



## THE IMPACT OF TAXES AND LEVIES ON MINAHASA'S REGIONAL ORIGINAL INCOME

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### *Abstract*

*Locally-Owned Revenue (PAD) is a crucial source of regional development financing, therefore, it is necessary to analyze the factors influencing it. This study aims to analyze the influence of Regional Taxes, Regional Levies, and Other Legitimate Locally-Owned Revenue on the PAD of Minahasa Regency. This study uses secondary time series data for the period 2018-2022 obtained from the Statistics Indonesia (BPS) of Minahasa Regency. The analysis method used was multiple linear regression with SPSS 26, supplemented by t-tests and f-tests to determine partial and simultaneous effects. The results show that Regional Taxes and Other Legitimate Locally-Owned Revenue have a positive and significant effect on PAD, while Regional Levies have a positive but insignificant effect. Simultaneously, all three variables significantly influence PAD with a coefficient of determination of 99.8%, thus explaining the majority of the variation in PAD.*

**Keywords:** Local Taxes, Regional Levies, Locally-Owned Revenue, Minahasa

### **Abstrak**

Pendapatan Asli Daerah (PAD) merupakan sumber penting pembiayaan pembangunan daerah sehingga perlu dianalisis faktor-faktor yang memengaruhinya. Penelitian ini bertujuan menganalisis pengaruh Pajak Daerah, Retribusi Daerah, dan Lain-lain Pendapatan Asli Daerah yang Sah terhadap PAD Kabupaten Minahasa. Penelitian ini menggunakan data sekunder berbentuk time series periode 2018-2022 yang diperoleh dari BPS Kabupaten Minahasa. Metode analisis yang digunakan adalah regresi linier berganda dengan bantuan SPSS 26, dilengkapi uji t dan uji f untuk mengetahui pengaruh parsial dan simultan. Hasil penelitian menunjukkan bahwa Pajak Daerah serta Lain-lain Pendapatan Asli Daerah yang Sah berpengaruh positif dan signifikan terhadap PAD, sedangkan Retribusi Daerah berpengaruh positif namun tidak signifikan. Secara simultan, ketiga variabel berpengaruh signifikan terhadap PAD dengan koefisien determinasi 99,8%, sehingga sebagian besar variasi PAD dapat dijelaskan oleh ketiga variabel tersebut.

**Kata kunci:** Pajak Daerah, Retribusi Daerah, Pendapatan Asli Daerah, Minahasa

## **I. INTRODUCTION**

Locally Generated Revenue (PAD) is a crucial source of regional development funding because it reflects a region's fiscal independence. Minahasa Regency still relies on balancing funds from the central government for more than 80% of its total revenue, while its PAD



contribution is only around 9-10%. This situation indicates the region's still-low capacity to optimally explore its potential revenue sources. Increasing PAD is key to reducing dependence on the central government and supporting the effective implementation of regional autonomy. According to Halim (2020), regional fiscal independence can be seen from the ratio of PAD to total regional revenue. The higher the PAD ratio, the greater the region's ability to finance development without relying on the central government.

Theoretically, PAD consists of regional taxes, regional levies, proceeds from the management of separated regional assets, and other legitimate PAD. Each component plays a distinct role in increasing regional revenue. Several previous studies in Indonesia have reported that regional taxes and levies have a positive effect on Locally Generated Revenue (PAD); for example, studies in East Tanjung Jabung and Dompou found significant contributions from both variables. Case studies of various regencies/cities in Indonesia report similar trends: local taxes are often the primary contributor to PAD, while local levies fluctuate across regions. In a study of a large city like Bandung, analysis results showed significant variability between taxes and levies, depending on the local economic structure. Furthermore, research in Dompu Regency found that local taxes dominated PAD by over 70%, while levies contributed less than 10%. This indicates a research gap for a comprehensive examination of the influence of local taxes, levies, and other legitimate revenues in the context of Minahasa Regency.

The novelty of this research lies in the simultaneous analysis of all three PAD components using the latest data from 2018-2022, and provides an empirical overview of the contribution of each variable to regional PAD after the COVID-19 pandemic. Aggregate APBD data indicates that the structure of PAD contributions and its components vary across provinces/regencies, thus requiring regional-specific studies for local policy recommendations. This study aims to determine: (1) the partial effect of regional taxes, regional levies, and other legitimate revenues on the Minahasa Regency Regional Original Revenue (PAD), and (2) the simultaneous effect of these three variables on PAD.

