

Village Development and Welfare Enhancement: The Influence of Area Size, Population, and Village Fund Transfer: Evidence from Bangkalan, Indonesia

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DOI: <https://doi.org/10.51244/IJRSI.2024.1110036>

Received: 06 October 2024; Accepted: 14 October 2024; Published: 12 November 2024

ABSTRACT

This study analyzes the influence of area, population, and village fund transfers on improving community welfare in Bangkalan Regency, Indonesia. Using regression analysis methods, data were collected from various sources, including government statistics and field surveys. The results show that village area has no significant effect on community welfare. In contrast, population has a negative effect, indicating challenges in the distribution of village fund benefits in villages with larger populations. However, village fund transfers are shown to have a significant positive effect on community welfare, indicating that increasing village fund allocations can improve infrastructure, basic services, and empower communities. This study emphasizes the importance of good management of village funds to achieve the goal of improving welfare. These findings are expected to be a reference for policymakers and practitioners in designing effective strategies to improve the welfare of rural communities. Recommendations for further research include exploring other variables, such as village management capacity, to provide a more comprehensive picture of the factors that influence welfare in rural areas.

Keywords: Area Size, Population, Village Fund Transfer, Community Welfare

INTRODUCTION

The Village Fund Program in Indonesia has become an important fiscal instrument aimed at boosting village development and improving the welfare of rural communities, especially in marginalized areas. Since its launch in 2015, studies have shown that, through direct cash transfers and improving village infrastructure, the program has significantly reduced poverty (Permatasari et al., 2021; Sutyono et al., 2018). However, the success of using Village Funds depends on a number of things, such as the number of residents in the village and how the funds are allocated to meet village needs (Anam et al., 2023).

Indonesia still has a low level of inclusiveness of economic development, especially in terms of economic growth and development. This is partly due to the previous development orientation which tended to be centralized. However, now this paradigm has changed to decentralization, especially during the implementation of the village fund policy, so it is necessary to examine whether there are actually benefits provided. This is an important problem because the village fund program has been running for more than five years and the funds provided are quite a lot (A.A. Ngurah Gede & Iskandar, 2023; Negara, 2013).

Local government has a very significant influence on the achievement of decentralization. This suggests that the quality of governance needs to be further improved in order to achieve welfare as a result of the success of the decentralization program (Lele, 2019). Bangkalan Regency, the area and population factors also play an important role in determining the allocation and effectiveness of Village Funds. Villages with larger populations tend to receive larger transfers, but gaps in management capacity often leave some villages behind in utilizing these funds for sustainable growth (Lewis, 2015).

Village Funds can play a major role in reducing poverty, but their effects depend largely on how they are used. The study found that allocating funds focused on developing basic infrastructure and improving the quality of

life, such as building roads, sanitation, and access to clean water, had a significant impact on improving community welfare (Ekasari, 2020). However, in some areas, Village Funds actually cause dependency and increase poverty when not managed properly.

Area and population density also play a crucial role in determining the effectiveness of Village Funds. (Kementerian Keuangan, 2017). Research finding by Bukhari (2021) shows that villages with larger areas tend to have greater challenges in distributing development evenly, because the physical and non-physical infrastructure needed is more diverse and requires greater funding.

Good planning and supervision of the use of Village Funds are the main keys to the success of this program. Villages that have succeeded in improving the welfare of their communities through Village Funds usually have mature planning, as well as synergy between the village and district governments in prioritizing development projects that support (Kementerian Desa, 2021). In Bangkalan District, there are differences in the level of effectiveness of Village Fund use between sub-districts, reflecting the importance of local factors such as technical capacity and village leadership.

We provide new research and a better understanding of the achievement of village development and welfare at the village level in Bangkalan Regency in the following ways: (1) Researchers in this field use data from a limited number of villages; however, this study provides the most comprehensive sample size to date (273 villages); (2) We measure the achievement of village community welfare using village area, village population and fund distribution at the village level, while previous studies used data accumulated at the national level; (3) This study measures the achievement of village community welfare through monetary units (IDR) and the realization of community empowerment activities in each village; (4) This study offers a better way to increase transparency and accountability in analyzing village achievements and can be applied in other areas.

METHODOLOGY

This study applies a quantitative approach with an explanatory research type, which aims to explain the influence on the welfare of rural communities through the variables of village area, population and village fund transfers. The data used in this study were taken from the website of the Ministry of Finance and the publication of the Ministry of Villages and Development of Disadvantaged Regions and Transmigration (Kemendes-PDPT), including data on Village Funds distributed since the implementation of the Village Fund Policy in Law Number 6 of 2014 concerning Villages, as well as data on the number of residents in villages in Bangkalan Regency, in the last year. Then, after it was known that there were 273 villages as the research population in Bangkalan Regency and the sampling took the entire population so that the data to be analyzed was sharper and more accurate.

Then, the collected data will be transformed. This stage is done by changing all variables used into natural logarithms (Ln). The purpose of this step is to reduce the skewness in the data set, so that it can increase the possibility of data being normally distributed. (Feng et al., 2014). In addition, this transformation also serves to equalize data variations due to differences in existing units. The analysis was carried out using multiple linear regression and obtained a multiple linear regression equation formulated as follows:

$$Ln_CW_{it} = \beta_0 + \beta_1 Ln_A_{it} + \beta_2 Ln_VP_{it} + \beta_3 Ln_VFT_{it} + \varepsilon_{it}$$

Keterangan:

Ln_CW_{it} : Natural logarithm of the performance and welfare score values of village i

