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## Influence of Government Financial Performance Regions on Capital Expenditure in Six Provinces of Java Island

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**Abstract:** The aim of this research is to find out how financial performance influences capital expenditure. This research has one dependent variable, capital expenditure, and four independent variables: the independence ratio, effectiveness ratio, efficiency ratio, and fiscal decentralization degree ratio. The research sample consisted of six provinces on the island of Java, namely Banten, DKI Jakarta, West Java, Central Java, DI Yogyakarta, and East Java. The author uses quantitative research and secondary data from the Central Provincial Statistics Agency for the 2006-2021 period. The analysis technique used in this research is panel data regression. In the panel data regression results, the selected model is the Fixed Effect Model. The results show that the partial independence ratio, effectiveness ratio, efficiency ratio, and fiscal decentralization degree ratio influence capital expenditure.

**Keyword:** Financial Performance, Capital Expenditures, Panel data

### INTRODUCTION

Indonesia is a country with a large population and a fairly large area. As Indonesia's population increases, Indonesia's administrative regions are increasingly expanding. In order to manage these administrative areas, of course there are special parties tasked with handling or managing these areas, one of which is the Regional Government. In this case, the Regional Government also has certain goals which are intended to advance the development of a region. And the uniqueness of a region in the system of the Unitary State of the Republic of Indonesia.

Various previous studies have shown that financial performance significantly influences capital expenditure allocation and economic growth, although the results are inconsistent. (Siswoyo & Soleh, 2020) stated that the independence ratio has a positive and significant effect on capital expenditure allocation. However, this contradicts Muzaki & Mega (2022), who found that the independence ratio has no effect on capital expenditure. However, this is inconsistent with (Fernanda & Susilo, 2025), who stated that the effectiveness ratio has a negative effect on capital expenditure allocation. (Rahmah et al., 2024) stated that the efficiency ratio has a positive and significant contribution to capital expenditure.

(Alex et al., 2025; Muda, 2017) examined the effect of economic growth on capital expenditure and found a positive but insignificant relationship between capital expenditure and economic growth. Another study conducted by (Rahmadhani & Sutingkir, 2023) found no

significant effect in examining the influence of economic growth, PAD (Revenue from Own Sources), DAU (General Allocation Grants), and DAK (Special Allocation Funds) on capital expenditure allocation.

Our study, meanwhile, has one dependent variable, capital expenditure, and four independent variables: the independence ratio, effectiveness ratio, efficiency ratio, and degree of fiscal decentralization ratio. This study, conducted in six provinces on Java Island, is novel because such a ratio was previously unavailable in these provinces.

This research contributes theoretically by providing additional empirical evidence and developing knowledge about public sector accounting.

Practically, this research is expected to be useful for provincial governments when preparing regional budgets related to financial independence. A regional government can be considered independent if it has achieved financial independence, thus granting them stronger authority to undertake development.

The first factor is Regional Own Revenue (PAD). PAD can be defined as funds obtained from a region's internal resources in accordance with legal provisions. Regional fiscal independence in the Regional Budget (APBD) is largely determined by the size of PAD contributions, if dependence on central government assistance is low. (Andjarwati et al., 2021; Zein & Septiani, 2024) stated that there is a positive and significant influence of PAD on financial performance, indicating that increased regional revenue reflects effective resource management. The second factor is capital expenditure. Capital expenditure is the allocation of funds for procuring fixed assets by public authorities (Raksaka Mahi & Resosudarmo, 2025; Rudenko et al., 2024). According to (Kim & Ahn 2020), this type of expenditure is a long-term investment that can provide added value and improve the welfare of the community in the region. (Velasquez, 2024) argue that well-targeted capital expenditure will improve the quality of public services and create economic stimulus, which in turn will improve the profile of regional financial performance.

According to Kyriacou & Roca-Sagalés (2021), Ul Amin & Soomro (2021), and Zarychta et al. (2024), fiscal decentralization must be accompanied by adequate institutional capacity; without good governance, decentralization can lead to inefficiency and corruption.

According to John Maynard Keynes (Keynesian Theory): Public spending is a key instrument for stabilizing the economy, especially during recessions. Meanwhile, Wagner's Law states that: As a country's economy grows, government spending (public expenditure) will increase proportionally (Arestis et al., 2021; Jo & Zubairy, 2025).

According to Barry Mitnick, agency theory in the public sector is concerned with institutional control over bureaucracy. Meanwhile, according to Jean-Jacques Laffont & Jean Tirole, the government often faces limited information in supervising bureaucrats (Abbas et al., 2021; Rajala & Jalonon, 2025; Shafran, 2022).

