The effect of village fund management on infrastructure development in Tanjung Putus village, Pegajahan district, Serdang Begadai regency

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Article Info	ABSTRACT
Keywords: Village Fund Management, Infrastructure Development	The purpose of this study was to determine the effect of Village Fund Management on infrastructure development in Tanjung Putus Village, Pegajahan Distric, Serdang Bedagai Regency. This research uses a quantitative method. The 220 residents of the Desa Tanjung Putus community make up the study's population, and the sample size in this study was 69 people. Random sampling is used in the determination process (random sample). The data sources for this research are primary data and secondary data. Primary data comes from observations, interviews, and questionnaires. Secondary data is obtained from data that has been documented. The analysis techniques used are simple linear regression analysis methods using the help of the SPSS version 22 program. The results of the research show that the Village Fund Management has a significant effect on infrastructure development in Tanjung Putus Village, Pegajahan District, Serdang Bedagai Regency, with a value of t-count > t-table that is (2.720 > 1.99601) and a significance value of 0.008 < 0.05. The coefficient of determination (R2) R-square was 0.548, or 54.8%, while the remaining 45.2% was influenced by other variables not discussed in this research.
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INTRODUCTION

The Indonesian goverment continues to strive to improve the implementation of national development so that the pace of urban infrastructure development and regional and rural development is more balanced and harmonious. Infrastructure is the driving force of economic growth, as the locomotive of national development and also effect the improvement of the quality of life and human welfare.

Village funds are funds sourced from the APBN that are intended for villages, which are transferred through the district budget. These funds are used to finance the administration of government, development implementation, community development and village community empowerment. Community empowerment and improvement of village government performance in organizing government, development and basic services. The village fund provides an opportunity for the village to manage the development of the village and empower the village community autonomously. When the village fund is

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activated intensively and effectively it will promote the improvement of the standard of living and well-being of the community (Dydha, 2017).

Village development aims to improve the welfare of rural vcommunities and the quality of human life and increase competitiveness through understanding basic needs, developing the local economic and utilizing natural resources and the environment in a sustainable manner where village development includes the stage of planning, implementation, supervision.

According to (Adisasmita, 2006) rural development is an integral part of national development, is an effort to improve the quality of rural human resources and society as a whole that is carried out sustainably based on the potential and capabilities of the countryside. In its implementation, rural development should refer to the achievement of the goal of development that is to realize the life of rural communities independent, advanced, peaceful, and fair. According to (Wulan, 2013), based on the research carried out, it can be concluded that the financial budget for the village development in the Koto Gasib district of Siak district was 72.90% used for the realization of village development that comes from the village fund has been implemented. The allocation has been in accordance with government regulations where the purpose of the allocation of the Village Fund is to improve the development of village infrastructure.

The village fund program to realize a synergistic governance system between the central government and local governments, the regional economy is a logical answer and also as an effort to empower and independence of local communities.

Tanjung Putus Village is one of the villages in Pegajahan district, Serdang Bedagai Regency, North Sumatra Province, Indonesia. It is one of the villages that receives assistance in the form of village funds and the village funds themselves are channeled for village development and maintenance such as: road construction, health infrastructure, educational and cultural facilities, productive economic business infrastructure. Village funds also have community empowerment priorities such as economic business training, community capacity building such as farmer groups and so on.

The allocation of village funds from the Serdang Bedagai Regency government to 237 (two hundred thirty-seven) villages within its territory in 2019 is stipulated in the Serdang Bedagai Regent Regulation No. 64 of 2018 concerning procedures for allocating and implementing and determining the Allocation of Village Funds in Serdang Bedagai Regency in 2021. With the total total income of the village of Tanjung Putus Fund that is sourced from the revenue of Tanjung Putus Village from the Village Fund Allocation, Village Fund and Tax Revenue Sharing amounting to IDR 965,860,150 (Nine Hundred Sixty Five Eight Hundred Sixty Thousand One Hundred Fifty Rupiah).

