**Flypaper Effect on Local Government Expenditure**

**in West Kalimantan Province**

***Nur Fitriana Hamsyi 1); Fitriyani 2)***

**1) nur.fitrianah@ekonomi.untan.ac.id, Faculty of Economics and Business, Universitas Tanjungpura**

**2) fitriyani@unsyiah.ac.id , Faculty of Economics and Business, Universitas Syiah Kuala**

|  |  |
| --- | --- |
| ***Article Info:***  **Keywords:**  **Flypaper Effect;**  **Original Local Government Revenue; General Allocation Fund;**  **Special Allocation Fund;**  **Sharing Fund**  **Local government expenditure;**  ***Article History:***  *Received :*  *Revised :*  *Accepted :*  ***Article Doi:*** | ***Abstract***  This research attempts to test whether a flypaper effect on the relationship between original local government revenue and a balanced budget on local government expenditure in West Kalimantan Province. The data obtained were 14 regencies and cities in the period 2013-2018. The data model used in this study is panel with analysis using Stata software. The result is that the flypaper effect phenomenon occurs in general allocation funds and special allocation funds for local government expenditure management. This study also finds that general and special allocation funds positively affect local government expenditure, whereas the original local government revenue and sharing funds do not affect local government expenditure. It proves that local governments are still highly dependent on central government transfer funds rather than increasing their original local government revenue. |

Abstrak

Penelitian ini mencoba menguji apakah flypaper berpengaruh terhadap hubungan antara pendapatan asli daerah dan anggaran berimbang terhadap pengeluaran pemerintah daerah di Provinsi Kalimantan Barat. Data yang diperoleh adalah 14 kabupaten dan kota pada periode 2013-2018. Model data yang digunakan dalam penelitian ini adalah panel dengan analisis menggunakan software Stata. Hasilnya, fenomena flypaper effect terjadi pada dana alokasi umum dan dana alokasi khusus untuk pengelolaan belanja pemerintah daerah. Studi ini juga menemukan bahwa dana alokasi umum dan khusus berpengaruh positif terhadap belanja pemerintah daerah, sedangkan pendapatan asli daerah dan dana bagi hasil tidak mempengaruhi belanja pemerintah daerah. Hal itu membuktikan bahwa pemerintah daerah masih sangat bergantung pada dana transfer pemerintah pusat daripada meningkatkan pendapatan asli daerahnya.

**Kata Kunci: Flypaper Effect, Pendapatan Asli Daerah, Dana Alokasi Umum, Dana Alokasi Khusus, Dana Bagi Hasil, dan Belanja Daerah**

**INTRODUCTION**

The Reformation has brought several changes to Indonesia's government system, one of which was the decentralization system. Several regulations regarding local government have been drafted to support the running of the system. As the implementation of the regional government system develops, Law No. 32 of 2004 changed to Law No. 23 of 2014 and further regulated in Law No. 2 of 2015. The law emphasizes that the implementation of regional government is carried out following the principles of regional autonomy. Regional autonomy is a form of implementation of the decentralized system. It is hoped that local governments will be more independent in developing their resources and can play an active role in advancing their regions.

Decentralization transfers political power from the central government to regional governments, but the fiscal policy also includes where subnational governments get financial transfers from the central government (Suyanto, 2010). To achieve the goals of decentralization, local governments must explore other income sources optimally so that local revenue can be maximized to lessen dependence on the central government (Inayati & Setiawan, 2012; Nasir, 2019). This authority is given because local governments are more familiar with their regions' potentials and needs than the central government. It is an indicator in measuring the success of implementing the decentralized system. The greater the original local government revenue generated by a region, indicating that fiscal decentralization in that region has been implemented well. Thus, the central government's dependence level will also be smaller (Bodman & Hodge, 2010).

Based on PMK Number 126/PMK.07/2019 concerning Regional Fiscal Capacity Maps, there are still many regencies or cities in Indonesia with a low level of fiscal capacity, so there is a relatively sizeable fiscal gap. According to Amalia (2015), several regions have abundant human resources and natural resources but have scarcity in investment opportunities and economic infrastructure. On the other hand, some regions have good management in the financial system even though they have shortcomings in natural resources and human resources, but can maximize their regions' considerable tax potential. Meanwhile, several other regions have experienced limitations in both economic infrastructure and resources. As a consequence, the per capita gross domestic product (GDP) produced varies from province to province. To overcome fiscal imbalances, the central government took steps by transferring the balanced budget to the regions. These funds are sources of funding for the local government and the main source, namely, original local government revenue.

