

The Effect of Village Original Income, Village Fund, Village Allocation Fund, and APBD Financial Assistance on Village Expenditure in the Field of Village Development (A Study of Suka Makmur Village, Binjai Subdistrict, Langkat Regency)

Meliana¹, Najla Ainal Mardhiyah², Benny Rojeston Marnaek Nainggolan³, Dokman Marulitua Situmorang⁴
^{1,2,3} Universitas Prima Indonesia, Indonesia

⁴ Institut Teknologi dan Bisnis Kristen Bukit Pengharapan, Indonesia

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Correspondence:

**Benny Rojeston Marnaek
Nainggolan**
benny.bppk@gmail.com

ABSTRACT

This study analyzes the effect of village revenue sources on development expenditure in Suka Makmur Village, Langkat Regency. Using financial data from 2020-2024 across six hamlets (60 observations), the research applies multiple linear regression with classical assumption testing. The results show that Village Original Income (PADes) does not have a significant effect (sig. 0.758), while Village Fund (DD) (sig. 0.047), Village Allocation Fund (ADD) (sig. 0.037), and APBD Financial Assistance (sig. 0.029) have a positive effect. Overall, these variables explain 76.8% of the variation in development expenditure ($R^2=0.768$). The findings reveal a high dependence on external funds, with PADes still not fully optimized. The implication is that there is a need to improve internal fiscal capacity through the optimization of local potential, while maintaining accountability in the management of transfer funds. The study recommends intensive assistance to strengthen fiscal independence at the village level and further research on non-financial factors supporting development.

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Introduction

Indonesia is an archipelagic country consisting of thousands of villages that hold a strategic role in national development. The village serves as the smallest administrative unit and acts as the frontline in implementing development based on the needs of local communities. Law Number 6 of 2014 concerning Villages states that a village is a legal community unit that has the authority to regulate and manage the interests of its people based on origin rights and traditional values recognized within the national and regional governmental systems. In accordance with the mandate of this law, village funds (Dana Desa or DD) are prioritized to finance village development, support the administration of governance, community empowerment, and social development.

According to Ministry of Home Affairs Regulation (Permendagri) Number 20 of 2018, village financial management includes all activities related to planning, implementation, administration, reporting, and accountability of village finances, including the distribution and utilization of village revenue sources. Sources of village revenue include Village Original Income (Pendapatan Asli Desa or PADes), shares of regional tax revenue, transfers from the central government such as Village Funds (DD), Village Fund Allocations (Alokasi Dana Desa or ADD), as well as financial assistance from regional budgets (APBD). The Minister of Home Affairs' report in 2018, as reinforced by Permendagri Number 113 of 2014, classifies village income into three main categories: PADes, transfer income, and other legitimate income.

PADes is derived from village assets, business profits, cooperatives, and other economic activities. Meanwhile, transfer funds include Village Funds sourced from the state budget (APBN) of at least 10%, ADD sourced from the district/city APBD, and other financial assistance. The distribution of Village Funds is carried out directly from the central government to the village treasury account, which is then supervised by the regional government. Based on Permendagri Number 16 of 2018, the main purpose of Village Funds is to support community empowerment programs as well as the development of village infrastructure such as health facilities, education, and local economic enterprises.

The use of Village Funds and ADD is directed to support equitable and sustainable development. Villages are required to allocate at least 70% of ADD for community empowerment activities and village

development, while the remaining 30% is used for village apparatus expenditure. The main goal of this policy is to reduce development disparities between regions, improve the welfare of rural communities, and strengthen village governance institutions.

Previous studies have shown that Village Funds, ADD, and financial assistance from APBD have a significant influence on village development spending. Research by Alokasi et al. (2019) found that PADes has a relatively small effect on village development spending, whereas DD, ADD, and financial assistance from the APBD make a significant contribution. A similar finding was reported by Putri et al. (2022), who found that the allocation of village funds has a positive impact on village development spending, while PADes does not have a significant effect. Research by Listiana and Muslinawati (2022) also showed that Village Funds significantly affect village development, while PADes again proved to be insignificant.