Table 1 Details of Village Budget Utilization in 2021

No.	Field	Total Budget	Source of Budget Financing
1.	Field of Implementation Village Goverment	IDR 308,028,350	ADD, PBH
2.	Field of Village Development Implementation	IDR 343,331,800	DDS
3.	Village Community Develompment	IDR 48,100,000	DDS
4.	Village Community Empowerment Division	IDR 0	

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5. Field Disaster, Emergency and Village Urgency	IDR 266,400,000	DDS
Total	IDR 965,860,150	

Source: Final Report on the Use of Budget for Tanjung Putus Village in 2021, (2022)

Keterangan:
ADD : Village Fund Allocation
PBH : Tax Revenue Sharing
DDS : Village Fund

Based on the above details, it can be seen that the incoming village funds have been 100% fully utilized for village interests. Both physical and non-physical. However, this is not proportional to the actual, conditions in the field. After conducting observations, researchers found several problems in Tanjung Putus Village, Pegajahan District, Serdang Bedagai Regency, North Sumatera Province, Indonesia that in this village there is asphalt road construction that has not been completed or the work is not complete.

In aadition to these problems, the problem that stole the researcher's attention was the construction of the main road connecting Tanjung Putus Village, Hamlet 1 and Halmet 2, which had not been completed. Tanjung Putus Village, Pegajahan district, Serdang Bedagai Regency, which is one of the connecting roads to the the village office, SD Negeri 106188 Tanjung Putus Hamlet 1 and School and Madrasah Diniyah Awaliyah Tanjung Putus Hamlet 1 school which is heavily traveled by the community and students. The conditions of the road is poor and in the form of red land, if the rainy season the road will be slippery and muddy, thus hampering the access of the community and students who want to go to SD Negeri 106188 Tanjung Putus School or Madrasasah Daniyah Awaliyah Tanjung Putus Hamlet 1. This condition is often complained about by the Tanjung Putus Village community to the Tanjung Putus Village government officials. However, the road conditions have not been repaired.

METHODS

Type of Research
The type of research is quantitative research. According to (Sugiyono, 2018)Sugiyono "Quantitative research, namely the scientific/scientific method because it has fulfilled the scientific rules, namely concrete/empirical, objective, measurable, rational, and systematic. It is called quantitative method because research data is in the form of numbers and analysis using statistics."

Population
According to (Sugiyono, 2016), population is a region of generalization are consisting of objects or subjects that have certain qualities and characteristics that are determined by research to be studied and then drawn conclusions. The population in this study is the community of Tanjung Putus Village, Pegajahan District, Serdang Bedagai Regency, North Sumatra Province which consists of 220 resident.

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Sample

According to (Sugiyono, 2016) the sample is part of the number and characteristics of the population. Sampling size was determined using the Slovin formula in (Umar, 2014), namely:

$$n = \frac{N}{1 + N\,(e)^2}$$

n = sampel size

N = population size

e = mistake level

The error rate is set at 10%.

The following is the calculation of the sample size:

$$n = \frac{220}{1 + 220\,(0.1)^2}$$

$$n = \frac{220}{1 + 2,2}$$

$$n = \frac{220}{3,2}$$

n = 68,75 = 69

The sample in this study was 69 people. Sampling was carried out using Random sampling technique. Random sampling is a way of taking samples from members of the population at random without paying attention to the strata (levels) that exist in the population members (Sugiyono, 2018).

Data Collection Methods

This research collects data, facts and information through a study using the following data collection tools:

1. Observation is a data collection technique through observation of the object under study. In this study, the object of the research is Tanjung Putus Village, Pegajahan District, Serdang Bedagai Regency.
2. Interview is a data collection technique by conducting question and answer directly to the parties involved in order to obtain information related to the research to the researcher's research.
3. A questionnaire is a structured list of questions used for interviews and completed by the interviewer.
4. This documentation is carried out to find data on matters relating to research in the form of notes, transcripts, or agendas related to the research area.