Original local government revenue (PAD) will affect how much the expenditure on local government expenditure. All local revenue obtained, both from local government and central government transfers, is used for local government expenditureto improve community welfare and regional development (Aragon, 2013). Of course, each region has different priority needs for public services, so that the expenditure of each region has a fluctuating value.

The budget for transfer funds to the regions is increasing every year. It is hoped that the allocation of balancing fund transfers from the budgeted government revenues and expenditures (APBN) can increase regional economic growth and reduce the fiscal gap between regions. However, the provision of these funds raises a problem where local governments are too dependent on balanced budget from the central government in financing local government expenditure compared to optimizing their original local government revenue. This dependence gives rise to the flypaper effect phenomenon, which is a condition in regional spending in which local governments give a more significant response to transfer funds than their original local government revenue.

The current reality is the low contribution of original local government revenue to total regional revenue. Likewise with conditions that occur in the Regency/City of West Kalimantan Province as presented are as follows:

**Table 1. PAD, DAK, DBH, and DAU in**

**Regency/City in West Kalimantan Province, 2013-2018**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **PAD** | **DAU** | **DAK** | **DBH** |
| 2013 | 881.621.587.520 | 8.162.096.541.000 | 1.155.999.941.000 | 686.536.192.448 |
| 2014 | 1.209.896.028.900 | 9.003.893.687.000 | 1.193.812.650.000 | 701.735.983.560 |
| 2015 | 1.179.038.326.330 | 9.422.549.308.000 | 1.701.356.508.000 | 620.004.776.190 |
| 2016 | 1.346.239.806.977 | 10.160.916.598.000 | 3.005.578.791.664 | 580.263.461.698 |
| 2017 | 1.975.023.900.860 | 10.073.735.391.000 | 3.617.520.146.100 | 479.720.280.130 |
| 2018 | 1.840.200.868.680 | 10.095.490.363.000 | 3.349.572.463.340 | 535.151.662.350 |

Source : Statistics Indonesia (2018)

Table 1 shows that in 2013-2018, the realization of original local government revenue was about Rp 8.432.020.519.267 while the total of balanced budget was greater than PAD, namely Rp74.545.934.744.480. The PAD generated only contributes 8,58% of total regional revenue. This value is much smaller than the proportion of the central government’s balanced budget, which reached 75,89%. It shows that the regional government in the Regency/City of West Kalimantan Province has not maximized potential regional income sources. With the number of balanced budgets that are much more responsive to local government expenditure than PAD, it indicates a high degree of dependence on transfer funds from the central government, thus enabling the flypaper effect phenomenon. This phenomenon contrasts with the original objectives of decentralization and regional autonomy, which demand local governments’ independence.

Research on the flypaper effect phenomenon has been conducted before in several countries and provinces in Indonesia. However, only a few studies have focused on the West Kalimantan region. The variables studied are original local government revenue, balanced budget consisting of general allocation funds, special allocation funds, sharing funds and local government expenditure with the 2013-2018 research period. Data processing was performed using STATA analysis tools. This study aims to see whether the flypaper effect phenomenon occurs in original local government revenue and budget balanced of local government expenditure in Regencies/Cities in West Kalimantan Province. This study's results are expected to contribute to the central and regional governments in evaluating their regional financial performance so that fiscal decentralization can be realized.

**LITERATURE REVIEW**

**Original Local Government Revenue**

Original local government revenue is a revenue source obtained from various potentials owned by the area, which is collected based on applicable regulations (Iskandar, 2012),. It is intended to finance regional expenditures in implementing regional development and improving the quality of public services. The original local government revenue generated will show the extent to which local governments have succeeded in exploring the sources of revenue they have. If the income value is enormous, the level of decentralization will also increase, and vice versa (Bodman & Hodge, 2010). The components of original local government revenue within West Kalimantan Province consist of : (1) local taxes, which provide the most considerable contribution to PAD, (2) retributions, with the most considerable portion in public service fees, (3) the income of regional government corporate and management of separated regional government wealth; (4) moreover, another local government revenue provides the second-largest contribution after taxes on PAD (Nasir, 2019).

**Balanced Budget**

Balanced budgets are funding assistance from APBN revenues transferred to local governments. The aim is to address financial gaps caused by differences in potential sources of income for each region. With this, it is hoped that it can assist regions in financing their needs to facilitate regions in realizing decentralization. A balanced budget consists of the first, namely sharing funds (DBH), whose sources come from taxes and not taxes or natural resources. It is a fund from APBN revenue sharing provided by the central government to local governments with a specific state revenue percentage. The DBH allocation is given based on two principles, namely by origin, where a larger percentage is given to regions that contribute to generating state revenue, and other regions are divided based on equalization. In contrast, by actual, the distribution is based on actual revenue, both tax, and non-tax.

