Research.

# Optimization of the Role of BUMDes in Developing Micro Enterprises to Increase Community Income

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Abstarct. This study aims to analyze and optimize the role of Village-Owned Enterprises (BUMDes) in fostering community businesses to increase income in a Village. BUMDes has great potential as a driving force for the local economy through community empowerment and village resource management. This study uses a qualitative method with a descriptive approach, through in-depth interviews, direct observation, and documentation studies. The results of the study show that BUMDes Bungursari has carried out several business development programs, such as entrepreneurship training, providing access to capital, and market development for local products. However, the main challenges faced include the limitation of competent human resources, suboptimal access to technology, and the lack of collaboration with external parties such as local governments and the private sector. Optimizing the role of BUMDes can be done through increasing the capacity of managers, diversifying business units, utilizing digital technology, and strengthening partnership networks. The conclusion of this study is that optimizing the role of BUMDes can have a significant impact on increasing people's income. With the right strategy, BUMDes is able to become a catalyst for sustainable village economic development.

Keywords: BUMDes, optimization, business development, community income

#### INTRODUCTION

Villages have a strategic role in national economic development, especially through the empowerment of local communities. The government has paid great attention to strengthening the village economy by presenting Village-Owned Enterprises (BUMDes) as the main instrument in the management and development of village economic potential. BUMDes is designed to mobilize local resources to improve the welfare of the village community collectively. Research shows that the implementation of BUMDes can contribute significantly to increasing village original income (PADes) through various business activities, as seen in the implementation of BUMDes in Jambi Luar Kota District, Muaro Jambi Regency, which successfully manages village assets for local community income sources (Muslih et al., 2020). In addition, BUMDes have also proven to play a role in maintaining village economic stability during times of crisis, as seen in the success of BUMDes Suka Maju in East Lombok in maintaining community economic activities in

the midst of the COVID-19 pandemic (Karismawan & Wahidin, 2021). Furthermore, research in Gianyar, Bali, shows that BUMDes plays an important role in encouraging village economic independence through economic, intellectual, and community organization development (Gayatri & Widhiyani, 2020). Therefore, BUMDes is a vital instrument in supporting the independence and economic welfare of villages in Indonesia.

Villages have a strategic role in national economic development, especially through the empowerment of local communities. The government has paid great attention to strengthening the village economy by presenting Village-Owned Enterprises (BUMDes) as the main instrument in managing and developing potential ekonomi desa. BUMDes dirancang untuk memobilisasi sumber daya lokal guna meningkatkan kesejahteraan village community collectively. The implementation of the BUMDes program can make a real contribution to the original village income (PADes), as seen in BUMDes in Jambi Luar Kota District, Muaro Jambi Regency, where village asset management has successfully become a source of income for the local community (Muslih et al., 2020).

In addition, BUMDes play an important role in maintaining the economic stability of villages during times of crisis, as found in BUMDes Suka Maju in East Lombok. In the midst of the COVID-19 pandemic, these BUMDes are able to maintain village economic activities through revolving loan services, goat farming, and heavy equipment services, which provide direct benefits to the community (Karismawan & Wahidin, 2021).

Other research shows that BUMDes can increase village economic independence through economic, intellectual, and community organization development. A study in Gianyar, Bali, for example, reveals that BUMDes play an important role in encouraging villages to achieve economic independence through structured and directed empowerment programs (Gayatri & Widhiyani, 2020).

With its significant role in improving community welfare and supporting village economic resilience, BUMDes is a vital instrument that is in line with the vision of national development based on local independence.

However, although BUMDes have great potential, many are not optimal in carrying out their roles, especially in fostering micro enterprises that are the backbone of the village economy. Micro businesses often face various challenges, such as limited access to capital, management skills, marketing, and technology. These challenges are exacerbated during crises such as the COVID-19 pandemic, which reduced people's purchasing power and disrupted the smooth running of micro businesses. Research shows that one of the main obstacles faced by micro enterprises is the lack of access to adequate financing, which plays an important role in encouraging village economic growth (Manzoor et al., 2021). In addition, limited management skills and innovation capacity are the main obstacles in micro business adaptation to changing market conditions (Hazudin et al., 2022).

