

SUSTAINABILITY STRATEGY OF BUMDES BASED ON BUSINESS PRIORITY SETTING THE TOPSIS METHOD

Suhendi^{*1}, Hamzah^{**})

^{*)}School of Business, IPB University

Jl. Raya Pajajaran, Bogor 16151, Indonesia

^{**)}Faculty of Economics & Business, Pakuan University

Jl. Pakuan, RT.02/RW.06, Kampung Parung Jambu, Tegallega, Bogor, Indonesia

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Abstract

Background: Village-Owned Enterprises (BUMDES) play an important role in driving village development and contributing to poverty alleviation. BUMDES is expected to be able to create an inclusive and sustainable economy by involving active community participation in business management and development.

Purpose: The objective of this study was to examine the business diversification priorities of BUMDES Karya Mandiri in Rawa Panjang Village, Bojong Gede District, Bogor Regency.

Design/methodology/approach: This study employed the MCDM method, namely the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS), to assess four different business units: Wifi-Viber Link, Bank Sampah, Culinary Tourism, and Situ Ecotourism. The data was collected by conducting comprehensive interviews with seven experts.

Findings/results: A standardized TOPSIS questionnaire was utilized, which included criteria related to benefits, opportunities, costs, and risks. The analysis results indicate that the Wifi-Viber Link option has the highest preference value (0.87147), followed by Bank Sampah (0.692104), Situ Ecotourism (0.556939), and Culinary Tourism (0.009162). The findings underscore the significance of digital connectivity and environmental management in fostering rural economic growth.

Conclusion: This research emphasizes the importance of effective governance, active involvement of the community, and strategic collaborations for the achievement of success in BUMDES.

Originality/value (State of the art): This research has significant significance for BUMDES managers and stakeholders as it offers useful insights for developing successful and sustainable strategies for village economic business development

Keywords: BUMDES, business diversification, rural development, TOPSIS, Wifi-Viber Link

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¹ Corresponding author:
Email: suhendisb@apps.ipb.ac.id

INTRODUCTION

Poverty is a complex issue that remains unresolved in various countries, significantly impacting human development, particularly in terms of people's purchasing power to meet basic needs, education, and health (Banerjee and Duflo, 2007). The problem of poverty originates from the inability of individuals to meet basic needs, which subsequently affects other necessities such as education and health. To address this, the role of local governments through spending on education and health is considered influential in improving human resource quality (Winarti and Purwanti, 2014).

Law No. 32 of 2004 on Regional Government mandates local governments to enhance the quality of human resources in their regions, covering aspects of health, education, and income. This is expected to increase public participation in development. The direction and policy of regional development aim to promote equitable development and its outcomes to enhance public welfare, increase community initiative and active participation, and optimize and integrate regional potential (Baldacci et al. 2008; Fan et al. 2008).

Regional development is key to improving community welfare. This aligns with the provision of broad autonomy to regions to accelerate the realization of public welfare through enhanced services, empowerment, and community participation. However, this development must align with local potential and aspirations to optimize resource utilization (World Bank, 2000; He, 2020). If regional development priorities do not match the potential of each region, resource utilization may be suboptimal, slowing down regional economic growth (Spalding, 1990).

Bogor Regency, one of the largest regencies in West Java, faces economic challenges, particularly during the COVID-19 pandemic. The pandemic has caused a national economic slowdown, significantly affecting Bogor Regency. Despite a sharp decline in 2020, with an economic growth rate of -1.76%, the economy of Bogor Regency began to show signs of recovery. The economic growth rate returned to positive territory in 2021 at 3.55% and increased to 5.21% in 2022.

In this context, Village-Owned Enterprises (BUMDES) play a crucial role in driving village development

and contributing to the village economy and poverty alleviation. BUMDES aim to create an inclusive and sustainable economy by involving active community participation in business management and development. Through economic activities, BUMDES can help increase community income, create jobs, and develop local infrastructure.

BUMDES Karya Mandiri in Rawa Panjang Village, Bojonggede District, Bogor Regency, exemplifies village economic empowerment efforts. Initiated in 2019, this BUMDES aims to serve the community and utilize the potential of Rawa Panjang Village. However, BUMDES Karya Mandiri faces various operational challenges, including limited resources and low management capacity. Common challenges faced by BUMDES include small capital contributions from the village, limited human resources, especially in bookkeeping, lack of external collaboration, limited accommodation of village products, and underexplored and undeveloped village potential (Inapty et al. 2021). Additionally, indicators such as labor, capital, market share, accountability, and profit growth are not yet optimal (Soejono et al. 2021). Wijaya (2023) also highlights weak institutional structures, very small funding sources, and suboptimal community empowerment as challenges faced by BUMDES.