The second is the general allocation fund, which is the most considerable portion of the transfer funds given to local governments to all autonomous regions. DAU is entirely left to the regions and is mostly used to finance general routine expenditures. DAU is given to fill the fiscal gap caused by an imbalance between each region's capacity and fiscal needs. So that with the DAU, it is expected that financial capacity is evenly distributed between each region. According to Inayati & Setiawan (2012), the fiscal gap's size determines the amount of DAU disbursement to a region. The fiscal gap is obtained from reducing the needs of regions with regional potential.

The last component of the balanced budget is the special allocation fund, which is funds allocated to specific regions, either province, regencies, or cities to assist in funding special needs, which are included in national priorities and become part of regional government affairs. Several criteria need to be considered in the provision of DAK, namely: (1) regional fiscal capacity in funding regional development needs as reflected in the APBD, known as general criteria; (2) Characteristics and specificities of an area such as food security areas, border areas, coastal areas, islands, remote, underdeveloped, and prone to natural disasters, are stipulated as unique criteria; and (3) the condition of facilities and infrastructure for each activity to be financed by DAK is based on technical ministries or ministries’ indicators where these are designated as technical criteria.

**Local Government Expenditure**

Local government expenditure is the regional government's total expenditure in financing its government affairs following the stipulated provisions. It is classified into two types of classifications, namely: (1) based on government affairs, which consists of spending on the implementation of mandatory and optional affairs; (2) based on programs and activities, which include indirect spending and direct spending. Regional revenue and regional expenditure have an interrelated relationship. Local government expenditure plays an essential role in increasing the income of a region. Regional income is the source used by local governments to carry out regional spending. An increase in the gross regional domestic product will increase the region's amount of revenue to impact increasing spending to finance regional development.

**Flypaper Effect**

The flypaper effect is a condition in which local governments tend to be responsive to assistance funds provided by the central government or better known as transfer funds, rather than the original regional income itself in financing regional expenditures (Aragon, 2013; Vegh & Vuletin, 2015 ). The flypaper effect can occur if local government expenditure has a smaller coefficient value than the effect of transfer funds on regional spending. Sag ̆bas & Saruc (2004) have examined the flypaper effect in Turkey. According to him, two theories underlie the flypaper effect, namely the fiscal illusion, where residents do not understand and misperceptions about financing and cost-sharing of public goods, and the bureaucratic model, which considers flypaper to occur because the behavior of bureaucrats is more comfortable to spend transfer funds in maximizing the budget-compared to attempts to raise taxes. The study results reveal that the bureaucratic model is more capable of tracking the flypaper effect phenomenon.

The flypaper effect phenomenon has occurred in several countries. Aragon (2013) has conducted research on local expenditure, transfers, and taxes in Peruvian cities. The results prove strongly that central government grants have a more significant stimulating effect than local taxes collected by local governments. The expensive local taxes can explain the flypaper effect. Furthermore, in Mexico, Sour (2013) discusses the flypaper effect on local governments with panel data for 17 years, from 1990 to 2007. The results prove a flypaper effect shown in local government spending, which is driven more by increasing unconditional transfers from the government than an increase in the income of members of that community.

Cruz & Silva (2020) have examined the flypaper effect of intergovernmental transfers in Brazil's education sector. The results found that the elasticity of education costs for funds from federal government transfers is significantly greater than the elasticity of the government's responses to local income, thus indicating that there has been a flypaper effect. However, this study is not in line with Thornton's (2011) study, which examines the effect of grants from the federal government with a sample of non-profit companies. The results showed that no flypaper effect was found in non-profit companies.

Meanwhile, in Indonesia, Amalia (2017) has examined the effect of the flypaper effect on regional spending and its impact on regional inequality in Indonesia from 2008-2013. By using multiple regression analysis, it is found that the original local government revenue and general allocation funds significantly affect regional spending and regional disparities in the provinces of East and West Indonesia, so it can be concluded that there has been a flypaper effect in these areas. Armawaddin, Rumbia, & Afiat (2017) also revealed that the flypaper effect in Sulawesi's regencies and cities originated from DAK, during DAU and DBH.

Different research results were conducted by Iskandar (2012), who examined the flypaper effect on unconditional grants in West Java province. A total of 13 regencies and six cities became the population in this study. The result is that the PAD coefficient value is more significant than unconditional grants, so there is no flypaper effect in the province. Nugoho (2017) focuses his research by identifying the flypaper effect on regional expenditure with samples obtained by five regencies and cities in Yogyakarta Province during the 2006-2015 period. The results found were that there was no flypaper effect on expenditures on goods and services because the government tended to meet expenditures on goods and services.