Data Analysis Method

Simple Linear Regression Analysis

(Sugiyono, 2018) says that simple regression is based on a functional or causal relationship of independent variables and one dependent variable. Below is a simple linear regression equation:

$$Y = a + bX + e$$

Description:

Y   = Infrastructure development

a   = Constant

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b = Regression coefficient
X = Village fund management
e = Standard error

Hypothesis Test

1. Partial Test (t-Test)

   According to (Ghozali, 2016) , if the calculated t statistical value is higher than the t table value, we accept the hypothesis that an independent variable individually affects the dependent variable. Data testing using the statistical package for social sciences (SPSS) program version 22.

2. Coefficient of Determination (R^2)

   According to (Ghozali, 2016), the coefficient of determination (R^2) essentially measures how far the model's ability to explain variations in the dependent variable.

RESULTS AND DISCUSSION

Respondents Overview

Characteristics of Respondents by Gender

General description of respondents in this study are people in Tanjung Putus Village, Pegajahan Distric, Serdang Bedagai Regency. while the procedure and asked to fill out a questionnaire. Characteristics of respondents by gender, can be seen in the following figure:
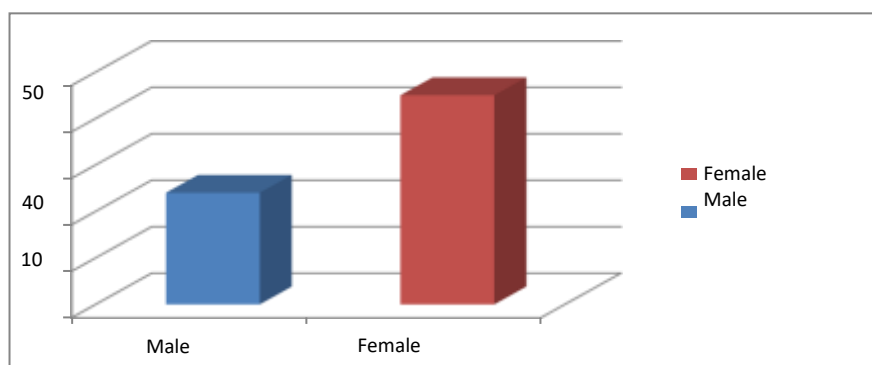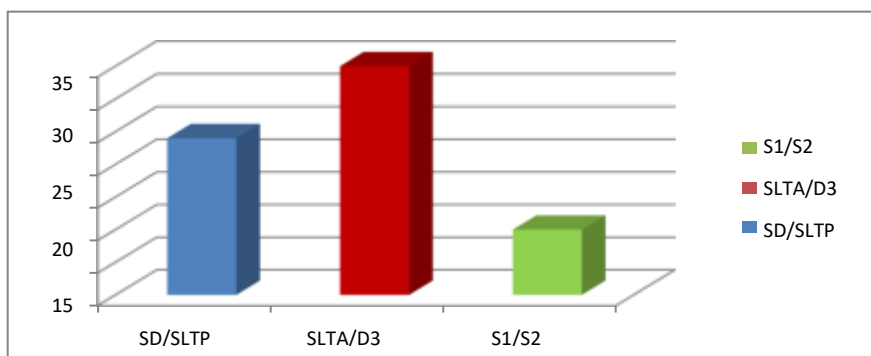

Source : Processed by Researchers, 2022
Figure 1. Characteristic Graph of Respondents by Gender

Based on the above graph shows that the majority of respondents based on gender in Tanjung Putus Village are female groups of 45 (65%) and male groups of 24 (35%).

Characteristics of Respondents Based on Education Level

General description of respondents in this study people in Tanjung Putus Village based on education level, it can be seen in graph below:

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Source : Processed by Researchers, 2022

Figure 2. Characteristic Graph of Respondents Based on Education Level

Based on the above graphs it is known that the SD/SLTP educated population is 24 or (35%), the SLTA/D3 educated community is 35 or (51%) and the S1/S2 educated society is 10 people (14%).