Currently, BUMDES Karya Mandiri manages two businesses, Internet Services and BUMDESPay, focusing on providing internet access and electronic transaction services within the village. They also conduct employee training to enhance business management skills and rely on word-of-mouth and door-to-door marketing strategies. To support business sustainability and optimize the village's significant potential, BUMDES Karya Mandiri plans to diversify its business ventures. However, recognizing their limited resources and challenges, not all ventures can be pursued simultaneously. Prioritizing businesses is necessary to identify the best ventures to pursue first, ensuring that with limited resources, BUMDES Karya Mandiri can still undertake the best possible business immediately to complement previous ventures. Therefore, this study aims to analyze the business diversification priorities of BUMDES Karya Mandiri in Rawa Panjang Village. This analysis is expected to contribute to supporting village economic development, improving local community welfare, and serving as a model for BUMDES development in other regions.

METHODS

This study was conducted at BUMDES Karya Mandiri in Rawa Panjang Village, Bojonggede District, Bogor Regency, Indonesia, with data collection taking place from February 2024 to July 2024. The data used in this study consisted of primary and secondary data. Primary data was obtained through in-depth interviews or focus group discussions (FGD) with experts or key individuals involved in village development. Interviews were conducted using purposive sampling with both closed and open-ended questionnaires. A total of 7 experts/practitioners were interviewed, including the Director of BUMDES, a Village Government Representative (Head of Finance), Community Leaders, Village Assistance Team members, the Secretary of BUMDES, Business Partners, and Academics. Secondary data, which served as supporting data, was collected from specific institutions and included financial reports of the village, literature reviews, internet sources, and related institutions. This research was also supported by various literature to provide foundational, explanatory, and theoretical frameworks regarding the discussed issues or to seek information closely related to the research questions. To finalize the results with experts, practitioners, and relevant stakeholders, an FGD was conducted as a form of face validity.

The research design employed a multi-criteria decision-making (MCDM) approach using the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS). The TOPSIS technique, developed by Hwang and Yoon in 1981, was based on the concept of identifying the most preferred solution by selecting the best alternative that was closest to the positive ideal solution (optimal solution) and farthest from the negative ideal solution (poor solution). The best alternative was chosen through a sorting process, with the agreed solution determined by the closest Euclidean distance from the positive ideal solution and the farthest Euclidean distance from the negative ideal solution (Tzeng and Huang, 2011). The steps in the TOPSIS method were as follows (Tzeng and Huang, 2011): First, a normalized decision matrix was created using the formula:

$$r_{ij} = r_{ij} / \sqrt{\sum_{i=1}^m x_{ij}^2} \dots\dots (1)$$

where: $i(1, 2, \dots, m); j(1, 2, \dots, n)$; where: r_{ij} (normalized decision matrix); x_{ij} (value of alternative i for criterion j)

The next step is to calculate the weighted normalized decision matrix by multiplying the weight (w_j) with the normalized decision matrix (r_{ij}).

$$v_{ij} = w_j \times r_{ij} \dots(2)$$

where $i(1, 2, \dots, m); j(1, 2, \dots, n)$; v_{ij} (weighted normalized decision matrix); w_j (weight of criterion j).

Then determine the positive ideal solution (A^+) and the negative ideal solution (A^-).

$$A^+ = \{(\max v_{ij} | j \in J), (\min v_{ij} | j \in J') | i = 1, 2, \dots, m\} = \{v_1^*, v_2^*, \dots, v_n^*\} \dots(3)$$

$$A^- = \{(\min v_{ij} | j \in J), (\max v_{ij} | j \in J') | i = 1, 2, \dots, m\} = \{v_1^-, v_2^-, \dots, v_n^-\} \dots(4)$$

where:

$$J = \{j = 1, 2, \dots, n | j \text{ associated with benefit criteria}\}$$

$$J' = \{j = 1, 2, \dots, n | j \text{ associated with cost criteria}\}$$

The next step is to calculate the distance between each alternative's value and the positive ideal solution and the negative ideal solution.

$$D_i^* = \sqrt{(\sum_{j=1}^n (v_{ij} - v_j^*)^2)}, i = 1, 2, \dots, m \dots (5)$$

$$D_i^- = \sqrt{(\sum_{j=1}^n (v_{ij} - v_j^-)^2)}, i = 1, 2, \dots, m \dots (6)$$

where D_i^* is the distance of alternative i from the positive ideal solution, and D_i^- is the distance of alternative i from the negative ideal solution.