This study is also important because the observation period covers the COVID-19 pandemic, which, according to Fibrina & Andriani (2025), caused fluctuations in PAD in many regions due to decreased economic activity.

Therefore, this study not only analyzes the contribution of each PAD component but also provides policy input on how local governments can optimize revenue sources to increase fiscal independence. This is important because excessive reliance on central transfer funds can hinder regional innovation and fiscal autonomy.

## **II. RESEARCH METHODS**

### **Data and Data Sources**

The type of data used is secondary time series data for the 2018-2022 period. Data were obtained from official documents from the Minahasa Regency Statistics Agency (BPS) and regional budget (APBD) realization reports. The research variables include:

#### **Data Collection Method**

Data were collected through documentation studies, namely by accessing APBD realization reports, regional revenue data, and related statistical documents published by the Minahasa Regency BPS.

#### **Operational Definition of Variables**

Research Variables:

- Dependent variable: Regional Original Revenue (PAD)
- Independent variables: Regional Taxes (X1), Regional Levies (X2), and Other Legitimate Regional Original Revenue (X3)

#### **Operational Definition:**

- a. Regional Taxes (X1): According to Article 1 Paragraph 1 of Government Regulation No. 65 of 2001, regional taxes are mandatory contributions from individuals or entities to the regional government, which are compulsory in nature without direct compensation, and are used to finance the implementation of regional governance and development.
- b. Regional Retribution (X2): Regional Retribution as regulated in Law No. 28 of 2009 covers public services, business services, or certain permits provided by the regional government for the benefit of individuals or organizations, and there must be real service for the levy to be valid as a kartika levy. A study in Polinema (2022) stated that transparent levy management and an easy licensing system will increase the levy's contribution to PAD. Research in Jayapura City shows that although the contribution of levies is lower than taxes, when permits and public services are managed well, levies can be a non-trivial source of regional income. Levies collected by the regional government as

payment for services or granting certain permits provided for the benefit of individuals or organizations. In line with the definition of Regional Retribution as a levy for certain services or permits, research in Bone Bolango shows that tourism levies and parking levies at tourist locations contribute, albeit small, to PAD through direct services provided to the public.

c. Other Legitimate Locally-Owned Revenue (X3): Regional revenue not included in regional taxes, levies, or service revenue. Research analyzed the recognition and presentation of Other Legitimate Locally-Owned Revenue (PAD) at the North Sulawesi Provincial Revenue Agency and confirmed that this component includes grants, fines, and other flexible service revenues that support regional policies. This revenue provides a space for local governments to undertake productive activities, both material and non-material, to support and strengthen regional policies in specific areas. Research in Majalengka Regency showed that Other Legitimate Locally-Owned Revenue (PAD), other than taxes and levies, was a variable that had an insignificant effect on PAD in the 2017-2019 period, even though regional revenue sources worked simultaneously.

### **Data Analysis Method**

Data analysis was conducted using simple regression and multiple regression. Before the regression was performed, the data were tested using the Kolmogorov-Smirnov normality test, the multicollinearity test using the Variance Inflation Factor (VIF) value, and the Glejser heteroscedasticity test to ensure the model met the classical assumptions. The multiple linear regression method used in this study is widely used in similar studies to test the effect of PAD on total PAD so that the choice of this method is consistent with empirical literature. The use of multiple linear regression in this study is consistent with previous studies that examined the effect of PAD components on total PAD, including studies in Probolinggo and Bandung that used a similar approach for the 2018-2022 period [5]. Simple regression was used to determine the effect of each independent variable (local taxes, local levies, and other legitimate PAD) on PAD partially, with the general model:

$$Y = \alpha + bX$$

Where  $Y = \text{PAD}$ ,  $X = \text{independent variable}$ ,  $\alpha = \text{constant}$ , and  $b = \text{regression coefficient}$ .

The magnitude of the relationship between variables is calculated using the correlation coefficient (r), while the contribution of the independent variable to PAD is calculated using the coefficient of determination ( $K_d = r^2 \times 100\%$ ).