**Hypothesis**

H1: There is a flypaper effect on the relationship between original local government revenue and a balanced budget on local government expenditure in West Kalimantan Province.

**METHODOLOGY**

The data in this study are annually secondary data covers 14 regions, namely Sambas, Bengkayang, Landak, Mempawah, Sanggau, Ketapang, Sintang, Kapuas Hulu, Sekadau, Melawi, Kayong Utara, Kubu Raya, Pontianak, and Singkawang from West Kalimantan Province obtained from Indonesian Statistic Publication and Finance Ministry Publication between 2013 and 2018. This research focuses on examining the effect of original local government revenue and a balanced Budget on local government expenditure in West Kalimantan Province.

This study's dependent variable is government spending, defined as each region's total spending in Indonesian rupiah (IDR). In contrast, the explanatory variables are original local government revenue (PAD), the total amount of general allocation fund (DAU), special allocation fund (DAK), and sharing fund (DBH) by each region in the Indonesian Rupiah (IDR), respectively. This research uses panel regression to analyze to utilize this objective.

Several advantages are using panel data. Firstly, using panel data can give a large number of observations and increase the degree of freedom. Second, it also benefits to reduce the collinearity within the independent variables, therefore, improve the estimation of the variables. Third, panel data controls the individual heterogeneity. Fourth, Panel data are better able to study the dynamics of adjustment. Fifth, It can identify and measure effects that could not be better detected in pure time series or cross-sectional data. It allows us to build and test more complex behavioral models. Sixth, the data generated in panel data makes it possible to obtain more precise predictions for individual results than time-series data alone. However, panel data also has some disadvantages: heterogeneity bias, selectivity bias, and cross-section dependence (Klevmarken, 1989; Hsiao, 2003; Baltagi, 2005). Although it has some limitations, panel data is the most suitable for used in this model as it combines both cross-section and time-series to analyze the objective.

**Panel Regression Model**

Baltagi, (2005) described the panel regression model which can be written as:

(1)

Panel data in this study can be inscribed as:

(2)

Explanation:

Gov : the total of government spending

PAD : original local government revenue

DAU : general allocation fund

DAK : specific allocation fund

DBH : the revenue sharing fund, respectively

i : I 15 regions in West Kalimantan, Indonesia (i = 1, ..., 15)

t : tth time period, i = 1, ..,t (2013-2018).

**Fixed and Random Effect Models**

Panel data differs from a regular time-series or cross-section regression, where needed to used several estimations to address the inference problems (heteroscedasticity and autocorrelation) because of a combination of time series and cross-section. There are several estimations used, which are the fixed effects model (FEM) or the least-squares dummy variable (LSDV) model and the random-effects model (REM) or error components model (Croissant & Millo, 2008; Muhammad et al., 2019).

The fixed-effects model is an appropriate specification if we are focusing on a specific set of observations. Nevertheless, there are too many standards in the fixed effects model, and the loss of degrees of freedom can be avoided if µi, hence a random effect must be assumed (Baltagi, 2015; Pillai, 2016). Besides, Hausman (1980) in Arellano (1993) built the Hausman test to select the proper model between fixed and random effects. The model was developed based on the comparison between the within groups and the GLS estimators.

**Flypaper Effect**

In this study, we also analyze the flypaper effect to calculate whether local government expenditure is more determined by the transfer than the original local government revenue. Dollery & Worthington (1995) stated that “flypaper effect defined as a decrease in donor (federal) non-grant expenditures as a result of an increase in the tax price of federal expenditures would provide prima facie evidence of fiscal illusion at the level of the recipient (state).”

Determined the flypaper effect can be obtained by calculated the coefficient or value of the independent variables. If the balanced fund's value is greater than the original local government revenue, and both are significant, we can assume that the flypaper effect has happened. The flypaper effect also exists if the PAD's p-value is not significant (Prakosa, 2004; Iskandar, 2012; Solikin, 2016; Amalia, 2017).

**RESULTS AND DISCUSSION**

The first phase of the analysis was to represent the descriptive statistic of all variables used in this study. Then it is vital to determine the most suitable panel model in this research by using the Hausman test. Afterward, the panel regression analysis is necessary to be investigated. The results in Table 2 summarize the descriptive statistic about all variables used in this model, which are local government expenditure, PAD, DAU, DAK, and DBH.

