

ANALYSIS OF THE FLYPAPER EFFECT AND THE EFFECT OF LOSR, INTERGOVERNMENTAL REVENUE ON REGIONAL EXPENDITURE

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Abstract

The objectives of this study are to determine: (1) LOSR, Intergovernmental Revenue, and Regional Expenditure in Provincial Governments in Indonesia in 2020-2024, (2) The simultaneous effect of LOSR and Intergovernmental Revenue on Regional Expenditure in Provincial Governments in Indonesia in 2020-2024, (3) The partial effect of LOSR and Intergovernmental Revenue on Regional Expenditure in Provincial Governments in Indonesia in 2020-2024, and (4) The Flypaper Effect on Regional Expenditure in Provincial Governments in Indonesia in 2020-2024. The research method used is a quantitative descriptive method with a study approach. The data used in this study is secondary data from the Statement of Budget Realization obtained through the DJPK website. The analysis method used is panel data regression with the Eviews 13 analysis software tool. The results of the study show: (1) LOSR, Intergovernmental Revenue, and Regional Expenditure have varying values each year, (2) Simultaneously, LOSR and Intergovernmental Revenue affect Regional Expenditure, (3) Partially, LOSR has a positive effect on Regional Expenditure, (4) Partially, Intergovernmental Revenue have a positive effect on Regional Expenditure, and (5) There are indications of a Flypaper Effect on Regional Expenditure in 24 provinces in Indonesia.

Keywords: Local Own-Source Revenue, Intergovernmental Revenue, Regional Expenditure, Flypaper Effect

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1. Introduction

As an archipelagic nation with a vast and diverse territory, the Unitary State of the Republic of Indonesia faces challenges in ensuring equitable development and the administration of government. Its geographical expanse, stretching from Sabang to Merauke, coupled with differences in economic, social and cultural potential between regions, necessitates a system of government capable of adapting to the characteristics of each region. It is within this context that Indonesia has implemented a decentralisation system as a means of devolving certain powers from the central government to local governments.

From a financial perspective, regional autonomy is implemented through fiscal decentralisation, which grants local governments the right to levy taxes, fees, and other revenues to meet the expenditure needs of their own regions (Wulandari & Nurhayati, 2025). In the context of implementing regional autonomy, Article 309 of Law No. 23 of 2014 on Regional Government defines the Regional Revenue and Expenditure Budget as the basis for regional financial management over a single fiscal year in accordance with the law on state finances. This study focuses on two main revenue components within the APBD, namely Local Own-Source Revenue (LOSR) and Intergovernmental Revenue.

In practice, a region's ability to generate LOSR is highly dependent on the specific conditions of each region (Wulandari & Nurhayati, 2025). Consequently, regional expenditure cannot be fully funded by LOSR. These financial disparities between regions can lead to inequality (Allya & Rahmawati, 2023). To address these fiscal disparities between regions, the central government channels transfer funds as a form of financial support from the central government to local governments as part of the implementation of fiscal decentralisation.

Based on data from the Statement of Budget Realization uploaded by DJPK, between 2020 and 2024, the average for provinces in Indonesia showed a trend of varying increases in regional expenditure. In practice, to finance these various expenditure needs, some local governments in Indonesia remain heavily reliant on transfer funds from the central government (Wibowo & Widodo, 2023). This is reflected in the composition of the Intergovernmental Revenue, which is larger than the Local Own-Source Revenue (LOSR) in 17 provinces consecutively from 2020 to 2024.

The mindset of local governments, which views transfer funds as intended to meet their regional needs, has led to greater reliance on central government funds to cover local expenditure rather than utilising their own local revenue (Kesuma et al., 2022). This situation indicates an anomaly in regional fiscal behaviour known as the Flypaper Effect. This occurs with transfer funds that are unconditional in nature, meaning they have no specific criteria for their use.

There have been several studies examining the Flypaper Effect on local government expenditure; one such study, by Kesuma, Sari, Amri, and Masnoni (2022), found that LOSR and GAF have a significant positive partial effect on local government expenditure. Meanwhile, SAF has no effect, and the Flypaper Effect occurs in Regional Expenditure for Regencies/Cities in South Sumatra Province because the GAF coefficient is greater than the LOSR coefficient. Meanwhile, research conducted by Fitriani, Haykal, Murhaban, and Indrayani (2024) found that neither LOSR, SAF nor RSF had an effect, whilst GAF had a significant positive effect on Regional Expenditure. Furthermore, the Flypaper Effect occurs in districts and cities in Aceh Province.