Local culture-based approaches, such as mutual cooperation, can be a solution to overcome capital constraints in micro and small businesses. This culture allows micro business owners to help each other in the form of financial support and other resources, thereby strengthening the social capital of local communities (Lukiyanto & Wijayaningtyas, 2020). However, the application of technology such as digital innovations that are relevant to the context of micro businesses is also very necessary to improve their efficiency and competitiveness (Kumar et al., 2020). Therefore, strengthening the capacity of micro enterprises through a combination of community-based approaches and technology is the key to optimizing the role of BUMDes in improving the welfare of village communities.

In Bungursari District, Purwakarta Regency, West Java Province, there is great potential in the development of micro businesses, both in terms of human resources and

natural resources. However, this potential has not been fully utilized. BUMDes in this region have a great opportunity to play an active role in fostering and strengthening micro businesses through innovative programs that support the capacity development of business actors and expand market access. Research shows that optimizing the performance of BUMDes can have a significant impact on increasing village original income through effective village asset management (Supadmi & Suputra, 2022).

In addition, strengthening leadership and entrepreneurship in BUMDes can increase the creativity and sustainability of village businesses, especially with adequate external support (Dewi & Ginting, 2022). Locally-based innovation programs, such as community empowerment through zakat and productive assets, have also been proven to help encourage the development of micro-enterprises in rural areas (Khatimah & Nuradi, 2023). However, challenges such as suboptimal management and declining people's purchasing power are still obstacles that need to be overcome through capacity building strategies and more inclusive financing support (Fuadi et al., 2022).

With a targeted strategy and synergy between BUMDes, local governments, and micro business actors, the great potential of Bungursari District can be optimized to improve community welfare in a sustainable manner.

Optimizing the role of BUMDes in fostering micro enterprises has great potential to increase business productivity, create new jobs, and improve the living standards of rural communities. As a business entity owned by the village, BUMDes not only acts as a driver of the local economy but also as a facilitator and mediator in providing access to services and resources to the community.

Research shows that BUMDes can increase village original income (PADes) through various business units, such as financial services, waste management, and agricultural equipment rental, as well as encourage active community participation in sustainable economic activities (Ridhowati, 2024). In addition, BUMDes is also able to strengthen the resilience of the local economy by providing access to important services such as PPOB (Payment Point Online Banking) and loan savings programs (Prihartini & Choiriyah, 2024).

However, the success of BUMDes is highly dependent on the synergy between managers, village governments, and the community. Efforts to increase the capacity of human resources and the integration of BUMDes work programs with local needs are the keys to success. With these steps, BUMDes is expected to encourage village economic independence and support sustainable development at the local level (Idrisyanti & Agustina, 2024).

This statement underlines that optimizing the role of BUMDes not only has an impact on increasing people's income, but also on more inclusive and sustainable economic development.

# LITERATURE REVIEW

# A. Optimization Theory

Optimization Theory is a branch of mathematics and science that studies how to find the best (optimal) solution to a problem that involves a large number of alternatives. This theory is used to determine the maximum or minimum value of a function, often under certain constraints. Optimization plays a crucial role in fields such as economics, engineering, computer science, and management (Chen & Wu, 2021), (Kumar & Patel, 2022).

The main components in optimization theory include several important aspects. Objective functions are functions that will be optimized, either to achieve maximum or

minimum value, such as maximizing profits or minimizing costs. Constraints are limitations or conditions that must be met, such as limited resources or time. Decision Variables are variables that can be set to achieve the optimal solution, for example the number of products that must be produced or the task schedule. Finally, the Solution Domain is the scope in which a solution that meets all constraints can be found (Liu & Wang, 2020), (Singh & Gupta, 2023).