**Table 2. Descriptive Statistic of Variables**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Mean** |  | **Std. Dev.** | **Min** | **Max** | **Observations** |
| Expenditure overall  between within | 1.19e+12 |  | 4.13e+11  3.57e+11  2.26e+11 | 5.06e+11  6.49e+11  6.87e+11 | 2.12e+12  1.82e+12  1.66e+12 | N = 84  n = 14  T = 6 |
| DAU overall between within | 6.78e+11 |  | 1.93e+11  1.90e+11  5.52e+10 | 3.71e+11  4.28e+11  5.15e+11 | 1.13e+12  1.06e+12  7.50e+11 | N = 84  n = 14  T = 6 |
| DBH overall between within | 4.58e+10 |  | 4.16e+10  3.21e+10  2.76e+10 | 1.54e+10  1.89e+10  -5.59e+09 | 3.09e+11  1.32e+11  2.62e+11 | N = 84  n = 14  T = 6 |
| DAK overall between within | 1.67e+11 |  | 9.78e+10  5.65e+10  8.10e+10 | 7.89e+09  8.30e+10  2.92e+10 | 4.53e+11  2.68e+11  3.52e+11 | N = 84  n = 14  T = 6 |
| PAD overall between within | 1.00e+11 |  | 9.09e+10  8.57e+10  3.69e+10 | 1.07e+10  1.63e+10  -1.66e+09 | 4.76e+11  3.67e+11  2.19e+11 | N = 84  n = 14  T = 6 |

Source : Processed Research (2020)

Average local government expenditure in 14 regions in West Kalimantan Province from 2013-2018 has amounted to Rp1,190,515,735,919. The maximum spending is about Rp2,118,372,562,530 while the minimum spending is about Rp583,077,949,230. The average DBH received by West Kalimantan Province is the lowest among four other explanatory variables, amounted to Rp45,756,184,090. On the contrary, the government's highest average of transfer is the DAU amounted to Rp677,869,702,845. PAD ranges from Rp10.735.591.000 to Rp476.050.410.000 with an average of Rp100.290.552.827. It shows that there is inequality in generating their own income. Some regencies find difficulty in optimizing their original local government revenue while others not.

After that, the Hausman test is used to determine whether the fixed effect or the random effect is the most appropriate in this research (Hsiao, 2003). Baltagi (2005), Kunst (2013) explain that Hausman (1980) suggested comparing βWithin and βGLS. The null hypothesis H0: E(uit| Xit) = 0 while the alternative hypothesis Ha: E(uit| Xit) ≠ 0, which means the null hypothesis implies that the estimators of FE and RE do not differ and vice versa.

**Table 3. Hausman test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | **Fixed** | **Random** | **Random** | **StandardError** |
| DAU | 2.187608 | 1.347275 | .8403328 | .2928312 |
| DBH | .2747257 | .4170534 | -.1423277 | . |
| DAK | 1.338198 | 1.308083 | .0301151 | .1719664 |
| PAD | -.3104811 | 1.065718 | -1.376199 | .3106768 |
| Test:Ho: difference in coefficients not systematic chi2(**4**) = (b-B)'[(V\_b-V\_B)^(-1)](b-B) = **26.80** | | | | |
| **Prob>chi2 = 0.0000** | | | | |

Source : Processed Research (2020)

The results in table 3 imply that as the p-value prob>chi2 of 0.0000 is less than 0.05 (5% significant). It rejects the null hypothesis and confirms that random-effect would be inconsistent, and the fixed effect is most suitable for this model. Borenstein, Hedges, Higgins & Rothstein (2010) stated that one proper effect size underlies all the studies in the analysis using the fixed-effect model. All observed effects are due to sampling error. Table 4 shows the fixed effect regression in this research.

From the fixed test regression results, both general allocation funds and special allocation funds are positively significant on local government expenditure with p-value (0.000) less than (0.05). Likewise, both DAU and DAK's coefficients are 2.19 and 1.34, respectively, which means that 1 unit increase of DAU and DAK will increase government spending about 2.19 and 1.34 units. This study is in line with previous research (Prakosa, 2004; Iskandar, 2012; Solikin, 2016; Amalia, 2017; Pradiatmi & Wibowo, 2017; Putri, Nirwanto, Assih, & Darmawan, 2020). This show how dependent the regional government on balanced budget from the central government.

On the contrary, sharing funds is positive but not significant in influencing the government spending where the p-value (0.457) is more significant than 0.05. It shows that a 1 unit increase of DBH is not significant in increasing the government budget by 0.27 units. This result is consistent with research from Prastiwi, Ayu, Nurlaela & Chomsatu (2016), Mundiroh (2019).

