Direct Effects of Village Fund Program on the Human Development Index, and Its Implications on Poverty Level

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ABSTRACT

This study entitled The Direct Effects of the Village Fund Program on the Human Development Index, and its Implications for Poverty in Ogan Komering Ulu Regency, South Sumatra Province. The purpose of this study was to examine the direct effect of the Village Fund Program on the Human Development Index and its implications for the Poverty Level in Ogan Komering Ulu Regency, South Sumatra. The hypothesis raised is that the Village Fund Program has a direct effect on increasing the Human Development Index, and it is suspected that the Human Development Index further strengthens the direct effect of the Village Fund Program in reducing poverty levels. The data analysis method used is using a Covariance-based Structural Equation Modelling, namely Maximum Likelihoo. The results of testing the hypothesis show that all hypotheses are confirmed or supported. This means that the Village Fund Program has a direct effect in increasing the Human Development Index and reducing the Poverty Level and the Human Development Index as a mediating variable, further strengthening the reduction in poverty levels in Ogan Komering Ulu Regency, South Sumatra Province. The implications and findings of the results of this study are inconsistencies between secondary and primary data which indicate that there are various causes that must be explored and developed further.

Keywords: Village Fund Program (VFP), Human Development Index (HDI), Poverty Level (PL).

1. INTRODUCTION

Development is a process of continuous improvement in the community in an area, with the aim of achieving a better life in all aspects of life [1] This means that the benchmark of development is not only an increase in per capita income, but more than that it must be accompanied by an increase in the Human Development Index. HDI) which indicates a decrease in the level of poverty so that an area can be said to have experienced an increase in the development process.

The Village Fund Program (VFP), is a form of full support from the government which has been consistently implemented since 2015 until now. In the Smart Book of Village Funds, it is stated that Village Funds are APBN funds intended for Villages that are transferred through the Regency/City APBD and prioritized for the implementation of development and empowerment of rural communities which are calculated based on the number of Villages and allocated by taking into account the population, poverty rate, area, and geographic difficulty. The purpose of the Village Fund itself is to improve public services in the village, eradicate poverty, advance the village economy, overcome development gaps between villages, and strengthen village communities as subjects of development. [2].

The government's seriousness in implementing VFP can be seen from the Realization of Village Funds in 2015 to 2020, in Figure 1 below.
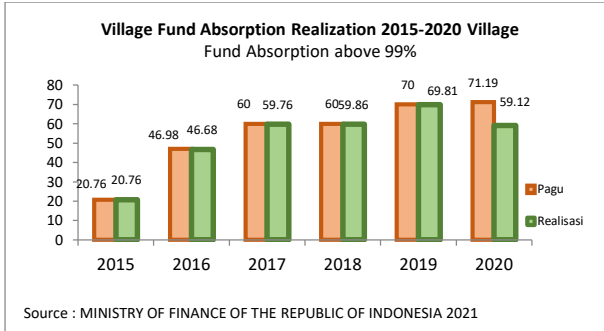
Figure 1. Realization of Village Fund Absorption in 2015 - 2020

VFP has been rolling from 2015 to 2020 reaching approximately 256.21 trillion. This very large distribution is intended as a stimulus that encourages the village economy to be faster and more advanced through village development, so that in the end it can improve the quality of life of rural communities as measured through the HDI [3]

HDI is a composite index which is also an indicator that can describe developments, human development in a measurable and representative manner. The HDI was first introduced in 1990 by the United Nations Development Program (UNDP) and is published regularly in the annual Human Development Report (HDR). HDI is an important indicator used to measure success in efforts to build the quality of human life, in this case the community/ population [4].

Poverty is a deprivation in welfare. The main focus is whether households or individuals have sufficient resources to meet their needs. The first step in measuring poverty is determining welfare indicators, such as income or consumption per capita [5]. Furthermore, [6] in his research said that etymologically poverty comes from the word poor which means not having possessions and lacking.

If we refer to poverty data, poverty depth index, poverty severity index, and the Gini coefficient in rural areas in the 2015-2019 period which has decreased, the government's claim that there has been an improvement in the welfare of rural communities after the allocation of village funds since 2015 is reasonable and justified. [7]

Bustang and colleagues in their research which aims to determine the effectiveness of the management of Village Funds in Sibulue District, Bone Regency, South Sulawesi, gave results that showed that village funds

were quite good and effective to improve the economy and welfare of rural communities. However, from a management perspective, a major problem arises in terms of its management, namely the lack of knowledge of human resources related to village financial planning and management [10].