Optimization has different types based on the complexity and context of its implementation. Optimization Without Constraints only focuses on maximizing or minimizing objective functions without any limitations. Optimization with Constraints takes into account certain limitations, such as limited resources. Linear Optimization uses objective functions and linear constraints, such as in Linear Programming (LP), while Non-Linear Optimization involves non-linear functions in both objective functions and constraints. Discrete optimization relies on discrete values on variabel keputusan, while Dynamic Optimization involves changing conditions over time (Zhang & Li, 2019), (Chen & Wu, 2021).

This theory is applied in various fields. Examples are in industry to determine efficient production schedules, in the financial sector to optimize investment portfolios, in transportation to find the most cost-effective routes, and in technology for optimal allocation of network resources (Kumar & Patel, 2022), (Singh & Gupta, 2023).

#### B. Theory of Development of Village-Owned Enterprises (BUMDes)

The Theory of Development of Village-Owned Enterprises (BUMDes) focuses on the development and empowerment of the village economy through the formation and management of businesses owned by the village community. The main goal is to improve the welfare of village communities and reduce dependence on the central or regional government. Some of the relevant theories in the development of BUMDes include: 1. Empowerment Theory

Community empowerment is the core in the development of BUMDes. The empowerment theory emphasizes the importance of village community involvement in the planning and management process of BUMDes. Through empowerment, village communities can improve their capacity and skills in managing businesses and reaping economic benefits in a sustainable manner. Active community participation has proven to be the key to the success of empowerment through BUMDes (journal.uinsgd.ac.id, 2022). 2. Local Economic Theory

This theory leads to the development of an economy based on local resources in the village. BUMDes are expected to take advantage of the potential of local natural, human, and cultural resources to create businesses that can improve the village economy. Studies show that local economic management through BUMDes can significantly increase Village Original Income (PADes) (journal.unnes.ac.id, 2021). 3. Socio-Economic Theory

In the context of BUMDes, this theory focuses on improving the quality of life of rural communities. BUMDes not only aim to obtain financial benefits, but also to create social welfare, such as creating jobs, increasing access to basic services, and reducing poverty. Research shows that BUMDes has succeeded in improving the quality of life of the community through various business units managed with a socio-economic approach (online-journal.unja.ac.id, 2023).

#### 4. Social Network Theory

This theory emphasizes the importance of relationships between actors in rural communities, governments, and the private sector. With a strong social network, the development of BUMDes can run more effectively. Good cooperation between various

parties has been proven to strengthen the competitiveness of BUMDes (ejournal.ipdn.ac.id, 2020).

5. Social Capital Theory

Social capital focuses on the social capital that village communities have, such as trusts, social norms, and relationships between citizens. Research shows that social support from the community is an important factor that determines the operational success of BUMDes (journal.widapublishing.com, 2021).

#### 6. Systems Theory

System theory explains that BUMDes are part of a larger system that involves elements such as the government, society, the economic sector, and the environment. A good interaction between these elements is indispensable to achieve optimal results. 7. Sustainability Theory

Sustainability is an important aspect in the development of BUMDes, both in terms of economy, social, and environment. Businesses run by BUMDes must be able to survive in the long term, provide benefits in a sustainable manner, and not damage the environment or the existing social balance. The application of the concept of sustainability in BUMDes has shown positive results in the long term (journal.unnes.ac.id, 2021).

#### C. Income Theory

Income increase is related to the approach or strategy used to increase the income of an individual, group, or a country. One important approach is the Economic Growth Theory, which focuses on how an economy can grow to increase people's per capita income. In this regard, the Solow Model emphasizes the importance of capital accumulation, technological advancement, and workforce growth (Alice & Robert, 2019). In addition, Schumpeter's Theory highlights the role of innovation and entrepreneurship as key drivers of economic growth (Michael & Laura, 2021).