The role of Regional Government also greatly determines the development and conditions of the region that will be formed. One of the determining factors is the regional autonomy system managed by each regional government. Regional autonomy is the freedom that regions have to make regional regulations, formulate and implement policies, and manage regional finances independently (Bajrami & Bajrami, 2024; Harun, 2020; Vu et al., 2025). With the authority possessed by regional autonomy, regional governments have the obligation to improve community services and welfare in a democratic, fair, equitable and sustainable manner. This obligation can be fulfilled if the regional government is able to manage its regional potential, namely natural resources, human resources and potential financial resources optimally (Kaponda, 2024; Naidoo, 2023; Özden, 2025).

Java Island is one of several islands in Indonesia that has more economic development than other islands. The provinces on Java have some of the highest Gross Regional Domestic Product (GRDP). In the economic sector, regional governments must manage finances within

their own regions. Financial management must include economic elements that benefit the community. Regional financial management is carried out in an orderly manner, in compliance with statutory provisions, efficiently, economically, effectively, transparently, and responsibly, with attention to justice, propriety, and benefits to society (UU No.17 of 2003). With balanced financial management, regional governments can indirectly achieve greater equality and economic growth.

To achieve economic growth, fixed assets such as infrastructure and facilities are needed to support economic activities. Local governments build additional fixed assets through capital expenditure. According to (Kim & Park, 2020; Omodero, 2020), capital expenditure is the total realization of all development expenditure such as infrastructure, investment, both direct expenditure and indirect expenditure. Capital expenditure includes expenditure on land, buildings and structures, expenditure on equipment and machinery, expenditure on roads, irrigation and networks and other fixed asset expenditure. With increased allocation of capital expenditure, it is hoped that economic growth will also increase. Capital expenditure allocation is, of course, inseparable from the financial management carried out by local governments. This will, of course, work if the regional government can pay attention to the performance of the Regional Government Financial Report (LKPD) that is currently operating. Regional governments are also required to be responsible to the community in their delivery.

Regional Government Financial Reports (LKPD) are financial reports produced by each Regional Work Unit (SKPD). Regional government financial reports are the result of the process of identifying, measuring, recording, economic transactions from accounting entities within a regional government which can be used as information in the context of financial management accountability and decision making by the parties who need it (Jatmiko et al., 2020). The purpose of the Regional Government Financial Report is to present information regarding the financial position, budget realization, cash flow and government financial performance which is useful for users in making and evaluating decisions regarding resource allocation (Nirwana et al., 2023; Thahir et al., 2024).

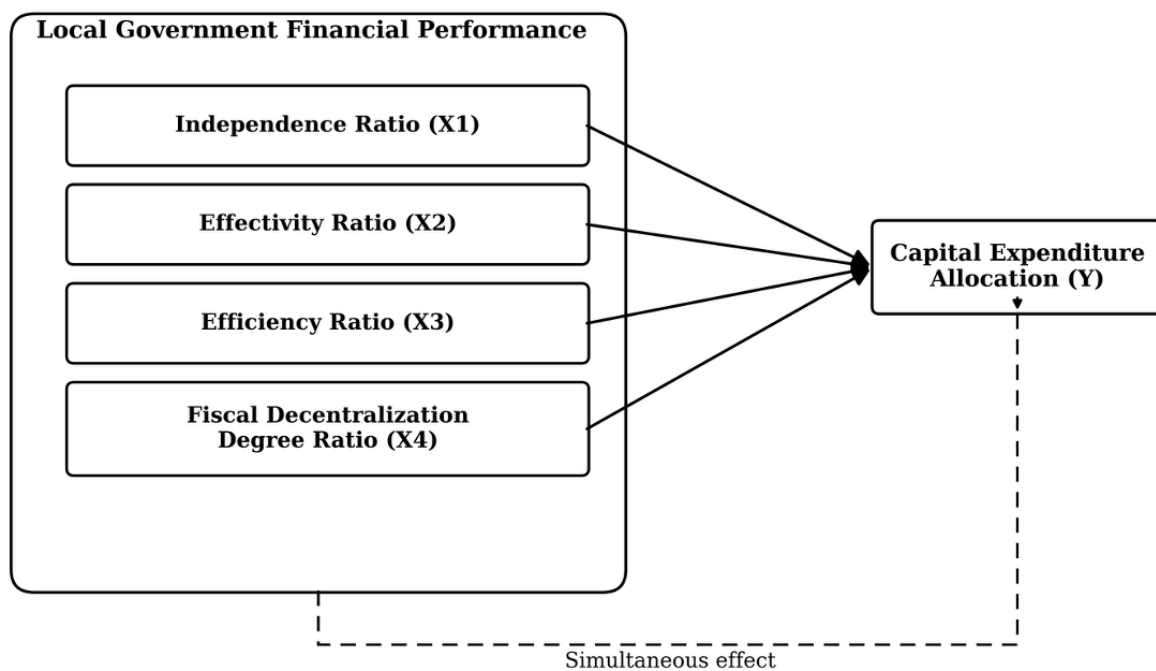
In order to produce a structured financial system, Regional Government Financial Reports (LKPD) have certain standards that can be implemented theory, there is no unanimous agreement regarding the name and method of measurement. However, in the context of regional financial management that is transparent, honest, democratic, effective, efficient and accountable, ratio analysis of the APBD needs to be carried out even though the accounting principles in the APBD are different from the financial reports held by private companies. According to Abdul (2012), the Independence Ratio describes the region's dependence on external funding sources.