Based on the above, this study aims to analyse the Flypaper Effect and the influence of Local Own-Source Revenue and Intergovernmental Revenue on Regional Expenditure, both partially and simultaneously, in provincial local governments in Indonesia from 2020 to 2024. It is hoped that this study will contribute to the development of public sector accounting and serve as a basis for consideration by policymakers in formulating strategies for more sustainable and self-reliant local financial management.

2. Literature Review and Hypothesis Development

2.1 Stewardship Theory

Stewardship Theory, developed by Donaldson and Davis (1991), suggests that managers or organizational members act as stewards who are entrusted to manage resources responsibly and pursue objectives aligned with the interests of the organization and its stakeholders. In contrast to Agency Theory, which assumes that individuals are primarily motivated by personal interests, Stewardship Theory emphasizes that individuals are driven by a sense of responsibility, commitment, and the desire to achieve collective goals. Within the public sector context, local governments are viewed as stewards who are responsible for managing public resources effectively to promote community welfare through transparent and accountable financial practices.

Regarding the analysis of the flypaper effect and the relationship between Local Own-Source Revenue (LOSR), intergovernmental revenue, and regional expenditure, Stewardship Theory highlights the responsibility of local governments in managing various sources of fiscal resources optimally. LOSR represents the financial independence and capacity of local governments to generate revenue internally, whereas intergovernmental revenue reflects financial assistance provided by the central government to support regional autonomy and development. As responsible stewards, local governments are expected to allocate these financial resources efficiently, particularly toward expenditures that generate long-term benefits for society, such as public infrastructure, public services, and regional development programs. Therefore, both LOSR and intergovernmental revenue are expected to contribute positively to regional expenditure as part of the government's effort to fulfill its public service responsibilities.

Moreover, the flypaper effect phenomenon can be interpreted through the stewardship perspective by examining the extent to which local governments effectively utilize different sources of revenue. Ideally, local governments, as stewards of public resources, should strengthen the utilization of LOSR to achieve greater fiscal independence and reduce excessive reliance on external transfers. However, when regional expenditure reacts more significantly to intergovernmental revenue compared with LOSR, it suggests the presence of a flypaper effect, indicating that government spending remains highly dependent on external funding sources. Therefore, Stewardship Theory provides a theoretical basis for evaluating whether local governments have effectively fulfilled their role in managing financial resources to achieve efficient, accountable, and sustainable regional development.

2.2 The Effect of Local Own-Source Revenue on Regional Expenditure

Local Own-Source Revenue is defined as local revenue derived from local taxes, local fees, proceeds from the management of segregated local assets, and other legitimate local own-source revenue in accordance with the relevant legislation (Law No. 1 of 2022 on Financial Relations between the Central Government and Local Governments).

LOSR grants local governments the authority to fund the implementation of regional autonomy. When LOSR revenue increases, local governments have greater flexibility in designing budgets and expanding local expenditure. In other words, the higher the level of LOSR realization, the greater the allocation for Regional Expenditure (Fadilah & Helmayunita, 2020).

Stewardship Theory explains that local governments act as stewards who are responsible for managing public resources effectively and allocating them to achieve community welfare. Local Own-Source Revenue (LOSR) represents the fiscal capacity and financial independence of local governments in financing regional development activities. As stewards, local governments that are able to generate higher LOSR are expected to utilize these resources responsibly by allocating them toward productive expenditures, including public services, infrastructure development, and other programs that provide long-term benefits for society. Higher LOSR provides greater fiscal flexibility for local governments to determine spending priorities based on regional needs without excessive dependence on external funding sources. Therefore, an increase in LOSR is expected to encourage higher regional expenditure as local governments fulfill their responsibility to improve public welfare and support sustainable regional development.