Ln_A_{it} : Natural logarithm of the area of village i

Ln_VP_{it} : Natural logarithm of the population of village i

Ln_VFT_{it} : Natural logarithm of the i-th village fund transfer

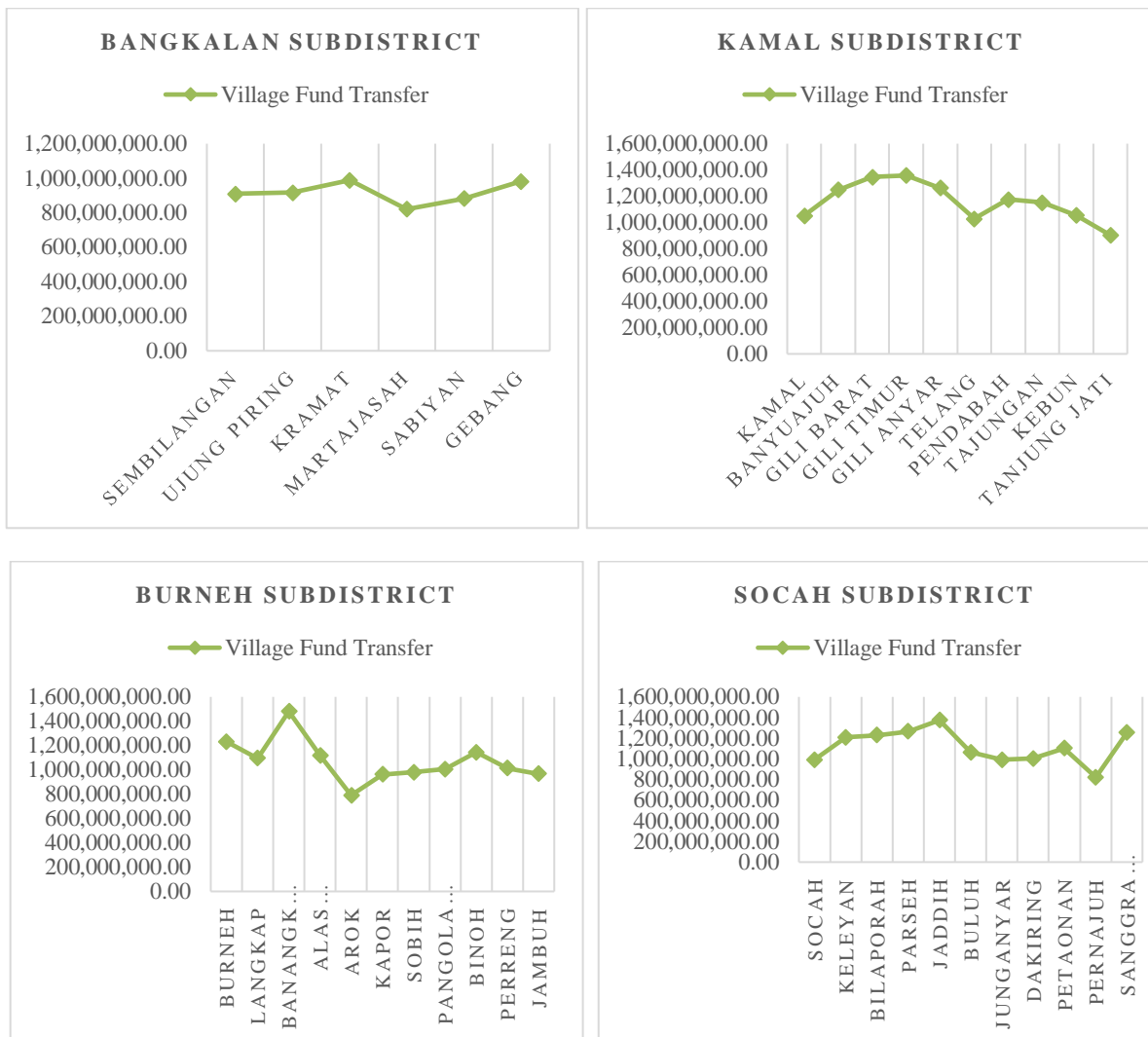