The higher the Independence Ratio, it means that the level of regional dependence on assistance from external parties (especially the central and provincial governments) is lower. Likewise, vice versa, the lower the Independence Ratio, the lower the level of community participation in paying regional taxes and levies which are the main components of Regional Original Income (PAD). (Mulyani et al., 2021; Sahrudin et al., 2026) stated that the effectiveness ratio describes the success of regional governments in realizing PAD in accordance with the targets that have been set. The higher the Effectiveness Ratio, the better the regional capability. The regional financial efficiency ratio according to (Zein et al., 2024) describes the comparison between the amount of costs incurred to obtain income and the realization of income received

The financial performance of regional governments in collecting revenue is categorized as efficient if the ratio achieved is less than 1 (one) or below 100%. The smaller the regional financial efficiency ratio means the better the regional government's financial performance. The efficiency ratio describes the level of the government's ability to streamline the costs incurred by the government. The smaller the efficient ratio means the better the local

government's performance. The formula used to calculate this ratio is as follows: According to Sri (2017), this ratio is intended to measure

level of contribution of Original Regional Income as a source of income managed independently by the region to total regional revenue. Regional Original Income (PAD) is revenue originating from regional taxes, regional levies, regionally owned companies and management of regionally owned assets as well as other legitimate income. Total Regional Income (TPD) is the sum of all revenues and all revenues in one fiscal year I Ketut (2015) states that capital expenditure is regional government expenditure whose benefit is more than one budget year and will increase regional assets or wealth and result in additional routine expenditure. Based on Government Regulation no. 71 of 2010 concerning Government Accounting Standards, the definition of capital expenditure is expenditure carried out in the context of capital formation which is of the nature of adding to fixed assets/inventory which provides benefits for more than one accounting period, including expenditure for maintenance costs which are of the nature of maintaining or increasing the useful life, as well as increasing the capacity and quality of assets. Schematically, the research framework is developed in a model as below.



**Figure 1. Research Framework**

Figure 1 shows that Regional Government Financial Performance, consisting of the Independence Ratio, Effectiveness Ratio, Efficiency Ratio, and Degree of Fiscal Decentralization Ratio, simultaneously influences the Degree of Fiscal Decentralization Ratio, Capital Expenditure Allocation, and each of the Independence Ratio, Effectiveness Ratio, and Degree of Fiscal Decentralization Ratio influences Capital Expenditure Allocation.

## **METHOD**

This research was conducted in Jakarta using secondary data collected online over a five-month period, from January 2023 to May 2023. This research used quantitative secondary data, namely quantifiable numbers, obtained from the Central Statistics Agency (BPS).

In this study, the population consisted of all 37 provinces in Indonesia. The sample used was purposive sampling, with the following criteria:

1. Local governments with complete financial reports
2. Data availability was consistent throughout the study period
3. No regional expansion occurred during the study period

Therefore, the research sample consisted of six provinces on the island of Java, as Java is one of the few islands in Indonesia with a more developed economy than other islands. Provinces in Java have Indonesia's largest population, the highest Gross Regional Domestic Product (GRDP), and significant money turnover, making them a barometer of Indonesia's economic growth. Variable X is Financial Performance; its interrelated variables are Independence Ratio (X1), Effectiveness Ratio (X2), Efficiency Ratio (X3), and Fiscal Decentralization Ratio (X4), and Variable Y is Capital Expenditure.

