

The Influence of Tourist Arrivals, Accommodation Facilities, and Restaurants on Regional Original Revenue in East Java Province

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ABSTRACT

This study aims to analyze the effect of the number of tourists, accommodations, and restaurants on Regional Original Revenue (PAD) in 38 regencies/cities of East Java Province, Indonesia, during 2020–2024. Panel data modeling using the Fixed Effects Model (FEM) – selected based on the results of the Chow and Hausman tests provides empirical evidence that, at the partial level, the number of tourists and restaurants has a positive and significant effect on PAD, while accommodations have no significant effect. PAD is significantly influenced by all three variables when analyzed simultaneously. These findings imply that increasing tourist visits and developing the culinary sector are key to boosting local revenue, whereas accommodation contributions depend on occupancy rates, service quality, and tax collection effectiveness. Policies should therefore focus on integrated tourism and restaurant development tailored to regional characteristics.

INTRODUCTION

The onset of the reform era in Indonesia initiated a fundamental systemic transformation in the governance system from a previously centralized model to a more decentralized one. This change is marked by the delegation of authority to regions to actualize their powers in managing the needs and interests of the local community, as emphasized in Law Number 23 of 2014 on Regional Government. In the implementation of decentralization, regional authorities also encompass the management of regional financial instruments composed of regional revenue and financing elements (Usman, 2020). The composition of regional revenue is partly supported by income derived from Local Own Revenue (PAD), which serves as the main pillar of regional independence.

In the context of regional financial management, the fiscal decentralization policy grants administrative authority accompanied by responsibility to local governments to manage various interests in their respective regions. According to Halim in Purwadinata et al. (2022), in practice, fiscal decentralization allows local governments to exercise their authority more independently in managing regional finances, especially in increasing and expanding the PAD base. PAD reflects the region's capacity to finance its fiscal needs independently.

One concrete manifestation of regional authority in the context of fiscal decentralization is the ability to manage Local Own Revenue (PAD) (Sunaringsih & Nugraheni, 2022). PAD becomes a fundamental evaluative instrument in assessing the level of regional autonomy independence. The higher the PAD obtained, the more it expands the region's capacity to exercise its authority in determining the direction of policies and development decisions independently (Hayati, 2021). Therefore, PAD has a strategic position as the main pillar of regional finance, enabling the funding of development programs, the improvement of public service quality, and the implementation of governance without full dependence on the budget support provided by the central government to the regions.

East Java Province consistently dominates national PAD acquisition alongside DKI Jakarta, West Java, Central Java, and Banten. Based on the realization data of the regional budget (APBD) released by the Ministry of Finance, East Java's local revenue (PAD) has expanded by Rp12,744.74 billion, from Rp37,042.89 billion in 2020 to Rp49,787.63 billion in 2024. The increase in PAD is partly supported by the region's potential sectors, including the tourism sector, which plays a strategic role in driving economic activities. East Java Province is known for having various premier destinations such as the Bromo-Tengger-Semeru area (Kemenparekraf, 2018), as well as Surabaya as a center for business and services (Purmadani, 2024). The diversity of these destinations has the potential to become a source of regional revenue thru taxes and levies.

However, the contribution of the tourism sector to local revenue (PAD) is not always linear. Although PAD tends to increase in aggregate, the structure of PAD sources in East Java is diverse, where regional revenue does not only come from the tourism sector but also from other sectors such as industry, trade, and natural resource revenue sharing (Hayati, 2021). This condition indicates that the increase in PAD is not necessarily fully driven by the tourism sector, thus a more

systematic analysis is needed to determine the extent to which variables in the tourism sector influence PAD. Based on this phenomenon, by taking the object of 38 regencies/cities in East Java Province during the years 2020–2024, this study aims to investigate the contribution of the number of tourists, accommodations, and restaurants in influencing Local Revenue.

LITERATURE REVIEW

Tourism Multiplier Effect Theory

Tourism creates a multiplier effect that impacts various business activities, including accommodation services, transportation movements, and gastronomic ventures (Lakat et al., 2025). Mathieson and Wall (1982) explain that the economic impact of tourism occurs thru three stages of expenditure, namely direct expenditure, indirect expenditure, and induced expenditure. Direct expenditure occurs when tourists pay for hotels or restaurants. Next, business operators use that income to purchase raw materials or pay labor (indirect expenditure). Then, the laborers who receive the income will consume again within the area (induced expenditure). This series shows that tourism activities can trigger an increasingly broad economic cycle.

