# The Financial Performance Comparison between Local Government with Flypaper Effect and Non-Flypaper Effect: Empirical Study on East Java Province in 2015

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Flypaper Effect, Revenue Composition.

Abstract: This study aims to examine whether there are differences in the financial performance of local governments

that are experiencing a flypaper effect and local governments that are not. Based on the census method of sampling, 35 data samples were obtained, consisting of 27 regencies and eight municipalities. The selection of sample types from flypaper effect regions and non-flypaper effect regions was analyzed using multiple regression of local government revenue and general allocation fund to local expenditure. Accounting performance data were analyzed with the Mann-Whitney U-test and independent sample t-test. The results show that seven regions experience the flypaper effect and 28 regions do not experience the flypaper effect. The average revenue composition of non-flypaper effect regions is higher than is the case in flypaper effect regions and significantly different. The average cost, expenditure and effectiveness ratio of flypaper effect regions are higher than non-flypaper effect regions but not significant. The average financing ability ratio of

non-flypaper effect regions is higher than flypaper effect regions but not significant.

#### 1 INTRODUCTION

Public sector accounting in Indonesia has been progressing over time. One of the main triggers was the reformation in 1998. This reformation included the demands of the public for good governance and the enforcement of public accountability, honesty, and development programs that support the welfare of society; consequently, the 1998 reformation generated the concept of public sector accounting reformation in Indonesia as a whole. One of the elements of total reformation is the demand for granting wide autonomy or authority municipalities and districts, so MPR Decree No. XV / MPR / 1998 was issued on the Implementation of Regional Autonomy; Setting, Distribution, and Utilization of National Resources with Justice and the Central and Regional Financial Balance in the Framework of the Unitary State of the Republic of Indonesia (Mardiasmo, 2002), which later became the basis for the issuance of Law no. 22 of 1999, on Regional Government, and Law no. 25 of 1999, on Financial Balance between Central and Regional Government

Municipal and district governments can be more effective in running their wheels effectively and

efficiently without strong intervention from the central government in line with the issuance of the policy. Each region or district has different potential revenue that leads to the difference in Region or District's Own Source Revenue (PAD). In order to reduce the PAD gap among local governments and also to improve the tax system and fiscal efficiency, the central government intervenes with the transfer of funds balance for the region. Law no. 33 of 2004 explains the transfer of central government balance funds to local governments in the form of General Allocation Fund (DAU), Special Allocation Fund (DAK), and Revenue Sharing Fund (DBH). The balancing fund is an income component for the local government along with the PAD derived from local taxes and regional charges, financing, and other income.

Local governments are theoretically expected to be able to finance their regional expenditures with revenues sourced from local taxes and retributions. However, the data indicate that the proportion of PAD is only able to finance local government spending at the maximum of 20 per cent (Kuncoro, 2004). This shows that the sensitivity of local government spending in obtaining transfer revenues is still high, which means that local governments are

still too dependent on balancing funds transfers from central government. The flypaper effect indicates that there is inefficiency of regional expenditure since the local government's sensitivity to the transfer of funds from the central government is still high, so, that local expenditures are mostly funded by transfers from the central government, which means that regional expenditure exceeds the actual capability of local government, which is reflected in the PAD. Potential misappropriation by government is likely to occur so that the government's performance as a driver of governance needs to be properly guarded. One of the most important aspects of performance that must be considered is financial performance, because it represents the performance of government or regional capability. In this study, the financial performance of the region is measured by the financial ratio approach. The financial performance measurement approach used in this research is 10 financial ratios used by Galariotis et al. (2016), which is a development of the Brown (1993) ratio that was successfully applied in the United States. This ratio is divided into four categories, namely revenues composition, costs and expenditures, financing ability and debt burden, and tax rates.