This is consistent with research conducted by Zakaria & Lathifah (2024) which found that LOSR has a significant positive effect on Regional Expenditure. This indicates that the level of

LOSR influences the ability of local governments to finance various development activities and projects in the regencies and cities of East Java Province. Wira & Dewi (2023) argue that local governments with high LOSR can allocate their expenditure budgets freely without relying on transfer funds. In the study by Kesuma et al. (2022), this positive influence demonstrates that local governments are capable of tapping into their regional potential to generate revenue to finance local needs. Research conducted by Melda & Syofyan (2020), Fadilah & Helmayunita (2020), Octaviana (2021), Anam et al. (2022), Kristanti et al. (2025), Kustianingsih et al. al (2022), Rafi & Arza (2022), Wibowo & Widodo (2023), Allya & Rahmawati (2023), and Abrar et al (2024) also noted that there is a significant positive influence of LOSR on Regional Expenditure, indicating that the higher the amount of LOSR, the greater the capacity of the local government to meet the needs of its region. Furthermore, in order to strengthen local financial capacity, the central government also provides transfer funds as a supplement to local revenue. Therefore, the following hypotheses is proposed:

H1: Local Own-Source Revenue has a positive effect on regional expenditure.

2.3 The Effect of Intergovernmental Revenue on Regional Expenditure

Intergovernmental Revenue are part of the Transfers to Regions, which are funds sourced from the State Budget (APBN) and constitute a portion of state expenditure allocated and channelled to regions to be managed by them for the purpose of funding the administration of government affairs and matters falling within regional (Law No. 1 of 2022 on Financial Relations between the Central Government and Local Governments). The primary objective of transfer funds is to reduce fiscal disparities and support the implementation of decentralisation. Through the Intergovernmental Revenue, the central government supports the implementation of regional autonomy with the hope that fiscal disparities will not arise between regions (Susan et al., 2023).

Stewardship Theory suggests that local governments serve as stewards who are responsible for managing public resources in a manner that supports collective interests and enhances societal welfare. Intergovernmental revenue, which refers to financial transfers provided by the central government to local governments, is intended to address fiscal imbalances, strengthen regional autonomy, and improve the ability of local governments to deliver public services. Based on the stewardship perspective, local governments are expected to utilize these transferred funds effectively and efficiently by directing them toward productive regional expenditures, including infrastructure development, public facilities, and programs that support regional economic progress. Greater intergovernmental revenue provides additional financial capacity for local governments to implement development initiatives and meet community needs. Therefore, an increase in intergovernmental revenue is expected to encourage higher regional expenditure as local governments fulfill their responsibility to provide better public services and promote regional development.

Research conducted by Kristanti et al. (2025) revealed that Intergovernmental Revenue have a significant positive effect on Regional Expenditure, with increases in Regional Expenditure being driven by increases in Intergovernmental Revenue. Furthermore, this implies that local governments in the regencies and municipalities of Central Java Province are not yet self-sufficient in managing their local finances, as they remain dependent on central government transfers. Research by Fadilah & Helmayunita (2020), Anam et al. (2021), Marici et al. (2022), and Wulandari & Nurhayati (2025) also indicates that Intergovernmental Revenue have a positive and significant effect on Regional Expenditure. Therefore, the following hypotheses is proposed:

H2: Intergovernmental Revenue has a positive on Regional Expenditure.

2.4 The Effect of Local Own-Source of Revenue and Intergovernmental Revenue on Capital Expenditure on Flypaper Effect Context

The term ‘Flypaper Effect’ was first introduced by Courant et al. (1979) to articulate Arthur Okun’s (1930) idea that ‘money sticks where it hits’. The Flypaper Effect describes a deviation in the relationship between central government financial transfers and local government expenditure or revenue. When a region receives a grant, the funds tend to directly drive an increase in spending, without being accompanied by efforts to increase LOSR (Dukumalamo et al., 2023). In their research, Jannah and Kurnia (2021) define the Flypaper Effect as a phenomenon occurring when local governments respond by having their Regional Expenditure derive more from transfers, specifically from unconditional transfers, than from their LOSR, thereby leading to wasteful Regional Expenditure. This is based on the assumption that the use of GAF is not subject to specific conditions, thereby granting local governments greater discretion to undertake Regional Expenditure sourced from GAF (Marici et al., 2022). In other words, the provision of Intergovernmental Revenue, which should serve as a stimulus for enhancing local autonomy, is instead responded to differently by local governments (Susan et al., 2023). In this study, the Flypaper Effect is not treated as an independent variable, but rather as a fiscal phenomenon identified by comparing the magnitude of the impact of transfer funds, proxied by GAF, with the impact of LOSR on Regional Expenditure. Indications of the Flypaper Effect are evident when the impact of GAF on Regional Expenditure is greater than the impact of LOSR on Regional Expenditure (Kesuma et al., 2022).

$$\text{Flypaper Effect} = \text{DAU Coefficient} > \text{LOSR Coefficient}$$

The stewardship theory forms the theoretical basis for this study. The stewardship theory was proposed by Donaldson and Davis (1991) as a theory explaining that managers do not act out of personal self-interest but rather prioritise the needs of the principal (Subroto & Endaryati, 2024). In the context of local government, government officials act as stewards entrusted with a mandate from the public as the principal. Based on the principle of stewardship, the government will work to the best of its ability to fulfil this mandate in order to achieve the government’s objectives of creating public welfare (Fitriani et al., 2024).