RESULTS AND DISCUSSION

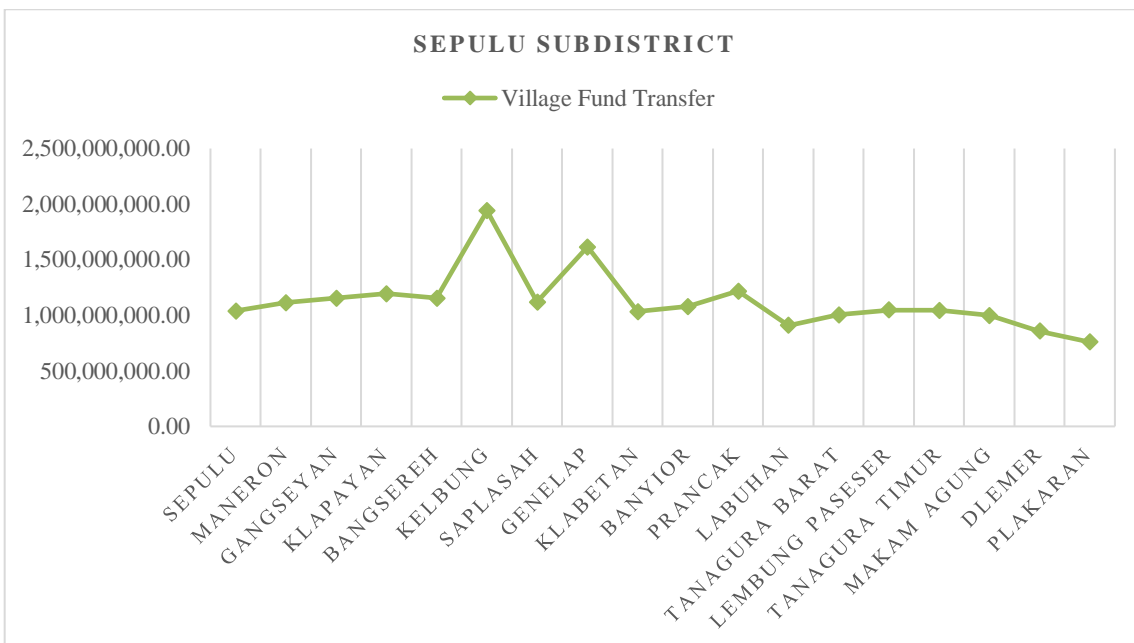
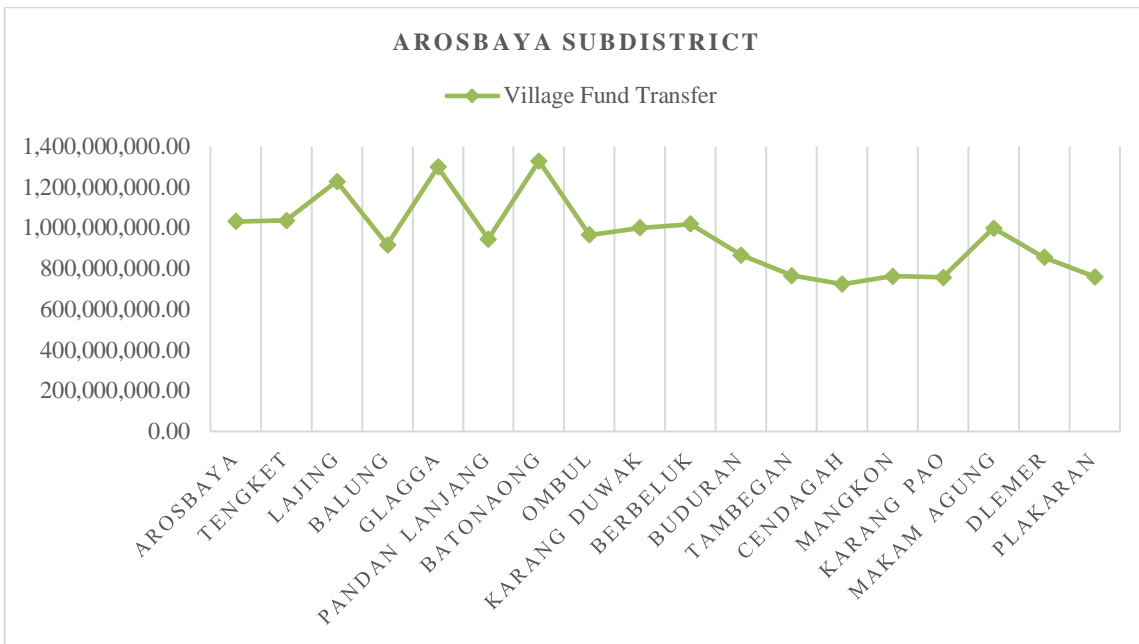
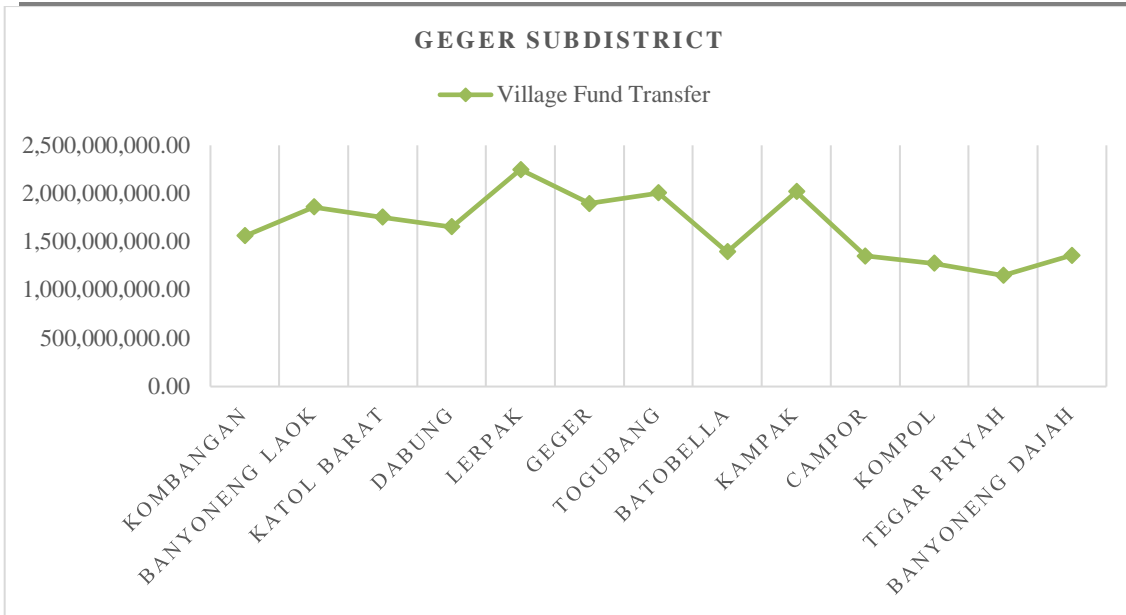
Achieving Community Welfare Through Village Fund Transfers

