



Original Article

The Flypaper Effect on Regional Original Revenue, General Allocation Fund, and Special Allocation Fund Toward Regional Expenditure in Sorong Regency

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Abstract:

This study examines the presence of the flypaper effect on regional government spending in Sorong Regency over the period 2013–2023. Using multiple linear regression, the analysis includes three independent variables: Regional Original Revenue (ROR), General Allocation Fund (GAF), and Special Allocation Fund (SAF). The results show that ROR has a positive and statistically significant impact on regional expenditure (coefficient 0.453308), meaning that increased local revenue directly leads to higher government spending. In contrast, GAF has a positive but statistically insignificant effect (coefficient 1.598782), indicating that higher central government transfers through GAF do not necessarily increase local government spending. Likewise, SAF shows a positive yet insignificant influence (coefficient 0.073499). Despite GAF and SAF not being individually significant, their combined effect with ROR on regional spending is statistically significant. The findings suggest evidence of a flypaper effect related to GAF, where central transfers have a greater impact on spending than local revenue, even though GAF individual effect is not significant. However, this effect is not observed with SAF. These findings emphasize the importance of enhancing local fiscal capacity to lessen dependence on central funding and encourage sustainable financial independence. The study recommends further research to explore additional factors influencing regional government expenditure.

Keywords: Regional Expenditure, Local Own-Source Revenue, General Allocation Fund, Special Allocation Fund, Flypaper Effect.



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Introduction

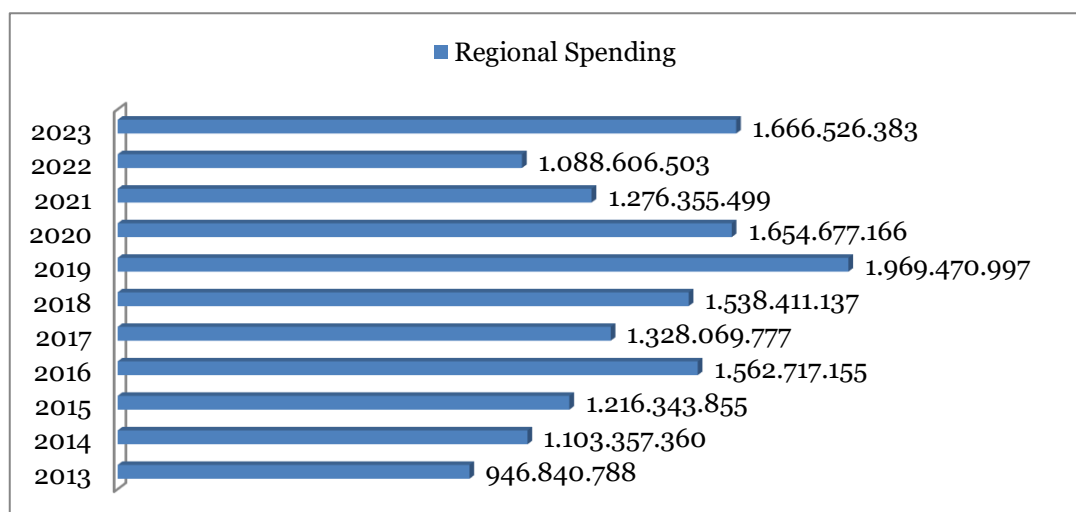
Law Number 32 of 2004 (a revision of UU No. 22/1999) mandates the central government to delegate authority and responsibility for governance and development to regional governments (decentralization). Regional governments are therefore required

to actively optimize their local potential, particularly in financial management. Increasing Regional Original Revenue (ROR) is key to financing regional governance and development ([Rizal & Erpita, 2019](#)).

Regional Original Revenue (ROR) of Sorong Regency increased significantly in 2023, indicating more effective and efficient management of local resources. However, the contribution of PAD to total regional spending remains limited (around 5.58%), with a high dependency on central government transfer funds. This is reflected in Sorong Regency's Fiscal Independence Index (IKF) in 2020 (0.0558), which is lower compared to Sorong City (0.0923).

The receipt of General Allocation Funds (GAF) and Special Allocation Funds (SAF) by the Sorong Regency Government shows different patterns. The stability of GAF reflects the central government's commitment to maintaining fiscal balance between regions and supporting the financing of general regional needs, such as routine expenditures and basic services. Meanwhile, SAF reflects its nature as being based on national sectoral priorities, indicating the government's focus on developing strategic sectors such as infrastructure, education, and health.

Figure 1. Regional Spending of Sorong Regency (2013-2023)



Source: Ministry of Finance of the Republic of Indonesia, (2025).

Regional spending in Sorong Regency over the past decade has been fluctuating. The increase in central government transfer funds aimed at boosting regional spending has raised suspicions of a disproportionate spending response by the regional government, indicating the potential presence of the flypaper effect. The flypaper effect is defined as the tendency of regional governments to prioritize transfer funds (GAF and SAF) over Regional Original Revenue (ROR) in budget allocation ([Jannah, 2020](#)).