Regional Original Revenue

According to Law Number 33 of 2004, Local Own Revenue (PAD) is regional income sourced from the region's own potential, and regional regulations serve as the legal basis for its collection. PAD reflects the level of regional capacity indicators in generating revenue independently thru the exploitation of economic potential available in its area, not from transfers from the central government (Sayuti, 2020). In line with these provisions, Halim in Saraswati & Utomo (2023) defines PAD as a source of regional revenue formed from the management of endogenous economic capacity.

The formation of PAD is supported by four revenue instruments, namely the regional tax sector, retribution, the management of separated regional assets, and other legal sources of income (Usman, 2020). Mardiasmo in Permatasari & Mildawati (2016) explains that the regional budget, including the APBD, plays an important role in improving public services. In the structure of the regional budget (APBD), PAD becomes one of the revenue components that supports the financing of regional government administration. Therefore, within the framework of fiscal decentralization, strengthening PAD becomes one of the main strategies in achieving regional financial independence.

Tourists

Tourists are the main subjects in tourism activities. Their presence serves as the initial trigger for economic activities in a tourist destination. According to Sammenq in Olivia et al. (2023), tourists are defined as individuals who temporarily leave their place of residence to visit another area for a specific purpose without making that area a basis for sustainable income. The more tourists that come, the greater the potential for consumption and accommodation use in the area (Baehaqi, 2021).

Accommodation

Accommodation serves as the main support for tourism activities because it provides temporary lodging for tourists while they are at the destination.

Without the availability of adequate accommodation, tourist visits will not have an optimal economic impact. Amerta & Budhiasa (2014) define accommodation as any form of business entity operating in the sector of providing accommodation for tourists during their travels, whether equipped or not with other supporting facilities. In the tourism industry, accommodation is a fundamental element that supports the sustainability of tourism activities (Adika & Dwiputri, 2021).

Restaurant

Restaurants play an important role in meeting the consumption needs of tourists. This culinary sector not only provides satisfaction for tourists but also becomes a source of local revenue thru restaurant taxes. Manalu et al. (2021) define a restaurant as a business unit that commercializes consumption products in the form of food and beverages to the public for payment. Restaurant business activities become one of the objects of regional taxes, so the increase in the number of restaurants will expand the tax revenue base, which is a component of PAD (Adika & Dwiputri, 2021).

Research Hypothesis

The research hypothesis is formulated as a basis for prediction to address the problem formulation. The research hypotheses are as follows:

- a. It is suspected that the number of tourists significantly affects the Regional Original Revenue (PAD) of East Java Province.
- b. It is suspected that the number of accommodations significantly affects the Regional Original Revenue (PAD) of East Java Province.
- c. It is suspected that the number of restaurants significantly affects the Regional Original Revenue (PAD) of East Java Province.
- d. It is suspected that the number of tourists, the number of accommodations, and the number of restaurants together significantly affect the Regional Original Revenue (PAD) of East Java Province.

METHODOLOGY

This research uses a quantitative research method with an associative approach that seeks to explain how tourists, accommodations, and the restaurant sector contribute to shaping the capacity of Local Revenue in East Java Province. The research database is constructed thru a combination of a temporal dimension over a five-year observation period (2020–2024) and a regional dimension covering 38 districts/cities in East Java Province.

The secondary data for this research were collected from official government institutions, namely the East Java Provincial BPS and the DJPK of the Ministry of Finance as the providers of fiscal data. The dependent variable is Regional Original Revenue (PAD) measured in billions of rupiah. The number of tourists (JW), the number of accommodations (JA), and the number of restaurants (JR) are independent variables in this study, with measurements using units of individuals and units, respectively.

The data analysis approach used refers to the panel data regression model, which is represented in the following equation:

$$PAD_{it} = \alpha + \beta_1 JW_{it} + \beta_2 JA_{it} + \beta_3 JR_{it} + \epsilon_{it}$$

With the following explanation:

PAD_{it} = Original Regional Revenue in region i in year t
 α = Constant
 $\beta_1, \beta_2, \beta_3$ = Regression coefficients of independent variables
 JW_{it} = Number of Tourists
 JA_{it} = Number of Accommodations
 JR_{it} = Number of Restaurants
 ϵ_{it} = Error Term

The selection of the best model is conducted thru the Chow test and the Hausman test. The classical assumption tests used include the multicollinearity test and the heteroscedasticity test. Hypothesis testing is conducted thru simultaneous tests and partial tests.

RESEARCH RESULT

Descriptive Statistics of Research Data

Tabel 1 Hasil Analisis Deskriptif

Variable	Observations	Mean	Std. Dev.	Min	Max
JW	190	1.762.629	2.766.728	0	20.016.799
JA	190	106,86	199,36	199,36	199,36
JR	190	130,70	283,24	283,24	283,24
PAD	190	587,55	829,52	131,84	6.114,39

Source: Data processing results by the researcher, Eviews 12

A total of 190 observations for each variable indicate that the data in this study is quite representative of the conditions in 38 regencies/cities in East Java Province during the period 2020–2024, as shown in Table 1.

