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ANALYSIS OF THE FLYPAPER EFFECT IN TESTING THE EFFECT OF ORIGINAL REGIONAL INCOME AND FISCAL BALANCE TRANSFER ON REGIONAL EXPENDITURES (Study on Regencies and Municipalities in Central Java from 2017-2020)

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Abstract: This study aims to analyze the flypaper effect in testing the effect of Original Regional Income and financial balance transfer on Regional Expenditures in Regencies and Municipalities in Central Java from 2017-2020. The data analysis method in this study uses descriptive statistical test, classical assumption test using normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test. Hypothesis testing used multiple linear regression test, F test (model feasibility test), t test (partial), coefficient of determination test (R2), and flypaper effect analysis. Based on the results of the F test (model feasibility test), it shows that the regression model is feasible to use in this study. Then partially Original Regional Income (PAD), General Allocation Fund (DAU), Special Allocation Fund (DAK) have a significant positive effect on Regional Expenditure. Meanwhile, Revenue Sharing Fund (DBH) has no significant effect on Regional Expenditure. The results of this study indicate that the coefficient value of the General Allocation Fund (DAU) variable is greater than the coefficient value of Original Regional Income (PAD), this illustrates that there has been a flypaper effect on Regional Expenditure in Regencies and Municipalities in Central Java from 2017-2020.

Keywords: *Flypaper Effect, Original Regional Income, Fiscal Balance Transfer, Regional Expenditures*

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1. Introduction

The implementation of fiscal decentralization began with the Local Government Law No. 22 of 1999 and Law No. 25 of 1999 on Financial Balance between the Central and Local Governments came into force. These laws became the basic foundation for the implementation of decentralized governance or regional autonomy.

With 35 regencies and municipalities, Central Java is projected to be able to organize regional autonomy while putting an emphasis on the region's potential and variety as well as the democratic, community participation, fairness, and justice values. in accordance with Law No. 32 of 2004 concerning Regional Government. Local governments make every effort to explore financial resources to finance government. The local goverment budget (APBD) is a guideline for annual financial plans that contain sources of regional revenue and expenditure. The APBD, which serves as a region's annual financial plan, comprises of regional income,

regional expenditures, and regional funding. Regional as a source of regional funding revenue is used to finance regional expenditure. APBD revenue sources come from Original Regional Income, financial Balance Funds, and other legal regional income.

Regional Expenditure is a charge against the value of net assets for obligations of the regional government. Regional expenditure is to finance the implementation of government business that falls under the authority of provinces or districts and municipalities. Local expenditures are financed by local revenues, both Original Regional Income and transfer funds from the government or financial balance transfer. In practice, the General Allocation Fund, which comes from government transfers, dominates the financing of regional expenditure. This results in a flypaper effect, which is caused by local expenditures increasing more due to changes in transfers provided by the central government (Al Khoiri, 2015). This is demonstrated in Table 1 below:

Table 1. Total PAD, DAU, DAK, DBH and Regional Expenditure of Regency and Municipal in Central Java (in trillion IDR) 2017-2020

No	Description	2017	2018	2019	2020
1.	PAD	14,482	13,001	13,310	14,40
2.	Financial Balance Transfer				
	a. DAU	33,434	33,487	34,868	35,16
	b. DAK	10,001	10,624	11,435	10,92
	c. DBH	1,827	1,668	1,698	1,58
3.	Regional Expenditure	74,502	76,158	82,298	83,65

Source: https://jateng.bps.go.id

Table 1 shows that Regional Expenditure of Regency and Municipal governments in Central Java experienced a significant increase during 2017-2020. Original Regional Income of district and municipal governments in Central Java during 2017-2020 have increased and decreased. Decrease in Regional Original Revenue in 2018. It can be seen in the table that the General Allocation Fund contribution is greater than the Regional Original Revenue. from 2017 to 2020 Increase in the General Allocation Fund. Table 2 shows the contribution of each variable to Regional Expenditure.

Table 2 Contribution of PAD, DAU, DAK, DBH to Regional Expenditure of Regencies and Cities in Central Java in 2017-2020 (in percent)

No	Description	2017	2018	2019	2020	Rata-Rata
1.	PAD	19,44	17,07	16,17	17,21	17,47
2.	Financial Balance Transfer					
	a. DAU	44,88	43,97	42,37	42,03	43,31
	b.DAK	13,42	13,95	13,89	13,05	13,58
	c.DBH	2,45	2,19	2,06	1,89	2,15

Source: Data sekunder diolah, 2023

Tebel 2 demonstrates that the typical share of Original Regional Income in financing regional expenditure is 17.47%. From the financial balance transfer component, the General Allocation Fund contributes the most to regional expenditure with an average of 43.31%.