This study seeks to examine how Regional Original Revenue (ROR), General Allocation Funds (GAF), and Special Allocation Funds (SAF) impact regional expenditure in Sorong Regency, as well as to determine whether the flypaper effect occurs. According to ([Rahmawati, 2015](#)), ROR and GAF significantly affect regional spending without evidence of the flypaper effect. In contrast, ([Ikhwani et al., 2020](#)), found that all three variables positively and significantly influence spending, with the flypaper effect present. Therefore, this research aims to assess the influence of ROR, GAF, and SAF on regional spending in Sorong Regency and to explore the presence of the flypaper effect.

Methods

This study analyzes the impact of ROR, GAF, and SAF on regional spending in Sorong Regency (2013–2023) using multiple linear regression, classical assumption test, statistical tests (t-test, F-test, R^2) and flypaper effect testing, applying the OLS (Ordinary Least Squares) method.

Results

This study examines the influence of ROR, GAF, and SAF (independent variables) on regional spending (dependent variable) in Sorong Regency. The analysis results are presented in the following table:

Table 1. Results of Multiple Linear Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2061.629	1780.859	-1.157660	0.2850
PAD	0.453308	0.176610	2.566721	0.0372
DAU	1.598782	0.960291	1.664892	0.1399
DAK	0.073499	0.153730	0.478105	0.6471

The regression equation model resulting from the multiple regression analysis (Table 1) has coefficients of 0.453308 for the ROR variable, 1.598782 for GAF, and 0.073499 for SAF, with a constant of -2061.629. The complete equation is:

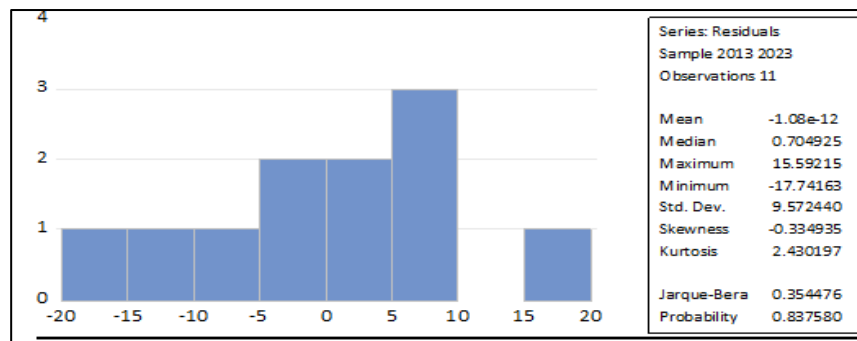
$$\text{LnBD} = -2061.629 + 0.453308\text{LnROR} + 1.598782\text{LnGAF} + 0.073499\text{LnSAF} + e$$

The above regression model can be interpreted as follows:

1. The constant value of -2061.629 suggests that if Regional Original Revenue, General Allocation Fund, and Special Allocation Fund are all zero, regional expenditure would decrease by 2061.629 units.
2. The coefficient for Regional Original Revenue (b_1) of 0.453308 implies that a 1% increase in Regional Original Revenue is associated with a 0.453308% increase in regional expenditure, assuming other factors remain constant.
3. The coefficient for the General Allocation Fund (b_2) of 1.598782 indicates that a 1% rise in the General Allocation Fund corresponds to a 1.598782% increase in regional expenditure.
4. The Special Allocation Fund coefficient (b_3) of 0.073499 means that a 1% increase in the Special Allocation Fund results in a 0.073499% increase in regional expenditure.

Testing of classical assumptions (normality, multicollinearity, autocorrelation, and heteroscedasticity) ensures the reliability of the regression model. A model that meets the classical assumptions produces estimators that are unbiased and efficient (BLUE). Violations of these assumptions indicate an inadequate or unfit model.

Figure 2. Normality Test



(Source: Processed data, 2025).

Table 2. Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	3171480.	268504.8	NA
PAD	0.031191	8635.629	1.302900
DAU	0.922159	311011.0	3.385270
DAK	0.023633	7146.402	3.925773

The Jarque-Bera (JB) test yields a probability of $0.837580 > 0.05$, indicating that the residuals are normally distributed and meet the classical assumption of normality.

The regression analysis remains valid because no significant multicollinearity was found among the variables ROR, GAF, and SAF ($VIF < 10$).

Table 3. Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test			
Null hypothesis is: No serial correlation at up to 2 lags			
F-statistic	0.725865	Prob. F(2,5)	0.5288
Obs * R-squared	2.474625	Prob. Chi-Square(2)	0.2902

The Chi-Square test (Table 3) shows no autocorrelation in the regression model ($p = 0.2902 > 0.05$).