Local governments are expected to be able to optimise LOSR and manage fiscal Intergovernmental Revenue efficiently to finance development and public services. In stewardship theory, local government dedicates itself to serving the community by demonstrating accountability for its performance, enhancing local resources, accounting for the finances entrusted to it, increasing local wealth, and responding to the aspirations expressed by the community (Indrasari & Kholvieyana, 2021).

Furthermore, with reference to the decentralisation policy, which involves the transfer of governmental responsibilities from the central government to autonomous regions, as stipulated in Law No. 23 of 2014, local government officials are expected to act as stewards responsible for the resources and authority entrusted to them. Under the concept of fiscal decentralisation, local governments will employ various methods to increase their local revenue as part of efforts to fund public services (Susan et al., 2023). If public services are adequately provided, the welfare of the community, as the principal, will be realised in line with the objectives of the

implementation of Law No. 1 of 2022 on Financial Relations between the Central Government and Local Governments.

However, when Regional Expenditure is funded more by transfer funds than by LOSR, the Flypaper Effect arises, which can affect the level of local financial autonomy. Therefore, this theory forms the basis of the argument that the stronger the responsibility and service orientation of local governments, the more optimal the management of local finances and the effectiveness of public expenditure will be.

In this research, there are two independent variables, namely Local Own-Source Revenue (LOSR) and Intergovernmental Revenue. The dependent variable is Regional Expenditure, which can be depicted in the research model as follows.

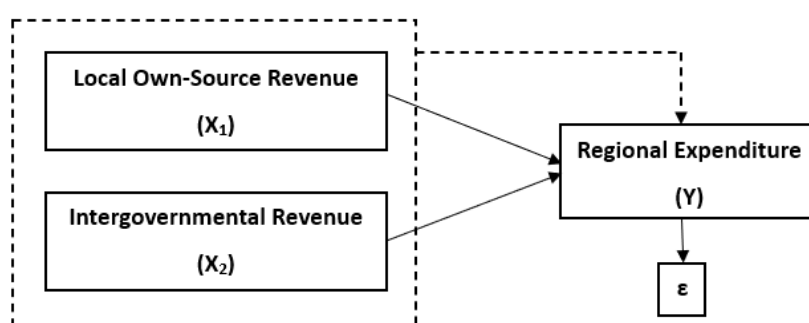


Figure 1. Research Model

3. Methodology

The research method employed is a quantitative descriptive method using a case study approach. The data used in this study are secondary data from the 2020-2024 Statement of Budget Realization obtained via the DJPK website. The type of data used in this research is panel data, which combines time series and cross-sectional data, consequently, the analysis method employed is panel data regression using the Eviews 13 analysis software.

The population for this study comprises all provincial governments in Indonesia, totalling 38 provinces. The sampling technique used in this research is non-probability sampling, specifically purposive sampling. The following are the criteria for determining the research sample:

Table 1. Sample Selection Criteria

No.	Sample Criteria	Quantity
1.	All provincial governments in Indonesia	38
2.	(Reduced) Provincial governments in Indonesia that do not have complete Statement of Budget Realization for the years 2020–2024	(4)
Total Provinces (n)		34
Total Sample (n × Number of Research Years = 34 × 5)		170

Source: Compiled by the Author (2025)

The panel data regression model used in this research is:

$$RE = \alpha + \beta_1 LOSR_{i,t} + \beta_2 IR_{i,t}$$

Denotes:

RE = Regional Expenditure of provincial governance (i) in year (t)

LOSR = Local Own-Source Revenue of provincial governance (i) in year (t)

IR = Intergovernmental Revenue of provincial governance (i) in year (t)
 ε = error terms

In this context, the Flypaper Effect is not classified as a variable but rather as a fiscal phenomenon observed in local government expenditure when local authorities respond more strongly to GAF than to LOSR. Empirically, the assessment of the Flypaper Effect focuses on comparing the influence of LOSR and GAF on Regional Expenditure (Jannah & Kurnia, 2020).

$$\text{Flypaper Effect} = \beta_{\text{GAF}} > \beta_{\text{LOSR}}$$

Variable Definition

Independent Variable

In this research, there are two independent variables, namely Local Own-Source Revenue (LOSR) and Intergovernmental Revenue. The dependent variable is Regional Expenditure.

