ISSN: 3031-4208

Journal of Marketing Management and Innovative Business Review, Vol. 4, No. 1, June 2026 || Page: 19-31
DOI: https://doi.org/10.63416/mrb.v4i1.457

Tax Intensification and Extensification in Enhancing Local Tax Revenue: Evidence from the Regional Revenue Agency of Berau Regency

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Submitted: 07-03-2026	Review: 15-03-2026	Revision: 01-04-2026	Accepted: 10-04-2026

Abstrak: Penerimaan pajak daerah merupakan komponen penting dalam meningkatkan kapasitas fiskal daerah dan mendukung pembiayaan pembangunan. Optimalisasi penerimaan pajak dapat dilakukan melalui strategi intensifikasi dan ekstensifikasi pajak yang dilaksanakan oleh pemerintah daerah. Penelitian ini bertujuan untuk menganalisis peran intensifikasi pajak dan ekstensifikasi pajak dalam peningkatan penerimaan pajak daerah pada Badan Pendapatan Daerah Kabupaten Berau. Penelitian menggunakan pendekatan kuantitatif dengan metode survei terhadap 40 pegawai Badan Pendapatan Daerah yang terlibat dalam pengelolaan pajak daerah. Data dikumpulkan melalui kuesioner dan dianalisis menggunakan regresi linear berganda dengan bantuan aplikasi IBM SPSS 31.00. Hasil penelitian menunjukkan bahwa intensifikasi pajak dan ekstensifikasi pajak memiliki hubungan positif dan signifikan dengan penerimaan pajak daerah. Secara parsial, intensifikasi pajak menunjukkan nilai t sebesar 3,991 dan ekstensifikasi pajak sebesar 4,192, keduanya lebih besar dari nilai t tabel 2,026 dengan tingkat signifikansi di bawah 0,05. Secara simultan, kedua variabel juga menunjukkan signifikansi statistik dengan nilai F sebesar 23,143 yang lebih besar dari F tabel 4,11. Temuan ini menegaskan bahwa penguatan administrasi perpajakan, peningkatan kepatuhan wajib pajak, serta perluasan basis pajak berkontribusi pada peningkatan penerimaan pajak daerah.

Kata kunci: intensifikasi pajak, ekstensifikasi pajak, penerimaan pajak daerah, administrasi perpajakan, pendapatan asli daerah.

Abstract: *Local tax revenue represents a crucial component in strengthening regional fiscal capacity and supporting sustainable regional development. Efforts to optimize tax revenue can be implemented through tax intensification and tax extensification strategies conducted by local governments. This study aims to examine the role of tax intensification and tax extensification in improving local tax revenue at the Regional Revenue Agency of Berau Regency. A quantitative approach was employed using a survey method involving 40 employees of the Regional Revenue Agency who are directly involved in local tax management. Data were collected through questionnaires and analyzed using multiple linear regression with the assistance of IBM SPSS version 31.00. The results indicate that tax intensification and tax extensification demonstrate positive and significant relationships with local tax revenue. Partially, tax intensification shows a t-value of 3.991 and tax extensification a t-value of 4.192, both exceeding the t-table value of 2.026 with significance levels below 0.05. Simultaneously, the two variables also demonstrate statistical significance with an F-value of 23.143, which is higher than the F-table value of 4.11. These findings highlight that strengthening tax administration, improving taxpayer compliance, and expanding the tax base contribute to the enhancement of local tax revenue.*

Keywords: *tax intensification, tax extensification, local tax revenue, tax administration, local own-source revenue.*

INTRODUCTION

Fiscal decentralization has strengthened the role of local governments in managing regional financial resources to support sustainable development. One of the most important sources of regional revenue is local taxation, which forms

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DOI: https://doi.org/10.63416/mrb.v4i1.457

a major component of Local Own-Source Revenue (PAD). The ability of local governments to optimize tax revenue reflects their fiscal independence and institutional capacity in financing public services and development programs (Vinita et al., 2025). In this context, effective tax administration becomes a crucial instrument for improving the performance of regional revenue systems.

In Indonesia, the implementation of regional financial autonomy has been reinforced through Law No. 1 of 2022 on Financial Relations between the Central Government and Regional Governments, which grants broader authority for local governments to explore and manage regional revenue sources. Local taxes therefore serve not only as a fiscal instrument but also as a policy mechanism that supports economic governance at the regional level. Effective management of local taxation requires strategic policies capable of maximizing existing tax potential while expanding the tax base to ensure sustainable revenue growth (Astuti et al., 2025; Setiawati et al., 2025).

In practice, many regional governments still face challenges in optimizing tax revenue. These challenges often include low taxpayer compliance, limited administrative capacity, and incomplete identification of taxable objects. As a result, local tax performance in many regions remains below its potential level (Andoi et al., 2025). To address these issues, governments commonly implement two main strategies: tax intensification and tax extensification. Tax intensification focuses on improving tax collection from existing taxpayers through administrative improvements, monitoring, enforcement, and service quality. Meanwhile, tax extensification emphasizes expanding the tax base by identifying new taxpayers and previously unrecorded tax objects (Mariana, 2024; Paembonan et al., 2024).