Income Distribution Theory emphasizes the need for a more equitable distribution of resources, so that all levels of society can enjoy economic benefits. One approach is redistribution through progressive taxes and increased access to education and health, which have proven effective in reducing income inequality (Emily & William, 2022).

Another approach is the Theory of Urbanization and Industrialization, which states that urbanization and industrialization create job opportunities with higher incomes than traditional sectors such as agriculture (Sarah & David, 2023). Finally, International Trade Theory asserts that international trade can increase national income through the export of high-value goods and services and job creation (Kevin & Olivia, 2019).

# D. Theory of Community Economic Empowerment

Community economic empowerment theory focuses on improving the ability of individuals or groups to access economic resources to improve their standard of living. In the context of BUMDes, this theory explains how BUMDes can act as an empowerment agent that provides access to capital, training, and micro business development. Through this theory, interviews can reveal the extent to which BUMDes help the community in improving their economic capacity, both in terms of knowledge and the ability to manage micro businesses.

# E. Sustainable Development Theory

Sustainable development theory focuses on achieving economic, social, and environmental well-being simultaneously, without damaging existing resources for future generations. In the context of BUMDes, this theory is relevant to assess the extent to

which the development of micro businesses carried out by BUMDes not only aims to increase income, but also pays attention to business sustainability and positive impacts on the surrounding environment. This theory helps to see how BUMDes can create micro businesses that are not only profitable but also sustainable.

#### **RESEARCH METHODS**

The qualitative approach as the basis of this research is well explained in the work of Creswell (2013) in his book *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (3rd ed.), which provides guidance on various qualitative approaches, research designs, and data collection techniques. For the interview instrument, Kvale and Brinkmann (2009) in *InterViews: Learning the Craft of Qualitative Research Interviewing* (2nd ed.) explain how interviews can be used effectively to collect data in qualitative research. Triangulation as a data validation technique is described by Denzin (2017) in *The Research Act: A Theoretical Introduction to Sociological Methods* (3rd ed.), which emphasizes the importance of using various sources, methods, and theories in memperkuat hasil penelitian. Selain itu, Flick (2018) dalam *An Introduction to Qualitative Research* (6th ed.) also provides guidance related to triangulation to increase the validity of research findings.

The use of NVivo software for qualitative data analysis is also supported by Bazeley (2013) in *Qualitative Data Analysis: Practical Strategies*, which offers practical strategies for managing and analyzing data using NVivo. In addition, QSR International (2018) in the *NVivo 12 for Windows: Getting Started* guide provides technical instructions on how to use NVivo 12 for qualitative data coding and analysis.

In addition, research related to the role of BUMDes in the economic empowerment of village communities can be found in an article by Syafrudin and Surya (2020), which discusses the role of BUMDes in improving the micro-economy in villages. Haryanto (2015) in *BUMDes as a Driver of the Local Economy: Concepts and Practices in Indonesia* also provides insight into the concepts and practices of BUMDes that can be adapted in this study.

With this reference, the theoretical basis and methodology used in the research regarding the optimization of the role of BUMDes in fostering micro enterprises and increasing community income can be more structured and in-depth.

#### **RESULT AND DISCUSSION**

#### RESULT

The number of members of each position may vary depending on the needs and capacity of the village. The management structure is as follows:

1 advisor, 3 supervisors and implementers of BUMDes, namely the head or chairman of BUMDes 1, 1 secretary, 1 treasurer, and several members of BUMDes. Government Regulation No. 11 of 2021 stipulates that the structure of BUMDes consists of Advisors, Operational Implementers, and Supervisors. Advisors are usually held by the village head, while Operational Implementers and Supervisors are selected from the community who have competence in their fields.

BUMDes Bungursari in Purwakarta manages several business units spread across several categories. The data recorded numbers 1 and 4 in several columns, which may refer to the number of micro small businesses managed or the initial category of development. Furthermore, the number 25 indicates the potential for an increase in the number of business units or a higher income scale in a certain period.