The phenomenon that becomes the focus of this study is the assumption that an increase in village income should be followed by an increase in village spending, particularly in the development sector. Conversely, if village income decreases, then logically, village spending would also decrease. Therefore, it is important to empirically examine how large and strong the influence of PADes, DD, ADD, and financial assistance from the APBD is on village spending in the development sector. The effectiveness and equity of village development greatly depend on the accuracy of planning and realization of the Village Revenue and Expenditure Budget (APBDes).

Hypothesis Development

The Effect of Village Original Income (PADes) on Village Development Expenditure

Village Original Income (PADes) is a source of income for the village derived from local economic potentials, such as village-owned land, markets, tourist spots, village buildings, and business activities from Village-Owned Enterprises (BUMDes). This income serves as an indicator of the village's financial independence in financing development based on local community needs. A high PADes reflects the village's ability to tap into internal potential and contribute to the financing of village development independently. However, several previous studies have shown that PADes may not necessarily have a significant effect on development expenditure, due to the low optimization of village assets or the limited capacity of village institutions to manage these resources (Li & Sanu, 2023).

Hypothesis 1 (H1): Village Original Income (PADes) affects village development expenditure in the field of village development.

The Effect of Village Fund (DD) on Village Development Expenditure

Village Fund (DD) is a fund sourced from the State Budget (APBN) that is directly allocated to the village to finance governance, development activities, and community empowerment. The main objective of the Village Fund is to accelerate development and improve the welfare of the village community. The distribution of this fund encourages villages to actively design development programs in line with local characteristics and needs. Since 2017, the Ministry of Finance has emphasized the importance of accountability and efficiency in the utilization of Village Funds, which are generally focused on physical development and community economic empowerment.

Hypothesis 2 (H2): Village Fund (DD) affects village development expenditure in the field of village development.

The Effect of Village Allocation Fund (ADD) on Village Development Expenditure

The Village Allocation Fund (ADD) is part of the transfer funds sourced from the Regional Budget (APBD) of the district/city after deducting the Special Allocation Fund (DAK). ADD aims to support village governance activities and community development. According to Article 1 of Permendagri No. 113 of 2014, ADD is one of the regional fiscal instruments to strengthen the financial capacity of villages, especially in financing infrastructure, basic services, and local economic development. With the support of ADD, villages are expected to improve the quality of development in various fields sustainably.

Hypothesis 3 (H3): Village Allocation Fund (ADD) affects village development expenditure in the field of village development.

The Effect of Regional Budget Financial Assistance on Village Development Expenditure

Regional Budget Financial Assistance (Bantuan Keuangan APBD) is a fund allocated by the district/city government to the village as a form of support for development programs designed by the village

government. This assistance is usually stimulative and is allocated based on considerations of regional needs, village potential, and regional development priorities. The fund is sourced from the management of natural resources, regional taxes, and other regional revenues. With the existence of Regional Budget Financial Assistance (Bantuan Keuangan APBD), villages have additional flexibility in carrying out development projects, including basic infrastructure and public services.

Hypothesis 4 (H4): Regional Budget Financial Assistance (Bantuan Keuangan APBD) affects village development expenditure in the field of village development.

Method

This study uses a quantitative approach aimed at testing the influence of Village Original Income (PADes), Village Fund (DD), Village Allocation Fund (ADD), and Regional Budget Financial Assistance (Bantuan Keuangan APBD) on village development expenditure in Suka Makmur Village, Binjai District, Langkat Regency. The data used in this study is secondary data in the form of village financial reports obtained from the village office and other publication sources, covering a five-year period from 2020 to 2024. The research sample consists of six hamlets in Suka Makmur Village that have consistently published financial reports for five consecutive years, resulting in a total of 60 observations.

The type of data used is annual numerical data on a nominal scale, which is analyzed using multiple linear regression analysis. The regression model used is:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e,$$

where Y is the village development expenditure, X_1 to X_4 are PADes, DD, ADD, and Regional Budget Financial Assistance (Bantuan Keuangan APBD), and e is the error term. To ensure the model's validity, classical assumption tests are performed, including normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. Furthermore, to test the partial and simultaneous effects, t-test and F-test are used with a significance level of 5 percent.