Empirical studies indicate that these strategies play an important role in strengthening tax performance at the regional level. Intensification policies help improve compliance and efficiency in tax administration, while extensification policies contribute to increasing the number of registered taxpayers and expanding the tax base (Mariana, 2024; Sulila, 2022). When implemented effectively, both strategies can complement each other in enhancing regional fiscal capacity.

At the regional level, the effectiveness of these strategies is highly dependent on the institutional performance of local revenue agencies. One example is the Regional Revenue Agency (Bapenda) of Berau Regency, which is responsible for managing and collecting various types of local taxes such as hotel tax, restaurant tax, entertainment tax, and land and building tax for rural and urban areas. Despite the economic potential of the region—particularly in mining, tourism, and trade sectors—the realization of local tax revenue has shown fluctuations in recent years.

Table 1. Target and Realization of Local Tax Revenue in Berau Regency

Year	Target (IDR)	Realization (IDR)	Achievement (%)
2022	145,000,000,000	138,500,000,000	95.52%
2023	160,000,000,000	150,300,000,000	93.94%
2024	175,000,000,000	168,700,000,000	96.40%

Source: Regional Revenue Agency of Berau Regency (2022–2024), processed data.

The data above indicate that although local tax revenue tends to increase in nominal terms, the realization rate has not consistently achieved the targeted level. This condition suggests that there are still untapped tax potentials and inefficiencies in tax management. Such circumstances highlight the importance of strengthening tax intensification and extensification strategies to ensure more optimal revenue performance.

From an administrative perspective, intensification and extensification policies are expected to improve revenue outcomes by enhancing taxpayer compliance, strengthening administrative monitoring, and expanding the tax base. However, the effectiveness of these strategies may vary across regions depending on institutional capacity, economic conditions, and policy implementation mechanisms. Therefore, empirical evaluation at the regional level becomes necessary to understand how these strategies contribute to improving tax revenue performance.

This study is important because local tax revenue plays a strategic role in strengthening regional fiscal independence and supporting sustainable regional development. Understanding how tax intensification and tax extensification contribute to improving local tax revenue is essential for designing effective tax management policies. Empirical evidence from Berau Regency is expected to provide insights for policymakers and local revenue authorities in optimizing tax administration strategies, particularly in regions with significant economic potential but fluctuating tax performance.

Research Problems

Based on the background described above, the research problems addressed in this study are:

1. How does tax intensification relate to the improvement of local tax revenue at the Regional Revenue Agency of Berau Regency?
2. How does tax extensification relate to the improvement of local tax revenue at the Regional Revenue Agency of Berau Regency?
3. How do tax intensification and tax extensification jointly relate to the improvement of local tax revenue in Berau Regency?

LITERATURE REVIEW

Grand Theory: Fiscal Decentralization and Public Finance Theory

The theoretical foundation of this study is grounded in **public finance theory** and **fiscal decentralization theory**, which emphasize the importance of local revenue generation to support regional autonomy and development. Fiscal decentralization provides local governments with authority to manage their own financial resources, including the collection of local taxes, to finance public services and development programs efficiently. In this context, local tax revenue becomes a critical indicator of regional fiscal independence and governance capacity.

Public finance theory explains that taxation is a fundamental instrument for governments to mobilize financial resources for public expenditure and economic development. In decentralized governance systems, local taxation enables subnational governments to reduce dependence on intergovernmental transfers and improve accountability in public financial management (Ariska & Shinta, 2025). Local taxes therefore serve as an essential mechanism for strengthening regional fiscal sustainability and ensuring the provision of public goods and services.

Fiscal decentralization also encourages local governments to optimize revenue collection through improved administrative capacity, efficient tax management, and the exploration of untapped revenue potential. Consequently, strategies such as tax intensification and tax extensification are widely adopted by local governments to strengthen revenue performance and improve fiscal capacity (Sulila, 2022).

Local Tax Revenue

Local tax revenue refers to income collected by regional governments from taxes imposed within their jurisdiction based on regional regulations. These taxes constitute an important component of Local Own-Source Revenue (Pendapatan Asli Daerah/PAD), which reflects the financial capability of local governments to fund development and public services independently (Setiawati et al., 2025).

According to recent studies, local taxes play a significant role in increasing regional fiscal capacity and reducing reliance on central government transfers. Higher tax revenue enables local governments to improve infrastructure, public service delivery, and socio-economic development programs. Empirical evidence shows that various types of local taxes—such as hotel tax, restaurant tax, and street lighting tax—contribute significantly to regional revenue growth when managed effectively (Ariska & Shinta, 2025).

