.003	.000	1.055	5.497	<,001	.846	.878	.725	.472	2.119
	Tingkat H.H	-2.258	.869	-.368	-2.599	.029	-.346	-.655	-.343	.865	1.157
	Jumlah Res	-21.668	13.104	-.332	-1.654	.133	.531	-.483	-.218	.430	2.326

a. Dependent Variable: PAD

Source: SPSS 26 Output

The multiple linear regression equation model is presented in Table 1.

Local Original Income: $11451 + 0.003 - 2.258 - 21.668 X_1 X_2 X_3$

Based on the equation model above, it can be described as follows:

$\beta 0$ = A constant value of 11451 which means that if all independent variables are considered constant, then the Regional Original Income (Y) will increase by 11451 billion.

β_1 = 0.003, meaning that the number of tourists (X1) has a positive effect. This means that if the number of tourists increases by obne person, the original regional income will increase by 0.003 billion.

β_2 = -2.258 which means that the hotel occupancy rate (X2) has a negative effectIf the hotel occupancy rate increases by one unit, Regional Original Income will decrease by IDR 2.258 billion.

β_3 = -21.668, which means that the number of restaurants (X3) has a negative effect. If the number of restaurants increases by one unit, the original regional income decreases by 21.668 billion.

t-test (Partial Test)

A t-test was used to assess the significant influence of each variable on a particular basis. This test was conducted to measure the extent of the individual influence of an independent variable on a dependent variable. Decision-making by comparing the calculated t_value is greater than t_table; then, the variable has a significant influence on variable Y. Likewise, if the calculated t_value is smaller than t_table, then the variable does not have a significant influence on variable Y. From the results of this test, the t_table value is known as follows:

t_table = t (a/2 : nk-1)

a = 5% or 00.05

= t (0.05 / 2 ; 13-3-1)

= 0.025 ; 9

So t_table is 2.262

The results of the t-test for each independent and dependent variable are as follows.

1. Number of tourists variable (X1)

The partial test results show that the number of tourists (X1) has a significant effect on Regional Original Income (Y). The calculated t-value for the number of tourists is 5.497, which is greater than the t-table value of 2.262, and the significance value is 0.001, which is less than 0.05. This means that the number of tourists has an effect on the original regional income. Therefore, we can conclude that:

2. Hotel Occupancy Rate Variable (X2)

The partial test results show that the Hotel Occupancy Rate (X2) has a negative and significant effect on the Regional Original Income (Y). The calculated t-value for the hotel occupancy rate variable is -2.559, which is smaller than the t-table of 2.262, and the significant value is 0.029, which is smaller than 0.05.

3. Number of Restaurants Variable (X3)

The partial test results show that the Number of Restaurants (X3) does not have a significant effect on Regional Original Income (Y). The calculated t-value for the number of restaurants variable is -1.654, which is smaller than 2.262, and the significance value is 0.133, which is greater than 0.04.

ANOVA TEST (F)

The F-test result was 16.181, with a significance level of 0.001. The degrees of freedom (df), namely df1 = k (the number of independent variables is the explanation of k) and df2 = n − k − 1, were set to calculate the F table at 95% confidence with an error rate (α) of 5% = 0.05. Thus, df1 = 3 and df2 = 13 − 3- 1

= 9. The F-table value, as determined by the F-distribution table, was 3.86. The analysis results show that the calculated F (16.181) is greater than the F table (3.86) with a significance below 0.05, which concludes that the number of tourists, hotel occupancy rates, and number of restaurants have a significant effect on the original regional income.

Coefficient of Determination Test R^2

Table 2. SPSS Output Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					PRESS	Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change		
1	.918[a]	.844	.791	2692.72471	.844	16.181	3	9	<,001	5775089874.7	1.273

a. Predictors: (Constant), Jumlah Res, Tingkat H.H, Jumlah Wis

b. Dependent Variable: PAD

The test results in Table 2 show an R-Square value of 0.844, indicating that 84.4% of the variability in Regional Original Income is explained by a combination of independent variables: number of tourists, hotel occupancy rates, and number of restaurants. The remaining 15.6% was explained by factors outside the model.

RESULTS AND DISCUSSION
The Influence of the Number of Tourists on Regional Original Income

Based on the test results for the number of tourists, it was found that it had a positive and significant impact on local revenue in Batu City for the 2011-2021 period. The number of tourists had a significant value of 0.001, which is less than 0.05. This is in line with research showing (Gede et al., 2023)that the number of tourists has a significant impact on local revenue. In addition, research conducted by(and Lia Ayu Ma et al., 2023) states that the number of tourists has a positive and significant effect on the regional original income. This research is in line with multiplier effect theory (Keynes, 1936), which measures the extent to which a community's economic income increases or decreases as a result of changes in various economic variables. This multiplier reflects the relationship between changes in expenditures and the resulting changes in a community's economic income in a given region. For example, the tourism sector explains how initial tourist spending has a positive ripple effect on the regional economy, resulting in a significant increase in the regional original income.

This is because the relationship between tourist numbers and local revenue is known to contribute to local revenue in several areas, including Batu City, because of the abundance of tourist attractions and the local cultural wisdom that attracts tourists. A large number of tourists visiting will positively impact the economy, driven by tourist spending, thereby increasing local revenue through taxes and levies.