To determine the simultaneous influence of the three variables on PAD, a multiple regression model was used:

$$PAD = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

$PAD$  = Local Original Revenue

$X_1$  = Regional Tax

$X_2$  = Regional Retribution

$X_3$  = Other Legitimate Local Original Revenue

$\beta_0$  = constant

$\beta_1 \beta_2 \beta_3$  = regression coefficient

$\varepsilon$  = error

Tests were conducted using classical assumption tests (normality, multicollinearity, heteroscedasticity, and autocorrelation) to ensure model adequacy. Next, a t-test was conducted to determine the partial influence of each variable, an F-test to determine the simultaneous influence, and a coefficient of determination (R2) analysis to measure the model's ability to explain variations in PAD.

All analyses were conducted using SPSS version 26. A similar approach was also used by in analyzing regional tax and levy contributions in Probolinggo Regency so that this method is suitable for testing the simultaneous influence of independent variables on PAD.

### III. RESEARCH RESULTS

#### Data Overview

The research data includes the realization of Regional Taxes, Regional Levies, Other Legitimate PAD (Regional Original Revenue), and the total PAD for Minahasa Regency from 2018 to 2022.

In general, PAD has shown an upward trend each year. Moderate increases occurred in 2018-2019, but slowed in 2020 due to the impact of the COVID-19 pandemic. Several studies have noted a slowdown in PAD during 2020 due to the COVID-19 pandemic, particularly in items dependent on local economic activity [9]. The years 2021-2022 show a

return to growth as the regional economy recovers. Regional Taxes are the largest contributor to PAD, followed by Other Legitimate PAD, while the contribution of Regional Levies is relatively small.

Table 1. Development of PAD and its Components in Minahasa Regency 2018-2022

Tahun	Pajak Daerah (Rp)	Retribusi Daerah (Rp)	Lain-lain PAD yang Sah (Rp)	PAD Total (Rp)
2018	40.954,43	26.059,01	23.421,98	95.590,4
2019	40.130,38	27.156,82	26.899,69	99.604,25
2020	32.137,52	3.844,57	76.778,94	116.032,08
2021	40.527,93	2.562,22	47.291,39	94.147,73
2022	46.914,89	1.381,48	44.364,30	94.917,96

Gambar 1. Trend PAD Kabupaten Minahasa 2018-2022

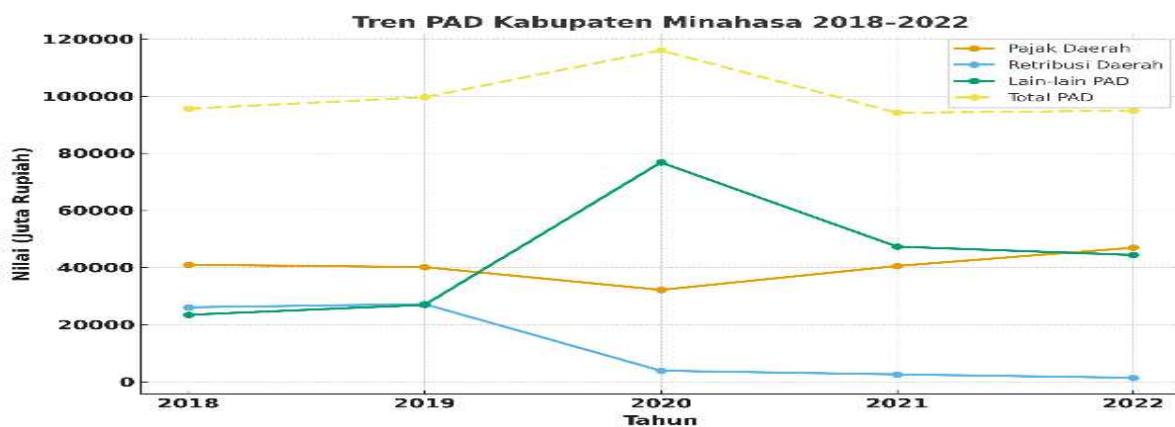


Figure 1 shows a relatively stable upward trend in Regional Taxes, while Other Legitimate Locally-Owned Revenue (PAD) fluctuated but showed an increase in 2022. This indicates that tax revenue intensification efforts have been quite successful, while other components are influenced by seasonal factors and government policies.

### Regression Analysis Results

Before conducting the analysis, the model was tested using classical assumptions, including normality, multicollinearity, heteroscedasticity, and autocorrelation. The test results indicated that the data were normally distributed (Sig. > 0.05), free from multicollinearity (VIF < 10), free from heteroscedasticity (Sig. > 0.05), and free from autocorrelation (DW approaching 2). Therefore, the model is suitable for use.