Local tax revenue in this study refers to the amount of revenue collected from regional tax sources managed by the Regional Revenue Agency of Berau Regency.

Tax Intensification

Tax intensification refers to efforts undertaken by governments to optimize tax revenue from existing taxpayers and registered tax objects. This strategy focuses on improving tax administration, strengthening monitoring and supervision, increasing taxpayer compliance, and enhancing the efficiency of tax collection mechanisms.

Tax intensification measures may include updating taxpayer databases, improving tax services, strengthening tax enforcement, and utilizing information technology in tax administration. These efforts aim to maximize revenue potential from already identified tax sources while minimizing tax leakage and inefficiency in collection systems (Rahmawati et al., 2025).

Previous empirical studies demonstrate that tax intensification plays an important role in improving regional tax performance. By strengthening administrative procedures and increasing compliance levels, local governments can significantly increase revenue without necessarily expanding the tax base (Mariana, 2024).

Tax intensification in this study refers to efforts to optimize the collection of local taxes from existing taxpayers through improved administration, monitoring, compliance enforcement, and tax service quality.

Tax Extensification

Tax extensification refers to efforts undertaken by governments to expand the tax base by identifying new taxpayers or previously unregistered tax objects. This strategy aims to increase the number of taxpayers and broaden the coverage of taxable economic activities within a region.

Tax extensification activities may include mapping potential tax objects, registering new taxpayers, expanding tax databases, and integrating tax information systems with other government agencies. By increasing the number of taxable entities, local governments can expand revenue sources and improve long-term fiscal sustainability (Hadinata & Yogopriyatno, 2025).

Studies indicate that tax extensification is an important strategy for regions with growing economic sectors, as it allows governments to capture previously untapped tax potential. When combined with intensification strategies, extensification can significantly enhance local tax revenue performance (Pasolo et al., 2023).

Tax extensification in this study refers to efforts to expand the local tax base by identifying and registering new taxpayers or taxable objects within the jurisdiction of the Regional Revenue Agency.

Previous Studies

Several recent empirical studies have examined the relationship between tax intensification, tax extensification, and local tax revenue. Research conducted in Gorontalo City found that intensification and extensification strategies significantly contribute to increasing local own-source revenue, highlighting their importance in strengthening regional fiscal capacity (Sulila, 2022).

Similarly, a study conducted in Sumedang Regency demonstrated that both tax intensification and tax extensification positively influence regional tax revenue through improvements in tax administration and the expansion of the taxpayer base (Mariana, 2024).

Another study examining regional tax strategies emphasizes that improving administrative systems, strengthening supervision, and expanding the tax base are essential policy measures for increasing local tax revenue and achieving fiscal sustainability at the regional level (Rahmawati et al., 2025).

Hypothesis and Conceptual Model

Based on public finance theory and empirical findings from previous studies, tax intensification and tax extensification are expected to contribute positively to local tax revenue performance. Improved administrative efficiency and enhanced taxpayer compliance through intensification strategies are likely to increase revenue collection from existing tax sources. Meanwhile, extensification strategies expand the tax base by identifying new taxpayers and taxable objects, which also contributes to higher revenue generation.

Accordingly, the hypotheses proposed in this study are as follows:

H1: Tax intensification is positively associated with local tax revenue.

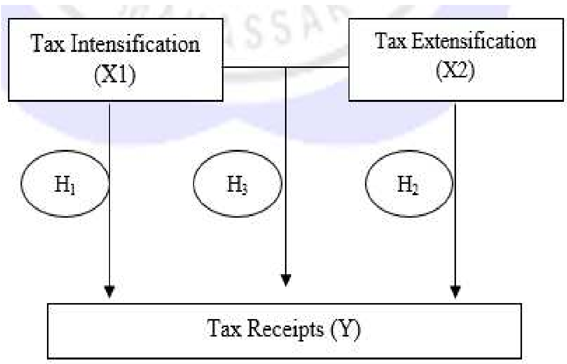
H2: Tax extensification is positively associated with local tax revenue.

H3: Tax intensification and tax extensification jointly contribute to the improvement of local tax revenue.

Based on the theoretical framework and previous empirical studies discussed in the literature review, tax intensification and tax extensification are considered important strategies in improving the performance of local tax revenue. Tax intensification focuses on optimizing revenue from existing taxpayers through improved administrative systems, monitoring, and compliance enforcement. Meanwhile, tax extensification aims to expand the tax base by identifying new taxpayers and previously unrecorded tax objects. Both strategies are expected to contribute to increasing the effectiveness of local tax management conducted by regional revenue authorities.

In the context of regional fiscal management, the implementation of these strategies is assumed to strengthen local tax performance and ultimately increase regional revenue capacity. Therefore, this study examines the relationship between tax intensification and tax extensification with local tax revenue at the Regional Revenue Agency of Berau Regency. Based on these theoretical considerations, the conceptual framework of this study illustrates the relationship between the independent variables—tax intensification and tax extensification—and the dependent variable, namely local tax revenue.