Results and Discussion

Uji Normalitas

The normality test is conducted to determine whether the residual data follows a normal distribution. The Kolmogorov-Smirnov test results show an Asymp. Sig. (2-tailed) value of 0.534 > 0.05, which indicates that the residuals are normally distributed

Table 1 Normality Test

| Keterangan | Nilai |
|--------------------------|--------------|
| N | 60 |
| Mean | 0E-7 |
| Std. Deviation | 7.218.554,31 |
| Most Extreme Differences | |
| - Absolute | 0,104 |
| - Positive | 0,080 |
| - Negative | -0,104 |
| Kolmogorov-Smirnov Z | 0,806 |
| Asymp. Sig. (2-tailed) | 0,534 |

This is also supported by the histogram that forms a bell-shaped pattern and the P-P Plot graph, which shows the spread of points following the diagonal line.

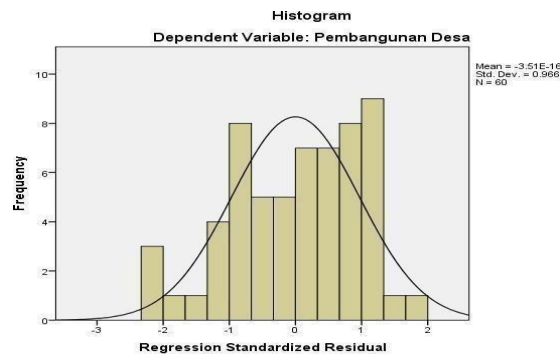


Figure 1. Normality Histogram

The figure above shows the histogram of the residuals standardized for the dependent variable, Village Development. The residual distribution pattern forms a bell-shaped curve, indicating that the data is symmetrically distributed around the mean. This is supported by the mean value of $-3.51E-16$, which is close to zero, and the standard deviation of 0.966. With a sample size of 60, the distribution of the residuals strengthens the previous Kolmogorov-Smirnov test result, indicating that the residuals are normally distributed.

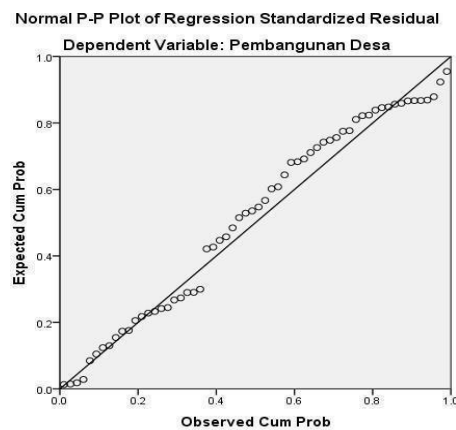


Figure 2. Normal P-P Plot of Standardized Regression Residuals

This figure shows the Normal P-P Plot of the standardized residuals for the dependent variable, Village Development. The points on the graph mostly follow the diagonal line, indicating that the distribution of residuals approximates a normal distribution. The closer the points are to the diagonal line, the better the normality assumption is met.

Multicollinearity Test

This test aims to determine whether there is a linear relationship among the independent variables in the regression model. The results of the multicollinearity test are presented in the following table:

Tabel 1. Hasil Uji Multikolinearitas

| Variabel | Tolerance | VIF |
|-----------------|-----------|-------|
| PAD | 0,236 | 4,233 |
| DD | 0,299 | 3,340 |
| ADD | 0,145 | 6,903 |
| APBD Assistance | 0,240 | 4,164 |

Since the tolerance value is > 0.1 and the VIF is < 10 , it can be concluded that no multicollinearity exists in this model.

Heteroskedastisitas Test

The heteroscedasticity test is used to determine whether there is a non-constant variance of the residuals. Based on the scatterplot, the points are randomly scattered and do not form any particular pattern, both above and below the 0 axis.

Gambar 3. Scatterplot Uji Heteroskedastisitas

Hal ini menunjukkan bahwa tidak terdapat gejala heteroskedastisitas dalam model regresi.

Uji Autokorelasi

The autocorrelation test is used to examine whether there is a correlation between one residual and another. This test uses the Durbin-Watson (DW) value, which is displayed in the following model summary:

Table 2. Durbin-Watson Model Summary

| Model R | R Square | Adj. R Square | Std. Error | Durbin-Watson |
|---------|----------|---------------|------------|---------------------|
| 1 | 0,876 | 0,768 | 0,751 | 7.476.440,635 2,315 |

With the number of independent variables (k) = 4 and the number of data points (n) = 60, the obtained values for $dU = 1.7274$ and $dL = 1.4443$. Since the DW value = 2.315 > dU , there is no autocorrelation in the model.