The method used is Library research, a literature review using research instruments from libraries and Google, with quantitative data. The panel model selection uses: Common Effect Model (CEM), Fixed Effect Model (FEM), Random Effect Model (REM). With tests: Chow Test and Hausman Test. Data analysis includes multiple linear regression, correlation, classical tests: normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test, coefficient of determination test, and hypothesis testing: t-test (partial), F-test (simultaneous).

## RESULTS AND DISCUSSION

The object of this research is the province on the island of Java.



Source: YouTube

Figure 2. Map of Java Island

Table 1. List of Provinces

| No | Provinsi     |
|----|--------------|
| 1  | Banten       |
| 2  | DKI Jakarta  |
| 3  | West Java    |
| 4  | Central Java |
| 5  | Yogyakarta   |
| 6  | East Java    |

Source: Data processed

Panel Data Regression Model 1. Common Effects Model The first approach model will be carried out to determine which model is suitable to be used as test material.

**Table 2. Common Effect Model**

| Variable           | Coefficient | Std. Error            | t-Statistic | Prob.    |
|--------------------|-------------|-----------------------|-------------|----------|
| C                  | 26.09917    | 10.32370              | 2.528083    | 0.0132   |
| KMN                | 0.001924    | 0.009562              | 0.201189    | 0.0410   |
| EFK                | 0.008499    | 0.020674              | 0.411093    | 0.0197   |
| EFS                | 0.116828    | 0.096182              | 1.214654    | 0.0227   |
| DDF                | 0.006033    | 0.144977              | 0.041611    | 0.0296   |
| R-squared          | 0.662236    | Mean dependent var    |             | 12.27646 |
| Adjusted R-squared | 0.518251    | S.D. dependent var    |             | 7.652189 |
| S.E. of regression | 7.721705    | Akaike info criterion |             | 6.976625 |
| Sum squared resid  | 5425.850    | Schwarz criterion     |             | 7.110185 |
| Log likelihood     | 329.8780    | Hannan-Quinn criter.  |             | 7.030613 |
| F-statistic        | 0.574300    | Durbin-Watson stat    |             | 1.596798 |
| Prob(F-statistic)  | 0.019663    |                       |             |          |

Source: Eviews version 9.0 results

The second approach model will be carried out to determine which model is suitable to be used as test material.

**Table 3. Fixed Effect Model**

| Variable                              | Coefficient | Std. Error         | t-Statistic | Prob.    |
|---------------------------------------|-------------|--------------------|-------------|----------|
| C                                     | 15.58460    | 5.616779           | 2.774650    | 0.0068   |
| KMN                                   | 0.004491    | 0.004033           | 1.113705    | 0.0268   |
| EFK                                   | 0.104848    | 0.008602           | 0.563701    | 0.0442   |
| EFS                                   | 0.043820    | 0.065218           | 0.671915    | 0.0343   |
| DDF                                   | 0.023987    | 0.082867           | 0.289462    | 0.0292   |
| Effects Specification                 |             |                    |             |          |
| Cross-section fixed (dummy variables) |             |                    |             |          |
| Weighted Statistics                   |             |                    |             |          |
| R-squared                             | 0.643303    | Mean dependent var |             | 14.26940 |
| Adjusted R-squared                    | 0.595509    | S.D. dependent var |             | 5.395385 |
| S.E. of regression                    | 5.137155    | Sum squared resid  |             | 1.564893 |
| F-statistic                           | 11.36763    | Durbin-Watson stat |             | 1.221278 |
| Prob(F-statistic)                     | 0.000587    |                    |             |          |
| Unweighted Statistics                 |             |                    |             |          |
| R-squared                             | 0.555856    | Mean dependent var |             | 12.27646 |
| Sum squared resid                     | 0.004123    | Durbin-Watson stat |             | 1.245150 |

Eviews Source:version 9.0 results

### Random Effect Model

The third model approach will be used to determine which model is suitable to be used as test material.