The conceptual framework of this study is presented in **Figure 1** below.



Source: Author perception's, 2026

Figure 1. Conceptual Framework

METHODS

Research Design

This study employed a **quantitative research approach** using an explanatory research design to examine the relationship between tax intensification, tax extensification, and local tax revenue. Quantitative research is appropriate for examining relationships among variables through statistical analysis and testing predetermined hypotheses (Sugiyono, 2020). The explanatory design aims to analyze the extent to which independent variables influence the dependent variable through empirical testing.

The study focused on analyzing how tax intensification and tax extensification strategies implemented by the regional government contribute to improving local tax revenue performance. Data were collected using structured questionnaires distributed to employees involved in tax administration and management.

Research Location and Time

This research was conducted at the **Regional Revenue Agency (Badan Pendapatan Daerah/Bapenda) of Berau Regency**, which is responsible for managing and collecting local tax revenue within the region. The selection of this institution as the research location was based on its strategic role in implementing tax intensification and tax extensification policies.

Data collection was conducted from December 2025 to February 2026, during which questionnaires were distributed directly to employees who are involved in tax administration, data management, and tax collection activities.

Population, Sample, and Sampling Technique

The population of this study consisted of all employees working at the Regional Revenue Agency of Berau Regency who are involved in local tax administration and management activities.

Given the relatively limited population size, this study applied a saturated sampling technique (census sampling) in which all members of the population were included as research respondents. According to Sugiyono (2020), saturated sampling is appropriate when the population size is relatively small and all members can be observed directly. Therefore, the total number of respondents included in this study was 40 employees.

Using a saturated sampling approach allows the researcher to obtain comprehensive information regarding the implementation of tax intensification and extensification policies within the organization.

Research Variables and Operational Definitions

This study involved three main variables: two independent variables and one dependent variable.

Table 2. Operational Definitions of Variables

Variable	Type	Operational Definition
Tax Intensification (X1)	Independent	Efforts undertaken by the regional government to optimize tax collection from existing taxpayers through improved administration, monitoring, and enforcement.
Tax Extensification (X2)	Independent	Efforts to expand the tax base by identifying new taxpayers or previously unregistered tax objects within the region.
Local Tax Revenue (Y)	Dependent	The level of revenue obtained from local tax sources managed by the Regional Revenue Agency.

Source: Previous study (2026)

DOI: https://doi.org/10.63416/mrb.v4i1.457

The variables were measured using indicators adapted from previous taxation and public finance studies. Responses were collected using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Data Collection Techniques

The data used in this study consisted of primary data collected through questionnaires distributed to respondents. The questionnaire instrument was designed to capture respondents' perceptions regarding the implementation of tax intensification, tax extensification, and their contribution to local tax revenue (Sekaran & Bougie, 2017).

In addition to primary data, secondary data were obtained from institutional documents, official reports, and regional financial statistics related to local tax revenue performance in Berau Regency.

Data Analysis Technique

Data analysis was conducted using multiple linear regression analysis with the assistance of statistical software. Multiple regression analysis is used to determine the relationship between two or more independent variables and one dependent variable (Okello, 2024).

Before performing regression analysis, several classical assumption tests were conducted to ensure the validity of the regression model, including:

1. Validity Test – to measure the accuracy of questionnaire items in representing the research variables (Ghozali, 2021).
2. Reliability Test – to assess the consistency of the measurement instrument (Ghozali, 2021).
3. Normality Test – to determine whether the data are normally distributed (Riadi, 2016).
4. Multicollinearity Test – to identify correlations among independent variables (Riadi, 2016).
5. Heteroscedasticity Test – to examine the variance of residuals in the regression model (Riadi, 2016).

The regression model used in this study can be expressed as follows:

$$Y=\alpha+\beta 1X1+\beta 2X2+\varepsilon$$

Where:
Y = Local Tax Revenue
α = Constant
β1, β2 = Regression coefficients
X1 = Tax Intensification
X2 = Tax Extensification
ε = Error term

Hypothesis testing was conducted using **t-tests** to evaluate the partial effect of each independent variable on the dependent variable and F-tests to evaluate the simultaneous effect of all independent variables on local tax revenue (Okello, 2024). The coefficient of determination (**R^2**) was also calculated to determine the proportion of variance in the dependent variable explained by the independent variables (Pallant, 2020).

RESULTS AND DISCUSSION

Overview of the Research Object

This research was conducted at the Regional Revenue Agency (Badan Pendapatan Daerah/Bapenda) of Berau Regency. This institution is responsible for managing and collecting regional revenue derived from local taxes and other legitimate regional income sources. The agency plays a crucial role in supporting regional fiscal capacity and ensuring the sustainability of local government development programs.

The Regional Revenue Agency of Berau Regency carries out several strategic functions related to regional taxation, including tax data collection, taxpayer registration, tax assessment, tax collection, and supervision of taxpayer compliance. In addition, the agency also implements various policies aimed at optimizing tax revenue, including tax intensification and tax extensification strategies.