Local Own-Source Revenue (LOSR) is defined as local revenue derived from local taxes, local fees, proceeds from the management of segregated local assets, and other legitimate local own-source revenue in accordance with the relevant legislation (Law No. 1 of 2022 on Financial Relations between the Central Government and Local Governments).

$$\text{LOSR} = \text{Local Taxes} + \text{Local Fees} + \text{Proceeds from the Management of Segregated Local Assets} + \text{Other Legitimate LOSR in Accordance with the Relevant Legislation}$$

Intergovernmental Revenue are part of the Transfers to Regions, which are funds sourced from the State Budget (APBN) and constitute a portion of state expenditure allocated and channelled to regions to be managed by them for the purpose of funding the administration of government affairs and matters falling within regional (Law No. 1 of 2022 on Financial Relations between the Central Government and Local Governments).

$$\text{Intergovernmental Revenue} = \text{Revenue-Sharing Funds (RSF)} + \text{General Allocation Funds (GAF)} + \text{Special Allocation Funds (SAF)}$$

Dependent Variable

Regional Expenditure (Y) comprises all local government liabilities recognised as reducing net assets during the relevant financial year (Law No. 1 of 2022 on Financial Relations between the Central Government and Local Governments).

$$\text{Regional Expenditure} = \text{Operating Expenditure} + \text{Capital Expenditure} + \text{Contingency Expenditure} + \text{Transfer Expenditure}$$

4. Results and Discussion

4.1 Descriptive Statistics

The results of the descriptive statistical analysis provide an overview of the independent and dependent variables, such as the mean, median, minimum, maximum and standard deviation, which are presented in the following table.

Table 2. Results of Descriptive Statistical Analysis (in million rupiah)

	Min	Max	Mean	Median	Std. Dev
RE	1.804.550	70.012.717	10.351.179	6.286.907	12.227.503
LOSR	346.864	50.742.019	5.406.716	2.330.372	8.770.214
IR	993.859	25.844.934	4.614.652	3.195.143	4.152.437

Notes: RE indicates regional expenditure, LOSR indicates local own-source revenue, IR indicates intergovernmental revenue; Source: Data Processed (2026)

Table 2 reports the descriptive statistics of the variables included in this study. Local Own-Source Revenue (LOSR) exhibits an average value of 5,406,716 with values ranging from 346.864 to 50.742.019. The wide gap between the minimum and maximum values, together with the reported standard deviation, indicates substantial variation in regional fiscal capacity across the observed local governments. Intergovernmental Revenue (IR) has an average value of 4.614.652 with a minimum value of 993.859 and a maximum value of 25.844.934. The dispersion reflected by its standard deviation suggests notable differences in the extent of fiscal transfers received by each region. Meanwhile, Regional Expenditure (RE) records an average value of 10.351.179, with values ranging from 1.804.550 to 70.012.717. The considerable variation between the lowest and highest expenditure levels, as indicated by the standard deviation, reflects differences in expenditure allocation, development priorities, and public service requirements among regions. Overall, the descriptive statistics reveal substantial disparities in both revenue capacity and expenditure levels across local governments, indicating heterogeneous fiscal conditions among the sampled regions.

4.2 Model Testing

The selection of the appropriate panel data regression model was conducted through the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test. The Chow Test results indicate that the probability values of the Cross-Section F and Cross-Section Chi-Square are 0,00, which are lower than the significance level of 0,05, suggesting that the Fixed Effect Model (FEM) is more appropriate than the Common Effect Model (CEM) because individual characteristics across cross-sectional units need to be accounted for in the regression model. Subsequently, the Hausman Test was performed to compare the Fixed Effect Model (FEM) and Random Effect Model (REM), yielding a probability value of 0,37, which exceeds the significance level of 0,05. This result indicates that the null hypothesis cannot be rejected and that the Random Effect Model (REM) is preferred, implying that the individual effects are random and uncorrelated with the explanatory variables. Since the Hausman Test favored the Random Effect Model, the Lagrange Multiplier (LM) Test was then conducted to compare the Random Effect Model (REM) with the Common Effect Model (CEM). The Breusch-Pagan LM Test produced a cross-section probability value of 0,00, which is lower than 0,05, indicating that the Random Effect Model is superior to the Common Effect Model. Based on the results of these three model selection tests, it can be concluded that the Random Effect Model (REM) is the most appropriate regression model for the panel data analysis.