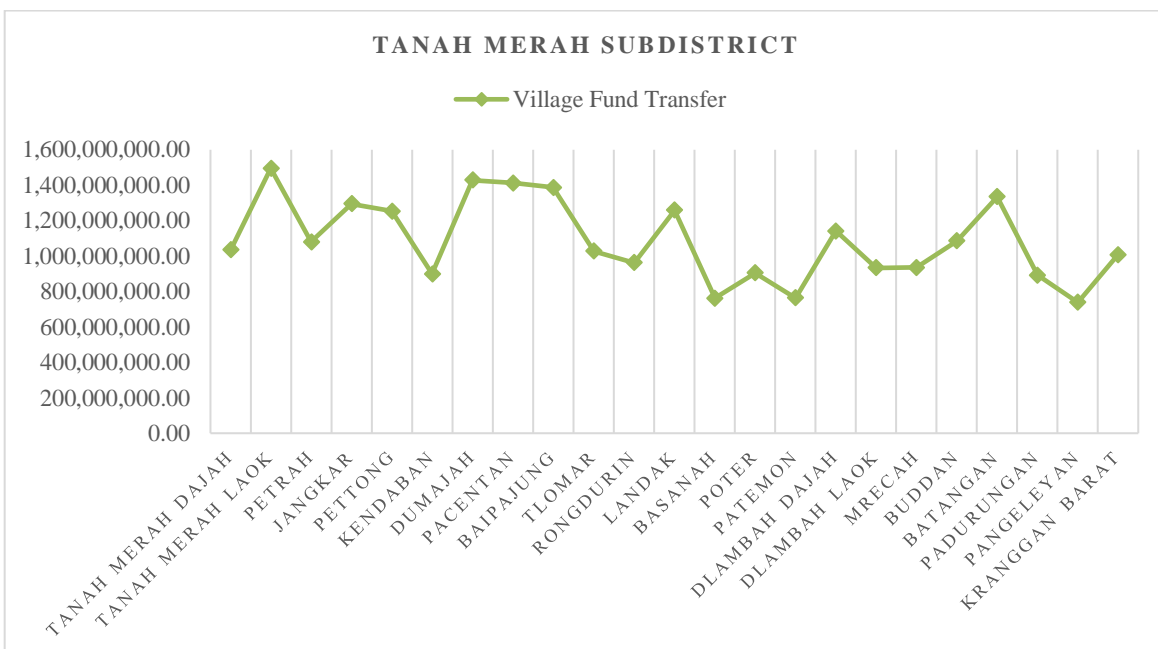
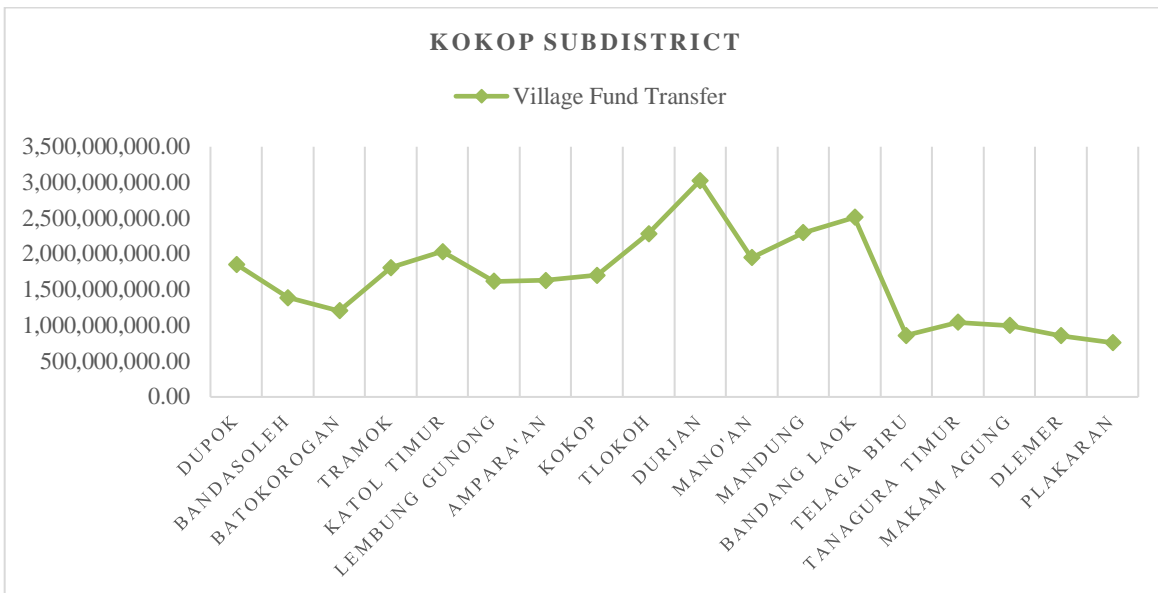
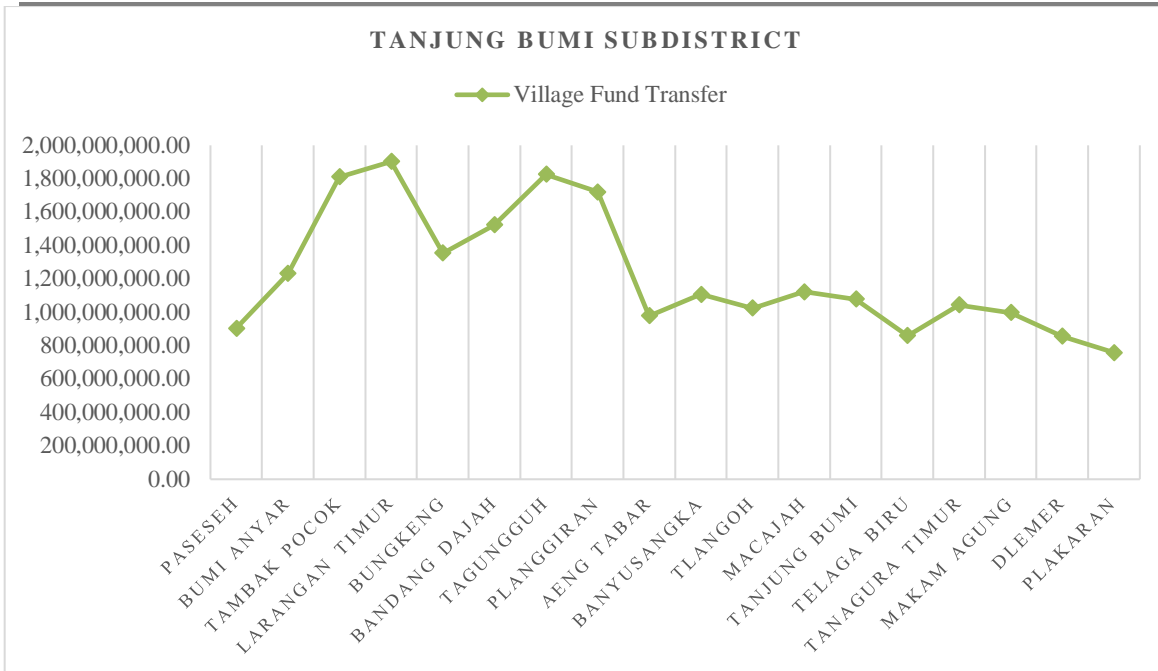
Village Fund Transfer is an important instrument in fiscal policy in Indonesia, which aims to accelerate village development and improve the welfare of village communities. This policy is expected to reduce economic disparities between regions, strengthen village economic resilience, and encourage active community participation in sustainable village development. The following figure shows the results of the village fund ceiling given based on considerations seen from the population, area and strategic accessibility of the village.