One aspect of good government performance is reflected in the maximum collection of local revenues so that if the PAD is high, the income can be used to pay loans from external parties. For regions experiencing the flypaper effect, local governments prefer central government transfers to settle their debts, which means that PAD allocation will be more absorbed for expenditure and cash reserves so that the funds to pay debts are lower. Prakosa (2004) shows that there is a flypaper effect on the implementation of regional autonomy in some areas so it can be concluded that the dependence of local government on allocation of funds from central government is still relatively high. The dependence of local governments on transfers from the center may indicate that the financial performance of the regions is declining. Therefore, this research is done by categorizing areas experiencing flypaper effect and areas not experiencing flypaper effect. This study aims to see the differences in regional financial performance; in this case it is reflected in the ratios of those regions that experienced the flypaper effect and those that did not. This research was conducted in all regencies and cities in East Java, considering that East Java has a considerable area coverage compared to other provinces in Indonesia. In addition, the PAD of cities and districts in East Java is relatively high compared to others in Indonesia.

Based on the background of the problems described above, the purpose of this study is as

follows: to find out information and empirical evidence of differences in revenue composition in areas experiencing the flypaper effect and areas that are not experiencing the flypaper effect; to know information and empirical evidence of differences in cost and expenditure ratio in areas experiencing the flypaper effect and areas not experiencing the flypaper effect; to know information and empirical evidence of differences in financing ability ratio in areas experiencing the flypaper effect and areas not experiencing the flypaper effect; and to know the empirical information and evidence of the difference of effectiveness ratio in areas experiencing the flypaper effect and areas not experiencing the flypaper effect and areas not experiencing the flypaper effect.

Test results show that first, the average revenue composition differs significantly between areas experiencing the flypaper effect with those that were not. Second, the areas not experiencing the flypaper effect have a greater ability to absorb local revenue to finance development compared to those experiencing the flypaper effect. Lastly, the optimization of development in the areas not experiencing the flypaper effect is more emphasized on the ability of the region to collect the potential of regional income.

# 2 THEORETICAL BACKGROUND

The main theory used in this research is agency theory, with reference to flypaper effect, and the financial performance of local government. Agency theory by Jensen and Meckling (1976) illustrates the existence of a working relationship between principal (owner) and agent (management). The existence of separation between ownership by principal and controlling by agent in an organization tends to cause an agency problem, where the agent is responsible to optimize profit or profit of the principal while, on the one hand, the agent also has an interest to maximize its own prosperity. In the public sector, agency theory is used to analyze principal-agent relationships in relation to public sector budgeting (Latifah, 2010). The budgeting is the preparation of a Regional Revenue and Expenditure Budget (APBD), which is a document of local government activity plans in the form of monetary units in a one-year period, generally one year. APBD consists of budgeted revenue, budget, and financing budgets. The agency theory in this budgeting will impact one of them on the central government's transfer policy to the government.

The flypaper effect is a condition when the stimulus to regional expenditures or expenditures caused by changes in transfer amounts from the central government is greater than that caused by changes in local revenue (Oates, 1999). Flypaper effects in relation to agency theory will further impact on the performance of local governments. Local government performance can be both financial and non-financial performance.

Halim (2007) stated that one of the tools to analyze the performance of local government in managing its regional finances is by doing a financial ratio analysis to APBD that has been established and implemented. The performance measurement approach used in this research is the ten financial ratios used by Galariotis et al. (2016), which is a development of the Brown (1993) ratio successfully applied in the United States. This ratio is divided into four categories covering different dimensions, namely revenues composition, costs and expenditures, financing ability and debt burden, and tax rates. Galariotis et al. (2016) describe the ratios used, namely, the first revenues composition indicates financial independence, i.e. how much the ability of the region's financial resources is able to build the region, in addition to being able to compete healthily with other regions in achieving regional autonomy without assistance or subsidies from the central government. Cost and expenditure indicates the level of sustainability, i.e. the ability to meet budget obligations without relying on debt. Financing ability and debt liabilities represents the flexibility of local governments in meeting debt obligations. The last dimension used by Galariotis et al. (2016) in local government's assessing the financial performance is to assess the tax rate level. Some other ratios can be used to measure the financial performance of local government in addition to the ratio used Galariotis et al. (2016), and one of them, according to Halim (2007), is the ratio of effectiveness. The effectiveness ratio measures the level of effectiveness to find out whether or not the achievement of budget goals is achievable.