Tax intensification refers to efforts made by the government to increase tax revenue from existing taxpayers through improved administrative systems, monitoring mechanisms, and enforcement policies. Meanwhile, tax extensification aims to expand the tax base by identifying new taxpayers or previously unregistered tax objects within the region.

Considering the increasing demand for regional development funding, optimizing tax revenue has become a strategic priority for the local government of Berau Regency. Therefore, evaluating the effectiveness of intensification and extensification strategies in improving tax revenue is essential for strengthening regional fiscal performance.

Characteristics of Respondents

The respondents involved in this study were employees working at the Regional Revenue Agency of Berau Regency who are directly involved in tax administration and revenue management activities. A total of **40 respondents** participated in this study using a saturated sampling technique.

The characteristics of respondents were analyzed based on several demographic indicators, including gender, age, and level of education.

Table 3. Characteristics of Respondents

Characteristics	Category	Frequency	Percentage
Gender	Male	24	60%
	Female	16	40%
Age	21–30 years	10	25%
	31–40 years	15	37.5%
	41–50 years	9	22.5%
	> 50 years	6	15%
Education Level	Diploma	6	15%
	Bachelor Degree	28	70%
	Master Degree	6	15%

Source: Processed primary data (2026)

The table above shows that the majority of respondents are male employees (60%). Based on age distribution, most respondents are in the productive age group of 31–40 years (37.5%). In terms of educational background, most respondents hold a bachelor's degree (70%), indicating that the majority of employees involved in tax administration possess an adequate educational background to support tax management activities.

Instrument Testing

Validity Test. The validity test was conducted to determine whether the questionnaire items accurately measure the research variables. The test was performed by comparing the correlation coefficient (r-count) with the r-table value at a significance level of 5%.

With a sample size of 40 respondents, the r-table value is 0.312 (Riadi, 2016).

Table 4. Validity Test Results

Variable	Item	r-count	Result
	IN1	0.755	Valid
Tax Intensification (X1)	IN2	0.731	Valid
	IN3	0.645	Valid
	IN4	0.828	Valid
	IN5	0.799	Valid
	IN6	0.761	Valid
	IN7	0.766	Valid
	IN8	0.395	Valid
	IN9	0.780	Valid
	IN10	0.838	Valid
	EK1	0.873	Valid
	EK3	0.797	Valid
	EK4	0.745	Valid
	EK5	0.754	Valid
Tax Extensification (X2)	EK6	0.806	Valid
	EK7	0.833	Valid
	EK8	0.810	Valid
	EK9	0.786	Valid
	EK10	0.782	Valid
	P1	0.733	Valid
	P2	0.391	Valid
	P3	0.779	Valid
	P4	0.811	Valid
	P5	0.724	Valid
Local Tax Revenue (Y)	P6	0.733	Valid
	P7	0.819	Valid
	P8	0.774	Valid
	P9	0.825	Valid
	P10	0.802	Valid

Source: SPSS output (2026)

As presented in **Table 4**, all questionnaire items for the variables of tax intensification, tax extensification, and local tax revenue have r-count values greater than the r-table value (0.312). The correlation values range from 0.391 to 0.873, indicating that all measurement items are statistically valid.

These results demonstrate that the questionnaire used in this study is capable of accurately measuring the intended research variables and is therefore appropriate for further statistical analysis.

Reliability Test. The reliability test was conducted to assess the consistency of the measurement instrument (Ghozali, 2021; Okello, 2024). The results indicate that the research variables have Cronbach's Alpha values greater than 0.70, which means that the research instrument is considered reliable and consistent (See **Table 5**).

DOI: https://doi.org/10.63416/mrb.v4i1.457

Table 5. Reliability Test Results

No.	Variable	Cronbach's Alpha	Interpretation
1	Tax Intensification (X1)	0.902	Reliable
2	Tax Extensification (X2)	0.928	Reliable
3	Local Tax Revenue (Y)	0.909	Reliable

Source: SPSS Output (2026)

Classical Assumption Tests

Normality Test. The normality test was conducted using the One-Sample Kolmogorov–Smirnov test. The results show that the Asymp. Sig. (2-tailed) value is 0.200, which is greater than the significance level of 0.05. Therefore, it can be concluded that the residual data are normally distributed, indicating that the regression model satisfies the normality assumption (Pallant, 2020).

Table 6. One-Sample Kolmogorov–Smirnov Normality Test Results

Description	Value
Sample Size (N)	40
Mean	0.000
Std. Deviation	3.101
Most Extreme Differences (Absolute)	0.051
Most Extreme Differences (Positive)	0.048
Most Extreme Differences (Negative)	-0.051
Test Statistic	0.051
Asymp. Sig. (2-tailed)	0.200
Monte Carlo Sig. (2-tailed)	0.998
99% Confidence Interval – Lower Bound	0.997
99% Confidence Interval – Upper Bound	0.999

Source: SPSS output (2026)

Multicollinearity Test.