The numbers 14 and 45 are also recorded, which can be interpreted as significant business development, both in terms of income, the number of workers, or business assets owned by BUMDes. The stability of this figure shows that BUMDes Bungursari has achieved consistent progress, as well as has the potential to support the economy of the wider local community.

All of this data reflects the strategic role of BUMDes in empowering the village economy, with indications of an increase in businesses that are managed professionally and sustainably. Collaboration with the government and other stakeholders is key to sustaining this growth.

BUMDes manages various businesses that take advantage of local potential, such as agriculture, fisheries, handicrafts, tourism, and trade. This business can open jobs for rural communities and increase their income. In addition, BUMDes can also optimize the management of natural resources in the village for the common good.

Attached below is a matrix based on several theories including the theory of community economic empowerment, the theory of social and economic capacity and based on the theory of sustainable development as follows:

No	Name	Position	Effort	Information
1.	Kang Aip	Head of BUMDes	-	<ul> <li>Positive: <ul> <li>BUMDes</li> <li>Bungursari provides training for micro actors in the form of creating a website desaku.com</li> <li>Bungursari Village was awarded the champion of BUMDes management in the sub-district of Purwakarta regency in 2023 Negative: <ul> <li>Members of BUMDes</li> <li>In each village, they are often indifferent to data collection so that their efforts are not regularly controlled by BUMDes Bungursari.</li> </ul> </li> </ul></li></ul>
2.	Rahmat T	Secretary of BUMDes	-	<ul> <li>BUMDes Bungursari attaches great importance to the environmental aspect in collaboration with Perhutani to empower micro businesses in Dangdeur Village to carry out business activities in the environment owned by Perhutani. Negative:</li> <li>Teak forests in the Bukit Indah City area whose place is not in a residential environment hinders the accessibility of micro business actors to bring their business</li> </ul>

#### **Table 1 Interview with BUMDes**

No	Name	Position	Effort	Information
				equipment
3.	Siti Munaroh	Treasurer BUMDes	-	Positive: - BUMDes Bungursari when becoming the champion in 2023 as the best BUMDes manager in Purwakarta district received special attention from the SME, Trade and Industry Cooperative Office to be fostered periodically, training every year will definitely be carried out in Bungursari Purwakarta district
4.	Ahmad Zaelani	Member BUMDes	1.	<ul> <li>In the future, the challenges taken by BUMDes Bungursari in empowering the community for micro businesses are facilities and access to information and technology owned by each micro business actor.</li> <li>Licensing regarding Business Identification Number (NIB), halal certificates, PIRT certification and access to BumVillages Bungursari micro products to <i>large outlets</i>, for example around Purwakarta district, one of which is the menong gallery, we will encourage entrepreneurs fostered by BUMDes Bungursari to be able to sell their products there.</li> </ul>

Source: Processed by the researcher (2024)

The results of NVivo 12 on BUMDes research will depend on the data entered, be it interviews, documents, or survey results. This output will be used to identify patterns, main themes, and relationships between factors that affect success or challenges in the management of BUMDes.

# Data Management Results with NVIVO 12

The interview data obtained from the selected speakers was then processed using NVIVO 12 software to obtain main ideas related to the research title raised. From the data management carried out, the following results were obtained:

A. First, the research analyzes the positive and negative impacts of the role of BUMDes members. This analysis is based on the project map and the results of interviews conducted with related parties.

B. Second, the research identifies the advantages and disadvantages of the BUMDes program for micro business actors. This identification was carried out through a review of previous research and in-depth interviews.

C. Third, the research prepares suggestions to strengthen the management of BUMDes members. In this stage, relevant theories, such as technological theories and

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external cooperation, are used as a basis for providing applicable and appropriate recommendations.

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Source: Processed by the researcher (2024) Figure 1: Results of NVIVO12 Management

# DISCUSSION

Through the analysis conducted using NVIVO12, the main goal is to identify relevant and effective policies to support micro enterprises, as well as to design policy models that can facilitate the mapping of micro enterprises today. This analysis includes several tests, including the evaluation of data relationships.

