The Effect of Regional Taxes and Regional Retributions on the Locally Generated Revenue of Medan City

Sheila Nur Aulia, Vina Arnita, Dito Aditia Darma Nasution

Abstract

This study aims to analyze the influence of regional taxes and regional retributions on Locally Generated Revenue (PAD) in Medan City. The implementation of regional autonomy in Indonesia grants local governments the authority to manage their own financial resources, with local taxes and retributions serving as key components of regional income. This study employs a quantitative associative method using secondary data obtained from the Central Statistics Agency (BPS) of North Sumatra for the period 2021–2024. Multiple linear regression analysis is used to test the hypotheses. The results reveal that both regional taxes and regional retributions have a positive and significant effect on PAD. These findings highlight the importance of strengthening tax collection systems and optimizing retribution management to enhance regional fiscal capacity.

Keywords: Local Taxes, Local Retributions, Local Own-Source Revenue (PAD)

Sheila Nur Aulia[1]
[1]Bachelor of Accounting, Universitas Pembangunan Panca Budi, Indonesia
e-mail: sheilanuraulia583@gmail.com[1]

Vina Arnita[2], Dito Aditia Darma Nasution[3]
[2,3]Bachelor of Accounting, Universitas Pembangunan Panca Budi, Indonesia
e-mail: vinaarnita@dosen.pancabudi.go.id[2], ditoaditia@dosen.pancabudi.ac.id[3]
2nd International Conference on Islamic Community Studies (ICICS)
Theme: History of Malay Civilisation and Islamic Human Capacity and Halal Hub in the Globalization Era
https://proceeding.pancabudi.ac.id/index.php/ICIE/index

Introduction

Indonesia's implementation of regional autonomy aims to empower local governments in managing public administration and finance to promote efficiency, accountability, and self-reliance. Local revenue, or Pendapatan Asli Daerah (PAD), plays a vital role in achieving these objectives. Among PAD components, regional taxes and retributions contribute significantly to funding local development. However, in Medan City, fluctuations in tax and retribution collection have impacted revenue growth. This research seeks to examine the relationship between regional tax and retribution revenues and PAD in Medan City from 2021 to 2024.

Local Taxes and Local Retributions are the most vital components of PAD, playing a significant role in financing local government and regional development. Medan City, as the provincial capital of North Sumatra and the third-largest city in Indonesia, holds a strategic position as the gateway to the Sumatra region, driving rapid economic and social changes. This dynamic environment presents both opportunities and challenges for optimizing revenue collection.

Based on data for Medan City from 2019 to 2022, PAD performance has been highly sensitive to external factors, such as the COVID-19 pandemic, which caused a drop in 2020. However, both Local Taxes and Local Retributions saw a significant increase in 2021-2022, leading to a substantial increase in PAD. This phenomenon necessitates a deeper analysis of the causal relationship between the two main revenue streams and overall PAD.

Literature Review

According to Agency Theory, as proposed by Supriyono (2018), there exists a contractual relationship between principals and agents, wherein local governments (agents) act on behalf of the public (principals) to manage resources responsibly. Regional tax refers to a compulsory contribution imposed by local governments to finance regional needs, while regional retribution is a fee charged for services or licenses provided by local authorities. Prior studies, such as those by Averia Sinaga (2025) and Manalu et al. (2023), have found that local tax revenues significantly impact PAD, whereas retributions often show a weaker influence.

Research Methodology

This research adopts a quantitative associative design. Secondary data were collected from the Medan City Government and the Central Bureau of Statistics (BPS) for 2021–2024. The dependent variable is Locally Generated Revenue (PAD), while the independent variables are regional tax revenue and regional retribution. Data were analyzed using multiple linear regression, with classical assumption tests (normality, multicollinearity, heteroscedasticity, and autocorrelation) performed to ensure model validity.

Results

The descriptive analysis shows that both regional taxes and retributions in Medan City experienced growth during 2021–2024, although the COVID-19 pandemic initially caused a decline in 2020. The regression results indicate that regional tax revenue has a significant positive effect on PAD, demonstrating that an increase in tax collection efficiency contributes to higher local revenue.