The multicollinearity test was conducted to determine whether a high correlation exists among the independent variables in the regression model. A good regression model should not exhibit multicollinearity. The model is considered free from multicollinearity if the Tolerance value is greater than 0.10 and the Variance Inflation Factor (VIF) value is less than 10 (Ghozali, 2021; Okello, 2024).

Table 7. Results of the Multicollinearity Test (Collinearity Statistics)

No.	Variable	Tolerance	VIF	Interpretation
1	Tax Intensification (X1)	0.924	1.083	No multicollinearity
2	Tax Extensification (X2)	0.924	1.083	No multicollinearity

Based on the output of the Coefficients table, the tolerance value for the variables Tax Intensification (X1) and Tax Extensification (X2) is 0.924, while the Variance Inflation Factor (VIF) value is 1.083.

These results indicate that the Tolerance values are greater than 0.10 and the VIF values are below 10, which means that the regression model does not exhibit multicollinearity. Therefore, it can be concluded that the independent variables in this study do not have strong correlations with each other, and the regression model satisfies the classical assumption of multicollinearity.

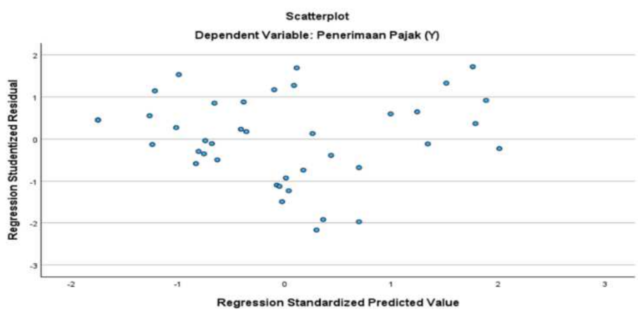
Heteroscedasticity Test.

The heteroscedasticity test was conducted to determine whether there is a variance inequality of residuals across the predicted values of the independent variables in the regression model. A good regression model should not exhibit heteroscedasticity; instead, it should demonstrate homoscedasticity, meaning that the residual variance remains constant across observations (Pallant, 2020).

In this study, the heteroscedasticity test was performed using the Scatterplot graphical method. This method examines the pattern of data distribution between the Regression Standardized Predicted Value and the Regression Studentized Residual. If the points are randomly distributed above and below the zero line on the Y-axis without forming a specific pattern, the regression model is considered free from heteroscedasticity.

The results of the heteroscedasticity test are presented in **Figure 3**.

Figure 3. Scatterplot



Source: SPSS output (2026)

Multiple Linear Regression Analysis

The multiple linear regression analysis was conducted to determine the relationship between tax intensification, tax extensification, and local tax revenue.

The regression equation obtained is:

$$Y=2.936+0.431X1+0.473X2$$

Where:
Y = Local Tax Revenue
X1 = Tax Intensification
X2 = Tax Extensification

The regression equation indicates that:

- The tax intensification coefficient (0.431) indicates that an increase of one unit in tax intensification will increase local tax revenue by 0.431 units, assuming other variables remain constant.
- The tax extensification coefficient (0.473) indicates that an increase of one unit in tax extensification will increase local tax revenue by 0.473 units.

Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used to measure the extent to which the regression model explains the variation in the dependent variable (Ghozali, 2021; Riadi, 2016). The value of R^2 ranges from 0 to 1. A value closer to 1 indicates that the independent variables provide stronger explanatory power in predicting the dependent variable.

However, because the R^2 value can be biased by the number of independent variables included in the model, many researchers recommend using the Adjusted R Square value when evaluating the best regression model. The Adjusted R Square adjusts the R^2 value based on the number of predictors in the model.

The results of the coefficient of determination test are presented in **Table 8**.

Table 8. Coefficient of Determination (Model Summary)

Model	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.556	0.532	3.184

Source: SPSS output (2026)

Based on the Model Summary analysis, the Adjusted R Square value is 0.532, which indicates that 53.2% of the variation in Local Tax Revenue can be explained by Tax Intensification and Tax Extensification included in the regression model. This result suggests a moderate level of relationship between the independent variables and the dependent variable.

Meanwhile, the remaining 46.8% of the variation in tax revenue is influenced by other factors outside the scope of this study, such as tax sanctions, tax audits, and other administrative variables. Previous studies have also identified additional determinants affecting tax revenue performance. For example, Permadi (2020) found that tax sanctions significantly influence the increase in land and building tax revenue, while Sari (2021) demonstrated that tax audits have a significant effect on tax revenue at the tax office level. These findings indicate that tax administration policies and enforcement mechanisms can also contribute to improving tax revenue performance.

