BUMG Cooperation in Improving the Economy of Rural Communities in Aceh Besar Regency

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Abstract: The lack of partnership between village-owned enterprises (BUMG) and external parties is a major obstacle in village economic development. This study aims to identify BUMG partnership models, analyse the factors that influence them, and assess their impact on improving the economy of village communities based on Sustainable Development Goals (SDGs) indicators. The research was conducted in Aceh Besar District in January 2025 using purposive sampling method in four sub- districts, with a total of 100 respondents. Data analysis was conducted descriptively qualitatively and quantitatively using SPSS. The results showed that BUMG built partnerships with various parties, such as universities, religious financial institutions, government agencies, and NGOs. Factors such as commitment, trust, understanding of partners, and duration of cooperation were found to have a significant effect on the sustainability of the partnership. These partnerships contribute significantly to the achievement of SDGs goals, particularly poverty alleviation, job creation, innovation, and global partnerships, thereby strengthening the rural economy in a sustainable manner.

Keywords: Village-Owned Enterprises, Strategic Partnerships, Village Economy, Sustainability, SDGs.

I.   INTRODUCTION

Village development is a national priority for welfare equality. Through Law No. 6/2014 on Villages, villages are given broad authority to independently manage local potential, both natural and human resources, to improve community welfare (Pratama, 2018). Villages now have autonomous rights in management according to the principles of good governance [1].

BUMDes, or in Aceh called BUMG, are present as an important instrument in the economic independence of villages. BUMG is an economic institution owned by the gampong government that is incorporated and managed professionally, with the aim of managing local potential and becoming a source of village income (Dewi, 2014; Department of National Education, 2007) [2].

However, most BUMGs in Aceh Besar are still constrained in establishing partnerships. They generally rely on village funds and have not cooperated with external parties. In fact, partnerships with universities, government agencies, or civil society have been proven to strengthen institutional capacity and encourage village business innovation (Marsuki, 2005) [3].

The absence of a structured partnership model is a serious obstacle to BUMG development. An in-depth study is needed to understand the form and factors that influence the success of partnerships so that BUMG businesses can be

sustainable (Nasution *et al*, 2021) [4].

Analyse the factors that influence the success of the partnership, and (3) evaluate its impact on improving the village economy according to SDGs indicators (Putri *et al*, 2022) [5].

II.   METHODOLOGY

➤ *Selecting a Template (Heading 2)*

This research uses a Descriptive Quantitative approach. The scope of the research includes the partnership model applied, the factors that influence it, as well as its impact on improving the economy of village communities based on SDGs indicators. The population in this study is all BUMGs in Aceh Besar District (625 units), with a sample of 100 respondents consisting of administrators and workers from four selected BUMGs using purposive sampling technique.

➤ *Maintaining the Integrity of the Specifications*

Data collection was conducted through observation, interviews, and documentation, with primary data sources from respondents and secondary data from related agencies and literature studies. The variables in this study include commitment, trust, insight into partners, and length of cooperation time as independent variables, and partnership as the dependent variable. The impact on the economy was analysed through three indicators: income, employment availability, and village infrastructure, (Nur Aina, 2022).

➢ *Analysis Techniques*

This research uses three methods of analysis: descriptive qualitative to describe the partnership model; multiple linear regression with classical assumption tests (normality, multicollinearity, heteroscedasticity) to test the influence of independent variables on the partnership; and analysis of the impact of the partnership on the village economy using a 3-point Likert scale, reinforced by qualitative interviews and linked to 17 SDGs indicators such as the elimination of poverty, food security, quality education, and poverty.

Data processing was conducted through SPSS 26 software, after initial recapitulation using Microsoft Excel.

➢ *Classical Assumption Test*

Before performing regression analysis, a classic assumption test is required to ensure the feasibility of the data. One of the things done is the normality test, which aims to test whether the residuals of the regression model are normally distributed.