This study aims to examine more deeply the direct effect of VFP on HDI and its implications for PL in Ogan Komering Ulu Regency, South Sumatra. Referring to the purpose of the study in this study, 2 hypotheses were drawn in this study, namely first, it was suspected that VFP had a direct effect in increasing HDI and secondly, it was suspected that HDI had implications for strengthening VFP in reducing PL.

2. RESEARCH METHODOLOGY

2.1. Type of Research

This type of research is quantitative research with exploratory research type. Exploratory research is an exploratory study, especially to establish concepts that will be used in a wider scope of research with a larger conceptual reach [11].

2.2. Population, Sample and Sampling Technique

This research was conducted in 13 sub-districts in OKU Regency, South Sumatra Province, all of which were recipients of Village Funds starting in 2015.[12] said that the appropriate sample size in the study was 30 to 500. So, the sample in this study used a sampling technique taken from the total population.

Furthermore, because the analysis tool uses the Structural Equation Analysis Model (SEM) requires a large enough sample. [13] Recommends that if the research model built has 2-4 variables, then the sample required is between 100-200. Ghozali (2013) recommends that the minimum acceptable sample size for SEM estimation is 100. The criteria set in this study to be used as samples are 9 respondents from each sub-district consisting of 3 Village Fund managers, 3 community leaders, 3 people the general public as beneficiaries. So, the total sample is 117 respondents. Thus, a sample of 117 is feasible to use to estimate the model. In determining the sampling, the researcher uses a purposive sampling technique where the notion of purposive is a sampling technique with certain considerations. Purposive sampling belongs to the type of non-probability sampling, which means that it does not provide equal opportunities for each population [12].

2.3. Variable Operation

The VFP variable has 2 dimensions, the first is the Principle of Use and Priority of Use. The HDI variable has 3 dimensions, namely a long and healthy life, knowledge and a decent standard of living [16].

The PL variable has 7 dimensions, namely inadequate infrastructure, inadequate education, inadequate health, employment problems, food insecurity conditions, population social problems, and poverty based on the livelihood sector [17].

Figure 2. Framework for thinking on the direct effect of the Village Fund Program on the Human Development Index and its Implications for Poverty Level

2.4. Analysis Method

The data analysis method used is using a *Structural Equation Modeling*-based *Covariance,* namely *Maximum Likelihhoo*. *Maximum likelihood* tries to minimize the difference between the sample *covariance* and the prediction model that is built on a strong theoretical basis, with the aim of confirming the theory through the results of the test *t* (statistical estimation) and *goodness fix index* (GoFi) [18]. The structural model equation is as follows:

Structural Equation Modeling: $h_1 = g_1x_1 + z_1$

Structural Equation Modeling: $h_2 = \beta h_1 + z_2$

Description

VFP = Village Fund Progam
HDI = Human Development Index
PL = Poverty Level
ξ (KSI) = Construct Latent exogenous (VFP)
(ETA) = Ecdogenous Latent Construct (HDI and PL)
(BETA) = Direct relationship of endogenous variables to other endogenous variables
(ZETA) = Error in the equation, namely between exogenous/ endogenous variables

The use of the structural equation model (SEM) must meet the requirements, such as data normality, outliers and multicollinearity, both *univariate outliers* and *multivariate outliers.* Evaluation of the presence of *univariate outliers is* seen from the magnitude of the *z-score value* with a range of ± 2.58 [19]. While the evaluation of *multivariate outliers* pays attention to the *Chi-square value* at the degrees of freedom of significance p > 0.05. If the observation has a *Chi-square value* at a significance degree of freedom p > 0.05, then it is not identified as *multivariate outliers*. Testing of *Univariate Normality* and *Multivariate Normality* in this research uses *software* LISREL.