**Table 4. Random Effect Model**

| Variable              | Coefficient | Std. Error         | t-Statistic | Prob.    |
|-----------------------|-------------|--------------------|-------------|----------|
| C                     | 25.82928    | 8.419778           | 3.067692    | 0.0028   |
| KMN                   | 0.004322    | 0.006697           | 0.645419    | 0.0202   |
| EFK                   | 0.006456    | 0.016303           | 0.396059    | 0.0298   |
| EFS                   | 0.113318    | 0.078001           | 1.452777    | 0.0149   |
| DDF                   | 0.010664    | 0.134716           | 0.079163    | 0.0370   |
| Effects Specification |             |                    |             |          |
|                       |             |                    | S.D.        | Rho      |
| Cross-section random  |             |                    | 10.53117    | 0.0327   |
| Idiosyncratic random  |             |                    | 5.281996    | 0.2010   |
| Weighted Statistics   |             |                    |             |          |
| R-squared             | 0.648061    | Mean dependent var |             | 1.527380 |
| Adjusted R-squared    | 0.542819    | S.D. dependent var |             | 5.192183 |
| S.E. of regression    | 5.184858    | Sum squared resid  |             | 1.543876 |
| F-statistic           | 1.067154    | Durbin-Watson stat |             | 1.307158 |
| Prob(F-statistic)     | 0.037744    |                    |             |          |
| Unweighted Statistics |             |                    |             |          |
| R-squared             | 0.531727    | Mean dependent var |             | 12.27646 |
| Sum squared resid     | 0.004778    | Durbin-Watson stat |             | 1.588476 |

Source: Eviews version 9.0 results

### Panel Data Regression Model Test

#### Uji Chow

After creating the Common Effect Model (CEM) and Fixed Effect Model (FEM), the next stage is to test the appropriate model to be used between CEM and FEM through the Chow Test.

**Table 5. Chow Test Test Results**

| Effects Test             | Statistic | d.f.   | Prob.  |
|--------------------------|-----------|--------|--------|
| Cross-section F          | 2.873454  | (5,20) | 0.0452 |
| Cross-section Chi-square | 16.236805 | 5      | 0.0034 |

Based on table 5, the results of the Chow test show that the F probability value is 0.0452. The prob value is smaller than the significant level ( $\alpha = 0.05$ ), and d.f cross section F 5.20 > df chi square 5, then H0 is accepted, meaning that a better fixed effect model is used.

#### Hausman Test

After going through the Chow test to produce a fixed effect model that is used, then carry out a Hausman test to choose the fixed effect model or random effect model to be used. The following are the results of the Hausman test.

**Table 6. Haussman Test**

| Test Summary         | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob.  |
|----------------------|-------------------|--------------|--------|
| Cross-section random | 13.491950         | 4            | 0.0063 |

Source: Eviews version 9.0 results

**Table 7. Fixed Effect Model**

| Variable                              | Coefficient | Std. Error         | t-Statistic | Prob.  |
|---------------------------------------|-------------|--------------------|-------------|--------|
| C                                     | 15.58460    | 5.616779           | 2.774650    | 0.0068 |
| KMN                                   | 0.004491    | 0.004033           | 1.113705    | 0.0268 |
| EFK                                   | 0.104848    | 0.008602           | 0.563701    | 0.0442 |
| EFS                                   | 0.043820    | 0.065218           | 0.671915    | 0.0343 |
| DDF                                   | 0.023987    | 0.082867           | 0.289462    | 0.0292 |
| Effects Specification                 |             |                    |             |        |
| Cross-section fixed (dummy variables) |             |                    |             |        |
| Weighted Statistics                   |             |                    |             |        |
| R-squared                             | 0.643303    | Mean dependent var | 14.26940    |        |
| Adjusted R-squared                    | 0.595509    | S.D. dependent var | 5.395385    |        |
| S.E. of regression                    | 5.137155    | Sum squared resid  | 1.564893    |        |
| F-statistic                           | 11.36763    | Durbin-Watson stat | 1.221278    |        |
| Prob(F-statistic)                     | 0.000587    |                    |             |        |
| Unweighted Statistics                 |             |                    |             |        |
| R-squared                             | 0.555856    | Mean dependent var | 12.27646    |        |
| Sum squared resid                     | 0.004123    | Durbin-Watson stat | 1.245150    |        |

Source: Eviews version 9.0 results

Based on table 8, a panel data regression equation is formulated which explains the influence of the Independence Ratio, Effectiveness Ratio, Efficiency Ratio, and Degree of Fiscal Decentralization Ratio on Capital Expenditures in the Province of Java for the 2006-2021 period, as follows:  $BM = 15.58460 - 0.004491Kmn + 0.104848EfK + 0.043820Efs + 0.023987Ddf + E$  Where :  $BM$  = Capital Expenditure  $Kmn$  = Independence Ratio  $EfK$  = Effectiveness Ratio  $Efs$  = Efficiency Ratio  $Ddf$  = Fiscal Decentralization Degree Ratio The above equation has the following meaning:

1. A constant value of 15.58460 indicates that if the independent variables in this research, namely the independence ratio, effectiveness ratio, efficiency ratio and degree of fiscal decentralization ratio, were constant, the level of capital expenditure for the period would be 15.58460.
2. The independence ratio coefficient is 0.004491, which means that for every one percent increase in the independence ratio, capital expenditure will decrease by 0.004491, assuming other variables are constant.
3. The effectiveness ratio coefficient is 0.104848, which means that for every one percent increase in the effectiveness ratio there will be an increase in capital expenditure of 0.104848 assuming other variables are constant.
4. The efficiency ratio coefficient is 0.043820, which means that every one percent increase in the efficiency ratio will increase capital expenditure by 0.043820 assuming other variables are constant.