The multiple linear regression model used is:

$$Y = \alpha + b_1 X_1 + b_2 X_2 + b_3 X_3$$

The analysis results produce the following regression equation:

$$Y = 3,413 + 0,876X_1 + 0,497X_2 + 0,810X_3$$

Interpretation:

- Constant 3.413 → if  $X_1, X_2, X_3 = 0$ , then PAD remains at 3.413.
- Coefficient X1 (0.8760) → each unit increase in Regional Tax will increase PAD by 0.876 units.
- Coefficient X2 (0.497) → each unit increase in Retribution will increase PAD by 0.497 units.
- Coefficient X3 (0.810) → every 1 unit increase in Other Legitimate Locally-Owned Revenue (PAD) will increase PAD by 0.810 units.

Table 2. Results of Multiple Linear Regression Analysis

Variabel	Koefisien (B)	t-hitung	Sig.	Keterangan
Konstanta (a)	3,413	-	-	-
Pajak Daerah (X <sub>1</sub> )	0,876	3,361	0,044	Signifikan (+)
Retribusi Daaerah (X <sub>2</sub> )	0,497	0,282	0,796	Tidak Sginifikan
Lain-lain PAD (X <sub>3</sub> )	0,810	2,085	0,028	Signifikan (+)
R <sup>2</sup>	0,998			99.8% variasi PAD dijelaskan model

Source: SPSS Data Processing Results (2023)

F-Test

Model	F	Sig.
1 Regression	158.218	.048 <sup>b</sup>
Residual		
Total		

The F-test results show a calculated F value of +158.218 with a Sig. 0.048 (<0.05), indicating that all three variables simultaneously have a significant effect on PAD.

## Discussion

According to the ability-to-pay theory, taxes are mandatory contributions based on the community's economic capacity. Therefore, an increase in regional taxes in line with an increase in the tax base will drive an increase in PAD.

The analysis results indicate that regional taxes have a positive and significant effect on PAD. This strengthens the role of taxes as a primary source of fiscal independence. This result is consistent with the findings of, which state that regional taxes are the primary source

of PAD in various regions. The increase in taxes is in line with the increase in PAD during the study period.

Regional levies have a positive but insignificant effect, indicating their contribution to PAD is relatively small. This finding aligns with, which reports that the contribution of regional levies in Pontianak City is relatively small and does not significantly impact PAD during 2020-2022. A study in Garut Regency also found that the contribution of regional levies to local revenue (PAD) was less than 5%, indicating the need for tariff innovation and expansion of the levy base to increase its contribution. This could be due to limited levy objects, suboptimal tariffs, and low levels of public compliance.

Meanwhile, Other Legitimate PAD has a significant positive impact. Contributions from this item, such as proceeds from the sale of regional assets, bank interest, late fees, and other income, have been shown to help increase regional fiscal capacity. Research also confirms that other PAD revenue plays a crucial role as a flexible revenue source that regional governments can utilize to strengthen policies and support priority programs.

Overall, the research findings support the need for policies to optimize regional taxes and manage other legitimate PAD, as well as improve the levy collection system to increase its contribution to PAD.

The policy implications of this research are the need for strategies to strengthen regional taxes through intensified collection and tax base expansion, as well as improved management of regional levies. Regional governments can also encourage innovation in other PAD sources, such as optimizing unproductive regional assets.

#### **IV. CONCLUSION**

Based on the research results, it can be concluded that Regional Taxes have a positive and significant impact on Minahasa Regency's Original Regional Revenue (PAD). Therefore, it can be said that increased tax revenue will directly contribute to increased PAD. Meanwhile, Regional Levies have a positive but insignificant impact, indicating that their contribution to PAD is still relatively small and requires a collection optimization strategy. Other Legitimate Original Regional Revenues have been shown to have a positive and significant impact, thus becoming an important pillar in increasing regional fiscal capacity. Simultaneously, these three variables influence PAD, confirming that integrated management of all revenue components is crucial for strengthening regional finances.

The implications of these results are the need to intensify tax collection and improve levy management, as well as optimally utilize the potential of other PAD. These findings can form the basis for formulating regional policies to enhance fiscal independence.

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