Based on Table 1 and Table 2, the largest contribution to the regional income of of Regency and Municipal governments in Central Java comes from the General Allocation Fund. This shows that balance transfers from the federal government continue to be a major source of funding for local governments. When local governments respond more to transfer funds than to their own local revenues, this is called the flypaper effect phenomenon. Pertiwi (2013) and Putri (2016) concluded that of Regency and Municipal in Central Java there was a flypaper effect in 2011-2013. Wulansari (2015) found that flypaper effect in East Java, Central Java, and West Java provinces during 2012-2013.

2. Research Method

This research is a quantitative study with secondary data. 35 districts and municipalities in Central Java made up the study's population. Non-probability sampling using a saturated sample methodology is the sampling technique used in this study. The samples in this study were 35 regencies and municipalities in Central Java during 2017-2020. Based on the four years in the study, the total sample used was : 35 regencies and municipalities X 4 years = 140 samples.

The type of data in this study is quantitative data, quantitative data in this study is in the form of PAD, DAU, DAK, DBH, and Regional Expenditures of Regencies and Municipalities in Central Java from 2017-2020. This study uses secondary data as a data source. The Central Statistics Agency (BPS) website http://jateng.bps.go.id reports on the realization of the Regency and City APBD in Central Java are used as secondary data in this study.

The variables in this study are independent variables and dependent variables. Independent variables are variables that affect or cause changes in other variables. The independent variables in this study are Original Regional Income (X1), General Allocation Fund (X2), Special Allocation Fund (X3), and Revenue Sharing Fund (X4). Meanwhile, The dependent variable is a variable that is influenced by other variables. The dependent variable in this study is Regional Expenditure (Y).

The data analysis technique employed is a multiple regression analysis model with statistical analysis. Before putting the hypothesis to the test in this study, researchers ran descriptive statistical tests and standard assumption tests.

3. Results and Discussion

3.1. Results

Statistik Deskriptif

Table 3. Descriptive Statistics of Research variabels

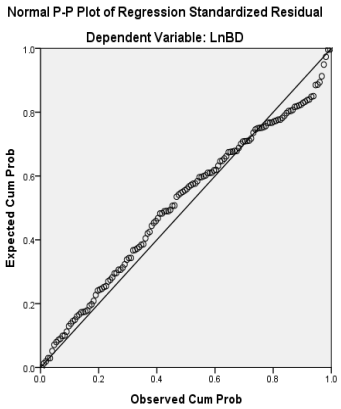
Variabel	N	Minimum	Maximum	Mean	Std. Deviation
PAD (X1)	140	179.224.409.000	2.516.646.593.000	397.021.729.828	30.856.483.445
DAU (X2)	140	440.041.244.000	1.437.036.239.000	975.137.104.114	24.799.509.355
DAK (X3)	140	79.271.912.000	500.462.128.000	308.513.784.649	9.762.306.046
DBH (X4)	140	22.893.650.000	246.044.588.000	4.857.317.649	4.175.759.457
Regional Expenditure (Y)	140	849.474.262.000	5.256.092.790.000	2.239.515.764.057	7.619.922.020.291

The descriptive statistical analysis results in the table above are:

1. Original Regional Income has a minimum value of IDR 179,224,409,000 and a maximum value of IDR 2,516,646,593,000. The average value (mean) of Local Revenue is IDR 397,021,729,828 and the standard deviation is IDR 30,856,483,445.
2. The General Allocation Fund has a minimum value of IDR 440,041,244,000 and a maximum value of IDR 1,437,036,239,000. The average value (mean) of the General Allocation Fund is IDR 975,137,104,114 and the standard deviation value is IDR 24,799,509,355.
3. The Special Allocation Fund has a minimum value of IDR 79,271,912,000 and a maximum value of IDR 500,462,128,000 The average value (mean) of the Special Allocation Fund is IDR 308,513,784,649 and the standard deviation value is IDR 9,762,306,046.
4. Revenue Sharing Fund has a minimum value of IDR 22,893,650,000 and a maximum value of IDR 246,044,588,000. The average value (mean) of the profit sharings Fund is IDR 4,857,317,649 and the standard deviation value is IDR 4,175,759,457.
5. Regional Expenditure has a minimum value of IDR 849,474,262,000 and a maximum value of IDR 5,256,092,790,000. The average value (mean) of Revenue Sharing Funds is IDR 2,239,515,764,057 and the standard deviation value is IDR 7,619,922,020,291.