The classical assumption tests were performed to evaluate whether the regression model satisfies the required statistical assumptions. The normality test results indicate a probability value of 0,65, which is higher than the significance level of 0,05. This result confirms that the residuals are normally distributed. In addition, the multicollinearity test shows that the correlation coefficient between Local Own-Source Revenue (X1) and Intergovernmental Revenue

(X2) is 0,78, which is below the commonly accepted threshold of 0,80. Therefore, the model does not indicate any multicollinearity problems among the independent variables.

The heteroscedasticity test results show that the probability values for X1 and X2 are 0,37 and 0,30, respectively. Since both values exceed the significance level of 0,05, it can be concluded that the regression model does not suffer from heteroscedasticity. Overall, the classical assumption test results demonstrate that the regression model meets the requirements of normality, absence of multicollinearity, and homoscedasticity, indicating that the model is appropriate for conducting further regression analysis.

4.3 Panel Data Regression Analysis

Based on the results of the panel data regression analysis using REM, the coefficient of determination analysis indicates that the Adjusted R-Squared value is 0,94, meaning that Local Own-Source Revenue (LOSR) and Intergovernmental Revenue (IR) collectively account for 93,79% of the changes in Regional Expenditure (RE). The remaining 6,21% is influenced by other factors that are not included in this research model. This result demonstrates that the availability of financial resources from both internally generated revenue and government transfers significantly determines the expenditure capacity of local governments. Thus, regions with greater revenue capacity tend to have more opportunities to allocate funds for public services, infrastructure, and other development activities.

The results of the simultaneous test (F-test) show that the calculated F-statistic is 1.276,25, which exceeds the F-table value of 3,05, with a significance probability of 0,00, which is lower than the 0,05 significant level. Based on these results, the null hypothesis (H0) is rejected, while the alternative hypothesis (Ha) is accepted. This indicates that Local Own-Source Revenue and Intergovernmental Revenue jointly have a significant effect on Regional Expenditure in provincial governments in Indonesia during the 2020–2024 period. The significant simultaneous influence suggests that increases in both revenue sources enhance the fiscal capacity of local governments, allowing them to expand expenditure allocations for implementing government functions, improving public services, and supporting regional development.

Table 3. Regression Test

Variable	Coefficient	t-Statistic	t _{table}	Conclusion
LOSR	0,92 (***)	23,82	1,65	Positive Influence
IR	0,99 (***)	13,86	1,65	Positive Influence

Notes: ***, **, and * represent the 1%, 5%, and 10% significant levels, respectively. Sources: Eviews13 output results (2026)

The results of the individual significance test demonstrate that Local Own-Source Revenue (X1) and Intergovernmental Revenue (X2) each have a positive and significant relationship with Regional Expenditure (Y). The analysis of X1 shows a coefficient value of 0.92, with a t-statistic value of 23.83, which is higher than the t-table value of 1.65. In addition, the probability value of 0.00 is below the 0.05 significant level, indicating that Local Own-Source Revenue significantly influences Regional Expenditure. This finding suggests that an increase in the ability of local governments to generate their own revenue contributes to greater financial capacity in allocating funds for government activities and regional development. It means that **H1 is accepted**.

Furthermore, the analysis of Intergovernmental Revenue (X2) reveals a coefficient value of 1.00, with a t-statistic value of 13.87, which exceeds the t-table value of 1.65. The probability value of 0.00 also indicates a significant relationship, as it is lower than the 0.05 significant level. This result confirms that Intergovernmental Revenue has a positive effect on Regional Expenditure, meaning that higher transfers received from the central government enable local governments to increase their expenditure capacity. Therefore, both sources of revenue individually contribute to the improvement of Regional Expenditure in provincial governments in Indonesia during the 2020–2024 period. It means that **H2 is accepted**.