➢ *Normality Test*

Testing is done through the Normal Probability Plot (P-P Plot), with the following criteria:

- Dots that approach or follow the diagonal line indicate that the residual data is normally distributed.
- Dots that spread far from the diagonal line indicate that the residuals are not normally distributed.

➢ *Multicollinearity Test*

The multicollinearity test aims to determine whether there is a high correlation between the independent variables in the regression model. Testing is done using the tolerance value and variance inflation factor (VIF). A model is declared free from multicollinearity if the tolerance value > 0.10 and VIF < 10.00.

➢ Coefficient of Determination (R^2)

The Adjusted R^2 value of 0.431 indicates that 43.1% of the Partnership variation can be explained by the Commitment, Trust, Insight into Partners, and Length of Cooperation variables. The remaining 56.9% is influenced by other variables outside the model.

This research refers to 17 SDGs indicators as an evaluative framework, which cover social, economic, and environmental aspects such as poverty eradication, hunger prevention, health, education, gender equality, clean water and sanitation, affordable energy, decent work, economic growth, industrial innovation, reducing inequality, sustainable settlements, responsible consumption-production, climate change, marine and terrestrial ecosystem protection, peace, and strengthening global partnerships.

III. RESULT & DISCUSSION

➢ *Existing Model of BUMG Partnership in Aceh Besar District*

- *BUMG Blangkrueng Partnership Model*

BUMG Blangkrueng established a strategic partnership with Syiah Kuala University in the development and distribution of environmentally friendly fertilisers to improve village agricultural productivity. Through research and community service activities, the university plays a role in identifying fertiliser needs according to soil conditions, providing business management training and technical education to BUMG managers and farmers. BUMG Blangkrueng acts as a distributor that ensures the availability and affordability of fertilisers, and also conducts counselling on the appropriate use of fertilisers. This partnership provides mutual benefits: BUMG gains access to technology and strengthens the role of the local economy, the university can apply research results directly, and the community gains quality products and increased production capacity. This model demonstrates the effectiveness of cross-institutional collaboration in supporting food security and sustainable village economic empowerment.
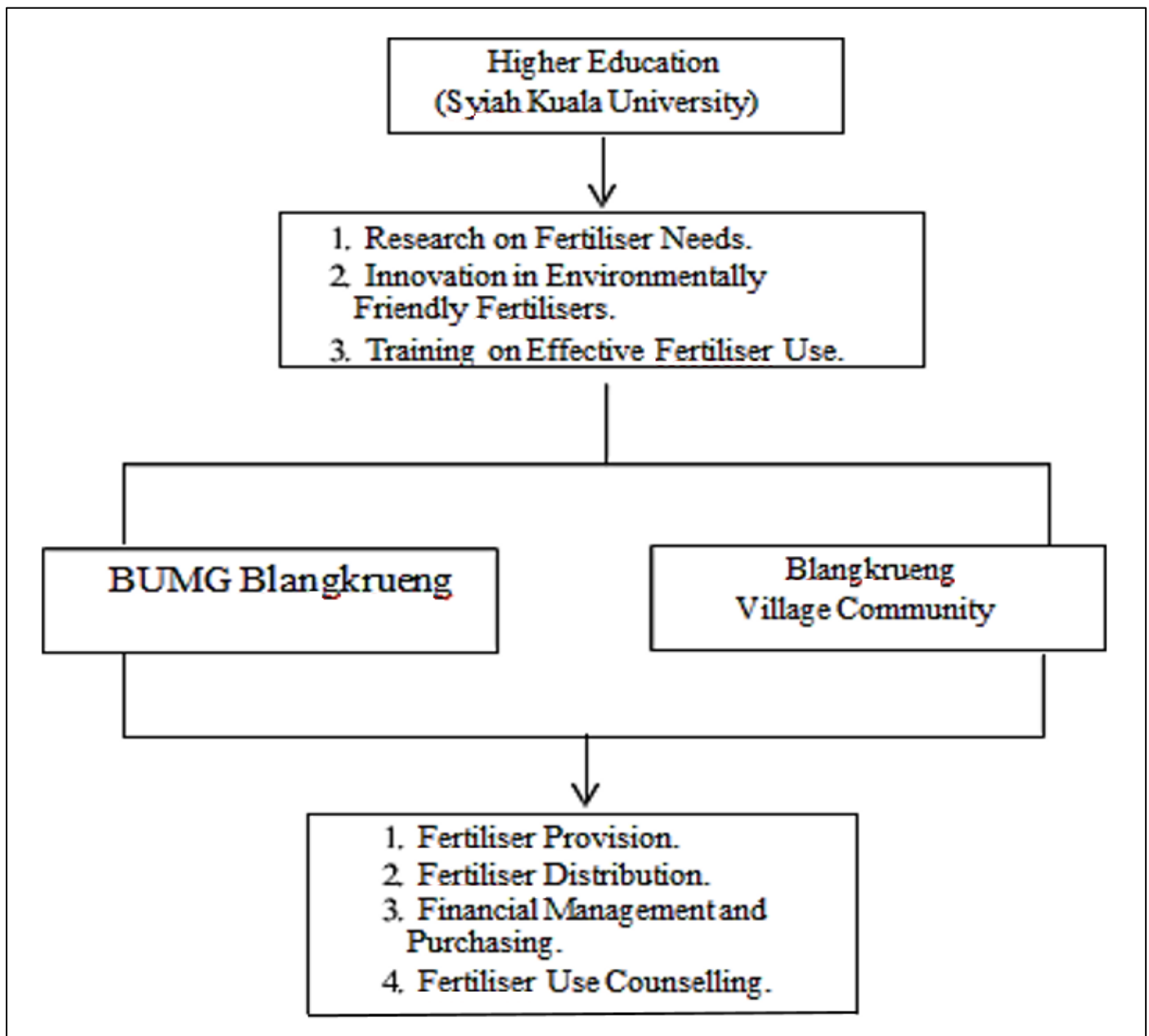
Fig 1 BUMG Maju Jaya Partnership Model Diagram