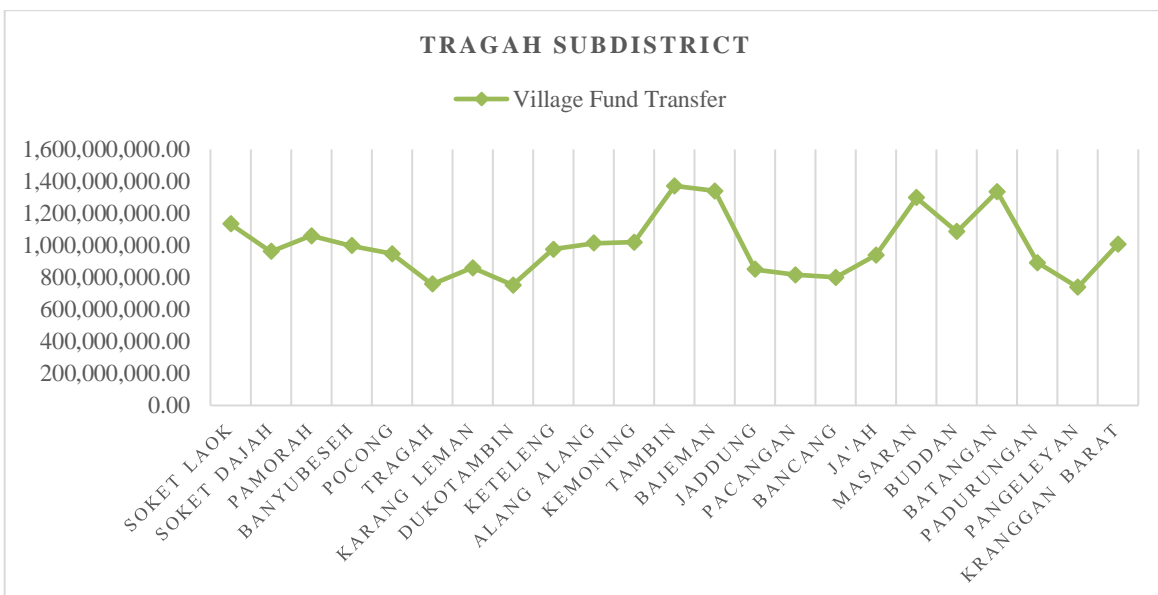
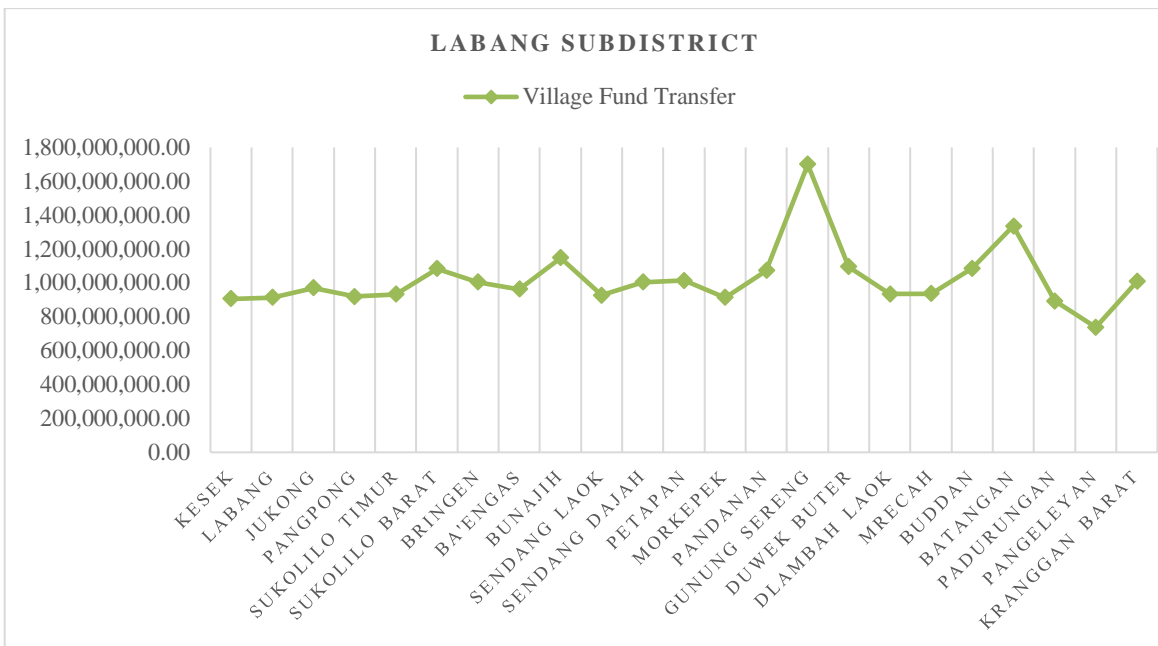
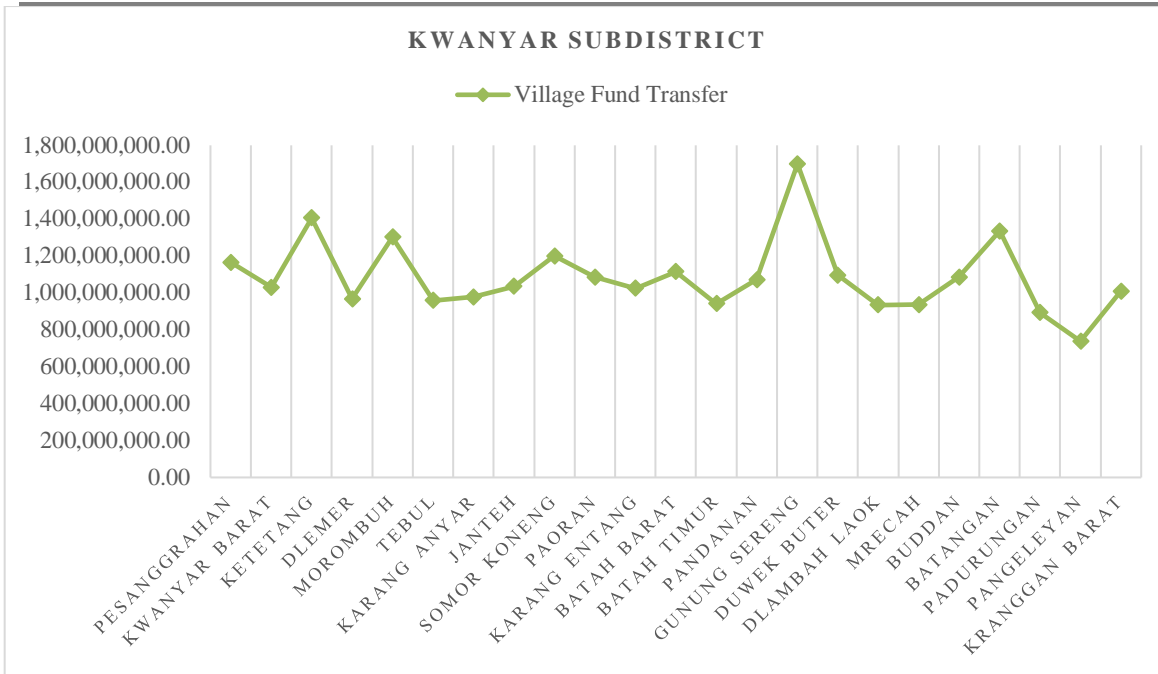
In the following data, there are 273 villages in Bangkalan Regency with an average village fund ceiling reaching approximately IDR 900,000,000,000, so that with the acquisition of village funds, each village must prepare a periodic report on the use of funds to be published to the community. Villages are also expected to hold village meetings to determine the priority of using village funds, so that they are in accordance with the needs of the community.