3. RESULTS AND DISCUSSION

3.1. Results

The estimation method for both the measurement model and the structural model in this study uses the robust maximum likelihood method approach. In the first stage of analysis, the unidimensionality of the latent variable constructs and a fit model have been produced. The results of the validity and reliability test of the measurement model and structural model on 3 (three) variables, namely VFP, HDI, and PL showed Standardized Loading Factor (SLF) > 0.5, Construct Reliability (CR) > 0.7, and Variance Extracted (VE) > 0.5 . This means that all of these indicators are good enough to form latent variable constructs and models, besides that goodness of Fix Index tests are also carried out including absolute fit measures, incremental fit measures and parsimonious fit measures to verify the model and the results fit the model according to the data (p-value > 0.05, RMSEA < 0.08, GFI > 0.90, NFI > 0.90, NNFI > 0.90, and AGFI > 0.90) The

Structural model estimation is then carried out through full model analysis, namely to see the suitability of each model and the causality relationship built in the model such as Figure 2 below.
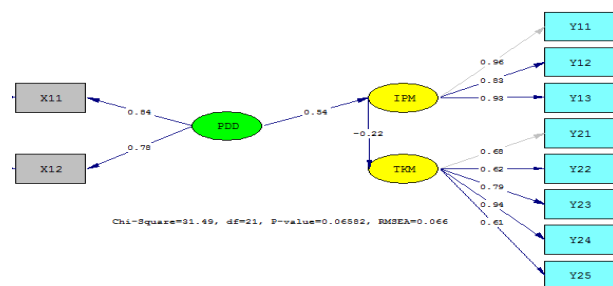

Figure 3. Structural Model

Based on the estimation of the structural model in Figure 2, the structural equation model is obtained as follows:

Structural Equations

$HDI = 0.54*VFP$, Error Var. $= 0.70$, $R^2 = 0.30$

$\quad\quad\quad$ (0.098) $\quad\quad\quad\quad\quad\quad$ (0.11)
$\quad\quad\quad\quad$ 5.55 $\quad\quad\quad\quad\quad\quad\quad$ 6.47

$PL = -0.22*HDI$, Error var. $= 0.95$, $R^2 = 0.047$

$\quad\quad\quad$ (0.098) $\quad\quad\quad\quad\quad\quad$ (0.24)
$\quad\quad\quad$ -2.21 $\quad\quad\quad\quad\quad\quad\quad$ 3.91

Reduced Form Equations

$HDI = 0.54*VFP$, Error var. $= 0.70$, $R^2 = 0.30$

$\quad\quad\quad$ (0.098)

$\quad\quad\quad$ 5.55

$PL = -0.12*VFP$, Error var. $= 0.99$, $R^2 = 0.014$

$\quad\quad\quad$ (0.057)

$\quad\quad\quad$ -2.07

Thus, the estimation results of the structural model (*overall model*) are shown in Figure 2, so the hypothesis test results are obtained as follows:

Based on the structural equation model and table 1, direct *effects, Indirect Effect* and *Total Effect* above, can be explained as follows:

1. The VFP variable on HDI has a value *direct effect* positive of 0.54 and a t-value of 5.55. This means that VFP has a positive and significant impact on the HDI so that H_1 is confirmed or supported.
2. Variable VFP on PL has a value *direct effect* negative of -0.12 and a t-value of 2.07. Meaning VFP negatively affect PL while the HDI as a stronger mediation reduce poverty with value *effect of direct* a negative of -0.22 and the t-value of 2:22 so that H_2 is confirmed or supported.

3.2. Discussion

The results of testing the hypothesis indicate that all hypotheses in this study (H1 and H2) are confirmed or supported. That is, VFP has an effect on increasing HDI and reducing PL. HDI itself as a mediating variable further strengthens the decline in PL.

Contrary to the results of a study of secondary data on poverty in OKU district, it is seen that the number of poor people did not significantly decrease, in fact it tends to increase in 2019. The following is a picture of the development of the poor population according to various indicators in OKU District.

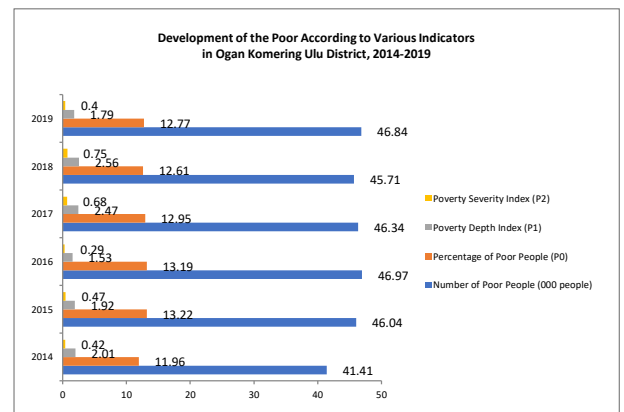| Hypothesis	Path Analysis	Direct Effect	t-value	Indirect Effect	t-value	Total Effect	t-value	Hypothesis Decsion
H_1	VFP>HDI	0.54	5.55			0.54	5.55	Supported
H_2	HDI>PL	-0.22	-2.22			-0.22	-2.22	Supported
	VFP>PL			-0.12	-2.07			