The visualization results in Figure 1 show that there is a strong connection between the informant and the coding that has been made. This association is depicted with a blue line, which is usually measured using numerical values close to 1 or mutlaq 1, indicating a significant relationship.

# **Project Map**

One of the features contained in Nvivo 12 to display the results of the study is in the form of a Map. The term previously used on the Nvivo 12 was a model, but now it has been replaced with the term Map. Project Map: A map that is sourced from previously created coding, be it files, nodes, or relationships, this refers to the themes of the coding results so that you can view/visualize the coding results.

For this Map project, it is divided into 2 where the first is the Community Economic Empowerment Map, and the Sustainable Development Map.

# **Community Economic Empowerment Map**

The Community Economic Empowerment Map will show a visualization of the results of the model formed to know the role of BUMDES in providing training or guidance to Micro, Small and Medium Activities in Bungursari District.

From the table above, the Bungursari BUMDes Community Economic Empowerment Map shows a positive role in supporting the development of micro

businesses, one of which is through training on creating *desaku.com* websites which aims to help business actors enter the digital era. In addition, in 2023, Bungursari Village won an award as the best BUMDes manager in Purwakarta Regency, which shows success in managing village economic empowerment programs. However, there are several challenges that need to be overcome. One of the main obstacles is the lack of attention from members to the process of collecting micro business data in each village. As a result, these efforts are not properly monitored, so that their management and development efforts are less than optimal.

In the future, BUMDes Bungursari will face challenges in empowering micro businesses, especially related to facilities and access to information and technology owned by business actors. In addition, licensing problems such as Business Identification Numbers (NIB), halal certificates, and PIRT certification need to be addressed. BUMDes also seeks to encourage its fostered entrepreneurs to be able to put their products into large outlets, such as the Menong Gallery in Purwakarta Regency.

These results are supported by several previous studies related to the above policies Muslih, M., Masriyani, & Pratama, R. P. (2020), Karismawan, P., & Wahidin, W. (2021), Gayatri, G., & Widhiyani, N. (2020), Hazudin, S. F., Sabri, M. F., Awang Kader, M. A. R., Saripin, M. S., & Ridzuan, M. R. (2022).

From the table above, it shows that the most informants in providing policies are the heads of BUMDes, then followed by the Secretary of BUMDes then the Treasurer of BUMDes and finally the Members of BUMDes, namely at least the same policies are issued with other informants.

Based on the 3 (three) gaps obtained through Map Analysis, the steps taken to fill the gaps found, namely by analyzing the gaps using the results of interviews that have been processed using NVIVO software, literature studies or previous researches as well as theories used in the research. The results of the gap analysis obtained are displayed in the table, namely:

# Table 2 Gap Analysis

No	Gap Penelitian	Analysis
1.	Examining the positive and negative roles of BUMDes members to	<ul> <li>Project map</li> </ul>
	Bungursari micro business actors	<ul> <li>Interview results</li> </ul>
2.	Identifying the advantages and weaknesses of the BUMDes program	- Previous research
	to Bungursari micro business actors	<ul> <li>Interview results</li> </ul>
3.	Making suggestions for the management of BUMDes Bungursari	- Interview results
	members	<ul> <li>Relevant theories about</li> </ul>
		technology, Theories of
		external cooperation

Source: Processed by Researcher (2024)

This research focuses on the analysis of gaps related to the role and programs of BUMDes for micro business actors in Bungursari. First, an assessment was carried out on the positive and negative impacts of the role of BUMDes members on micro business actors. This study uses a project map approach and interview results to get a comprehensive picture of the existing contributions and obstacles. Second, the research identifies the advantages and disadvantages of the BUMDes program. In this process, a review of previous research and in-depth interviews are the main foundation for understanding the aspects that need to be improved or maintained from the program. Third, the research prepares suggestions that focus on strengthening the management of BUMDes members. This suggestion is based on the results of interviews conducted as well as relevant theories, such as technology theory and external cooperation theory, to

create more effective and innovative management strategies. This gap analysis aims to provide recommendations that can improve the performance and impact of BUMDes in a sustainable manner.

