

# Analysis of the Effect of Village Funds on Village Independence Level and Community Welfare Level in Mojogedang District, Karanganyar Regency

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## ABSTRACT

The implementation of fiscal decentralization through Village Funds in Indonesia aimed to increase the independence and welfare of the people in the regions and reduce the level of inequality between rural and urban areas. This study aimed to analyze the effect of Village Funds on village independence level and community welfare level in Mojogedang District, Karanganyar Regency in 2016-2020 by using one independent variable, namely Village Funds, and two dependent variables, namely IDM and TKS. Furthermore, the data were analyzed based on the panel data regression method. The results obtained from the panel data regression analysis showed that Fixed Effect Model (FEM) was the most appropriate approach to explain the effect of the dependent variable on the independent variable in this study.

**Keywords:** Regional Development, Regional Independence Indicators, Village Funds, Community Welfare Level.

## 1. INTRODUCTION

Economic development leads to problems of economic growth in autonomous regions. Since the enactment of Law Number 22 of 1999 and amended to Law Number 32 of 2004, specifying that that government affairs are handed over to the regions accompanied by sources of funding, transfer of facilities and infrastructure, and staffing under decentralized affairs[1]. Afterwards, Law Number 32 of 2004 enacted a shift in economic development that was initially centralized to decentralized, namely by giving the regions the authorization to develop their territory, including in the economic field. In addition, the existence of Law Number 23 of 2014 stipulates that the transfer of government affairs by the central government to autonomous regions is based on the principle of autonomy [2]

The shift of government administration aims to improve service quality and accelerate regional development and regional economic growth [3]. Regional autonomy is an impetus to advance the regional economy while at the same time strengthening the national economy. Regions have more opportunities to develop and utilize their local potential, which is expected to cause economic

growth and equity in the regions to continue to increase [4]. The principle of regional autonomy is carried out by decentralizing authority that was previously centralized in the central government to autonomous regions accompanied by the transfer of finance (money follow function) with fiscal decentralization[5].

Decentralization is the answer to the ineffectiveness issues in government sector, macroeconomic instability, and sluggish economic growth. In other words, decentralization is a tool to achieve one of the state goals of, namely providing better public services and creating a more democratic public decision-making process [6]

Fiscal decentralization is through Village Funds. Village Funds are funds sourced from the State Revenue and Expenditure Budget (APBN) intended for villages which are transferred through the Regional Revenue and Expenditure Budgets (APBD) and used to finance government administration, development implementation, community development, and community empowerment[7]

Mojogedang District consists of 13 villages with an area of 5,330.90 Ha. There are 69,372 residents in Mojogedang District, and all them are classified as self-sufficient villages. Based on the previous description, this study tries to see the effectiveness of Village Funds policy on the level of village independence and the level of community welfare in Mojogedang District [8]. Regarding the reasons, this research was conducted using panel data on 13 villages observed over five years. Thus, it is expected to find the effect of Village Funds implementation on the independence of an area represented by Village Development Index. In addition, it is also expected to find the effect of Village Funds implementation on the Level of Community Welfare.

Compared to previous research conducted by [9] the novelty of this study is that there are differences in research objects. The objects of this research are in 13 villages in Mojogedang District, Karanganyar Regency. And this study not only discusses the effect of fiscal decentralization policies through Village funds on regional independence, as seen through Village Development Index (IDM), but also considers how Village Funds influence the Level of Community Welfare in Mojogedang District, Karanganyar Regency from 2016 to 2020. In addition, this study uses two econometric models to determine the effect of Village Funds on regional independence and the level of community welfare.

## **2. LITERATURE REVIEW**

### **2.1. Regional Economic Development Theory**

According to Smith [10] economic development is part of development. Meanwhile, development itself can be interpreted as an effort to achieve a sustainable level of per capita income growth so that the country can increase output faster than the population growth rate. Achieving high economic growth is one of a country's development goals.

### **2.2. Regional Economic Growth Theory**

According to [11] the main difference between the analysis of national economic growth and regional growth is that the emphasis is on factor movement in the recent analysis. The possibility of coming and leaving of the labour and capital flow causes differences in regional economic growth rates. Regional economic development and growth will be brisker if it has absolute advantages of being rich in natural resources and having more efficient area than other regions in carrying out production and trade activities.