Hypothesis Testing

Table 9. Hypothesis Testing Results (t-test)

No.	Variable	t-count	t-table	Sig.	Decision	Hypothesis Result
1	Tax Intensification → Local Tax Revenue	3.991	2.026	<0.001	Significant	Accepted
2	Tax Extensification → Local Tax Revenue	4.192	2.026	<0.001	Significant	Accepted

Source: SPSS output (2026)

The t-test (partial test) was conducted to determine the individual effect of each independent variable on the dependent variable, namely local tax revenue. The hypothesis is accepted if the t-count value is greater than the t-table value and the significance level is less than 0.05.

Based on the results presented in **Table 9**, the tax intensification variable shows a t-count value of 3.991, which is higher than the t-table value of 2.026, with a significance value of less than 0.001. These results indicate that tax intensification has a positive and statistically significant effect on local tax revenue. Therefore, the first hypothesis is accepted. This finding suggests that improving tax administration, monitoring systems, and taxpayer compliance can significantly enhance the performance of regional tax revenue.

Similarly, the tax extensification variable shows a t-count value of 4.192, which is also

DOI: https://doi.org/10.63416/mrb.v4i1.457

higher than the t-table value of 2.026, with a significance level of less than 0.001. This result indicates that tax extensification has a positive and significant effect on local tax revenue, meaning that the second hypothesis is also accepted. The finding implies that expanding the tax base through the identification of new taxpayers and previously unregistered tax objects contributes significantly to increasing regional tax revenue.

Overall, these results demonstrate that both tax intensification and tax extensification play important roles in strengthening local tax revenue performance, highlighting the importance of combining administrative improvements with strategies aimed at expanding the regional tax base.

Simultaneous Test (F-test)

The F-test was conducted to determine the simultaneous effect of the independent variables on the dependent variable (Okello, 2024).

Table 10. F-Test Results

F-count	F-table	Significance
23.143	4.11	<0.001

Source: SPSS output (2026)

Since F-count (23.143) > F-table (4.11) and the significance value is less than 0.05, it can be concluded that tax intensification and tax extensification simultaneously have a significant effect on local tax revenue. H3 accepted.

Discussion

This section discusses the empirical findings of the study in relation to the proposed hypotheses, relevant theories, and previous empirical studies. The discussion aims to explain why the observed relationships occur and to highlight the theoretical and practical implications of the findings.

Effect of Tax Intensification on Local Tax Revenue

The results of the hypothesis testing indicate that tax intensification has a positive and statistically significant effect on local tax revenue. This finding is supported by the t-test result showing a t-count value of 3.991, which exceeds the t-table value of 2.026, with a significance level of less than 0.001. Therefore, the first hypothesis stating that tax intensification significantly influences local tax revenue is accepted.

This result suggests that improving tax administration, monitoring mechanisms, and taxpayer compliance contributes significantly to increasing regional tax revenue. Tax intensification strategies often include strengthening tax administration systems, improving taxpayer services, updating taxpayer databases, and increasing the effectiveness of tax supervision. These measures enable local governments to optimize revenue from existing taxpayers and reduce potential tax leakage.

From the perspective of public finance theory, improving tax administration and compliance can significantly enhance revenue collection efficiency. When taxpayers comply with tax regulations and administrative procedures function effectively, the government can maximize the revenue potential from existing tax bases.

This finding is consistent with previous empirical studies. For instance, Mariana (2024) found that tax intensification has a significant positive effect on regional tax revenue because it improves administrative efficiency and taxpayer compliance. Similarly, Pasolo et al. (2023) demonstrated that strengthening tax administration and compliance mechanisms contributes significantly to increasing tax revenue. These findings confirm that administrative improvements are an essential strategy for optimizing local tax performance.

However, the present study provides additional empirical evidence in the context of regional tax administration at the local government level, particularly within the Regional Revenue Agency of Berau Regency. The results suggest that intensification policies implemented by the agency have been relatively effective in improving tax revenue performance.

Effect of Tax Extensification on Local Tax Revenue

The empirical results also indicate that tax extensification has a positive and significant effect on local tax revenue. The t-test shows a t-count value of 4.192, which is greater than the t-table value of 2.026, with a significance level of less than 0.001. Therefore, the second hypothesis is also accepted.

This finding implies that expanding the tax base through the identification of new taxpayers and previously unregistered tax objects contributes significantly to increasing regional tax revenue. Tax extensification strategies are particularly important in regions experiencing economic growth because they enable governments to capture new tax potentials that were previously untapped.

From a theoretical perspective, fiscal decentralization theory emphasizes that local governments must actively explore and optimize their own revenue sources to strengthen fiscal independence. Expanding the tax base through extensification policies helps local governments increase revenue capacity while reducing dependence on intergovernmental transfers.

This result is also supported by previous studies. Hadinata & Yogopriyatno (2025) found that tax extensification significantly contributes to increasing regional tax revenue by expanding the number of registered taxpayers. Similarly, Pasolo et al. (2023) demonstrated that tax extensification plays a crucial role in increasing tax receipts by identifying new taxable entities.