Table 4. Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
Null hypothesis is: Homoskedasticity			
F-statistic	0.089705	Prob. F(3,7)	0.9634
Obs * R-squared	0.407237	Prob. Chi-Square(3)	0.9387
Scaled explained SS	0.117930	Prob. Chi-Square(3)	0.9896

The Chi-Square test shows a probability of 0.9387, which is greater than the 5% significance level ($0.9387 > 0.05$). Therefore, the regression model is free from heteroscedasticity.

The t-test is used to partially examine the effect of each independent variable on the dependent variable.

Table 5. t-Test

1.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
	C	-2061.629	1780.859	-1.157660	0.2850
	PAD	0.453308	0.176610	2.566721	0.0372
	DAU	1.598782	0.960291	1.664892	0.1399
	DAK	0.073499	0.153730	0.478105	0.6471

wn-source revenue has a significant impact on regional expenditure, demonstrated by a t-value of 2.566721 and a p-value of 0.0372, which is lower than the 0.05 significance level.

- General allocation funds do not have a statistically significant effect on regional spending, as shown by a t-value of 1.664892 and a p-value of 0.1399, which is above the 0.05 threshold.
- Special allocation funds likewise do not significantly affect regional expenditure, indicated by a t-value of 0.478105 and a p-value of 0.6471, both exceeding the 0.05 significance level.

Table 6. F-Test

R-squared	0.812566	Mean dependent var	2103.455
Adjusted R-squared	0.732236	S.D. dependent var	22.11047
S.E. of regression	11.44125	Akaike info criterion	7.987616
Sum squared resid	916.3160	Schwarz criterion	8.132305
Log likelihood	-39.93189	Hannan-Quinn criter.	7.896410
F-statistic	10.11546	Durbin-Watson stat	1.708436
Prob(F-statistic)	0.006133		

The F-test shows that ROR, GAF, and SAF together have a significant effect on regional spending ($p = 0.006133$).

Table 7. Coefficient of Determination Test

R-squared	0.812566	Mean dependent var	2103.455
Adjusted R-squared	0.732236	S.D. dependent var	22.11047
S.E. of regression	11.44125	Akaike info criterion	7.987616
Sum squared resid	916.3160	Schwarz criterion	8.132305
Log likelihood	-39.93189	Hannan-Quinn criter.	7.896410
F-statistic	10.11546	Durbin-Watson stat	1.708436
Prob(F-statistic)	0.006133		

Based on the regression model, 73.22% of the variance in regional spending is explained, while the remaining 26.78% is explained by other factors outside the model.

The flypaper effect occurs if GAF and SAF have a greater influence on regional spending compared to ROR, indicating the regional government's dependence on transfer funds from the central government (Zulfan & Maulana, 2019).

Table 8. Flypaper Effect Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2061.629	1780.859	-1.157660	0.2850
PAD	0.453308	0.176610	2.566721	0.0372
DAU	1.598782	0.960291	1.664892	0.1399
DAK	0.073499	0.153730	0.478105	0.6471

The coefficient analysis in Table 8 shows differences in the influence of funding sources on regional spending. The GAF coefficient (1.598782), which is higher than the ROR coefficient (0.453308), supports the hypothesis of the flypaper effect for GAF. However, the ROR coefficient (0.453308), which is higher than the SAF coefficient (0.073499), indicates the absence of the flypaper effect for SAF.

The t-test analysis shows a positive and significant influence of ROR on regional spending, consistent with the findings of ([Armawaddin & Rumbia, 2017](#)), who emphasized the consideration of regional revenue capacity in budgeting. Conversely, although GAF shows a positive influence, it is not statistically significant ($p = 0.1399 > 0.05$; regression coefficient = 1.598782). The insignificant influence of GAF on regional spending indicates that increases in GAF have not yet significantly driven increases in regional spending. This is supported by ([Sofiyani, 2021](#)), who explained that GAF allocations are predominantly for routine expenditures, especially salaries, which are more influenced by central government policies. SAF also shows a positive but insignificant influence ($p = 0.6471 > 0.05$; regression coefficient = 0.073499), in line with Salindeho (2016), who pointed out limitations in implementation and budget absorption. However, these findings differ from those of ([Sofiyani, 2021](#)).

Conclusion

The study indicates a significant influence of Regional Original Revenue (ROR) on regional spending in Sorong Regency, contrasting with the positive but statistically insignificant effects of the General Allocation Fund (GAF) and Special Allocation Fund (SAF). Collectively, these three variables account for 73.22% of the variation in regional spending, with evidence of the flypaper effect observed solely in GAF.

Suggestion

This study recommends increasing the Regional Original Revenue (ROR) of Sorong Regency to reduce dependence on central government transfer funds, along with stricter oversight of their utilization. The findings indicate a flypaper effect in the General Allocation Fund (GAF), contributing to the discourse on fund transfers and regional spending in Indonesia. Further research should explore additional variables and methodologies to comprehensively understand the flypaper effect, considering the insignificant influences of General Allocation Fund (GAF) and Special Allocation Fund (SAF).

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