4.4 Discussion

The Effect of Local Own-Source Revenue on Regional Expenditure

The results of the study indicate that Local Own-Source Revenue (X1) has a positive and significant effect on Regional Expenditure (Y). This finding suggests that an increase in the revenue generated independently by local governments will enhance their capacity to allocate funds for various regional expenditure needs. Consequently, the higher the LOSR a region possesses, the greater the capacity of the local government to finance its regional expenditure needs in a sustainable manner. Fadilah & Helmayunita (2020) pointed out that, in other words, the higher the level of LOSR realization, the greater the allocation for Regional Expenditure. This implies that, in part, Local Own-Source Revenue (LOSR) has a positive effect on Regional Expenditure in Provincial Governments in Indonesia for the period 2020-2024.

The findings of this research are consistent with the stewardship theory, which is underpinned by decentralisation policies, whereby, when local governments receive LOSR from the community, local government officials, acting as stewards, will do their utmost to fulfil their mandate in order to achieve the government's objective of creating public welfare (Fitriani et al., 2024). Local governments are viewed as stewards who are responsible for managing public resources effectively to achieve community welfare. Local Own-Source Revenue reflects the ability of local governments to utilize their economic potential and manage available resources independently. With increased LOSR, local governments can reduce their dependence on central government (Melda & Syofyan, 2020). As responsible stewards, local governments are expected to optimize LOSR and allocate it toward productive expenditures, such as infrastructure development, public services, and regional development programs. Therefore, the positive influence of LOSR on Regional Expenditure demonstrates that local governments have utilized their financial independence to support public interests and fulfill their responsibility in providing services to society. The significant relationship between LOSR and Regional Expenditure also indicates that stronger fiscal independence provides local governments with greater flexibility in determining expenditure priorities based on regional needs. Higher LOSR reduces dependence on external funding sources and allows governments to design and implement programs that are more aligned with local characteristics and development objectives. This finding supports the assumption of Stewardship Theory that government officials are motivated to manage resources responsibly and pursue collective benefits. By increasing their own revenue capacity, local governments demonstrate their commitment to maintaining sustainable financial management and improving public welfare.

The results of this research are consistent with previous research conducted by Melda & Syofyan (2020), Fadilah & Helmayunita (2020), Octaviana (2021), Anam et al. (2021), Kesuma et al. (2022), Kustianingsih et al. al (2022), Rafi & Arza (2022), Wibowo & Widodo (2023), Allya &

Rahmawati (2023), Zakaria & Lathifah (2024), and Kristanti et al. (2025). Furthermore, Abrar et al. (2024) note that the significant positive influence of LOSR on Regional Expenditure indicates that the higher the amount of LOSR, the greater the capacity of the local government to meet the needs of its region.

The Effect of Intergovernmental Revenue on Regional Expenditure

The results of the study also demonstrate that Intergovernmental Revenue (X2) has a positive and significant effect on Regional Expenditure (Y). This finding indicates that financial transfers from the central government play an important role in strengthening the fiscal capacity of local governments and supporting the implementation of regional programs.

Based on Stewardship Theory, local governments act as stewards who are entrusted with managing resources received from external parties responsibly and efficiently. Intergovernmental revenue is provided to assist local governments in reducing fiscal disparities and ensuring that public services and development activities can be carried out effectively. Susan et al. (2023) pointed out that, to avoid regional fiscal gaps, the central government finances regional autonomy through the Intergovernmental Revenue. Therefore, the positive relationship between intergovernmental revenue and regional expenditure indicates that local governments utilize transferred funds to fulfill their responsibilities in providing public benefits. Furthermore, the significant effect of intergovernmental revenue on Regional Expenditure reflects the important role of central government transfers in supporting regional development, particularly for regions with limited financial capacity. Through effective management of these funds, local governments can increase expenditure allocations for infrastructure, public facilities, and other essential services. This result is consistent with the stewardship perspective, which emphasizes that government officials are expected to prioritize organizational and societal objectives rather than personal interests. Thus, the utilization of intergovernmental revenue as a source of regional expenditure demonstrates the role of local governments as accountable stewards in managing public funds to achieve sustainable development and improve community welfare.

The results of this research are consistent with previous research conducted by Fadilah & Helmayunita (2020), Anam et al. (2021), Marici et al. (2022), and Wulandari & Nurhayati (2025). Furthermore, Kristanti et al. (2025) also noted that this effect explains the increase in Regional Expenditure resulting from the rise in the Intergovernmental Revenue. It can therefore be said that, in practice, the existence of the Intergovernmental Revenue provides additional fiscal space for local governments, thereby encouraging an increase in regional expenditure capacity. Consequently, the disbursement of the Intergovernmental Revenue by the central government ultimately influences the magnitude and pattern of Regional Expenditure.