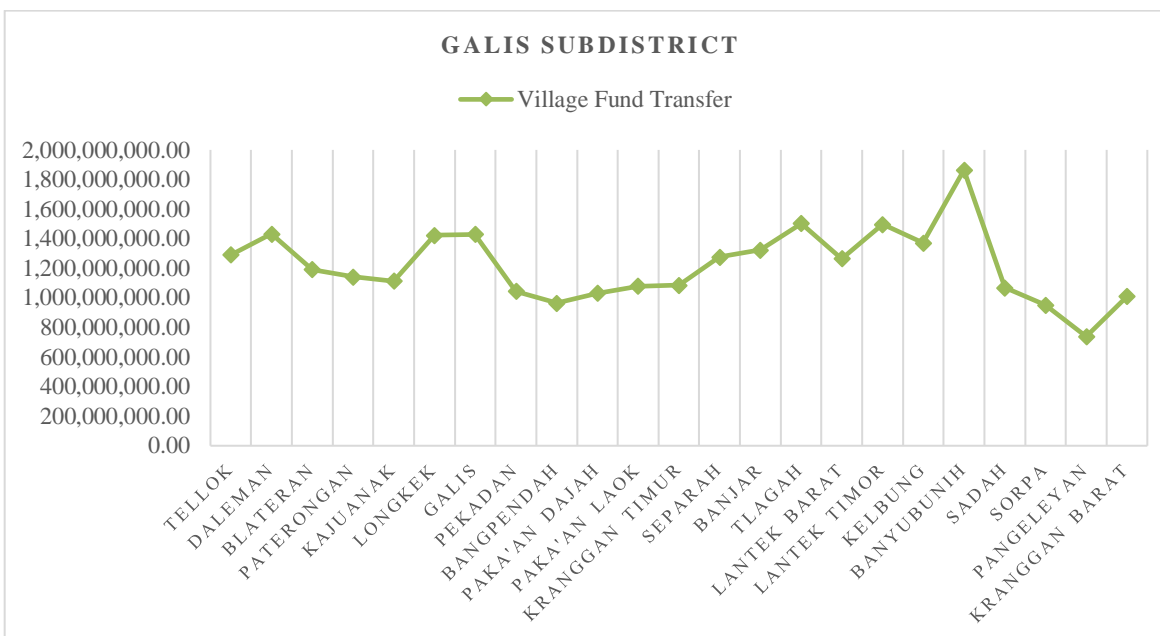
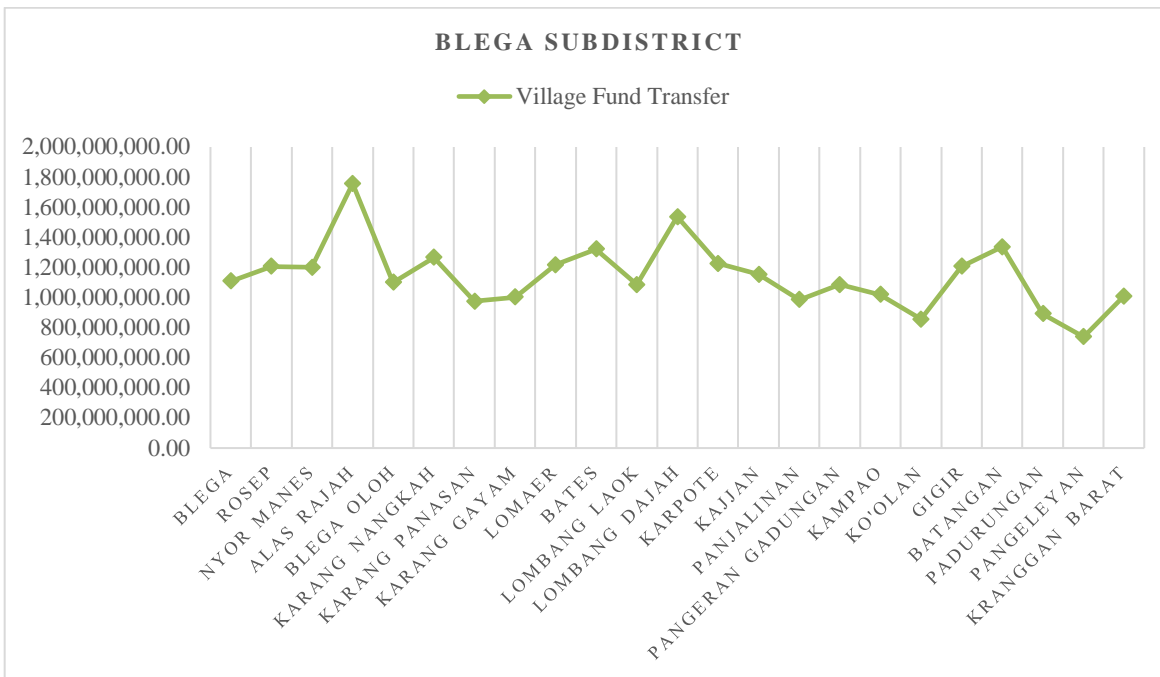
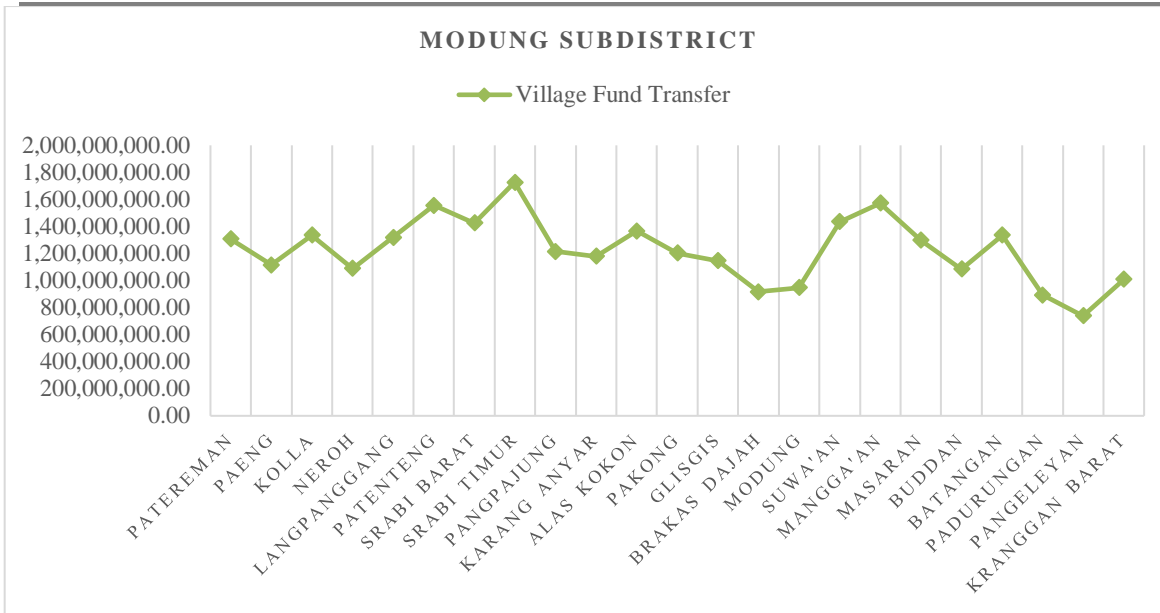
Village Funds in Bangkalan Regency are allocated based on several main indicators such as population, area, and poverty levels in each village. The use of village funds includes the development of village infrastructure, such as road repairs, provision of clean water facilities, and development of basic services for the community, including health and education. With proper allocation, village funds are expected to improve the welfare of village communities in Bangkalan, although each village may show different levels of effectiveness in utilizing the funds according to their respective social and economic conditions. Further analysis of the relationship between village fund allocation, area size, population, and community welfare in Bangkalan can provide a more detailed picture of the impact of village fund transfers on local welfare.