The final step is to calculate the preference value for each alternative (C_i).

$$C_i = D_i^- / (D_i^* + D_i^-), i = 1, 2, \dots, m \dots(7)$$

A higher C_i value indicates that the alternative i is more preferred.

The data used in the TOPSIS method was obtained from interviews with experts or key individuals using questionnaires. The questionnaires were designed to assess the weights of criteria (w_j) and the values of alternatives for each criterion (x_{ij}). The results of the TOPSIS calculations will indicate the priority of business diversification alternatives for BUMDES Karya Mandiri based on the obtained preference values (C_i). The TOPSIS analysis method was chosen because its analysis procedures are straightforward and flexible in determining choices and measurement criteria. The measurement of development

achievements in this study is based on multiple criteria (indicators) consistent with the principles of TOPSIS. Additionally, the preference principle of TOPSIS, using a weighting system by a group of experts, can accommodate indicators with significant influence or those that must be prioritized in the development of BUMDES businesses, thereby identifying potential business priorities based on the criteria.

RESULTS

Selection of Business Alternatives and Feasibility Criteria

Rawa Panjang Village, located in Bojonggede District, Bogor Regency, was established in 1984 from the division of Pabuaran Village. The name “Rawa Panjang” derived from the combination of three hamlets: Kampung Rawa, Kampung Kelapa, and Kampung Panjang, forming “Rawa” from Kampung Rawa, “Pa” from Kampung Kelapa, and “njang” from Kampung Panjang. This name has since become the official name of the village. The village boasted various potentials for development into a tourist destination, including natural beauty spots such as Situ Cibereum, Kali Ciliwung, Kali Playangan, Kali Cibereum, and the Ecovillage. Additionally, there were 31 Bank Sampahs spread across 24 community units (RW) in the village. Local culinary specialties were also widely sold, especially during specific events. According to the village monograph data of 2021, the total population of Rawa Panjang Village was 48,942, originating from 14,019 households. However, access to the internet and technology remained a challenge.

The selection of business alternatives (solutions) and their feasibility criteria (criteria) was crucial for BUMDES Karya Mandiri to determine the best business ventures to pursue. Based on the potential of Rawa Panjang Village and in-depth interviews, several business alternatives were identified for development by BUMDES: Ecotourism of Situ Cibereum (Ekosita Situ), Culinary Tourism, Bank Sampah, and WiFi-Fiber Link. These business alternatives were chosen based on several considerations:

1. Ecotourism of Situ Cibereum (Ekosita Situ): This business leverages natural resources, specifically Situ Cibereum. The village’s natural potential, such as the beautiful lake, can be sustainably utilized

through ecotourism. Ekosita Situ can create new economic opportunities that do not solely depend on agriculture or specific industries, attracting tourists and increasing the village’s income.

2. Culinary Tourism (*Wisata Kuliner*): This can become a major attraction promoting local culture. Through culinary tourism, local food products can be promoted, increasing income for the community and local entrepreneurs involved in the culinary supply chain. It also creates new job opportunities, from food production to service and management.
3. *Bank Sampah*: With many Bank Sampahs already present in Rawa Panjang Village, this program can optimize and coordinate them to create business value. The Bank Sampah can provide additional income for the community through the sale of recyclable materials, help manage waste more systematically and sustainably, reduce negative environmental impacts, and serve as an educational tool for the community about the importance of recycling and waste management.
4. WiFi-Fiber Link Business: This refers to the network infrastructure using fiber optic cables to provide high-speed internet services. Fiber optics offer much larger data transmission capacity and faster speeds compared to conventional copper or wireless technologies. “WiFi” refers to wireless technology allowing devices to connect to the internet via radio signals, while “fiber” refers to the optic fibers used as the main transmission path from the internet service provider (ISP) to end-users. Besides generating revenue, the WiFi-Fiber Link business can assist the village community by providing stable and fast internet access, making it easier for residents to access information, educational materials, online training, and other essential information. Internet access can also open opportunities for the community to run online businesses or participate in the digital market, thereby boosting the local economy.