Table 1. Annual Regional Revenue Statistics

Year	Regional Fee	Regional Retribution	Regional Real Income
2019	1.732.098.260.569	177.218.150.000	2.312.760.384.058
2020	1.195.850.163	89.720.471	1.509.483.588
2021	1.693.934.904.956	118.230.575.004	2.139.239.943.474
2022	2.587.779.709.433	237.897.911.754	3.050.594.560.414

4.1 Descriptive Statistics

The descriptive statistics of all research variables, including the minimum, maximum, mean, and standard deviation values, are as shown in the table below

Table 2. Descriptive Statistics Results

	N	Regional Fee	Regional Retribution	Regional Real Income
Maksimum	32	2.587.779.709.433	237.897.911.754	3.050.594.560.414
Minimum	32	1.195.850.163	89.720.471	1.509.483.588
Mean	32	1.503.752.181.280	133.359.089.307	1.876.026.092.883
Std.Deviation	32	1.083.374.759.764	101.392.930.750	1.310.654.032.111

The table above shows that the number of data points (N) tested was 32. Furthermore, the minimum, maximum, average, and standard deviation values for each variable are as follows:

a. Regional Taxes
   Over the four-year period, the largest regional tax revenue, IDR 2,587,779,709,433, was generated in 2019 by Medan City. Meanwhile, the lowest regional tax revenue was in 2020, at IDR 1,195,850,163. The average regional tax revenue received over the four years, from 2019 to 2022, was IDR 1,503,752,181,280, with a standard deviation of IDR 1,083,374,759,764.
b. Regional Levies
   Over the four-year period, the largest regional levy was IDR 1,503,752,181,280. Medan City generated IDR 237,897,911,754 in 2019. Meanwhile, the lowest Regional Retribution revenue was in 2020, at IDR 89,720,471. The average Regional Retribution revenue received over the four years, from 2019 to 2022, was IDR 133,359,089,307, with a standard deviation of IDR 101,392,930,750.
c. Locally Generated Revenue
   Over the four-year period, Medan City generated the largest amount of Locally Generated Revenue, IDR 3,050,594,560,414, in 2019. The lowest Regional Retribution revenue was in 2020, at IDR 1,509,483,588. The average Regional Original Income received over the four years from 2019 to 2022 was Rp 1,876,026,092,883 with a standard deviation of Rp 1,310,654,032,111.

4.2 Classical Assumption Test

The classical assumption test in this study was conducted using SPSS. The following are the results of the classical assumption test based on existing secondary data, consisting of 32 items, with two dependent variables and one independent variable.

4.3 Normality Test

According to Ghozali (2016:103), the normality test aims to determine whether the regression model determines whether there is a correlation between normally distributed

independent variables. In this study, the researchers used two methods: the first using the One-Sample Kolmogorov-Smirnov Test.

Table 3. Normality Test Results (One-Sample Kolmogorov Test)

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		32
Normal Parameters[a,b]	Mean	.0003738
	Std. Deviation	12525638988 1.84874000
Most Extreme Differences	Absolute	.209
	Positive	.209
	Negative	-.203
Kolmogorov-Smirnov Z		.418
Asymp. Sig. (2-tailed)		.995

Based on the results of the Komogorov-Smirnov test, if the Asymp Sig (2-tailed) value is greater than 0.05, the residual value is considered normal. The table above shows that the Asymp Sig (2-tailed) value in the Unstandardized Residual column is 0.995, which is greater than 0.05 (0.995 > 0.05). This proves that the residual value in this study is normal.

4.4 Multicollinearity Test

The results of the multicollinearity test between the independent variables, namely Regional Taxes and Regional Levies, are shown in the table below.

Table 4. Multicollinearity Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	690.154.	205.836.		.335	.000		
	Pajak Daerah	,975	.503	.920	21,214	.000	.053	18.905
	Retribusi Daerah	,165	5.371	.077	1.186	.075	.053	18.905

To determine the Tolerance and Variance Inflating Factor (VIF) values, if the Tolerance value is greater than 0.1 and the VIF value is above 10, multicollinearity does not occur.

The table above shows that the tolerance value for each independent variable is greater than 0.1, i.e., 0.053 > 0.1. Meanwhile, the VIF value for each regional tax and regional

retribution variable is 18,905 < 10. Therefore, it can be concluded that there is no multicollinearity among these independent variables in the multiple linear regression model.