> *Multiple Linear Regression Analysis*

The multiple linear regression model obtained is as follows:

$$Y = 0.541 + 0.043(X1) + 0.300(X2) + 0.224(X3) + 0.370(X4) + e$$

The analysis results show that the variables of Trust (X_2), Insight into Partners (X_3), and Length of Cooperation Time (X_4) have a positive and significant effect on Partnership (Y), with a significance value <0.05. While the Commitment variable (X_1) has no significant effect.

> *Individual Parameter Significance Test (t- test) The t-test shows that:*

- Commitment (X1): t = 0.547; Sig. = 0.586 > 0.05 → not significant
- Trust (X2): t = 2.857; Sig. = 0.005 < 0.05 → significant
- Insight into Partners (X3): t = 2.855; Sig. = 0.005 < 0.05 → significant

- Length of Cooperation Time (X4): t = 3.678; Sig. = < 0.05 → significant

> Model Feasibility Test (F Test)

The F test results in F count = 18.009 and a significance value = 0.000 <0.05, which indicates that simultaneously the independent variables have a significant effect on the Partnership.

The test results show that all independent variables meet these criteria:

- Commitment (X1): tolerance= 0.982; VIF= 1.018
- Trust (X2): tolerance= 0.620; VIF= 1.612
- Insight into partners (X3) : tolerance= 0.954; VIF = 1.049
- Length of cooperation time (X4): tolerance= 0.624; VIF = 1.602

Thus, it can be concluded that there are no symptoms of multicollinearity in this regression model.

➤ *Heteroscedasticity Test*

Based on the results of the Glejser test, it can be concluded that there are no symptoms of heteroscedasticity in the regression model. This is indicated by the significance value of each independent variable, namely Commitment (X1) of 0.901, Trust (X2) of 0.064, Insight into Partnerships (X3) of 0.070, and Length of Cooperation (X4) of 0.949, all of which are greater than 0.05. Thus, the regression model fulfils the assumption of homoscedasticity.