The Influence of Hotel Occupancy Rates on Regional Original Income

Based on the test, the results showed that the hotel occupancy rate variable had a negative and significant effect on local revenue in Batu City for the 2011-2023 period. This is because the sig value for the hotel occupancy rate variable was 0.029, which is lower than 0.05. This is in line with research conducted by, which shows Aninda et al., (2022)that hotel occupancy rates have a negative and significant impact on regional original income.

This is because several hotels are not officially registered or have minimal oversight from the local government, such as private villas and homestays, which do not optimally channel taxes. This has resulted in a shift in demand from officially taxed hotels to alternative accommodations that are not registered in the local tax system. Furthermore, tax evasion and a lack of transparency in reporting have resulted in some accommodation managers making minimal direct contributions to local revenue despite the apparent significant occupancy rate. However, this has resulted in local revenue not increasing proportionally with the increased occupancy rate, resulting in a negative analysis of the effect of hotel occupancy on local revenue.

The Influence of the Number of Restaurants on Regional Original Income

Based on the test results, the number of restaurants did not significantly impact the local revenue in Batu City during the 2011-2023 period. This is because the significant value of the number of restaurants variable, 0.133, exceeded the predetermined significance level of 0.05. This result aligns with the research conducted in and Lia Ayu Ma et al., (2023)that the number of restaurants does not have a significant effect on local revenue.

This may be due to the fact that not all restaurants in Batu City are officially registered and actively taxed. Individuals operate many small- to medium-sized restaurants without business permits or formal tax reporting. Therefore, although the number of restaurants is increasing, their contribution to regional revenue is not directly reflected, because not all restaurant owners pay the required restaurant taxes. Furthermore, the number of restaurants does not necessarily reflect the number of transactions or the level of consumption by residents and tourists. Despite the increasing number of restaurants, the number of visits or consumption per restaurant is low, possibly due to high competition or the fact that many tourists choose to eat outside formal restaurants, such as small food stalls.

CONCLUSION

Based on the research results and discussions presented, several conclusions can be drawn regarding the Analysis of the Influence of the Tourism Sector on the Original Regional Income of Batu City.

- The number of tourists has a significant impact on increasing Batu City's local revenue (PAD). This is because the greater the number of tourists, the greater the economic activity generated through spending, which ultimately contributes to PAD through taxes and levies.
- Hotel occupancy rates have a significantly negative impact on Batu City's regional revenue (PAD). This is due to the continued presence of unregistered hotels that do not pay taxes to the local government. Lack of transparency in reporting is also a factor contributing to revenue, and does not increase proportionally with occupancy rates.
- The number of restaurants did not significantly impact Batu's original regional income. This is because of the dominance of small- to medium-scale restaurants, which are generally operated by individuals without business permits or formal tax reporting. Therefore, although the number of restaurants has increased, their contribution to local revenue has not been directly examined.

REFERENCES

Anggrayini, N. (2022). *Peran Sektor Pariwisata Terhadap Pendapatan Asli Daerah Kabupaten Kotawaringin Barat Periode 2013-2017* (Vol. 10, Issue 2).

dan Lia Ayu Ma, A., Aviva, rifatul, & Ayu Ma, L. (2023). DAMPAK SEKTOR PARIWISATA TERHADAP PENDAPATAN ASLI DAERAH KABUPATEN/KOTA DI JAWA TENGAH. *Jurnal Ekonomi Pembangunan STIE Muhammadiyah Palopo*, *9*(1).

Fadhila Pravitasari, C., Yumna, D., & Rona, A. (2025). *Analisis Pengaruh Sektor Pariwisata Terhadap Pendapatan Asli Daerah di Provinsi Daerah Istimewa Yogyakarta.* https://doi.org/10.30596/ekonomikawan.v%vi%i

Gede, I., Joendra, D., Putra, S., Karmini, N. L., & Wenagama, W. (2023). *E-JURNAL EKONOMI DAN BISNIS UNIVERSITAS UDAYANA.* https://ojs.unud.ac.id/index.php/EEB/index

Jumlah Kunjungan Wisatawan Dan Tingkat Hunian Hotel Terhadap Pendapatan Asli Daerah Di Kota Bukit Tinggi Aninda, P., Studi Akuntansi, P., Ekonomi dan Bisnis, F., Teknologi Dan Bisnis Haji Agus Salim, I., & Korespondensi Adriansyah, P. (2022). *SINTAMA: Jurnal Sistem Informasi, Akuntansi dan Manajemen*. *2*(3). https://adaindonesia.or.id/journal/index.php/sintamai

Khaerunnizam, M., & Dzul Fadli, M. (2025). *Analisis Pengaruh Jumlah Wisatawan, Tingkat Hunian ……| 71*.

Pasaribu, W. (2024). *Pengaruh Jumlah Wisatawan, Jumlah Objek Wisata, Tingkat Hunian Kamar Hotel dan Pajak Hotel & Restoran Terhadap Pendapatan Asli Daerah Jawa Tengah*.

Septiana, A. R. (2025). ANALISIS PENGARUH SEKTOR PARIWISATA TERHADAP PENDAPATAN ASLI DAERAH (PAD) DI KABUPATEN PACITAN. In *Seminar Nasional Pariwisata dan Kewirausahaan (SNPK) E-ISSN* (Vol. 4).

Sihotang, S. I. (2021). *Kaitan Jumlah Wisatawan terhadap Pendapatan Asli Daerah Provinsi DKI Jakarta*.