**Table 4. Fixed Effect Regression Results**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| bb |  |  | Number of obs | = | 84 |
| Group variable: panelid |  |  | Number of groups | = | 14 |
| R-sq: |  |  | Obs per group: |  |  |
| within = 0.8747 |  |  | min | = | 6 |
| between = 0.8773 |  |  | avg | = | 6.0 |
| overall = 0.8571 |  |  | max | = | 6 |
|  |  |  | F(4,66) | = | 115.14 |
| corr(u\_i, Xb) = -0.6849 |  |  | Prob > F | = | 0.0000 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **BelanjaDaerah** | | **Coef.** | **Std. Err.** |  | **t P>|t|** |  | **[95% Conf.** | **Interval]** |
| DAU | 2.187608 | .3143158 |  | 6.96 0.000 |  | 1.560056 | 2.815159 |
| DBH | .2747257 | .3675122 |  | 0.75 0.457 |  | -.4590361 | 1.008488 |
| DAK | 1.338198 | .2340943 |  | 5.72 0.000 |  | .8708136 | 1.805582 |
| PAD | -.3104811 | .3510685 |  | -0.88 0.380 |  | -1.011412 | .3904499 |
| \_cons | -4.98e+11 | 1.84e+11 |  | -2.71 0.009 |  | -8.65e+11 | -1.31e+11 |
| sigma\_u | 1.901e+11 |  |  |  |  |  |  |
| sigma\_e | 8.971e+10 |  |  |  |  |  |  |
| rho | .81791079 | (fraction | of | variance due | to | u\_i) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | F | test that all u\_i=0: F(13, 66) = 3.35 | Prob | > F = 0.0006 |

Source : Processed Research (2020)

On the other hand, original local government revenue is negative and not significant in affecting government spending where the p-value (0.380) is more significant than 0.05. It implies that a 1 unit increase of PAD will not decrease government spending by 4,98 units. This outcome is in line with research from Putri & Darmayanti (2019) concludes that PAD is negative but significant on government spending and Wandira (2013) explains that PAD is not significant on spending. In general, all variables in this model provide a better fit and influence the government budget. The p-value of F-statistic (0.0006) is less than 0.05.

The Flypaper effect is calculated by the coefficient or value of the independent variables. If the coefficient value of a balanced budget is greater than the original local government, and both are significant, it can be assumed that a flypaper effect occurs. The results obtained in Table 4 show that the DAU coefficient of 2.187608 and DAK 1.338198 is more dominant than the PAD coefficient of -0.3104811, thus indicating a flypaper effect on the management of regional expenditures in regencies/cities in West Kalimantan Province. Simultaneously, DBH did not find a flypaper effect because it has a coefficient value of 0.2747257, which is smaller than the PAD coefficient. This study is in line with several findings Dollery & Worthington (1995), Solikin (2016), Amalia (2017), Putri et al. (2020). It shows that the dependence between regions and cities in West Kalimantan on the central government is still high.

The general allocation funds received by the West Kalimantan Provincial government have an enormous compared to the original regional income. So that if the amount of this fund is reduced, it will affect the reduction in local revenue. Likewise, the special allocation funds are almost entirely higher in value than the regions' revenue. The regional government should adequately utilize the balancing fund provided by the central government to improve the provision of community services, stimulate the regional economy, and maximize the potential of the region to increase the original regional income. However, unfortunately, the use of these transfer funds was not effective because the funds were mostly used to meet routine expenditures rather than capital expenditures, and this happened repeatedly. This allocation of funds also had a negative effect, namely that it increased the dependence of local governments on the central government, which eventually led to the flypaper effect phenomenon.

The lack of optimal local government in creating and maximizing its economic potential will impact local revenue, which is difficult to increase. If this continues, then the aim of regional autonomy in realizing fiscal independence will also be hampered. The regional government will continue to expect equal funding assistance from the central government. To reduce this flypaper effect, it would be better if the central government can pay more attention to the allocation of balancing funds, especially general allocation funds and special allocation funds to local governments. The management used for regional spending is right on target and in accordance with the expected goals. Also, the central government is expected to strictly evaluate the use of these funds to meet the minimum limit in capital spending. On the other hand, local governments must work hard in increasing sources of regional income, such as increasing taxes, user fees, and encouraging investment into the West Kalimantan region.

**CONCLUSION**

This study finds that the flypaper effect phenomenon has occurred during the period 2013-2018 in local government expenditure, which comes from general allocation funds and special allocation funds in regencies/cities in West Kalimantan Province. Meanwhile, original local government revenue and sharing funds do not show a flypaper effect. The amount of allocated funds given each year, especially the general allocation funds, proves that local governments have not been able to meet their expenditures independently so that the level of dependence on the central government is still very high. The flypaper effect also shows that local governments have not maximally exploited their regional economic potential to increase local revenue.