### **2.3. Fiscal Decentralization in Indonesia**

Initially, the implementation of fiscal decentralization in Indonesia aimed to create

aspects of regional independence. Consequently, the regions then receive the delegation of authority accompanied by the submission of funding sources in the submission form of tax bases and funding assistance. It is completed through a transfer mechanism to the regions according to the money follows function principle. The purpose of fiscal decentralization is to fulfil regional aspirations regarding the state financial control body, encouragement of accountability and transparency of regional governments, reduction of inequality between regions, confirmation of the implementation of minimum public services in each region. In the end, it is expected that it can increase the independence and welfare of the community in general.[12]

### **2.4. Regional Independence Indicator (Developing Village Index)**

Developing Village Index is a composite index formed from the Social Resilience Index, Economic Resilience Index, and Ecological Resilience Index, in which each variable becomes a composite index called Village Development Index (IDM). [1].

### **2.5. Fiscal Decentralization through Village Funds**

Village Funds are funds sourced from the State Revenue and Expenditure Budget (APBN) intended for villages which are transferred through the Regional Revenue and Expenditure Budget and are used to fund government administration, implementation, development, community development and community empowerment. Village Funds are calculated based on the number of Villages and allocated by considering the Total Population, Poverty Rate, Area, and Geographical Difficulty Level [13]

### **2.6. Community Welfare Level**

The welfare of society is something that everyone wants to achieve despite the hard work. Welfare has many dimensions, namely material and non-material dimensions. From a material perspective, it can be measured using the income and consumption approach[14]

## **3. RESEARCH METHODS**

### **3.1. Population and Sample**

The population and sample in this study were villages in Mojogedang District, 13 villages in total.

### **3.2. Research data**

The data used in this study was secondary data obtained from the website; Village Funds data were obtained from BAPERMADES Karanganyar Regency; Village Development Index data were obtained from KEMENDESA website. The data of

the level of community welfare were obtained from the Karanganyar Regency BPS website.

**3.3. Data analysis method**

The analytical tool used in this study was panel data regression analysis with panel data econometric models as follows:

$$IDM_{it} = \beta_0 + \beta_1 DD_{it} + \epsilon_{it}$$

$$TKS_{it} = \beta_0 + \beta_1 DD_{it} + \epsilon_{it}$$

Description:

IDM = Village Development Index.

DD = Village Funds.

TKS = Community Welfare Level.

$\beta_0$  = Constant.

$\beta_1$  = Regression Coefficient

*i* = Shows Village

*t* = Shows 2016-2020

$\epsilon$  = Error Term (error factor)

**4. RESULTS AND DISCUSSION**

This study considered the impact of fiscal decentralization viewed from the indicators of regional independence through Village Development Index (IDM) during the observation period, which is between 2016 and 2020 in Mojogedang District. It showed that the highest average developing village index is in Munggur village. Subsequently, the lowest average developing village index is in Ngadirejo village, and Pojok village.

Munggur Village has the highest IDM. It means that it has a high level of regional independence because Village Funds received are used optimally to improve infrastructure facilities in health, education, and economy.

**4.1. Panel Data Analysis Results**

The panel data regression conducted in this study was carried out twice. The first regression had the dependent variable Village Development Index and Village Funds as the independent variable. The second regression has the dependent variable, the Level of Community Welfare, and Village Funds as the independent variable. The results of panel data analysis with the three approaches to the first econometric model are as shown in Table 4.1.

**Table 4.1**

Panel Data Regression Results

Variable	Regression Coefficient		
	pls	FEM	BRAKE
<i>C</i>	0.646703	0.558056	0.582287
<i>Dana_Village</i>	7.78E-11	1.72E-10	1.46E-10
<i>R</i> <sup>2</sup>	0.039643	0.640119	0.191544
<i>Adjusted R</i> <sup>2</sup>	0.024399	0.548384	0.178711
F-statistics	2.600598	6.977957	14.92631
Prob.F-stat	0.111822	0.000000	0.000267

Source: Secondary data, processed (9 views)

Based on the model selection test, both the Chow test and the Hausman test described, the best model to explain the data in this analysis is Fixed Effect Model (FEM).