5. The coefficient of the degree of fiscal decentralization ratio is 0.023987, which means that for every one percent increase in the ratio of the degree of fiscal decentralization there will be an increase in capital expenditure of 0.023987 assuming other variables are constant.

## Hypothesis test

### 1. Parsial Test (Uji T)

**Table 8. Parsial test**

| Variable | Coefficient | Std. Error | t-Statistic | Prob.  |
|----------|-------------|------------|-------------|--------|
| C        | 15.58460    | 5.616779   | 2.774650    | 0.0068 |
| KMN      | 0.004491    | 0.004033   | 1.113705    | 0.0268 |
| EFK      | 0.104848    | 0.008602   | 0.563701    | 0.0442 |
| EFS      | 0.043820    | 0.065218   | 0.671915    | 0.0343 |
| DDF      | 0.023987    | 0.082867   | 0.289462    | 0.0292 |

Source: Eviews version 9.0 results

The Effect of Capital Expenditures on the Independence Ratio Based on the partial test table above, the independence ratio variable has a probability value of 0.0268. Because  $0.0268 < 0.05$ , it can be concluded that the independence ratio variable has a significant influence on capital expenditure in 6 provinces on the island of Java for the period 2006 to 2021.

The Effect of Capital Shopping on the Effectiveness Ratio The effectiveness ratio variable has a probability value of 0.0442. Because  $0.0442 < 0.05$ , it can be concluded that the effectiveness ratio variable has a significant influence on capital expenditure in the 6 provinces of the island of Java for the period 2006 to 2021.

The Effect of Capital Expenditures on Efficiency Ratios The efficiency ratio variable has a probability value of 0.0343. Because  $0.0343 < 0.05$ , it can be concluded that the efficiency ratio variable does not have a significant influence on capital expenditure in the 6 provinces of the island of Java for the period 2006 to 2021. The Influence of Capital Expenditures on the Degree of Fiscal Decentralization Ratio.

The variable ratio of the degree of fiscal decentralization has a probability value of 0.0292. Because  $0.0292 < 0.05$ , it can be concluded that the effectiveness ratio variable does not have a significant influence on capital expenditure in the 6 provinces of the island of Java for the period 2006 to 2021.

### 2. Simultaneous Test (F Test)

This test is used to see the influence of the independent variables together on the dependent variable. In the evIEWS application, the f test already exists in the panel data model used, so there is no re-testing. In this research, the panel data model used is the fixed effect model.

**Table 9. Simultan Test**

|                    |          |                    |          |
|--------------------|----------|--------------------|----------|
| R-squared          | 0.643303 | Mean dependent var | 14.26940 |
| Adjusted R-squared | 0.595509 | S.D. dependent var | 5.395385 |
| S.E. of regression | 5.137155 | Sum squared resid  | 1.564893 |
| F-statistic        | 11.36763 | Durbin-Watson stat | 1.221278 |
| Prob(F-statistic)  | 0.000587 |                    |          |

Source: Eviews version 9.0 results

Based on the results of the f test, it is known that the probability value of F is 0.000587. Because  $0.000587 < 0.05$ , overall the independent variables (independence ratio, effectiveness

ratio, efficiency ratio, and degree of fiscal decentralization ratio) simultaneously have a significant influence on capital expenditure for the period 2006 to 2021.

### Coefficient of Determination

The coefficient of determination essentially measures how far the model's ability to explain variations in the dependent variable. This research uses the independence ratio, effectiveness ratio, efficiency ratio, degree of fiscal decentralization ratio, and growth ratio as independent variables, and capital expenditure variables as the dependent variable. From the results of the fixed effect model table, the coefficient of determination can be known.