In addition to identifying four business alternatives, the in-depth interviews also determined the criteria to assess the feasibility or priority of these businesses. Twelve criteria were used to identify the best priorities among the four business alternatives. These criteria included market/business potential, required costs, competence/availability of human resources, accessibility, required technology, facilities and infrastructure, business and investment feasibility, business environment aspects (social and ecological), village government policies,

business competition, community purchasing power, and added value/community benefits (profits).

Determining the Positive Ideal Solution (A+) and Negative Ideal Solution (A-)

The most crucial step in determining the priority of alternative choices in TOPSIS was to establish the decision-making criteria. To analyze the most prospective BUMDES business units for development to strengthen the economy of Rawa Panjang Village, it was essential first to determine the weights of the established criteria. The criteria used had to meet both positive and negative requirements in accordance with the fundamental principles of the TOPSIS method. Based on the analysis, Table 1 showed the weights of each criterion.

After the weights were obtained from the analysis, calculations were performed based on the decision matrix evaluating the potential types of business units for BUMDES Karya Mandiri in Rawa Panjang Village according to the established criteria. The next crucial step was to determine the positive ideal solution (A+) and the negative ideal solution (A-). The concept in determining the positive ideal solution (A+) was to calculate the maximum value (highest value) for each potential BUMDES business unit based on the positive criteria from the 12 established economic

empowerment criteria, while for the negative criteria, the minimum value (lowest value) method was used for the business units to be selected. Conversely, to determine the negative ideal solution (A-), the minimum value (lowest value) for the four selected business units based on the positive criteria was calculated, while for the negative criteria, the maximum value was used.

The results of the positive and negative ideal solution matrix calculations in Table 2 showed that, from all aspects of economic empowerment, the Wifi-Viber Link business unit had the highest value, particularly in terms of market/business potential and required technology. This meant that with Wifi-Viber Link, the market potential and required technology would be superior compared to other business units. However, in terms of required costs (negative criteria), Ekosita Situ had the highest value, meaning it required the highest costs.

The Bank Sampah excelled in the aspect of competence/availability of human resources, indicating that this business unit had better availability of human resources compared to other business units. *Wisata Kuliner* unit has relatively balanced values across various aspects, indicating that this business unit is fairly balanced in various evaluated criteria.

Table 1. Weights of the Criteria for Selecting the Best Business for BUMDES Karya Mandiri

Criteria	Weight
Market/Business Potential	0.161
Required Costs (negative)	0.046
Competence/Availability of Human Resources	0.061
Accessibility	0.030
Required Technology	0.112
Facilities and Infrastructure	0.030
Business and Investment Feasibility	0.119
Business Environment Aspects (Social & Ecological)	0.106
Village Government Policies	0.036
Business Competition (negative)	0.076
Community Purchasing Power	0.091
Added Value/Community Benefits (Profits)	0.131
Total Value	1.000

Table 2. Positive Ideal Solution (A+) and Negative Ideal Solution (A-) for Selecting the Best Business

Criteria	Business Alternative				Positive Ideal Solution
	Wifi-Viber Link	Bank Sampah	Wisata Kuliner	Ekosita Situ	
Positive Ideal Solution (A+)					
Market/Business Potential	0.093	0.080	0.067	0.080	0.093
Required Costs (negative)	0.020	0.020	0.024	0.027	0.020
Competence/Availability of Human Resources	0.028	0.040	0.023	0.028	0.040
Accessibility	0.017	0.017	0.014	0.014	0.017
Required Technology	0.064	0.053	0.053	0.053	0.064
Facilities and Infrastructure	0.019	0.014	0.014	0.014	0.019
Business and Investment Feasibility	0.062	0.062	0.051	0.062	0.062
Business Environment Aspects (Social & Ecological)	0.055	0.055	0.046	0.055	0.055
Village Government Policies	0.022	0.018	0.014	0.018	0.022
Business Competition (negative)	0.036	0.036	0.043	0.036	0.036
Community Purchasing Power	0.043	0.043	0.043	0.052	0.052
Added Value/Community Benefits (Profits)	0.068	0.068	0.057	0.068	0.068
Negative Ideal Solution (A-)					
Market/Business Potential	0.093	0.080	0.067	0.080	0.067
Required Costs (negative)	0.020	0.020	0.024	0.027	0.027
Competence/Availability of Human Resources	0.028	0.040	0.023	0.028	0.023
Accessibility	0.017	0.017	0.014	0.014	0.014
Required Technology	0.064	0.053	0.053	0.053	0.053
Facilities and Infrastructure	0.019	0.014	0.014	0.014	0.014
Business and Investment Feasibility	0.062	0.062	0.051	0.062	0.051
Business Environment Aspects (Social & Ecological)	0.055	0.055	0.046	0.055	0.046
Village Government Policies	0.022	0.018	0.014	0.018	0.014
Business Competition (negative)	0.036	0.036	0.043	0.036	0.043
Community Purchasing Power	0.043	0.043	0.043	0.052	0.043
Added Value/Community Benefits (Profits)	0.068	0.068	0.057	0.068	0.057