Multiple Linear Regression Analysis

Multiple linear regression analysis is used to determine the influence of PAD, Village Fund (DD), Village Allocation Fund (ADD), and APBD Financial Assistance on village development expenditure both simultaneously and partially.

Table 3. Multiple Linear Regression Results

| Variabel (Konstanta) | B | Std. Error | Beta | t | Sig. |
|-------------------------|--------|------------|-------|-------|-------|
| PAD | 35,051 | 113,429 | 0,041 | 0,309 | 0,758 |
| DD | 0,065 | 0,032 | 0,241 | 2,031 | 0,047 |
| ADD | 0,339 | 0,158 | 0,366 | 2,143 | 0,037 |
| APBD Assistance | 4,382 | 1,953 | 0,297 | 2,244 | 0,029 |

Persamaan regresi linear berganda yang diperoleh adalah:

$$Y = 4.173.556 + 35,051X_1 + 0,065X_2 + 0,339X_3 + 4,382X_4 + e$$

From this equation, the following can be explained:

1. When all independent variables are zero, the Village Development expenditure is estimated to be IDR 4,173,556.
2. Each increase of one unit in PAD (X_1) will increase Village Development expenditure by IDR 35,051, assuming other variables are constant.
3. Each increase of one unit in Village Fund (X_2) will increase village development by IDR 0.065.
4. Each increase of one unit in Village Allocation Fund (X_3) will increase village development by IDR 0.339.
5. Each additional unit in APBD Financial Assistance (X_4) will increase village development by IDR 4,382.

Partial Test (t-test)

The t-test is used to determine the partial influence of each independent variable on village development. The t-test results are presented in the following table:

Table 4. t-test Results

| Variabel | t Hitung | t Tabel ($\alpha=0,05$) | Sig. | Kesimpulan |
|---------------------------|----------|---------------------------|-------|----------------------------------|
| PAD (X_1) | 0,309 | 1,670 | 0,758 | Tidak signifikan, H_0 diterima |
| DD (X_2) | 2,031 | 1,670 | 0,047 | Signifikan, H_0 ditolak |
| ADD (X_3) | 2,143 | 1,670 | 0,037 | Signifikan, H_0 ditolak |
| APBD Assistance (X_4) | 2,244 | 1,670 | 0,029 | Signifikan, H_0 ditolak |

Based on the table above, it can be explained as follows:

1. PAD (X_1) has a t count of 0.309 < t table 1.670 and a significance value of 0.758 > 0.05. This shows that PAD does not have a significant effect on village development. Therefore, H_0 is accepted.
2. Village Fund (X_2) has a t count of 2.031 > t table 1.670 with a significance value of 0.047 < 0.05. This means Village Fund has a significant effect on village development. H_0 is rejected.
3. Village Allocation Fund (X_3) shows a t count of 2.143 > t table 1.670 and a significance value of 0.037 < 0.05. This means ADD also has a significant effect on village development. H_0 is rejected.

4. APBD Financial Assistance (X_4) shows a t count of $2.244 > t$ table 1.670 and a significance value of $0.029 < 0.05$, so this variable also has a significant effect on village development. H_0 is rejected.

Simultaneous Test (F-test)

The F-test is used to determine whether all independent variables together (simultaneously) significantly affect the dependent variable. The F-test results are presented in the following table:

Table 5. F-test Results

| Source | Sum of Squares | df | Mean Square | F | Sig. |
|------------|-----------------------|--------------------|--------------------|-------|------|
| Regression | 101.752.387.117.993 4 | 25.438.096.779.984 | 45,509 | 0,000 | |
| Residual | 30.743.440.514.172 | 55 | 558.971.645.712,22 | | |
| Total | 132.495.827.632.166 | 59 | | | |

Since F count = 45.509 > F table = 3.15 and the significance value is < 0.05, it can be concluded that simultaneously PAD, DD, ADD, and APBD Financial Assistance have a significant effect on village development.

Coefficient of Determination (R^2)

This test is used to determine how much the independent variables contribute to explaining the dependent variable. The coefficient of determination value is shown in the following table:

Table 6. Coefficient of Determination

| Model | R Square |
|-------|----------|
| 1 | 0,768 |

The R Square value of 0.768 indicates that 76.8% of the variation in village development can be explained by the variables PAD, Village Fund, ADD, and APBD Financial Assistance. The remaining 23.2% is explained by other variables outside the scope of this study.