The present study contributes to the literature by providing empirical evidence from Berau Regency, a region with considerable economic potential. The findings indicate that extensification strategies implemented by the regional revenue agency have successfully expanded the taxpayer base, thereby contributing to increased tax revenue.

Simultaneous Effect of Tax Intensification and Tax Extensification

The results of the statistical analysis also demonstrate that tax intensification and tax extensification simultaneously influence local tax revenue. The F-test result shows an F-count value of 23.143, which exceeds the F-table value of 4.11, with a significance level below 0.05.

This finding indicates that improving tax revenue performance requires a combination of strategies rather than relying on a single policy approach. While intensification focuses on maximizing revenue from existing taxpayers, extensification aims to expand the overall tax base. When implemented together, these strategies can create a more effective and sustainable tax administration system.

The coefficient of determination (Adjusted R^2) of 0.532 indicates that approximately 53.2% of the variation in local tax revenue can be explained by tax intensification and tax extensification. This suggests that both variables play a significant role in influencing regional tax performance, although other factors also contribute to tax revenue outcomes.

Theoretical Implications

From a theoretical perspective, the findings of this study strengthen the relevance of public finance theory and fiscal decentralization theory in explaining the determinants of local tax revenue. The results demonstrate that both administrative efficiency (tax intensification) and tax base expansion (tax extensification) are key mechanisms through which local governments can enhance revenue capacity.

The study also contributes to the literature by providing empirical evidence that supports the argument that optimizing tax administration and expanding the tax base are complementary strategies in improving tax performance. This finding adds to the growing body of research emphasizing the importance of integrated tax management strategies in decentralized fiscal systems.

Practical Implications

The findings of this study provide several practical implications for policymakers and regional revenue authorities.

First, local governments should continue strengthening tax intensification strategies, particularly by improving tax administration systems, enhancing monitoring mechanisms, and increasing taxpayer compliance through better services and supervision.

Second, regional revenue agencies should also expand tax extensification programs, including identifying potential tax objects, updating taxpayer databases, and improving coordination with other government institutions to detect new taxable economic activities.

Third, policymakers should recognize that improving local tax revenue requires an integrated approach combining both administrative optimization and tax base expansion. Implementing these strategies simultaneously can help local governments achieve more sustainable revenue growth.

Overall, the results of this study highlight the importance of strategic tax management policies in strengthening regional fiscal capacity and supporting sustainable regional development.

CONCLUSION

This study aimed to examine the role of tax intensification and tax extensification in improving local tax revenue at the Regional Revenue Agency of Berau Regency. Based on the empirical analysis conducted using multiple linear

DOI: https://doi.org/10.63416/mrb.v4i1.457

regression, the results indicate that both tax intensification and tax extensification play important roles in strengthening regional tax revenue performance. The findings demonstrate that efforts to optimize existing taxpayers and expand the tax base contribute significantly to improving the effectiveness of local tax collection.

The results of the partial hypothesis testing show that tax intensification has a positive and significant effect on local tax revenue. This finding indicates that improving tax administration, strengthening monitoring mechanisms, and enhancing taxpayer compliance can effectively increase regional tax revenue. Therefore, the first hypothesis proposed in this study is accepted. These results emphasize the importance of administrative efficiency and compliance management in optimizing revenue from existing taxpayers.

Furthermore, the analysis also reveals that tax extensification has a positive and significant effect on local tax revenue, indicating that expanding the tax base through the identification of new taxpayers and previously unregistered tax objects contributes significantly to increasing tax revenue. Consequently, the second hypothesis is also accepted. This finding highlights the importance of exploring untapped tax potential to strengthen the fiscal capacity of local governments.

Simultaneously, tax intensification and tax extensification were found to have a significant influence on local tax revenue. This result suggests that improving regional tax performance requires an integrated strategy that combines administrative optimization with tax base expansion. In this context, regional revenue authorities are encouraged to implement both strategies simultaneously in order to achieve sustainable improvements in local tax revenue performance.

From a theoretical perspective, this study supports the relevance of public finance and fiscal decentralization theories in explaining the determinants of local tax revenue. Practically, the findings provide useful insights for policymakers and regional revenue authorities in designing effective tax management strategies. Strengthening tax administration systems while expanding the taxpayer base can help local governments increase fiscal capacity and reduce dependence on central government transfers.

Research Limitations and Future Research Directions. This study has several limitations. First, the research was conducted within a single regional revenue agency with a relatively small sample size, which may limit the generalizability of the findings to other regions. Second, the study only examined two independent variables, namely tax intensification and tax extensification, while other factors such as tax sanctions, tax audits, taxpayer awareness, and administrative capacity may also influence local tax revenue performance. Future research is therefore recommended to include additional variables and broader research settings across different regions to provide a more comprehensive understanding of the determinants of local tax revenue.

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