Characteristics of Respondents Based on Age

The general picture of the respondents in this study is the village of Tanjung Putus.
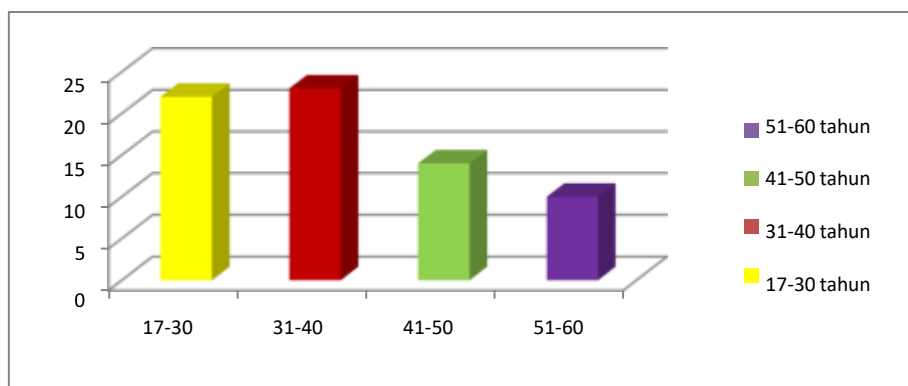
Based on age, can be seen on the following graph:

Source : Processed by Researchers, 2022

Figure 3. Characteristic Graph of Respondents Based on Age

According to the graph above, the population aged 17-30 was 25 (36%), the 31-40 population was 22 (32%), the 41-50 population was 12 (28%), the 51-60 population was 10 (14%).

Validity Test Fund Management (X)

The Validity test is used to measure whether a questionnaire is valid or valid for use as a research instrument. Validity test used the statistical package for social sciences (SPSS) program version 22. The results of the validity test for Village Fund Management (X) are as follows:

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Table 2 Fund Management Variable (X) Validity Test Results

Statement No.	Corrected Item Total Correlation (rcount)	rtable	Description
P1	0.586	0.2369	Valid
P2	0.512	0.2369	Valid
P3	0.419	0.2369	Valid
P4	0.524	0.2369	Valid
P5	0.367	0.2369	Valid
P6	0.441	0.2369	Valid
P7	0.429	0.2369	Valid
P8	0.418	0.2369	Valid
P9	0.434	0.2369	Valid

Source : Result Processed by Researchers with SPSS Version 22

Based on Table 2 above, it is known that the validity value of the statement for the Village Fund Management is entirely valid because all of them are than the rtable (n-2 = 69-2 = 67 = 0.2369). So that the test of the village fund management variable (X) obtaine highest total correlation (rcount) value is statement 1 of 0.586, where the analysis result rcount 0.586 > rtable 0.2369 and the lowest value in statement 5 of 0.367, where the results will be obtained rcount 0.367 > rtable 0.2369. Where testing all statement items from village fund management (X), has a value greater than 0.2369. Thus it can be concluded that all statement itmes are declared valid and can be used in further research.

Validity Test Results of Infrastructure Development (Y)

The validity test used to measure ehwther the questionnaire is valid or valid to be used as a research instrument. The validity test used the statistical package for social sciences (SPSS) version 22 program. The results of the validity test of village infrastructure development (Y) are as follows:

Table 3 Insfrastructure Development Variable (Y) Validity Test Results

Statement No.	Corrected Item Total Correlation (rcount)	rtable	Description
P1	0.333	0.2369	Valid
P2	0.342	0.2369	Valid
P3	0.373	0.2369	Valid
P4	0.280	0.2369	Valid
P5	0.374	0.2369	Valid
P6	0.419	0.2369	Valid
P7	0.444	0.2369	Valid
P8	0.256	0.2369	Valid
P9	0.268	0.2369	Valid
P10	0.249	0.2369	Valid
P11	0.352	0.2369	Valid
P12	0.359	0.2369	Valid
P13	0.446	0.2369	Valid