# 2.1 Differences of Revenue Composition in the Region Experiencing Flypaper Effect and Region Not Experiencing Flypaper Effect

Communities participate in regional development through the payment of local taxes and levies. However, if local governments prioritize development from general allocation funding sources, then it will potentially lead to inefficient PAD excavations with a smaller revenue-

composition ratio. This is in accordance with research conducted by Tahar and Zakhiya (2011) stating that PAD has a significant effect on regional independence. Based on the empirical study above, the researcher formulated the research hypothesis as follows:

H1: There is a difference in revenue composition in areas experiencing the flypaper effect and areas not experiencing the flypaper effect.

## 2.2 Differences Cost and Expenditure Ratio in the Region Experiencing Flypaper Effect and Region Not Experiencing Flypaper Effect

Kuncoro (2004) explained that the increase in transfer allocation was also followed by higher spending growth. There is an indication that the high increase in expenditure is due to inefficiency in local government expenditures, especially routine expenditures. This long-term trend will result in an increase in horizontal fiscal inequality. Based on the empirical study above, the researcher formulated the research hypothesis as follows:

H2a: There are differences in cost ratio in areas experiencing the flypaper effect and areas that do not experience the flypaper effect.

H2b: There is a difference in the expenditure ratio of the area experiencing the flypaper effect and the non-flypaper effect area.

# 2.3 Differences of Cost and Expenditure Ratio in the Region Experiencing Flypaper Effect and Region Not Experiencing Flypaper Effect

Kuncoro (2004) explains that if transfers from the center are less predictable in the number and time of their search, local governments will use regional loans as an alternative to financing their fiscal operations. These cues need to be wary of lending so as not to become a burden on the budget in the form of repayments and interest payments that will reduce the financial capacity of the region but can be a driving factor for regional development. Based on the empirical study above, the researcher formulated the research hypothesis as follows:

H3: There is a difference in financing ability ratio in areas experiencing flypaper effect and areas that is not experiencing flypaper effect.

# 2.4 Differences of Effectiveness Ratio in the Region Experiencing Flypaper Effect and Region Not Experiencing Flypaper Effect

Areas that are not experiencing flypaper effects will seek to maximize local revenues to spend their money so that DAU is used to meet the shortcomings of PAD. In contrast, areas experiencing flypaper effects tend to maximize the acquisition of DAU to finance their regional expenditures so that PAD is used to meet the shortcomings of DAU. Based on the empirical study above, the researcher formulated the research hypothesis as follows:

H4: There is a difference in the effectiveness ratio of the area experiencing the flypaper effect and the area with no flypaper effect.

#### 3 RESEARCH METHODOLOGY

This research is a quantitative research with a comparative causal approach that aims to analyze the comparison of one group to another group. Measurements used in this study are local government financial performance shown by revenues composition, cost and expenditures ratio, financing ability ratio, and effectiveness ratio. The formulas to calculate the ratios of financial performance are provided in Table 1. The measurement variables were used to compare two independent sample groups that were formed, namely: the group of regions experiencing the flypaper effect and group of regions that did not experience the flypaper effect.

Table 1: The Formula of District Financial Performance Measurements

Variable Name	Formula
Revenue Composition	= Own Source Revenue/ Total Revenue
Cost Ratio	= (Administration Expenses – Employee Expenses)/ Total Expenses
Expenditure Ratio	= Investment Expense / Total Revenue
Financing Ability Ratio	= (Total Revenue-Total Expenses)/ Total Revenue
Effectiveness Ratio	= Own Source Revenue Realization/ Own Source Revenue Budget

Determination of the area with the flypaper effect is performed based on the value of coefficient PAD and DAU on BD in the multiple linear regression calculations. The area is experiencing a flypaper effect when the coefficient of DAU is larger than PAD and is significantly correlated with BD. The data used in this study is data sourced from the Financial Statements of Regional Government of Regency and City in East Java Province, which has been audited by BPK, from 2011-2015. The population in this study is all cities and districts in East Java Province in 2015, comprising 27 districts and eight cities. The sampling technique used is a saturated or census sample. The statistical methods used are descriptive statistics that have a direct relationship with data collection and data centering measures as well as the presentation of the results of the data centering measures.