**Table 10. Koefisien Determinasi**

|                    |          |                    |          |
|--------------------|----------|--------------------|----------|
| R-squared          | 0.643303 | Mean dependent var | 14.26940 |
| Adjusted R-squared | 0.595509 | S.D. dependent var | 5.395385 |
| S.E. of regression | 5.137155 | Sum squared resid  | 1.564893 |
| F-statistic        | 11.36763 | Durbin-Watson stat | 1.221278 |
| Prob(F-statistic)  | 0.000587 |                    |          |

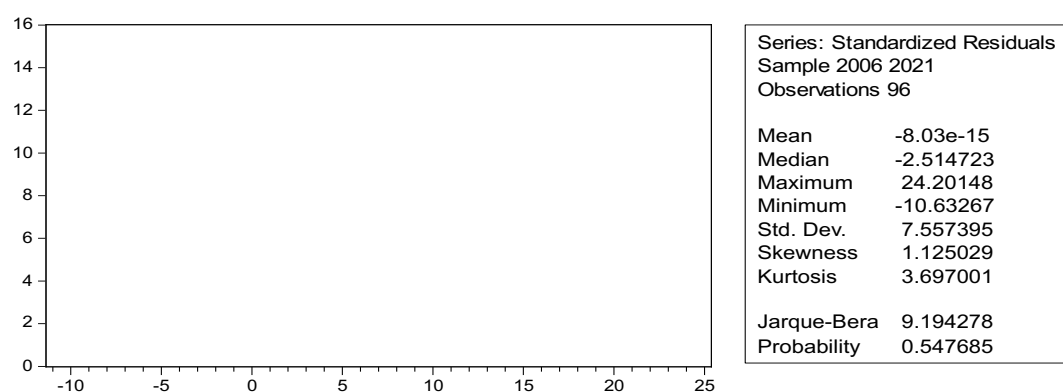
Source: Eviews version 9.0 results

The results of the Adjusted R-squared were 59.55% (Adjusted R-squared = 0.595509). The adjusted R-squared value is  $0.595509 > 0.5$ , which means it is good. This can be interpreted using a fixed effect model approach, in this research; the variables independence ratio, effectiveness ratio, efficiency ratio, and fiscal decentralization degree ratio are able to explain the dependent variable, namely capital expenditure, which is 59.55%. The remaining 40.45% is explained by other factors not included in the model used in this research.

### Classic assumption test

#### 1. Normality Test

The normality test is used to determine whether in a regression model the residual values from the regression have a normal distribution. If the distribution of the residual values cannot be considered normally distributed then it is said that there is a problem with the normality assumption. If the value of prob.  $> 0.05$  then the residual is normally distributed. Conversely, if the value of prob.  $< 0.05$  then the residual is not normally distributed.



**Figure 3. Normality Test Results**

Based on the results from figure 2, it can be seen that the value of Jarque-Bera is 9.194278 with a probability of 0.547685 so that the probability of Jarque-Bera is 0.547685 which is greater than  $\alpha = 0.05$  ( $0.547685 > 0.05$ ). This means that the residuals from the regression are normally distributed.

## 2. Multicollinearity Test

The multicollinearity test is used to determine whether in the regression model a correlation is found between the independent variables. If the correlation coefficient value is  $> 0.80$  then multicollinearity occurs, and conversely if the correlation coefficient value  $< 0.80$  then there is no multicollinearity between the independent variables. The following are the results of the multicollinearity test:

Information: Kmn = Independence Ratio Efk = Effectiveness Ratio Efs = Efficiency Ratio Ddf = Fiscal Decentralization Degree Ratio Based on the table of multicollinearity test results, it can be seen that there are no variables that have a correlation coefficient value above 0.80. This regression does not have multicollinearity. This means that there is no correlation between the independent variables.

## 3. Heteroscedasticity Test

The heteroscedasticity test is used to determine whether in a regression model there is inequality in the residual variance from one observation to another. A good regression model is one where heteroscedasticity does not occur. In panel data regression eviws, it can be seen from the probability of each variable that if it is more than a significant value ( $\alpha = 0.05$ ), then there is no heteroscedasticity problem. On the other hand, if the probability value is less than ( $\alpha = 0.05$ ), it can be said that there is a heteroscedasticity problem.