4.5 Heteroscedasticity Test

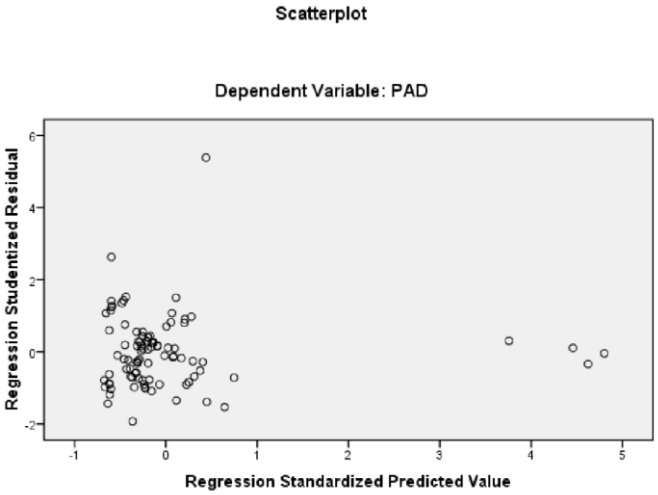

Figure 1. Heteroscedasticity Test Results

Based on the scatterplot output above, it can be concluded that there is no heteroscedasticity among the independent variables. This is because the points are spread above and below the Y-axis and do not have a regular pattern, thus there is no heteroscedasticity.

4.6 Autocorrelation Test

According to Ghozali (2018:112), the basis for decision-making in autocorrelation testing is the Durbin-Watson (DW) test. If du < dw < 4, du indicates no positive or negative autocorrelation, and the decision is not to reject.

Table 5. Autocorrelation Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.995[a]	.991	.973	2.170E+11	2.183

Based on the Model Summary table above, the Durbin Watson value is 2.090. Therefore, the calculation for the above data is as follows:
n = 32
dw = 2.183
dL = 1.5701 (based on the table)
dU = 1.3093 (based on the table)
4 – dL = 4 – 1.5701 = 2.4299
4 – dU = 4 – 1.7053 = 2.6907
From the calculation above, it can be concluded that the value of du < dw < 4 – du is 1.3093 < 2.183 < 2.6907, indicating that there is no autocorrelation in this data.

4.7 Partial Test (T-Test)

The partial test essentially shows the extent to which an independent explanatory variable individually explains the variation in the dependent variable. The results of the partial significance test (t-statistic) are shown in the following table.

Table 6. Partial Test Results (T-Test)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	690.154.	205.836.		.335	000
	Pajak Daerah	,975	.503	.920	21.214	000
	Retribusi Daerah	,165	5.371	.077	1.186	0.75

a. Dependent Variable: pendapatan Asli Daerah

A t-test was conducted to further investigate which of the independent variables had an impact on Regional Original Income (PAD). The results obtained for the table of 1.9754 are as follows:

a. The Regional Tax variable has a calculated t-value of 21.214 > 1.9754 with a significance level of 0.000 < 0.05. Therefore, it can be concluded that Regional Taxes influence Regional Original Income. This proves the hypothesis that there is an influence between Regional Tax Revenue and Medan City's Regional Original Income.
b. The Regional Retribution variable has a calculated t-value of 1.186 < 1.9754 with a significance level of 0.075 > 0.05. Based on these results, the hypothesis can be rejected. Therefore, it can be concluded that regional levies do not have a significant influence on Medan City's Regional Original Income.

4.8 Simultaneous Test (F Test)

The simultaneous test is used to determine whether all independent variables included in the regression model have a joint influence on the dependent variable (Ghozali, 2021). The results of the simultaneous test can be seen in the following table:

Table 7. Simultaneous Test Results (F Test)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.106E+24	2	2.553E+24	4.245	.000
	Residual	4.707E+22	1	4.707E+22		
	Total	5.153E+24	3			

Based on the table above, the F-test value is 4.245, with a significance level of 0.000, less than 0.05. It can be concluded that regional taxes and levies jointly influence Medan City's Regional Original Income.