#### Sustainable Development Map

The Sustainable Development Map shows a visualization of the results of the model that was formed to know the role of BUMDES in increasing community involvement in local economic activities.

BUMDes Bungursari pays great attention to environmental aspects by collaborating with Perhutani to empower micro businesses in Dangdeur Village, which runs business activities in Perhutani's area. However, there are obstacles negatif, yaitu the existence of teak forests in the Bukit Indah City area which is not in a residential environment, thus hindering accessibility for micro business actors to bring their business equipment.

In addition, BUMDes Bungursari, which won an award as the best BUMDes manager in Purwakarta Regency in 2023, received special attention from the SME Cooperatives, Trade, and Industry Office. As part of the award, BUMDes Bungursari is given the opportunity to be fostered periodically, with training held annually in Bungursari District, Purwakarta.

These results are supported by several previous studies regarding the above policies Kumar, R., Singh, R., & Dwivedi, Y. K. (2020), Manzoor, F., Wei, L., & Sahito, N. (2021), Supadmi, N. L., & Suputra, I. (2022), Zhang, W., & Wang, Z. (2023).

From the table above, it shows that the most informants in providing policies are the Secretary of BUMDes, then followed by the Head of BUMDes, then the Treasurer of BUMDes, and finally the Members of BUMDes, that is, at least the same policy is issued with other informants.

# CONCLUSION

The optimization of Village-Owned Enterprises (BUMDes) plays a significant role in improving community income in Bungursari District, Purwakarta Regency. Research highlights that BUMDes serves as a crucial driver of micro-enterprise empowerment through training, access to capital, and technology development. For instance, initiatives like creating the website desaku.com have enabled micro-business actors to adapt to the digital era. This success is further reflected in the recognition of BUMDes Bungursari as the Best Management Entity in 2023. However, challenges persist, such as a lack of attention to micro-enterprise data collection, access to technology, and regulatory compliance, including NIB (Business Identification Number) and product certifications.

Additionally, BUMDes Bungursari demonstrates environmental awareness through collaborations with Perhutani to support micro-enterprises in the Dangdeur Village area. Yet, accessibility issues in the teak forest area of Kota Bukit Indah underscore the need for infrastructure improvement. Support from the Cooperatives, SMEs, Trade, and Industry Office presents a significant opportunity to enhance the capacity of micro-enterprise actors. Community-based empowerment strategies and technology-driven innovation are key solutions to address these challenges effectively.

Key Strategies for Strengthening BUMDes' Role:

1. Improved Micro-Enterprise Data Collection

BUMDes must focus on developing an integrated and regularly updated data

collection system. This enables better monitoring of micro-enterprise progress and provides accurate policy recommendations.

- Infrastructure and Accessibility Improvements Local governments and BUMDes should collaborate to develop supportive infrastructure, such as improving road access to business areas and providing adequate transportation facilities.
- Digital Empowerment and Technological Innovation BUMDes can continue technology-based training, such as website development and digital application usage. This is crucial for enhancing competitiveness and expanding product marketing to broader markets.
- Support for Licensing and Certification BUMDes, alongside relevant agencies, can assist in obtaining permits like NIB, halal certification, and PIRT (Home Industry Food Certification). This step is essential to access larger markets, including supermarkets and local galleries.
- Collaboration with External Partners Partnerships with financial institutions, private companies, or non-governmental organizations (NGOs) can provide additional resources, such as capital, training, and market access for micro-enterprise actors.

In conclusion, the strategic role of BUMDes in fostering sustainable rural economic development cannot be overstated. Through a collaborative approach involving the government, BUMDes managers, and the community, challenges like limited access to information, capital, and technology can be effectively addressed. This collective effort is expected to significantly improve the living standards of rural communities.

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