**Table 11. Heteroscedasticity Test Results**

| Variable                              | Coefficient | Std. Error         | t-Statistic | Prob.  |
|---------------------------------------|-------------|--------------------|-------------|--------|
| C                                     | 15.58460    | 5.616779           | 2.774650    | 0.0068 |
| KMN                                   | 0.004491    | 0.004033           | 1.113705    | 0.0268 |
| EFK                                   | 0.104848    | 0.008602           | 0.563701    | 0.0442 |
| EFS                                   | 0.043820    | 0.065218           | 0.671915    | 0.0343 |
| DDF                                   | 0.023987    | 0.082867           | 0.289462    | 0.0292 |
| Effects Specification                 |             |                    |             |        |
| Cross-section fixed (dummy variables) |             |                    |             |        |
| Weighted Statistics                   |             |                    |             |        |
| R-squared                             | 0.643303    | Mean dependent var | 14.26940    |        |
| Adjusted R-squared                    | 0.595509    | S.D. dependent var | 5.395385    |        |
| S.E. of regression                    | 5.137155    | Sum squared resid  | 1.564893    |        |
| F-statistic                           | 11.36763    | Durbin-Watson stat | 1.221278    |        |
| Prob(F-statistic)                     | 0.000587    |                    |             |        |
| Unweighted Statistics                 |             |                    |             |        |
| R-squared                             | 0.555856    | Mean dependent var | 12.27646    |        |
| Sum squared resid                     | 0.004123    | Durbin-Watson stat | 1.245150    |        |

Source: Eviews version 9.0 results

Based on the results above, for each independent variable, namely Kmn (Independence Ratio) the probability value is 0.0268, the probability value of the Efk variable (Effectiveness Ratio) is 0.0442, the Efs variable (Efficiency Ratio) has a probability value of 0.0343, and the Ddf variable (Degree Ratio) Fiscal Decentralization) has a probability value of 0.0292. It can be seen that each independent variable does not have a probability value of more than 0.05, so

heteroscedasticity does not occur. This means that there is no inequality of variance in the residuals for all observations in the regression model.

#### 4. Autocorrelation Test

The auto correlation test aims to test whether in a liner regression model there is a correlation between confounding errors in period  $t$  and errors in period  $t-1$  or before. To detect autocorrelation, you can use Durbin Watson. If the value ( $dU < d < 4-dU$ ), then there is no autocorrelation.

**Table 12. Autocorrelation Test Results**

|                    |          |                    |          |
|--------------------|----------|--------------------|----------|
| R-squared          | 0.643303 | Mean dependent var | 14.26940 |
| Adjusted R-squared | 0.595509 | S.D. dependent var | 5.395385 |
| S.E. of regression | 5.137155 | Sum squared resid  | 1.564893 |
| F-statistic        | 11.36763 | Durbin-Watson stat | 1.221278 |
| Prob(F-statistic)  | 0.000587 |                    |          |

*Source: EvIEWS version 9.0 results.*

In the panel data regression model, the results from Durbin Watson are already known. Based on the table of fixed effect model results, it can be seen that the Durbin Watson value is 1.221278, the  $dL$  value is 1.5821, and the  $dU$  value is 1.7553 (Durbin Watson Table). It can be concluded that the value of  $dU < d < 4-dU$  ( $1.7553 < 1.221278 < 2.2447$ ) so that there is no autocorrelation. This means that there is no correlation between the residuals in one observation and other observations in the regression model.

## CONCLUSION

This research aims to see the influence of the independence ratio, effectiveness ratio, efficiency ratio, and degree of fiscal decentralization ratio on provincial government capital expenditure on the island of Java in 2006-2021 using the Fixed Effect Model method. Based on the results of the analysis and discussion in the previous chapter, the following results were obtained

The independence ratio has a significant negative effect on capital expenditure. Government spending is not only for capital expenditure but also for other expenditures, such as personnel and subsidy expenditures. Community participation in paying regional taxes and levies influences the independence ratio. Increasingly advanced technology encourages people to make transactions to pay their obligations to the region. This component drives higher regional original income, enabling capital and other expenditures to be realized smoothly.

The effectiveness ratio has a significant positive effect on capital expenditure. Effectiveness in realizing PAD means that the budget for capital expenditure will be fulfilled, so that capital expenditure in the form of fixed assets can be utilized properly.

The efficiency ratio has a significant effect on capital expenditure. Local governments spend their revenues efficiently. This will not have an impact on fulfilling the capital expenditure budget because cost efficiency will not cause an increase in public services and government bureaucracy in the form of assets will be realized properly. The costs incurred are less than the costs generated.

The ratio of the degree of fiscal decentralization has a significant positive effect on capital expenditure. The regional ability to increase PAD with available resources and potential results in the availability of a budget for capital expenditures. This will result in accelerated development of public services and government bureaucracy which will be fulfilled with the well-realized implementation of decentralization.

Simultaneously, financial performance, namely the independence ratio, effectiveness ratio, efficiency ratio, and fiscal decentralization degree ratio have a significant effect on capital expenditure. The higher the level of independence ratio, effectiveness ratio, efficiency ratio, and degree of fiscal decentralization ratio, the more capital expenditure will be maximized. This is due to the availability of a budget for capital expenditure.

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