Discussion

The Effect of PAD (X_1) on Village Development

Village Original Income (PAD) has a t-value of 0.309, which is smaller than the t-table value of 1.670, with a significance level of 0.758 (> 0.05). This indicates that PAD does not have a significant effect on village development, thus the null hypothesis (H_0) is accepted.

Theoretically, this result is in line with the fiscal capacity theory, which states that regions with low fiscal capacity, such as villages with small PAD, do not have sufficient fiscal capacity to independently drive development (Smoke, 2015). PAD usually comes from limited sources such as village retribution, village-owned enterprises, and asset leasing, which contribute relatively little compared to the financing needs for development. The relationship between PAD and village development appears weak because, in many cases, villages are still in the early stages of local economic development. Therefore, the limitation of PAD reduces its role as an instrument for development, and villages rely more on transfer funds from the central and regional governments.

The Effect of Village Fund (X_2) on Village Development

The Village Fund (DD) has a t-value of 2.031, which is greater than the t-table value (1.670), with a significance level of 0.047 (< 0.05). This indicates that the Village Fund has a significant effect on village development, and H_0 is rejected. The Village Fund is a transfer from the state budget (APBN) intended for infrastructure development, public service improvements, and community empowerment in villages. This result reinforces the fiscal decentralization theory, which states that fiscal transfers to local governments or villages can improve the efficiency and quality of development when accompanied by capacity-building in management (Martinez-Vazquez et al., 2017). The relationship between the Village Fund and village development is very close because this fund is the main instrument for the central government to directly intervene in development at the village level. Its relatively large and flexible allocation allows villages to implement strategic projects that directly impact the community.

The Effect of Village Allocation Fund (X_3) on Village Development

The Village Allocation Fund (ADD) has a t-value of 2.143 > t-table 1.670 and a significance level of 0.037 (< 0.05), meaning ADD has a significant effect on village development, so H_0 is rejected.

ADD is a fund from the regional government budget (APBD) allocated to support the operational costs of village governments and community development and empowerment activities. In the context of good governance theory, ADD can strengthen the institutional capacity of villages when managed transparently, participatively, and accountably (World Bank, 2022). ADD provides important administrative support to enable village governments to carry out their service and development functions. Therefore, the relationship between ADD and development is functional and structural, as ADD strengthens the village governance system, which ultimately supports sustainable development.

The Effect of APBD Financial Assistance (X₄) on Village Development

APBD Financial Assistance has a t-value of 2.244, which is greater than the t-table value of 1.670, with a significance level of 0.029 (< 0.05). This indicates that APBD Financial Assistance has a significant effect on village development, and H₀ is rejected. This assistance is irregular but strategic because it is allocated to finance large-scale development projects or inter-village programs that cannot be financed by DD or ADD. The vertical fiscal imbalance theory explains that assistance from local governments to villages is important to close fiscal gaps and promote equitable development (Bird & Smart, 2018). The relationship between APBD Financial Assistance and village development is complementary to the Village Fund and ADD. This assistance accelerates the realization of development and allows villages to carry out priority programs that require larger funds, such as the construction of bridges, village markets, or educational facilities.

Conclusion

Based on the analysis results, it can be concluded that Village Original Income (PAD) does not have a significant effect on village development, reflecting the low internal fiscal capacity. On the other hand, the Village Fund (DD), Village Allocation Fund (ADD), and APBD Financial Assistance have a significant effect, reflecting the important role of fiscal transfers in supporting development. Simultaneously, all four variables contribute significantly to village development, emphasizing the need for synergy between internal and external funding sources.

In light of these results, it is recommended that village governments optimize PAD through asset utilization and strengthening the local economy transparently. The management of DD, ADD, and APBD Financial Assistance should be directed toward priority programs with direct impacts, following principles of accountability and efficiency. Strengthening the capacity of village apparatus in financial management is also essential to ensure the effectiveness of budget use.

As a recommendation, local and central governments should enhance technical assistance and policy incentives to encourage fiscal independence at the village level. Future research is recommended to examine other factors affecting village development, such as human resource quality, community participation, and institutional governance, so that development does not solely depend on financial aspects but also on social and institutional sustainability.

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