Classical Assumption Test

1) Normality Test



The conclusion that the graph exhibits a normal distribution is based on the Normal Probability-Plot Graph image of the Normality Test Results, which demonstrates that the data (points) spread around the diagonal line and follow the direction of the diagonal line.

2) Multicollinearity Test

Tabel 4. Multicollinearity Test Result

Variabel	***Tollerance***	**VIF**	Description
Original Regional Income (X1)	0,628	1,592	No multicollinearity
General Allocation Fund (X2)	0,139	7,182	No multicollinearity
Special Allocation Fund (X3)	0,153	6,523	No multicollinearity
Revenue Sharing Fund (X4)	0,772	1,296	No multicollinearity

Table 4 displays the results of the multicollinearity test, which demonstrates that the regression model's independent variables do not exhibit any multicollinearity. with a VIF value 10 and a Tollerance value > 0.01.

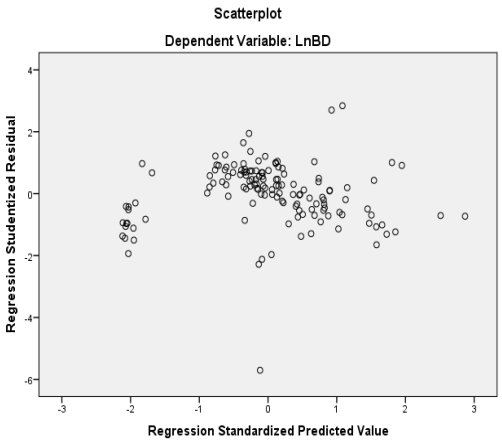
3) Autocorrelation Test

Tabel 5 Autocorrelation Test Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,950[a]	0,902	0,899	0,11389	1,994

The results of the Durbin-Watson method's autocorrelation test are shown in Table 5, the Durbin-Watson Count (DW) test value is 1.994 and Durbin-Watson Table (Du) value 1.7830. So, it is known that Du (1.7830) < DW (1.994) < from 4- Du (2.217). It is clear from this study's results that there is no autocorrelation.

4) Heterocedacity Test



Based on the scatter plot graph, if there is no clear pattern and the dots are evenly spaced above and below the number 0 on the Y axis in the scatter plot graph of the aforementioned heteroscedasticity test results, then the data does not exhibit heterocedacity.

a. F Test

Tabel 6. F Test Result

Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	16,186	4	4,046	311,937	0,000[b]
Residual	1,751	135	0,013		
Total	17,937	135			

Based on table 6, the F test results (model feasibility test) above, the significant value of 0.000 means that the sig value is <5% (α = 0.05) and Fcount 311.937> Ftable 2.438739. The regression model is deemed suitable for usage in this study.

b. Hypothesisi Test

1. Multiple Linier Regression Test

Tabel 7. Multiple Linear Regression Test Result

Variabel	Unstandarized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constanta)	27,105	0,042		650,566	0,000
PAD	0,000000000000276	0,000	0,237	6,983	0,000
DAU	0,000000000000919	0,000	0,634	8,802	0,000
DAK	0,000000000000789	0,000	0,215	3,124	0,002
DBH	0,000000000000473	0,000	0,055	1,795	0,075

$LnBD = \alpha + \beta1PAD + \beta2DAU + \beta3DAK + \beta4DBH + e$

$LnBD = 27,105 + 0,000000000000276PAD + 0,000000000000919DAU + 0,000000000000789DAK + 0,000000000000473DBH + e$

a) The constant value $\alpha = 27.105$ means that the value of Regional Expenditure is 27.105 if the independent variable is constant.
b) The PAD regression coefficient $\beta1 = 0.0000000000000000276$ means that if the other independent variables are fixed, then every one-unit increase of PAD ratio level will result in a rise in in Regional Expenditure of 0.0000000000000000276 and the other way around.
c) The DAU regression coefficient value $\beta2 = 0.000000000000919$, meaning that if the other independent variables are fixed, then each one unit increase in the DAU ratio level will result in a rise in Regional Expenditure of 0.00000000000919 and vice versa.
d) The DAK regression coefficient value $\beta3 = 0.000000000000789$, meaning that if the other independent variables are constant, then each one unit increase in the DAK ratio level will result in a rise in Regional Expenditure of 0.00000000000789 and vice versa.
e) The DBH regression coefficient value $\beta4 = 0.000000000000473$, meaning that if the other independent variables are constant (no change), then each one unit increase in the DBH ratio level will result in a rise in Regional Expenditure of 0.0000000000000000473 and vice versa.