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Statement No.	Corrected Item Total Correlation (rcount)	rtable	Description
P14	0.271	0.2369	Valid
P15	0.246	0.2369	Valid

Source : Result Processed by Researchers with SPSS Version 22

Based on Table 3 above, it is known that the validity value of the statement for the Village Fund Management is entirely valid because all of them are than the rtable (n-2 = 69-2 = 67 = 0.2369). So that the test of the infrastructure development variable (Y) obtaine highest total correlation (rcount) value is statement 13 of 0.446, where the analysis result rcount 0,446 > rtable 0.2369 and the lowest value in statement 15 of 0.246, where the results will be obtained rcount 0.246 > rtable 0.2369. Where testing all statement items from infrastructure development (Y), has a value greater than 0.2369. Thus it can be concluded that all statement itmes are declared valid and can be used in further research.

Reliability Test

This reliability test is carried out by looking at Cronbach Alpha value on the data that has been processed by the help of the SPSS versi 22 program.

Table 4 Instrument Reliability Test Results

Variables	Nilai Cronbach Alpha
Village Fund Management	0.686
Infrastructure Development	0.640

Source : Result Processed by Researchers wit SPSS Version 22

Based on table 4, it is known that the Cronbach Alpha value for all variables exceeds 0.6 (reliability limit) so that all variables are declared reliable.

Statistical Test Results

Simple Linear Regression Analysis

The results of the regression analysis, the multiple linear regression equation in this study are:

$$Y = 46.902 + 0.473X + e$$

The multiple linear regression equation above can be interpreted as follows:

1. The constant value is 46.902. This means that if the independent variable, namely the management of village fund in this model, is assumed to be the same as the average variable outside the model, infrastructure development will remain at 46.902.
2. The value of the regression coefficient b of 0.473 in this study means that the Village Fund Management variable (X) states that there is a positive influence on Infrastructure Development (Y) and very increase in the Village Fund Management variable (X) by one unit, while other variables are considered constant, Infrastructure Developmnet (Y) will increase by 0.473.

Partial Test (t-Test)

The results of testing the t-test hypothesis (partial test) based on table 3 obtained the results the tcount value for the fund management variable is 2.70. It is known that 2.720 > ttable = 1.99601 (N-2 = 69-2 = 67) and the significant value is 0.008 < 0.05, so it

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can be concluded that Ha is accepted if tcount > ttable and significance < 0.05 the there is an influence of X on Y, which means that that the village funds management has a positive and significant effect on infrastructure development.

Coefficient of Determination (R²)

The results of the determination test are obtained:

1. The correlation regression value of 0.736 means that the village funds manajemen to infrastructure development has contributed to a close and positive level.
2. The R-Square value is 0.548. This shows that about 54.8% of the contribution of variation in changes in the Infrastructure Developmnet variable (Y) can be explained by the Village Fund Management variable (X). While the remaining 45.2% is influenced by othe factors outside the variables not explained in this study.
3. Standard Error Of The Estimated is a measure of prediction error. The Standard Error Of The Estimated is called the standard deviation. In this study, the value is 2.773. The smaller the standard deviation, the better the model.

Discussion

The Effect of Village Fund Management on Infrastructure Development

Based on the results of data analysis, it is known that in this study the significance value for the Village Fund Management variable (0.008) is smaller 1.999601. Based on the results obtained, H0 is rejected and Ha is accepted. It can be concluded that partially the Village Fund Management has a positive and significant effect on the Infrastructure Developmnet of Tanjung Putus Village, Pegajahan District, Serdang Bedagai Regency. This result reinforces the previous investigation conducted by (Yussa et al., 2020) Islamic University Riau with the title Effect of Rural Fund Management on Rural Infrastructure Development in Bengkalis Prefecture. With the results of this research conducted on infrastructure development, it is known that the management of village funds has a positive and significant influence on the development of rural infrastructure in Benkalis Preface. The result was t count of 14,764, with a degree of freedom (df) = n-2. Then t table of 56 respondents 2.0049. Since t count > t table is 11.498 > 2.0049 with a significant rate on the table of 0.463 which means 0.0063 < 0.05 then Ho was rejected and H1 accepted.