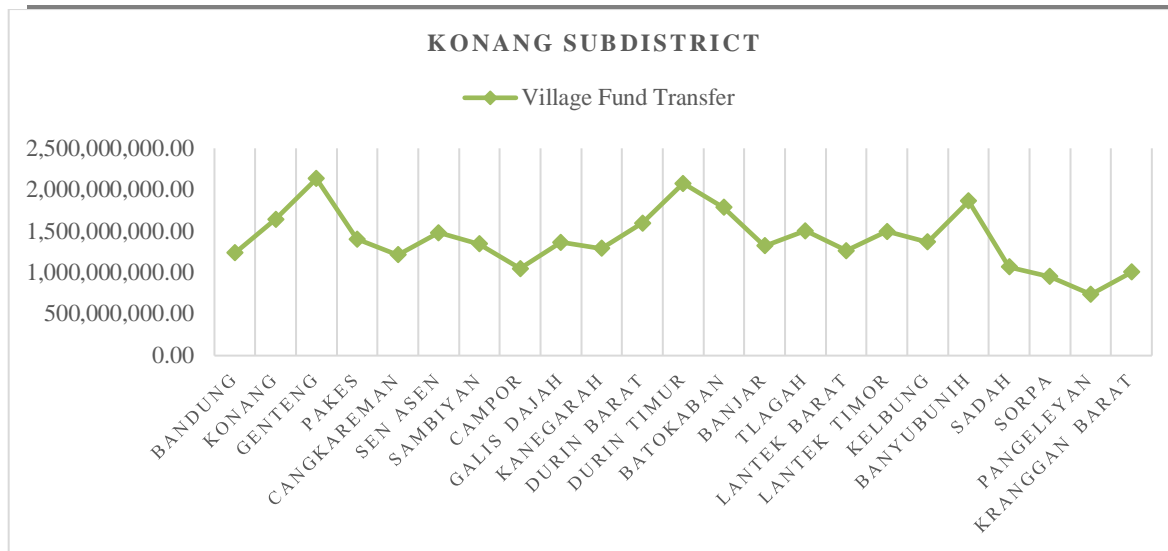












REGRESSION ANALYSIS RESULTS

The following are the results of the regression analysis presented in the following table.

Table 1. Regression Analysis Results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.886	3.184		6.874	.000
	Area	-.005	.005	-.075	-.996	.320
	Village Population	-.019	.005	-.280	-3.621	.000
	Village Funds Transfer	.094	.016	.513	5.738	.000

a. Dependent Variable: Community Welfare

Source: Author (2024)

The results of the regression analysis show that of the three variables studied, namely area, village population, and village fund transfers, only two variables have a significant effect on community welfare.

First, the area variable with a coefficient of -0.005 does not show a significant effect on community welfare because its significance value (p-value = 0.320) is greater than 0.05. This means that statistically, the area does not have a real impact on increasing or decreasing community welfare.

Second, the village population variable has a coefficient of -0.019 with a high level of significance (p-value = 0.000), which shows that the village population has a negative and significant effect on community welfare. The greater the number of village residents, the community welfare tends to decrease.

On the other hand, the village fund transfer variable (VFT) has a positive coefficient of 0.094 with a very strong significance value (p-value = 0.000), which means that increasing village fund transfers significantly

increases community welfare. Of the three variables, village fund transfers have the largest and positive influence on community welfare, while population size has a negative influence.

The findings of the regression analysis in Bangkalan Regency can be linked to various previous research findings on the effectiveness of Village Funds in Indonesia. The Village Fund Program, since its launch in 2015, has become an important instrument for improving the welfare of rural communities through infrastructure improvement and poverty reduction (Permatasari et al., 2021; Sutiyono et al., 2018). However, the regression results show that the impact of Village Funds is not uniform across all villages, mainly due to factors such as population and area.

In this study, the variable of village population has a negative effect on community welfare, indicating that villages with larger populations may face challenges in distributing funds evenly and ensuring that the benefits of the Village Fund are felt by the entire population. This is in line with the research of Anam et al (2023) which highlights that the success of Village Funds is highly dependent on how the funds are allocated according to village needs, including taking into account management capacity in villages with large populations.

In addition, Village Fund transfers have a significant positive impact on community welfare, which supports previous research that allocating funds focused on developing basic infrastructure such as roads, sanitation, and access to clean water can improve the quality of life of rural communities (Ekasari, 2020). However, it is important to note that the successful use of Village Funds is highly dependent on good planning and supervision, as recommended by the Ministry of Villages (2021), so that the funds are truly able to bring a positive impact to society.

In Bangkalan Regency, the area that did not have a significant effect may be due to variations in infrastructure needs between villages. Villages with larger areas tend to have challenges in distributing development evenly (Bukhari, 2021). Therefore, this study emphasizes the importance of taking into account local factors such as population and area in designing more effective Village Fund policies.

Thus, this study provides a new contribution in understanding how Village Funds play a role in improving community welfare at the village level. This study not only uses a larger sample, but also measures the welfare of village communities in monetary units (IDR) and the realization of community empowerment activities, which provides a deeper understanding of the effectiveness of Village Funds in Bangkalan Regency and can be a reference for other regions.

Table 2. Results of Determination Coefficient Analysis

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.352 ^a	.124	.114	.433
a. Predictors: (Constant), Village Funds Transfer, Area, Village Population				
b. Dependent Variable: Community Welfare				

Source: Author (2024)

The results of this Model Summary show that the independent variables analyzed (area, population, and village fund transfers) only have a small contribution in explaining community welfare in Bangkalan Regency. This model is only able to explain 11.4% of the variation in welfare, which indicates that many other factors need to be considered to better understand the factors that influence village community welfare. For example, village

management capacity, quality of infrastructure built, and local policies can also be relevant variables to explore further.

Table 3. F Test Results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.131	3	2.377	12.661	.000 ^b
	Residual	50.502	269	.188		
	Total	57.634	272			
a. Dependent Variable: Community Welfare						
b. Predictors: (Constant), Village Funds Transfer, Area, Village Population						

Source: Author (2024)

With a high F value (12.661) and a very small p value (0.000), this indicates that at least one of the independent variables (area, village population, and village fund transfer) has a significant effect on the dependent variable. Although this model explains only 11.4% of the variation, this result indicates that there is a significant relationship between the variables analyzed and community welfare in Bangkalan Regency, and more research may be needed to explore additional factors that influence this welfare.

CONCLUSION

This study found that the area of the village did not have a significant effect on community welfare in Bangkalan Regency. On the contrary, the population showed a negative effect, indicating that villages with larger populations had difficulty in distributing village fund benefits evenly. However, village fund transfers had a significant positive effect on community welfare. Increasing the allocation of village funds can improve infrastructure and basic services, as well as empower the community. Therefore, good management of the use of village funds is very important to achieve the goal of improving welfare. This study suggests considering other variables, such as village management capacity, in further research. These findings can be a reference for policies and practices in improving the welfare of rural communities in Indonesia, especially in Bangkalan Regency.

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