2. t Test

Tabel 8. t Test Result

Variabel	Unstandarized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constanta)	27,105	0,042		650,566	0,000
PAD	0,000000000000276	0,000	0,237	6,983	0,000
DAU	0,000000000000919	0,000	0,634	8,802	0,000
DAK	0,000000000000789	0,000	0,215	3,124	0,002
DBH	0,000000000000473	0,000	0,055	1,795	0,075

The table value at a significant level of 5%, the number of data 140 (n) and the number of independent variables 4 (k = 4), the t_{table} is 1.978. The Original Regional Income variable has a t_{count} 6.983> t_{table} 1.978 and a significant value of 0.000 <0.05. Regional Expenditure is positively and significantly impacted by Original Regional Income. The General Allocation Fund variable has a t_{count} 8.802> t_{table} 1.978 and a significant value of 0.000 < from 0.05, meaning that the General

Allocation Fund has a positive and significant effect on Regional Expenditure. The Special Allocation Fund variable has a t_{count} 3.124> t_{table} 1.978 and a significant value of 0.002 < from 0.05, meaning that the Special Allocation Fund has a positive and significant effect on Regional Expenditure. The Revenue Sharing Fund variable has a t_{count} 1.795 < t_{table} 1.978 and a significant value of 0.075> from 0.05, indicating that Regional Expenditure is unaffected by the Revenue Sharing Fund.

3. Coefficient of Determination Test (R^2)

Table 9. Test Results of the Coefficient of Determination (R2)

R	R Square	*Adjusted R Square*	Std. Error of the Estimate
0,950[a]	0,902	0,899	0,11389

Based on table 4.7 Coefficient of Determination Test result, the Adjusted R Square obtained is 0.899 or 89.9%. This indicates that Regional Expenditure is influenced by Original Regional Income, General Allocation Fund, and Special Allocation Fund to an extent of 89.9%. while the remaining (100% - 89.9%) = 10.1% is affected by factors other than the variable being studied.

4. Flypaper Effect Analysis

The results of the t test show that the PAD variable's coefficient value, which is 0.000000000000276, is lower than the DAU variable's coefficient value, which is 0.000000000000919. Given that both factors have the same significant value of 0.000 < 0.05, it can be said that they both significantly affect regional spending. According to the findings of the t_{test}, the PAD variable's t_{count} value of 6.983 is less than the DAU variable's t_{count} value of 8.802, which is based on the results of the t_{test}. It can be concluded that the flypaper effect has occurred, because the fact that the DAU variable has a greater impact on regional expenditure than the PAD variable.

3.2. Discussion

Partial effect of Original Regional Income on Regional Expenditure

Significant variable of Regional Own-Source Revenue 0.000 <0.05 with tcount 6.983> ttable 1.978 means that H1 is accepted and Ho is rejected. So that the hypothesis of the effect of Regional Own-Source Revenue on Regional Expenditure is accepted, meaning that if Regional Own-Source Revenue increases, it will increase Regional Expenditure and vice versa.

Regional own-source revenue is one of the regional revenues that comes from the potential of a region itself and is used to finance regional expenditures. With the results stating that Regional Own-Source Revenue affects Regional Expenditure, it means that the local government has utilized the potential of Regional Own-Source Revenue properly to finance Regional Expenditure and as a manifestation of the principle of regional autonomy to regulate and manage government and community interests independently and with the basis of the law.

The results of this study are supported by the results of previous research conducted by Putri (2016), which concluded that Regional Original Revenue has a significant positive effect on Regional Expenditure.

Partial effect of General Allocation Fund on Regional Expenditure

Significant variable of the General Allocation Fund 0.000 < 0.05 with tcount 8.802 > t table 1.978 means that H2 is accepted and Ho is rejected. So that the hypothesis of the influence of the General Allocation Fund on Regional Expenditure is accepted, In other words, if the General Allocation Fund increases, the Regional Expenditure will grow as well, and vice versa.

The General Allocation Fund includes unconditional funds. The increase in the General Allocation Fund is directly proportional to the increase in Regional Expenditure. Thus, as the General Allocation Fund increases, Regional Expenditure will increase. However, the larger the General Allocation Fund used by the government indicates that the local government is still not independent.