The following is the partnership model between BUMG Maju Jaya and Baitul Mal of Aceh Besar District:

➤ *BUMG Blangkrueng Partnership Impact BUMG Blangkrueng's Partnership with Universities*

Has a positive impact on three main indicators: income, employment and infrastructure. The majority of respondents (63.63%) stated that there was an increase in income, while 68.18% recognised an increase in job availability. However, on the infrastructure aspect,

The impact is in the medium category (54.54%). Training, fertiliser provision and technical extension activities contribute to the achievement of SDGs, including goal 1 (poverty alleviation), goal 8 (decent work and economic growth), goal 9 (industry, innovation and infrastructure) and goal 17 (partnerships for sustainable development).

Table 1 BUMG Blangkrueng Partnership Impact BUMG Blangkrueng's Partnership with Universities

No	Indikator	Kategori	Jumlah	(%)
1	Pendapatan	Rendah	0	0,00%
		Sedang	8	36,36%
		Tinggi	14	63,63%
	Jumlah		22	100%
	Rata-Rata Skor			2,38
2	Ketersediaan Lapangan Kerja	Rendah	0	0,00%
		Sedang	7	31,81%
		Tinggi	15	68,18%
	Jumlah		22	100%
	Rata-Rata Skor			2,42
3	Infrastruktur Desa	Rendah	0	0,00%
		Sedang	12	54,54%
		Tinggi	10	45,45%
	Jumlah		22	100%
	Rata-Rata Skor			2,28

Sumber: *Data Primer (Diolah), 2025.*

IV. CONCLUSION

This study shows that the BUMG partnership model in Aceh Besar district involves various strategic partners such as universitieseach of which contributes to village development. Factors that influence the success of the partnership include commitment, trust, insight into partners, and length of time of cooperation, which are proven to have a positive and significant effect on the quality of the partnership. Factors that positively and significantly influence the partnership are commitment (0.043), trust (0.300), insight into partners (0.224), and length of cooperation time (0.370), based on multiple linear regression results. The impact of BUMG partnerships in Aceh Besar district on the economic improvement of rural communities is reflected in the achievement of various SDGs goals. BUMG Blangkrueng contributes to goals 1, 8, 9, and 17.

To strengthen the partnership, BUMGs need to build long-term commitment through clear agreements and common goals, and maintain trust through open communication, transparency, and mutual support in facing challenges. To increase the impact of partnerships on income, BUMGs need to develop superior products that have a wider market and provide ongoing training and mentoring for managers, to maximize existing infrastructure and improve productivity and competitiveness.

REFERENCES

[1]. Nasution, A., & Lubis, R. (2021). Strategic Partnership Model in Empowering Village-Owned Enterprises (BUMDes). Journal of Development and Governance, 12(2), 123-135.

[2]. Putri, D. A., & Santosa, B. (2022). Evaluation of BUMDes Partnership in Improving Village Economy

Based on SDGs. Journal of Regional Economy and Development, 8(1), 45-60.

[3]. I.S. Jacobs and C.P. Bean, "Fine particles, thin films and exchange anisotropy," in Magnetism, vol. III, G.T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271-350.

[4]. Nurul Aini. (2020). Management of Village-Owned Enterprises (BUMDes) [Thesis, UIN Mataram]. Repository UIN Mataram.

[5]. Pratama, R. N., & Pambudi, A. (2018). Performance of Village-Owned Enterprises (BUMDes) in increasing village revenue. Journal of Public Administration, 6(2), 105-116.

[6]. Dewi, A. S. K. (2014). The role of Village-Owned Enterprises (BUMDes) in increasing village revenue and village economy. Journal of Rural Development, 5(1), 1-14.

[7]. National Department of Education. (2007). Guidelines for the establishment and management of Village-Owned Enterprises (BUMDes). Jakarta: Directorate General PMD. Retrieved from

[8]. Marzuki, P. M. (2005). Legal Research Methods. Yogyakarta: Ekonisia. Retrieved from