Calculating S+ and S- Values for Each Element

The next step was to determine the distance between the value of each alternative and the positive ideal solution matrix (S+) and the negative ideal solution matrix (S-), as shown in Table 3. The calculation results of the positive ideal solution matrix (S+) for each BUMDES business unit alternative indicate that Wifi-Viber Link has the lowest total value (0.000203), suggesting that this business unit is closest to the positive ideal solution. Meanwhile, Culinary Tourism (*Wisata Kuliner*) has the highest total value (0.001665), indicating that this business unit is the farthest from the positive ideal solution.

The calculation results of the negative ideal solution matrix (S-) for each BUMDES business unit alternative indicated that Wifi-Viber Link had the highest total value (0.001379), suggesting that this business unit was the farthest from the negative ideal solution. In contrast, Culinary Tourism had the lowest total value (0.000015), indicating that this business unit was the closest to the negative ideal solution.

Determining the Preference Value for Each Alternative (C+)

The preference value for each alternative (C+) of the BUMDES business units in Desa Rawa Panjang represents the final determination in the TOPSIS

analysis process for selecting the best, most prospective, and most potential business unit for development. The preference value for each alternative (C+) of these business units is obtained by dividing the distance between each alternative's value and the negative ideal solution matrix (S-) by the total distance value between each alternative's value and both the positive ideal solution matrix (S+) and the negative ideal solution matrix (S-).

The results show the preference values (C+) for each potential business unit alternative, with the highest value being the Wifi-Viber Link business type, having a total value of 0.87147 (Table 4). This is followed by the Bank Sampah with a value of 0.692104, Ekosita Situ with a value of 0.556939, and the lowest being Wisata Kuliner with a value of 0.009162. When the results of S+ and S- are illustrated in a diagram, the best value is the shortest (smallest) distance to the positive ideal value and the furthest (largest) distance from the negative ideal value. This represents the best priority, as illustrated in Figure 1.

Table 3. Positive Ideal Solution (S+) and Negative Ideal Solution (S-) for Selecting the Best Business

Criteria	Business Alternative			
	Wifi-Viber Link	Bank Sampah	Wisata Kuliner	Ekosita Situ
Positive ideal solution (S+)				
Market/Business Potential	0.000000	0.000178	0.000711	0.000178
Required Costs (negative)	0.000000	0.000000	0.000015	0.000062
Competence/Availability of Human Resources	0.000129	0.000000	0.000289	0.000129
Accessibility	0.000000	0.000000	0.000008	0.000008
Required Technology	0.000000	0.000114	0.000114	0.000114
Facilities and Infrastructure	0.000000	0.000030	0.000030	0.000030
Business and Investment Feasibility	0.000000	0.000000	0.000106	0.000000
Business Environment Aspects (Social & Ecological)	0.000000	0.000000	0.000085	0.000000
Village Government Policies	0.000000	0.000013	0.000052	0.000013
Business Competition (negative)	0.000000	0.000000	0.000052	0.000000
Community Purchasing Power	0.000075	0.000075	0.000075	0.000000
Added Value/Community Benefits (Profits)	0.000000	0.000000	0.000128	0.000000
Σ	0.000203	0.000409	0.001665	0.000532
Negative ideal solution (S-)				
Market/Business Potential	0.000711	0.000178	0.000000	0.000178
Required Costs (negative)	0.000062	0.000062	0.000015	0.000000
Competence/Availability of Human Resources	0.000032	0.000289	0.000000	0.000032
Accessibility	0.000008	0.000008	0.000000	0.000000
Required Technology	0.000114	0.000000	0.000000	0.000000
Facilities and Infrastructure	0.000030	0.000000	0.000000	0.000000
Business and Investment Feasibility	0.000106	0.000106	0.000000	0.000106
Business Environment Aspects (Social & Ecological)	0.000085	0.000085	0.000000	0.000085
Village Government Policies	0.000052	0.000013	0.000000	0.000013
Business Competition (negative)	0.000052	0.000052	0.000000	0.000052
Community Purchasing Power	0.000000	0.000000	0.000000	0.000075
Added Value/Community Benefits (Profits)	0.000128	0.000128	0.000000	0.000128
Σ	0.001379	0.000920	0.000015	0.000669