Based on the descriptive results, the variable Number of Tourists (JW) has an average of 1,762,629, with the lowest value being 0 and the highest value reaching 20,016,799. The relatively high standard deviation of 2,766,728 indicates significant variation between regions. This condition indicates that the distribution of tourist visits is uneven, with areas having a very high concentration of tourists – generally in prime destinations or urban areas – while other areas still have relatively low visit rates.

The Accommodation Quantity Variable (JA) with a minimum value of 5 units and a maximum of 1,243 units, records an average of 107 units. The standard deviation of 199 reflects that the availability of accommodation facilities

also varies significantly between regions. This reflects the differences in the level of tourism infrastructure readiness in each region, where areas with a higher number of accommodations indicate an increase in the intensity and maturity of tourism activities in that region.

The variable Number of Restaurants (JR) has an average of 130.7 units, with a value range from 4 units to 2,178 units. The level of data variation is indicated by a high standard deviation of 283.24 across regions. This indicates that the development of the culinary sector as a tourism support is not yet evenly distributed, where areas with high tourism activity tend to have more restaurants compared to areas with limited tourism activity.

Meanwhile, the variable of Regional Original Revenue (PAD) has an average value of 587.55, with a minimum value of 131.84 and a maximum of 6,114.39. The standard deviation of 829.52 indicates a significant difference in fiscal capacity among districts/cities. This condition indicates that the regions' ability to explore sources of local original revenue still varies, likely influenced by differences in economic potential, including the tourism sector and its supporting sectors.

Overall, the high standard deviation values across all variables indicate that the data exhibit a high level of heterogeneity between regions. This serves as an important basis for the use of panel data analysis, as this approach is capable of capturing the differences in characteristics between regions as well as the dynamics of changes over time in analyzing the influence of these variables on PAD.

Results of Model Selection and Classical Assumption Testing

Thru the Chow test and the Hausman test, a comparison was made between the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) to determine the regression model for panel data that best fits the characteristics of the data. The results are presented in the following section:

Table 2 Model Selection Results

Model Selection Test	Probability	Conclusion	Decision
Chow Test	0.000	< 0.05	Fixed Effects Model (FEM)
Hausman Test	0.000	< 0.05	Fixed Effects Model (FEM)

Source: Data processing results by the researcher, Eviews 12

Model selection thru the Chow and Hausman tests led to the choice of the Fixed Effect Model (FEM) as the most optimal analysis method at a 5% significance level.

The Hausman test results, which pointed to the Fixed Effect Model, rendered the Lagrange Multiplier test unnecessary. Before the estimation is conducted, classical assumption tests are applied to ensure valid regression results.

1) Multicollinearity Test

Table 3 Multicollinearity Test Results

Variable	JW	JA	JR
JW	1.0000	0.3403	0.7048
JA	0.3403	1.0000	0.1532
JR	0.7048	0.1532	1.0000

Source: Data processing results by the researcher, Eviews 12

Based on the results of the multicollinearity test using the Pair Rise Correlations method, all correlation values are below 0.80. This indicates that there is no multicollinearity among the independent variables in the model.

2) Heteroscedasticity Test

Table 4 Heteroscedasticity Test Results

Variable	Probability Value	Conclusion	Decision
JW	0.0234	< 0.05	Heteroscedasticity Exists
JA	0.0532	> 0.05	No Heteroscedasticity
JR	0.0000	< 0.05	Heteroscedasticity Exists

Source: Data processing results by the researcher, Eviews 12

Based on the Glejser test, heteroscedasticity was detected in variables X1 and X3 (prob. < 0.05). However, this issue has been addressed using the Panel Corrected Standard Errors (PCSE) method in the panel data regression estimation, ensuring that the estimation results remain efficient and valid (Watson & Stock, 2020).

Regression Estimation Results

The panel data regression using the Fixed Effect Model is presented in Table 5. This model analyzes the impact of the number of tourists, the number of accommodations, and the number of restaurants on PAD in East Java province from 2020 to 2024.

Table 5 Regression Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	521.6790	55.21897	9.447459	0.0000
JW	0.0000424	0.00000862	4.918388	0.0000

JA	-0.310451	0.424882	-0.730675	0.4661
JR	0.186155	0.088306	2.108078	0.0367
Adjusted R-Squared	0.97843			
F-Statistic	215.3320			
Prob. F-Statistic	0.000000			

Source: Data processing results by the researcher, Eviews 12

The estimation results show that the number of tourists has a positive and significant effect on PAD, the number of accommodations has a negative and insignificant effect, while the number of restaurants has a positive and significant effect. The Adjusted R-squared value of 0.97843 indicates that 97.8% of the variation in PAD is explained by these three variables. The F-statistic value of 215.3320 with a probability of 0.000000 (< 0.05) confirms that all three variables simultaneously have a significant effect on PAD in East Java Province.