Based on Table 4.1, it can be seen that Village Funds coefficient is 1.72E-10 with a p-value of 0.0000. It indicates that Village Funds significantly affect the regional independence indicator, namely Village Development Index because the Village Fund p-value is 0.0000 with an R-Squared value of 0.640119 or 64.01% and an F-statistic of 6.977957 with a Prob (F-statistic) or p-value of 0.000000.

The results of panel data analysis with the second econometric model are as shown in Table 4.2

**Table 4.2**

Panel Data Regression Results

Variable	Regression Coefficient		
	pls	FEM	BRAKE
<i>C</i>	1034,769	1302,063	1300.876
<i>Dana_Villag</i>	3.80E-07	9.56E-08	9.69E-08
<i>e</i>			
<i>R</i> <sup>2</sup>	0.070090	0.987541	0.190944
<i>Adjusted R</i> <sup>2</sup>	0.055330	0.984365	0.178101
F-statistics	4.748514	310.9523	14.86849
Prob.F-stat	0.033071	0.000000	0.000273

Source: Secondary data, processed (Eviews9)

Based on the model selection test, both the Chow test and the Hausman test described, the best model to explain the data in this analysis is Fixed Effect Model (FEM).

Based on Table 4.2, it can be seen that Village Funds coefficient is 9.56E-08 with a p-value of 0.0003. It indicates that Village Funds significantly affect the regional independence indicator, namely Village

Development Index because the p-value of Village Funds is 0.0000 with an R-Squared value of 0.984365 or 98.43 % and an F-statistic of 310.9523 with a Prob (F-statistic) of 0.000000.

#### **4.2. The Effect of Village Funds on Regional Independence**

The output of the regression results shows that Village Funds variable has a positive and significant influence on the indicators of regional independence as seen through Village Development Index in Mojogedang District, Karanganyar Regency in 2016-2020 with a regression coefficient of 1.72E-10. Thus, if Village Funds increase by 1 percent, Village Development Index will increase by 1.72E-10 index numbers. On the other hand, if Village Funds experience a decrease of 1 percent, Village Development Index will decrease by 1.72E-10 index points.

It is in line with the research conducted by [15] analyzing the Impact of Using Village Funds on Indicators of Social, Economic, and Ecological Resilience in Disadvantaged Villages, Bulukumpa District, Bulukumpa Regency. This study aimed to analyze the contribution of Village Funds use and their effect on the social, economic, and ecological resilience of disadvantaged villages in Bulukumpa District, Bulukumpa Regency. This study indicates that Village funds positively affect the index of social stability, economic resilience, and environmental or ecological resilience.

#### **4.3. The Effect of Village Funds on the Level of Community Welfare**

The results of panel data regression show that Village Funds variable has a positive and significant influence on the Level of Community Welfare in Mojogedang District, Karanganyar Regency in 2016-2020 with a regression coefficient of 9.56E-08. So that if the Village Funds increase by 1 percent, the level of community welfare will increase by 9.56E-08 families. On the other hand, if Village Funds decrease by 1 percent, then the level of community welfare will decrease by 9.56E-08 families.

The results of this study correspond to the research conducted by [16] analyzing the Effect of Village Funds and Economic Growth on the Welfare of District Communities on the Islands of Sumatra, Kalimantan, and Sulawesi in 2015-2018. This study aimed to determine whether or not there was an effect of Village Funds and economic growth on the welfare of the district community on the islands of Sumatra, Kalimantan, and Sulawesi. The study results showed that Village Funds positively affect community welfare, and economic

growth has a negative effect on community welfare.

#### **5. CONCLUSION**

Based on the results of the analysis that has been carried out, the following conclusions can be drawn:

- (1) The test results of selecting the best estimator model from the Chow test and the Hausman test prove that Fixed Effect Model (FEM) is the selected model. Based on the model existence test, the selected Fixed Effect Model (FEM) confirms that the estimated model exists. It means that the Village Fund variable simultaneously influences the regional independence through the indicators of Village Development Index and the level of community welfare.
- (2) Based on the results of data regression analysis from the t-test, it can be explained that Village Funds have a positive and significant effect on regional independence through the indicators of Village Development Index and have a positive and significant effect on the Level of Community Welfare in Mojogedang District, Karanganyar Regency. It means that a fiscal decentralization policy through Village Funds influences the development of rural areas, as seen by the increase in village independence and the level of community welfare in Mojogedang District, Karanganyar Regency from 2016 to 2020.

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