Table 1. Hypothesis Testing

Figure 2 shows that the percentage of poor people has seen an increase of 0.16 percent, from 12.61 percent in 2018 to 12.77 percent in 2019. In terms of the depth and severity of poverty (P1 and P2), the two

poverty indicators in 2019 is even lower. P1 in 2019 was 1.79 percent, down from 2.56 percent in 2018 and P2 in 2019 was 0.40, down from 0.75 percent. This indicates that there is an increase in the number of poor people but the gap between the poor and non-poor is not widening.

Nationally, various developments in rural welfare indicators in the period before (2011-2014) and after (2014-2019) the implementation of village funds have several critical notes that need the government's attention. Moreover, even before the village fund, the trend of poverty reduction in the 2011-2014 period also occurred.

The Center for Budget Studies of the Expertise Board of the Secretariat General of the DPR RI formulated several critical notes; first note, the speed of poverty reduction after village funds is lower than before village funds. Second, the poverty severity index (spend inequality among the poor) in rural areas is improving, but at a slower rate than before the village fund. Third, the poverty depth index (the average expenditure gap of each poor person to the poverty line) is decreasing, but at a slower rate than before the village fund. Fourth, the rate of decline in the rural Gini ratio in the village fund period was faster than before the village fund, but the speed was not as fast as the decline in urban areas. Fifth, the speed of poverty reduction, the poverty severity and depth index, and the Gini coefficient in rural areas are lower than in urban areas where funds are not allocated from the APBN. Finally, the exchange rate of farmers did not increase significantly. [8]

The results of statistical analysis of research [9] prove that village funds have no effect on regional development in Katingan. In other words, the increase or decrease in village funds will not have an impact on the ups and downs of regional development progress.

The implications and findings of the results of this study are inconsistencies between secondary data and primary data which indicate that there are various causes that must be explored and developed further. Judging from the VFP formula itself, according to [20] the Village Fund Formula also has its own problems, where the currently established formula does not support a sharper reduction in poverty because only 10 percent affects the distribution. The Village Funds are distributed based on the number of villages not based on the number of poor people in the village. Regions that have many villages even though there are fewer poor

people receive more Village Funds than regions that have fewer villages but have more poor people.

Several exogenous variables are also considered in their contribution to the data gap in the results of the analysis of this study, including the low community participation in the management of the Village Fund due to limited Human Resources, more valid data synchronization, so that the distribution and management of the Village Fund is truly in accordance with the portion with taking into account the demographics and typology of the village. Increasing the role and quality of village facilitators, has not been given much attention, and is only conditioned to meet standards. This has an impact on the lack of maximum accountability for the management and reporting of the Village Fund it self.[21]

4. CONCLUSION

The conclusion in this study is that overall VFP has had a positive direct effect on HDI, so that through HDI PL tends to decrease. However, when viewed from the secondary data, it can be seen that there are gaps, this is due to several things that become limitations in this study, namely first, the scope of the research is only limited to the sub-district level, namely 13 sub-districts in Ogan Komering Ulu Regency, South Sumatra Province. Second, the indicators for measuring PL are numerous and varied, and VFP is only one indicator.

VFP is a very good program to build the country from the periphery, namely the villages which are the basis of life, especially in an archipelagic country like Indonesia. However, in its implementation, the following points must be considered: firstly, the low level of community participation in VFP management needs to be anticipated by conducting outreach and approaches to all elements of the village community, so that the community dares to provide input, ideas or suggestions in the village fund management planning process in each village. each village, so that this VFP is more targeted. Second, there needs to be synchronization, transparency and appropriate reporting in the management of Village Funds. Third, the roles and quality of village assistants must be improved and prepared to the maximum, so that the management of Village Funds is in accordance with Standard Operating Procedures and established regulations. There needs to be a further study in this research, as well as considering exogenous variables, because the scope of the purpose of this VFP is very broad and complex.

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