Table 4. Potential Business Alternative Values

Potential Business Alternative	S+	S-	Ci+
Wifi-Viber Link	0.0002	0.0014	0.87147
Bank Sampah	0.000409	0.0009	0.692104
Wisata Kuliner	0.001665	0.0000	0.009162
Ekosita Situ	0.000532	0.0007	0.556939

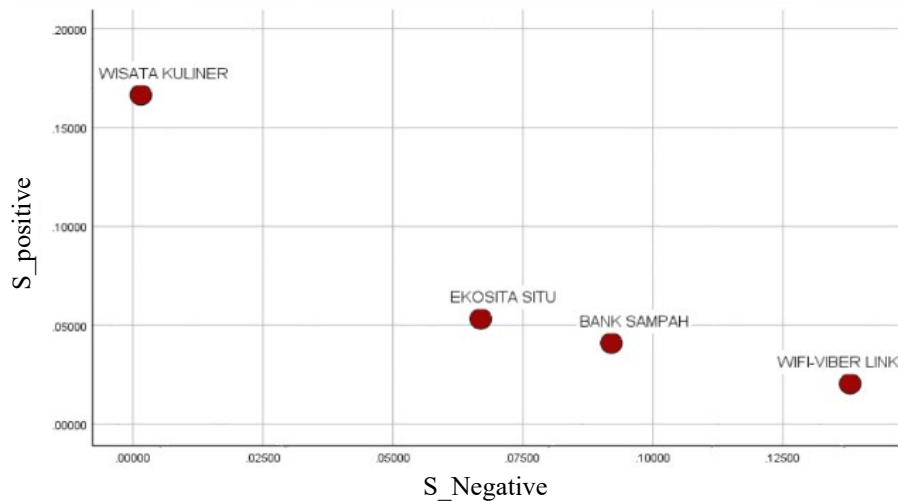


Figure 1. General Illustration of TOPSIS Method results in selecting the best business for Bumdes Karya Mandiri

The TOPSIS analysis conducted to determine the best alternative business unit for the development of BUMDES Karya Mandiri in Desa Rawa Panjang reveals that Wifi-Viber Link is selected as the best alternative business unit, with the Ci+ value closest to 1. This result aligns with the high potential and demand for internet connectivity in the current digital era. Considering the geographical and demographic characteristics of Desa Rawa Panjang, internet services may be the most suitable, efficient, and effective unit to develop.

The selection of Bank Sampah as the second-best alternative also demonstrates significant potential, possibly due to the growing awareness of the importance of waste management and environmental conservation. This finding is consistent with the global trend towards increased environmental awareness and sustainable development (Guerrero et al. 2013; Zaman, 2014). Implementing a Bank Sampah system can not only enhance the village's cleanliness and environmental health but also provide economic benefits to the community through recycling activities (Kristina, 2014; Wulandari et al. 2017).

Ekosita Situ, ranked third, might have considerable tourism potential but may require further investment and development. Tourism is often seen as a promising sector for rural economic development, as it can create jobs, boost local income, and promote cultural preservation (Aref & Redzuan, 2009; Keyim, 2018). However, developing a successful tourism business requires careful planning, adequate infrastructure, and effective marketing strategies (Gao & Wu, 2017; Sutawa, 2012).

Wisata Kuliner, in the last position, might face challenges such as intense competition or greater investment needs compared to other business units. Culinary tourism has gained popularity in recent years, allowing tourists to experience local culture through food (Besra, 2012; Chaigasem & Tunming, 2021). However, the success of a culinary tourism business depends on factors like food quality, uniqueness, authenticity, and effective promotion (Horng & Tsai, 2012; Sormaz et al. 2016).