DISCUSSION

The Influence of the Number of Tourists on PAD

Based on the estimation results, the number of tourists is identified to have a positive and significant impact on the Regional Original Revenue (PAD) in East Java Province, as indicated by the positive coefficient showing a unidirectional relationship between the two variables. Theoretically, these results align with the tourism multiplier effect theory proposed by Mathieson and Wall (1982), which states that tourist spending is an economic injection that triggers a chain effect in the regional economy (Tooman, 1997). In the context of East Java, areas with high tourist visit rates such as Surabaya City, Malang Regency, and Batu City tend to have higher PAD compared to areas with relatively low tourist numbers. The results of this study are in line with the findings of Pratama & Harahap (2023), Pasaribu & Woyanti (2024), and Babu (2024), which show that the number of tourists has a positive and significant impact on PAD.

The Influence of the Number of Accommodations on PAD

The variable of the number of accommodations does not have a significant effect on PAD. This indicates that an increase in the number of accommodations in an area does not directly increase PAD during the research period of 2020-2024. Theoretically, accommodation is part of the main tourism superstructure that supports tourist activities (Rahilly, 2024). However, the results of this study indicate that the mere presence of accommodation is not sufficient to significantly increase PAD. This may be caused by several factors, such as low room occupancy rates, the dominance of small-scale accommodations with relatively low tax contributions, and the suboptimal supervision and collection of regional taxes. These findings are in line with the research by Amerta & Budhiasa (2014), which found that the number of hotels and accommodations does not significantly affect PAD. Therefore, the increase in the number of accommodations needs to be accompanied by improvements in service quality,

occupancy rates, and optimization of tax collection to make a tangible contribution to PAD.

The Influence of the Number of Restaurants on PAD

The number of restaurants has a positive and significant impact on PAD. The positive coefficient indicates that each additional restaurant is expected to significantly increase PAD. Conceptually, this finding aligns with the tourism multiplier effect theory, where restaurants become one of the channels for tourist spending that contributes to the local economy. In addition, restaurants stimulate job creation and tax revenue, so an increase in the number of restaurants can directly enhance PAD. The results of this study are in line with Adika & Dwiputri (2021), Sanjaya et al. (2020), and Patendeng et al. (2025), which show that the number of restaurants has a positive and significant impact on PAD. These findings also support the statement that optimizing the tourism sector, including culinary, is an important instrument in strengthening regional fiscal revenue.

CONCLUSIONS AND RECOMMENDATIONS

Regional Original Revenue (PAD) in East Java Province for the period 2020–2024 is positively and significantly influenced by the number of tourists and the number of restaurants based on research and discussion results. In the perspective of the tourism multiplier effect theory, the increase in tourist visits has proven capable of driving regional economic activity thru consumption in the culinary sector and other supporting services. Meanwhile, the number of restaurants also makes a significant contribution thru restaurant taxes, which are one of the main components of PAD. Conversely, the number of accommodations does not significantly affect PAD, indicating that the mere presence of lodging facilities is not sufficient without high occupancy rates, adequate service quality, and effective local tax collection.

However, the contribution of the tourism sector to PAD is currently still not fully optimal and evenly distributed across all districts/cities in East Java. The disparity in the number of tourist visits, the availability of accommodations, and the number of restaurants between regions indicates that the tourism potential has not been fully utilized in areas with low visitation rates. Thus, the effectiveness of the tourism sector in promoting regional fiscal independence highly depends on the strengthening of targeted, data-based, and integrated policies among tourism components.

Therefore, local governments are advised to prioritize increasing the volume of visiting tourists and developing the culinary sector, as well as shifting the focus of accommodation management from adding units to improving service quality and optimizing tax collection. Further studies are recommended to expand the research variables by adding, among others, hotel occupancy rates or the effectiveness of local tax collection, as well as extending the research period.

FUTURE RESEARCH

This research has limitations due to the relatively short study period (2020–2024), covering the Covid-19 pandemic and the recovery phase, resulting in significant data fluctuations. In addition, the scope of this research is still

limited to three independent variables, so further research is recommended to extend the time horizon and enrich the variables used for moderation or mediation, such as hotel occupancy rates or the effectiveness of local tax collection, as well as using other analytical methods such as spatial regression to capture the dependency effects between regions.

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