This research is in line or in accordance with previous research conducted by Firmasyah et al.,. (2020) STIE PASIM Sukabumi with the title The Impact of Village Fund on Village Development and Village Community Empowerment in Cibitung Village, Sagaranten District, Sukabumi Regency. The result of this study is that the effect of village funds on village development is a significance of 0.007 < 0.05 smaller (sig < α) with a significant gradation of 0.05, and t count (t-stat) of 2.733. This value is compared with the value of the table t on the distribution table t, thus α = 0.05, df = n-(k-1) so obtained df=110, then for the two-sided (2-tailed) test obtain the value t table of 1.984. It is known that t counts for X (2,733) > t table or (t counts> t table) and is outside t table (-2,733 and 2,733), then H0 is rejected (H1 diterima).

The researchers are also in line with the previous research carried out by (Mangeto, 2018) Brawijaya University with the title Analysis of the Effect of Daba Village on the Development of Village Infrastructure and Empowerment of the Village Community (Study on the Village of Taripa District of East Pamona district of Poso) with the results of the

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research that the management of village funds on the construction of vilqage infrastructure has a positive and significant impact. The village fund (X) has a thitung value (12,499) greater than the ttable value (1,671) and a signature value (0,000) smaller than α = 0.05 (5%). Then this research is in accordance with what was done (Elus et al., 2021) with the title Effcet of Alocation of the Village Fund on Village Development Year 2018-2020 in the village of Fatamari Prefecture of East Lio district of Ende based on the results of research partially allocation of village fund (X) have a significant influence on the development of village (Y) of the village. This penalty is in accordance with (Nadia, 2021) Muhammadiyah University of Palopo with the title Effect of Village Fund Allocation on Infrastructure Development in the Baku-Baku Village of Malangke West. The results of the research showed in line with what was done by (Supriadi et al., 2020)with the title Analysis of the Effect of the Village Fund on Infrastructure Development in the Nglegok district of Biltar in this study stated that the variable of the village fund is significant and positive to infrastructure development. (Gunawan, 2021) Sultan Maulana Hasanuddin Banten State Islamic University with the title Effect of the Village Fund on the Development of Village Infrastructure (Balaraya District Case Study 2015-2019) that the results of the village fund research have an influence on the development of village infrastructure.

According to (Nurcholis, 2011) states that the management of the Village Fund (DD) must be integradet into the management of the Village Budget (APBDesa), because Village Fund Management is part of the Village Budget component (APBDesa) which must follow the principles that must be developed in the management of the Village Fund, as follows:

1. Aspirational, namely in making village financial management policies, the village government and the Village Consultative Body (BPD) must hear and pay attention to the opportunity to convey or aspirations to their representatives.
2. Participation is the formulation of village financial management policies formulated in the Village Budget (APBDesa). The Village Government must also proactively engage the community in decision-making.
3. Transparency (openness) the community must obtain sufficient information about the Village Budget (APBDes), including development programs.
4. Accountability is the Village Government managing finances according to existing rules and produres.

CONCLUSION

Based on the results of research and discussions, it can be concluded partially the Village Fund Management variable (X) has a positive and significant effect on Infrastructure Development (Y), it is known that the value tcount = 2.720 > ttable = 1.99601. With a significant value of 0.008 < 0.05. Based on the test of the coefficient of determination (R^2) shows that the R-Square value is known to be 0.548. This shows that about 54.8% of the contribution to the variation of changes in the infrastructure development variable (Y) can be explained by the Village fund management variable (X). While the remaining 45.2% is influenced by other factors outside the variables not explained in this study.

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