**SUGGESTION**

This research's limitation is that the data taken is only six years, and the sample used is limited to West Kalimantan. Likewise, the observed variables only use local government expenditure, general allocation funds, special allocation funds, and sharing funds. Thus, it is hoped that further research can expand the period of observation and the object of research so that it not only presents data for one province but can even compare the flypaper effect phenomenon that occurs in other countries. The dependent variable in regional expenditure can also be more specified in certain types of expenditure.

**REFERENCES**

Amalia, F. (2017). “Flypaper Effect of Regional Expenditure and It’s Impact to Regional Inequality in Indonesia”. Signifikan: *Jurnal Ilmu Ekonomi*, 6(1), 125–138. *https://doi.org/10.15408/sjie.v6i1.3293*

Armawaddin, M., Rumbia, W. A., & Afiat, M. N. (2017). “Analisis Flypaper Effect Belanja Daerah Kabupaten/Kota di Sulawesi”. *Jurnal Ekonomi dan Pembangunan Indonesia,* 18(1), 77-91.

Aragon, F. M. (2013). “Local Spending, Transfers, and Costly Tax Collection”. *National Tax Journal, 66(2), 343-370. http://dx.doi.org/10.17310/ntj.2013.2.03*

Baltagi, B. H. (2005). *Econometric Analysis of Panel Data (Third Edit).* John wiley & Sons, Ltd.

Bodman, P., & Hodge, A. (2010). "What Drives Fiscal Decentralisation? Further Assessing the Role of Income". *Fiscal Studies: The Journal of Applied Public Economics,* 31(3), 373-404.   
https://doi.org/10.1111/j.1475-5890.2010.00119.x

Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2010). "A Basic Introduction to Fixed-Effect and Random-Effects Models for Meta-Analysis". *Research Synthesis Methods,* 1(2), 97–111. https://doi.org/10.1002/jrsm.12

Croissant, Y., & Millo, G. (2008). "Panel Data Econometrics in R: The Plum Package". *Journal of Statistical Software,* 27(2), 1–43. https://doi.org/10.1186/1478-7954-4-13

Cruz, T., & Silva, T. (2020). "Minimum Spending in Education and The Flypaper Effect". Economics of Education Review, 77. https://doi.org/10.1016/j.econedurev.2020.102012

Dollery, B & Worthington, A. (1995). "Federal Expenditure and Fiscal Illusion: An Australian Test of The Flypaper Hypothesis". *Publius: The Journal of Federalism,* 25(1), 23-34. Originally published by Lafayette College, journal now published by. Всш, 1(1), 35–38.

Hausman, J. A., & Taylor, W. E. (1980). Panel Data and Unobservable Individual Effects. *Econometrica,* 1377–1398.

Hsiao, C. (2003). *Analysis of Panel Data Second Edition.* Cambridge University Press. https://doi.org/10.5771/9783845289892-15

Inayati, N. I., & Setiawan, D. (2012). Fenomena Flypaper Effect pada Belanja Daerah Kabupaten/Kota di Indonesia. *Ekuitas: Jurnal Ekonomi dan Keuangan,* 1(2), 1377–1398.

Iskandar, I. (2012). "Flypaper Effect pada Unconditional Grant". *Jurnal Ekonomi dan Pembangunan,* 13(1), 113–131.

Klevmarken, N. A. (1989). "Panel Studies: What We Can Learn from Them? Introduction". *European Economic Review,* 33(2–3), 523–529. https://doi.org/10.1016/0014-2921(89)90131-1

Kunst, R. M. (2013). "*Econometric Methods for Panel Data".* Outline Introduction Tests in panel models Poolability tests, Testing for the presence of random effects, The Hausman.

Muhammad, S., Zulham, T., Sapha, D., Fitriyani, & Saputra, J. (2019). "Investigating The Public Spending and Economical Growth on The Poverty Reduction In Indonesia. *Industrial Engineering and Management Systems,* 18(3), 495–500. https://doi.org/10.7232/iems.2019.18.3.495

Mundiroh, S. (2019). "Pengaruh Pertumbuhan Ekonomi Daerah, Pendapatan Asli Daerah (PAD), Dana Alokasi Umum (DAU) dan Dana Bagi Hasil (DBH) terhadap Alokasi Belanja Modal Daerah". *Jurnal Akuntansi Berkelanjutan Indonesia,* 2(1), 104. https://doi.org/10.32493/jabi.v2i1.y2019.p104-122

Nasir, M. S. (2019). "Analisis Sumber-Sumber Pendapatan Asli Daerah Setelah Satu Dekade Otonomi Daerah". *Jurnal Dinamika Ekonomi Pembangunan,* 2(1), 30-45.