The study's findings are consistent with other research, including work by Putri (2016), which concluded that the General Allocation Fund has a significant positive effect on Regional Expenditure.

Partial effect of Special Allocation Fund on Regional Expenditure

Significant variable of Local Revenue 0.002 <0.05 with tcount 3.124> t table 1.978 which means that H3 is accepted and Ho is rejected. So that the hypothesis of the effect of the Special Allocation Fund on Regional Expenditure is accepted, this means that if the Special Allocation Fund increases, it will increase Regional Expenditure and vice versa.

The Special Allocation Fund is funds from the central government allocated to regions to help fund special activities that are national priorities and are regional affairs. However, the Special Allocation Fund has a smaller influence on Regional Expenditure than the influence of Regional Original Revenue and the General Allocation Fund. The results of this study illustrate that the Special Allocation Fund has a positive influence, which means that local governments in regencies and cities in Central Java have special activities that are carried out.

The results of this study are in line with research conducted by Maharani (2018), with the results of research stating that the Special Allocation Fund has a significant positive effect on Regional Expenditure.

Partial effect of Revenue Sharing Fund on Regional Expenditure

Significant variable of Local Revenue 0.075 > 0.05 with tcount 1.795 < t table 1.978 which means that H4 is rejected and Ho is accepted. So that the hypothesis of the effect of Regional Original Revenue on Regional Expenditure is rejected.

This is because the Revenue Sharing Fund has a relatively small value in regencies and cities in Central Java in 2017-2020. The allocation of Revenue Sharing Funds (DBH) using the principle of by orgin, which is based on the producing regions, is also one of the low Revenue Sharing Funds for a region. If the local government has high revenue, it will also get a high Revenue Sharing Fund (DBH) (Fadilah & Helmayunita, 2020). Thus, the government has not been able to manage its regional tax and natural resource sources optimally.

The study's findings are supported by Abdillah & Mursinto (2016) research (2016) which concluded that Revenue Sharing Funds have no significant effect on Regional Expenditure.

Analisis Flypaper Effec Flypaper Effect Analysis

Based on the t test for the flypaper effect, the DAU variable coefficient value of 0.000000000000919 is greater than the PAD coefficient value of 0.000000000000276. Both variables have the same significant value of 0.000 <0.05. It is concluded that both variables

have a significant effect on regional expenditure. Based on the regression results, the tcount value of the PAD variable of 6.983 is smaller than the tcount value of the DAU variable, which is 8.802. This illustrates that the flypaper effect has occurred, because the DAU variable has more effect on regional expenditure than the effect of PAD on regional expenditure, thus it can be concluded that H5 is accepted and Ho is rejected. In order to accept the theory that the PAD and DAU have a flypaper effect on regional expenditures of regencies and municipalities in Central Java.

The occurrence of the flypaper effect shows that local governments still depend on transfer funds in meeting their regional spending needs rather than maximizing regional own-source revenues. This result is supported by the research by Putri (2016) that the flypaper effect has occurred in regencies and cities in Java Island in 2012-2013.

4. Conclusion

Conclusion in this study:

a. Original Regional Income, General Allocation Fund, and Special Allocation Fund partially have a significant effect on Regional Expenditure of Regencies and Cities in Central Java in 2017-2020. the higher the Regional Own-Source Revenue, General Allocation Fund, and Special Allocation Fund, the higher the Regional Expenditure.
b. Meanwhile, the Revenue Sharing Fund partially has no significant effect on Regency and City Regional Expenditures in Central Java in 2017-2020.
c. Flypape Effect occurred in regencies and cities in Central Java in 2017-2020. This can be proven by the results of the DAU variable coefficient value of 0.000000000000919 which is greater than the PAD coefficient value of 0.000000000000276. Both variables have the same significant value of 0.000 <0.05. Based on the regression results, the tcount value of the PAD variable of 6.983 is smaller than the tcount value of the DAU variable, which is 8.802. This illustrates that the flypaper effect has occurred, because the DAU variable has more influence on regional expenditure than the effect of PAD on regional spending expenditure.

The recommendations from this research are:

a. For further researchers, it is hoped that they can continue this research in order to prove that the Revenue Sharing Fund variable (X4) which no effect on the Regional Expenditure variable can have an effect in further research.
b. For future researchers, it is recommended to add alternative independent variables
c. The local government is expected to continuously improve efforts to encourage an increase in Regional Own-Source Revenue, in order to be able to fund local needs and minimize dependence on the central government. And it is expected that local governments will be able to increase general allocation funds by maximizing the management of tax sources and natural resources.

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