The normality test in this study is the Kolmogrov-Smirnov non-parametric statistical test (K-S). The K-S test is used by creating an unstandardized residual variable:  $H_0$  is normally distributed and  $H_A$  is abnormally distributed data. If the probability  $\alpha < 0.05 \ H_0$  is accepted and if the probability  $\alpha < 0.05 \ H_0$  is rejected, then  $H_0$  accepted indicates that data is normally distributed (Ghozali, 2006). If after the normality test data is normally distributed, then the data analysis technique that will be used to test the hypothesis is an independent sample t-test. If the data does not show normal distribution, then the Mann-Whitney U test is used.

#### **4 RESEARCH RESULTS**

Table 2 below is the result of Mann-Whitney U test to test hypothesis 1:

Table 2: Mann-Whitney U Test

Variable		N	Mean Rank	Mann- Whitney U Test Score	Asymp. Sig
	Non Flypa- per	28	19.61		
Revenue Composi- tion	Flypa- per	7	11.57	53.000	0.063

Hypothesis 1 (one) states that there are differences in revenue composition in areas experiencing flypaper effect and areas not experiencing flypaper effect. The results showed that the average revenue composition of areas experiencing the flypaper effect significantly from regional revenue composition that did not experience the flypaper effect. The results showed that areas not experiencing the flypaper effect have a greater ability to absorb local revenue to finance development compared to areas experiencing the flypaper effect. It also shows that areas not experiencing the flypaper effect optimize efforts to absorb their own local income, so that the optimization of development is more emphasized on the ability of the region to collect the potential of regional income. This condition is different from the area experiencing the flypaper effect, which emphasizes regional development on government aid fund, one of which is the general allocation fund, so that efforts to collect local revenue potential are lessened. Areas experiencing flypaper effects are more dependent on government grants to finance development.

Table 3 below is the result for independent sample t-test to test hypotheses 2a and 2b.

Table 3: I	ndependent T-Test
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Variable		N	Mea n Ra- nk	T Score	Asym p. Sig
Cost	Non Flypa- per	2 8	0.26	-0.836	0.428
	Flypa- per	7	0.29		
Expendi- ture	Non Flypa- per	2 8	0.20	-0.041	0.969
	Flypa- per	7	0.20		

Hypothesis 2a states that there is a difference in the cost ratio of the area experiencing the flypaper effect and the area that does not experience the flypaper effect. The results showed that the average cost ratio of areas experiencing the flypaper effect did not differ significantly from the cost ratio of areas that did not experience the flypaper effect. This is because the existing areas, whether with or without a flypaper effect, prioritize administrative spending as one of the important spending components in regional development. The results showed that the area experiencing the flypaper effect provides a larger portion of administrative expenditure in addition to personnel expenditures, i.e. goods and services expenditure, maintenance expenditure, and official travel expenditure in regional development, compared to areas not experiencing the flypaper effect. This is because operational expenditure is intended for daily government operations, which in practice are more funded by central government fund transfers, resulting in the potential for the flypaper effect. However, the existing administrative expenses allocation difference is not large enough to occur between areas experiencing the flypaper effect and areas with no flypaper effect.

Hypothesis 2b states that there are differences in expenditure ratios in areas experiencing the flypaper effect and areas not experiencing the flypaper effect. The results showed that the average expenditure ratio of areas experiencing the flypaper effect did not differ significantly from the expenditure ratio of areas that did not experience the flypaper effect. This is because both the areas experiencing the flypaper effect and areas not experiencing the flypaper effect are carrying out investment spending, which is very important in the process of regional development. The results show that areas experiencing the flypaper effect provide a larger portion of investment spending compared to areas not experiencing the flypaper effect. This is because the expenditure of the area experiencing the flypaper effect spends more of its revenues on capital expenditure. This statement is supported by Kuncoro (2004), who states that the increase in transfer allocation is also followed by higher spending growth. However, the difference in investment spending is not large enough between areas experiencing the flypaper effect with areas not experiencing the flypaper effect.