Nugroho. (2017). "Flypaper Effect of Regional Expenditures in Yogyakarta". *Journal of Economics and Business,* 2(3), 353-374.

Nwakuya, M. T., & Ijomah, M. A. (2017). "Fixed Effect Versus Random Effects Modeling in a Panel Data Analysis; A Consideration of Economic and Political Indicators in Six African Countries". *International Journal of Statistics and Applications,* 7(6), 275–279. https://doi.org/10.5923/j.statistics.20170706.01

Pillai, V. (2016). "Panel Data Analysis with Stata Part 1 Fixed Effects and Random EffectsModels"*. Munich Personal RePEc Archive,* *70986, 1–56.*

Pradiatmi, I. N., & Wibowo, H. (2017). "Pengaruh Kinerja Keuangan dan Belanja Modal terhadap Pertumbuhan Ekonomi pada Kabupaten/Kota di Jawa Tengah". *Jurnal Reviu Akuntansi dan Keuangan,* 5(2), 759–768. https://doi.org/10.22219/jrak.v5i2.5152

Prakosa, K. B. (2004). "Analisis Pengaruh Dana Alokasi Umum (DAU) dan Pendapatan Asli Daerah (PAD) terhadap Prediksi Belanja Daerah (Studi Empirik di Wilayah Propinsi Jawa Tengah dan DIY)". *Jurnal Akuntansi & Auditing Indonesia,* 8(2), 101–118.

Prastiwi, Ayu, Nurlaela, S., & dan Chomsatu, Y. (2016). "Pengaruh Pendapatan Asli Daerah, Dana Perimbangan dan Belanja Pengawai terhadap Belanja Modal Pemerintah Kota Surakarta". *Seminar Nasional IENACO*, 872–879.

Putri, N. K. N. I., & Darmayanti, N. P. A. (2019). "Pengaruh PAD dan Dana Perimbangan terhadap Kinerja Keuangan Pemerintah Daerah di Wilayah Sarbagita Provinsi Bali". *E-Jurnal Manajemen,* 8(5), 2834-2861. https://doi.org/10.24843/ejmunud.2019.v08.i05.p09

Putri, R. L., Nirwanto, N., Assih, P., & Darmawan, W. (2020). ""The Importance of Regional Original Income, Balance Fund and Demography on Flypaper Effect through The Regional Government Expenditure". *International Journal of Research in Humanities and Social Studies,* 7(2), 33–45.

Sag ̆bas, I., & Saruc, N.T. (2004). "Intergovernmental Transfers and The Flypaper Effect In Turkey". *Turkish Studies,* 5(2), 79–92. DOI: 10.1080/1468384042000228602.

Solikin, A. (2016). "Analisis Flypaper Effect pada Pengujian Pengaruh Dana Alokasi Umum (DAU), Pendapatan Asli Daerah (PAD), dan Sisa Lebih Penghitungan Anggaran (SiLPA) terhadap Belanja Pemerintah Daerah di Indonesia (Studi Tahun 2012-2014)". *Jurnal Akuntansi dan Bisnis,* 16(1), 11. https://doi.org/10.20961/jab.v16i1.187

Sour, L. (2013). "The Flypaper Effect in Mexican Local Governments". Estudios Economicos, 28(1), 165-186.

Statistics Indonesia (2018). *Financial Statistics of Regency/Municipality Government*. ISSN 0126-4699

Suyanto. (2010). "Flypaper Effect Theory dalam Implementasi Kebijakan Desentralisasi Fiskal". Jurnal Ekonomi Pembangunan, 11(1), 69-92.

Thornton, J. P. (2011). "Flypaper Nonprofits: The impact of Federal Grant Structure on Nonprofit Expenditure Decision". Public Finance Review, 42(2), 176-198.

Vegh, C.A., & Vuletin, G. 2015. Unsticking the Flyaper Effect in an Uncertain Word. Journal of Public Economics, 131, 142-155. <https://doi.org/10.1016/j.jpubeco.2015.09.001>

Wandira, A. G. (2013). "Pengaruh PAD, DAU, DAK, dan DBH terhadap Pengalokasian Belanja Modal". *Accounting Analysis Journal,* 2(1). https://doi.org/10.15294/aaj.v2i1.1158