The Effect of Local Own-Source of Revenue and Intergovernmental Revenue on Capital Expenditure on Flypaper Effect Context

The flypaper effect analysis was conducted to determine whether regional expenditure is more influenced by Intergovernmental Revenue or Local Own-Source Revenue (LOSR). A flypaper effect occurs when the coefficient of Intergovernmental Revenue is greater than the coefficient of LOSR ($\beta_{GAF} > \beta_{LOSR}$), indicating that regional expenditure is more dependent on external funding sources. Meanwhile, if $\beta_{GAF} < \beta_{LOSR}$, the flypaper effect is not observed, indicating that

regional expenditure is more influenced by the region's own revenue capacity. The results of the flypaper effect analysis are presented in the following table.

Table 4. Results of the Flypaper Effect

No.	Province Name	Result	Conclusion
1.	Aceh	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
2.	Sumatera Utara	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
3.	Sumatera Barat	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
4.	Riau	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
5.	Jambi	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
6.	Sumatera Selatan	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
7.	Bengkulu	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
8.	Lampung	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
9.	DKI Jakarta	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
10.	Jawa Barat	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
11.	Jawa Tengah	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
12.	DIY	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
13.	Jawa Timur	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
14.	Kalimantan Barat	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
15.	Kalimantan Tengah	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
16.	Kalimantan Selatan	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
17.	Kalimantan Timur	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
18.	Sulawesi Utara	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
19.	Sulawesi Tengah	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
20.	Sulawesi Selatan	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
21.	Sulawesi Tenggara	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
22.	Bali	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
23.	Nusa Tenggara Barat	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
24.	Nusa Tenggara Timur	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
25.	Maluku	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
26.	Papua	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
27.	Maluku Utara	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
28.	Banten	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
29.	Bangka Belitung	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
30.	Gorontalo	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
31.	Kepulauan Riau	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed
32.	Papua Barat	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
33.	Sulawesi Barat	$\beta_{GAF} < \beta_{LOSR}$	Flypaper Effect Not Observed
34.	Kalimantan Utara	$\beta_{GAF} > \beta_{LOSR}$	Flypaper Effect Observed

Source: Eviews 13 output, 2026 (re-processed)

Based on these results, 24 samples, or 70,59%, were identified as exhibiting the Flypaper Effect. This indicates that local governments remain dependent on fiscal transfers from the central government, namely the GAF, whilst the contribution of LOSR in driving expenditure growth is relatively lower. The finding of the Flypaper Effect in this research indicates that in several provinces in Indonesia, increases in Regional Expenditure are more responsive to GAF

than to LOSR, suggesting that budget management is not yet optimal. This situation indicates that fiscal decentralisation has not yet been fully effective (Wulandari & Nurhayati, 2025). This is because unconditional transfer funds, which should strengthen fiscal capacity and encourage an increase in LOSR to create fiscal autonomy, have instead become the main source of financing for Regional Expenditure.

5. Conclusion

This study investigates the effect of local own-source revenue and intergovernmental revenue toward regional expenditure among Provincial Governments in Indonesia during the 2020-2024 period. The findings reveal that both local own-source revenue and intergovernmental revenue has positive effect on regional expenditure. These findings indicate that an increase in local own-source revenue and intergovernmental revenue tends to be followed by an increase in the allocation of regional expenditure. Based on the results of a regression analysis comparing the LOSR coefficient and the GAF coefficient, indications of the Flypaper Effect were found in 24 provinces in Indonesia.

Based on the conclusions presented, the recommendations proposed in this research for agencies or local governments as policy-makers in regional financial management are to maintain and optimise LOSR revenue, as well as increase the proportion of Capital Expenditure allocation to support regional development and improve the quality of public services. Furthermore, future researchers are advised to include other variables that may influence Regional Expenditure, in addition to LOSR and Intergovernmental Revenue, and are encouraged to broaden the scope of their research by using different populations or samples, so that the results may reinforce and enrich the empirical findings and support the development of the theories and concepts established by previous research.

Declaration of Conflicting Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request. Researchers who are interested in accessing the data may contact the author via email at putririska710@gmail.com.

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