The TOPSIS analysis provides valuable insights for BUMDES Karya Mandiri's management in prioritizing and allocating resources for the development of its business units. By focusing on Wifi-Viber Link and

Bank Sampah, which have the highest potential based on multi-criteria analysis, BUMDES Karya Mandiri can optimize its efforts in enhancing the economic empowerment of Desa Rawa Panjang.

However, it is important to note that the success of these business units will also depend on other factors such as good governance, community participation, and strategic partnerships (Anggraeni, 2016; Sofyani et al. 2019). BUMDES Karya Mandiri should involve the community in the planning, implementation, and evaluation of its business units to ensure that they meet the needs and aspirations of the local population. Collaboration with relevant stakeholders, such as the village government, the private sector, and academia, can also provide valuable support and resources for the development of these business units (Kusuma & Purnamasari, 2016; Prafitri & Damayanti, 2016).

Regular monitoring and evaluation of the performance of these business units are also crucial to ensure their sustainability and effectiveness in empowering the village economy. BUMDES Karya Mandiri should establish clear performance indicators and conduct periodic assessments to identify areas for improvement and adjust its strategies accordingly (Hidayah et al. 2019).

Therefore, the TOPSIS analysis provided a systematic and objective approach for BUMDES Karya Mandiri to prioritize its business units based on multiple criteria. By focusing on the development of Wifi-Viber Link and Bank Sampah, which had the highest potential, BUMDES Karya Mandiri could optimize its efforts in empowering the economy of Desa Rawa Panjang. However, the success of these business units also depended on factors such as good governance, community participation, strategic partnerships, and regular monitoring and evaluation. With a comprehensive and participatory approach, BUMDES Karya Mandiri could significantly contribute to sustainable development and the well-being of the community in Desa Rawa Panjang.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study makes a significant contribution to understanding the development priorities of BUMDES

Karya Mandiri's business units in Desa Rawa Panjang by applying the TOPSIS method. The research identifies and evaluates various alternative business units based on relevant criteria, highlighting the necessity for BUMDES to adopt a more systematic and data-driven approach in strategic decision-making. The main findings of this study indicate that Wifi-Viber Link emerges as the best alternative business unit with the highest preference value (0.87147), followed by Bank Sampah (0.692104), Ekosita Situ (0.556939), and *Wisata Kuliner* (0.009162). These results reflect the significant potential of Wifi-Viber Link in meeting the digital connectivity needs of the village community, as well as the opportunities presented by Bank Sampah in environmental management and sustainable development. Although Ekosita Situ and *Wisata Kuliner* rank lower, they still hold potential for development with more comprehensive planning and strategy.

This study also emphasizes that the success of developing BUMDES business units depends not only on their business potential but also on factors such as good governance, community participation, and strategic partnerships. The findings provide valuable insights and recommendations for BUMDES managers, village governments, and other stakeholders in navigating the complex and dynamic development of the village economy. However, further research is needed to track the progress of business units over time, conduct comparative studies with BUMDES in other regions, and investigate innovative practices through in-depth case studies. Ultimately, this research underscores the importance of a data-driven approach, strategic outlook, and adaptability for the future success of BUMDES, encouraging BUMDES Karya Mandiri not only to survive but also to thrive, creating value for the village community and promoting sustainable local economic development.

Recommendations

Based on the findings of this study, several recommendations can be made for the development of BUMDES Karya Mandiri in Desa Rawa Panjang. First, BUMDES should focus its primary development efforts on the Wifi-Viber Link and Bank Sampah business units, which have the highest potential according to the TOPSIS analysis. In developing the Wifi-Viber Link, it is essential to ensure high-quality service and implement effective marketing strategies to attract

more users. For Bank Sampah, BUMDES should raise awareness about waste management and its economic benefits, and develop an efficient management system. It is also important to actively involve the community in the planning, implementation, and evaluation of business units to ensure alignment with local needs and aspirations. BUMDES should develop strategic partnerships with the village government, the private sector, and academia to gain support and resources for business unit development. Regular monitoring and evaluation of business unit performance, with clear performance indicators, are crucial for ensuring sustainability and effectiveness.

While focusing on Wifi-Viber Link and Bank Sampah, BUMDES should also consider the long-term development of Ekosita Situ and *Wisata Kuliner* by conducting feasibility studies and thorough planning. Lastly, enhancing the capacity of BUMDES human resources through training and skill development, particularly in business management and information technology, will greatly assist in optimizing the management and development of BUMDES business units in the future.

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