Table 4 provides the result of the independent ttest for the financial ability ratio to test hypothesis 3:

Table 4: Independent T-Test

Variable		N	Mean Rank	T Score	Asymp. Sig
Financing Ability Ratio	Non Flypa- per	28	0.10	0.281	0.787
	Flypa- per	7	0.08		

Hypothesis 3 (three) states that there are differences in the financing ability ratio in areas experiencing the flypaper effect and areas not experiencing the flypaper effect. The results showed that the average financing ability ratio of the area experiencing the flypaper effect did not differ significantly with the financing ability ratio of the area that did not experience the flypaper effect. This is because both the areas experiencing and not experiencing the flypaper effect equally prioritize the fulfillment of obligations/debts on external parties. The results show that areas not experiencing the flypaper effect have greater ability in fulfilling their obligations in paying debts. This is because the potential revenue of native regions in areas not experiencing the flypaper effect should be higher than the areas experiencing the flypaper effect. The potential of existing local revenue will be allocated to development expenditures and fulfill the debt obligations held by the regions. The amount of potential revenue for a region not experiencing the flypaper effect will encourage the local government to immediately pay all its debt obligations. However, the difference in the ability to pay the debt obligations is very small, so there is no significant difference in the ability to pay the debt. Areas experiencing the flypaper effect will fulfill their debt obligations through grant allocations, granted by the government. The areas experiencing the flypaper effect will attempt to increase the payment of their debt obligations through the grant funds provided, resulting in the expectation of obtaining additional grant funds in the future.

Table 5 shows the independent t-test for testing hypothesis 4:

Table 5: Independent t Test

Variab	le	N	Mean Rank	T Score	Asymp. Sig
Effectiveness	Non Flypa- per	28	0.89	-0.647	0.526
	Flypa- per	7	0.91	-0.047	0.320

Hypothesis 4 (four) states that there is a difference of effectiveness ratio in areas experiencing the flypaper effect and areas not experiencing the flypaper effect. The results showed that the average ratio of effectiveness of areas experiencing the flypaper effect did not differ significantly from the effectiveness ratio of areas

that did not experience the flypaper effect. This is because both areas are trying to achieve the target revenue of the original region because, in addition to being very important for development, high PAD can also be a surplus for local government. The results show that areas experiencing the flypaper effect have a greater ability to absorb local revenue to finance development compared to areas not experiencing the flypaper effect. In addition, the areas experiencing the flypaper effect have greater capability and effort to achieve the original revenue target area that has been determined. This is because the area experiencing the flypaper effect targets the relatively small revenue of the region to the total income compared to the non-flypaper effect area because the local government that does not experience the flypaper effect puts more emphasis on the optimization of development by using the regional capability in collecting the potential of regional income. As a result, the area tends to set PAD revenue targets that are too high to have a heavier load in realizing it compared to areas experiencing the flypaper effect.

#### **5 CONCLUSION**

Based on the results of the research discussions that have been described previously, the following conclusions can be made:

- 1. Test results and analysis show that the average revenue composition of areas not experiencing the flypaper effect is greater than that of areas not experiencing the flypaper effect and significantly different.
- 2. Test results and analysis show that the average cost ratio and expenditures ratio of areas experiencing the flypaper effect are greater than areas not experiencing the flypaper effect and do not differ significantly.
- 3. Test results and analysis show that the average financing ability ratio of areas not experiencing the flypaper effect is greater than in areas experiencing the flypaper effect and does not differ significantly.
- 4. Test results and analysis show that the average ratio of effectiveness of areas experiencing the flypaper effect is greater than is the case for areas not experiencing the flypaper effect and does not differ significantly.

Not all local government financial reports in East Java that have been audited by the Supreme Audit Agency are available in accordance with the sample period used in this study. It is expected that further research will be able to further explore the variables and other measurements and use financial statements spanning a longer period in order to obtain more significant difference results between one group and another group.

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