4.9 Coefficient of Determination

The results of the coefficient of determination test are shown in the table below:

Table 9. Results of the Coefficient of Determination Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.995[a]	.973	.973	2.55E+24	2.183

The data table shows that the R-squared value is 0.973. This indicates that the simultaneous influence of Regional Taxes and Levies on Regional Original Income is 97.3%, with the remaining 2.7% explained by other factors not examined.

4.10 Multiple Regression Analysis

To determine the formulation of a multiple linear regression equation for the effect of regional tax and levy revenue on regional original income, a multiple linear regression analysis was conducted using SPSS software. The results are shown in the table below:

Table 10. Multiple Regression Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	690.154.	205.836.		.335	000
	Pajak Daerah	0,975	.503	.920	21.214	000
	Retribusi Daerah	.165	5.371	.077	1.186	0.75

Conclusion

This study concludes that regional taxes and regional retributions significantly influence the Locally Generated Revenue (PAD) of Medan City. To enhance PAD, local authorities should improve tax administration systems, optimize digital payment platforms, and strengthen retribution monitoring mechanisms. Future studies may include additional variables such as economic growth or government expenditure to provide a broader understanding of PAD determinants.

References

[1] Averia Sinaga, H. Sihombing, and A. Siahaan. The Effect of Regional Taxes and Retributions on Local Own-Source Revenue in North Sumatra. Journal of Regional Finance Studies.

[2] Manalu, S. P., Lubis, H., & Prayogi, O. Analysis of Regional Tax and Retribution Effects on Regional Revenue and Economic Growth. Indonesian Economic Review.

[3] Mardiasmo, S.. Regional Financial Management. Yogyakarta: Andi Publisher.

[4] Sugiyono. Quantitative, Qualitative, and R&D Research Methods. Bandung: Alfabeta.

[5] Wahyudi Nasir. Local Fiscal Autonomy and the Role of Taxation. Jakarta: Ministry of Finance Press.

[6] Azizati Ainul Haq. The Effect of Regional Taxes and Levies on the Original Regional Income of Sumbawa City. Journal of Economics & Business. http://e-journallppmunsa.ac.id/index.php/jeb

[7] Tasya Utami . The Effect of the Effectiveness of Regional Tax and Levies Revenue on the Original Regional Income of Medan City. Thesis, Medan Area University.

[8] Halomoan Sihombing. The Effect of Regional Taxes and Levies on the Original Regional Income of North Sumatra Province 2019-2023. DE_JOURNAL (Dharmas Education Journal) http://ejournal.undhari.ac.id/index.php/de_journal. E-ISSN: 2722-7839, P-ISSN: 2746-7732 Vol. 5 No. 1 2025, 769-786.

[9] Marianus Jebarut . The Effect of Regional Tax Revenue and Regional Levies on the Original Regional Income of Surabaya City. Jurnal Mitra Manajemen https://dx.doi.org/10.52160/ejmm.v5i8.565

[10] Mulatsih. Analysis of the Effectiveness, Contribution, and Regional Levies on the Original Regional Income of Bali Province for the 2016-2020 Period. Jurnal Ilmiah MEA (Management, Economics, and Accounting) Vol. 6 No. 3, 2022.

[11] Hafandi Y. The Effect of Regional Taxes, Results of Management of Separated Regional Assets, Regional Levies, and Other Legitimate Regional Income on the Original Regional Income of Wonosobo Regency. Journal of Economic, Management, Accounting, and Technology https://dx.doi.org/10.32500/jematech.v3i2.1337

[12] Law Number 28 of 2009 concerning Regional Taxes and Regional Levies.

[13] Law Number 33 of 2004 concerning Fiscal Balance between the Central and Regional Governments.

[14] Nasir, M. S.. Analysis of Regional Original Revenue Sources After One Decade of Regional Autonomy. Journal of Economic Development Dynamics, Vol. 2 No. 1, 30-45.

[15] Nasution, L. N., Suhendi, S., Rusiadi, R., Rangkuty, D. M., & Abdiyanto, A. Covid-19 Pandemic: Impact on Economic Stability in Eight-Eight Muslim Countries. Atestasi: Jurnal Ilmiah Akuntansi, 5(1), 336-352.