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The Role of Village-Owned Enterprises as Entrepreneurship Incubators: An Empirical Study in Several Rural Areas

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Abstract: This study analyzes the role of Village-Owned Enterprises (BUMDes) as entrepreneurship incubators in rural areas of Indonesia. Using qualitative and quantitative methods, this research examined 15 BUMDes in West Java, Central Java, and East Java from 2022-2024. Data were collected through in-depth interviews with 45 respondents, participatory observation, and document analysis. Results show that BUMDes play a significant role in fostering entrepreneurial spirit among village communities through providing capital access, business training, and business mentoring. Of the 65,941 BUMDes registered nationally, 75.8% are actively operating and have created 142,000 new jobs. BUMDes functioning as entrepreneurship incubators increased village income by an average of 35% and reduced village poverty rates by up to 12%. This research contributes to rural entrepreneurship theory development and provides policy recommendations for optimizing BUMDes function as village economic drivers.

Keyword: BUMDes, entrepreneurship incubator, village economy, community empowerment, rural innovation

INTRODUCTION

Rural economic development in Indonesia faces complex dynamics in the current era of regional autonomy. The ability of villages to develop local economic potential is key to improving community welfare and reducing the development gap between urban and rural areas. To achieve village economic independence, the government has issued various policies encouraging the establishment of economic institutions at the village level, one of which is the Village-Owned Enterprise (BUMDes). BUMDes, as stipulated in Law Number 6 of 2014 concerning Villages, are business entities whose capital is wholly or primarily owned by the village through direct participation derived from village assets, which are separated to manage assets, services, and other businesses for the greatest possible welfare of the village community. The existence of BUMDes is expected to be a driving force for the village economy, able to optimize the existing village potential and resources.

The latest data from the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration shows that as of June 2024, there were 65,941 BUMDes registered

throughout Indonesia, with 18,850 of them legally incorporated (ANTARA, 2024). However, of that number, only 75.8% are actively operating, indicating that various obstacles persist in the operationalization of BUMDes. This phenomenon indicates the need for further study on how BUMDes can play an optimal role in driving the village economy. The concept of an entrepreneurship incubator within BUMDes becomes relevant when considering that BUMDes function not only as a business entity but also as a platform for developing the entrepreneurial capacity of village communities. An entrepreneurship incubator is defined as an organization designed to accelerate the growth and success of start-up companies through various resources and business support services. In rural settings, BUMDes have the potential to fulfill a similar function by providing access to capital, business training, business mentoring, and market access for villagers seeking to develop their businesses.

Previous research has shown that BUMDes play a strategic role in improving the village economy and independence (Ramadana, 2010). A study conducted by Prasetyo (2016) in Pejambon Village, Bojonegoro Regency, demonstrated that BUMDes play a role in community development and empowerment through various business programs. Meanwhile, Nursetiawan's (2018) research identified that BUMDes innovation can be a strategy for developing independent villages, particularly in managing community entrepreneurial potential. However, most previous research has focused more on the management and economic contribution of BUMDes in general, without specifically examining their role as entrepreneurship incubators. This entrepreneurship incubation function holds significant potential for developing the creative and innovative economy at the village level. Empirical research specifically examining the role of BUMDes entrepreneurship incubators is still limited, so more in-depth studies are needed to understand the working mechanisms of BUMDes in fostering an entrepreneurial spirit in rural communities.

Geographical aspects are also an interesting factor to study, given the highly diverse characteristics of villages in Indonesia. Differences in natural resource potential, demographic conditions, community education levels, and infrastructure accessibility between regions can influence the effectiveness of BUMDes in conducting their entrepreneurship incubator function. This research will examine BUMDes in several rural areas with varying characteristics to provide a more representative picture of the role of BUMDes as entrepreneurship incubators. The phenomenon of digitalization and information technology also provides a new dimension in the development of BUMDes as entrepreneurship incubators. Digital platforms and social media have become effective marketing tools for MSME products developed through Village-Owned Enterprises (BUMDes). This research will also examine how BUMDes utilize technology to support entrepreneurship development in villages.

Based on this background, this research aims to analyze the role of BUMDes as entrepreneurship incubators through empirical studies in several rural areas. Specifically, this research will identify the working mechanisms of BUMDes in fostering an entrepreneurial spirit, analyze the factors influencing BUMDes' effectiveness as entrepreneurship incubators, and formulate an optimal BUMDes development model to support rural entrepreneurship.

Literature Review

The concept of Village-Owned Enterprises (BUMDes) in academic literature has evolved in line with the implementation of regional autonomy and the strengthening of governance at the village level. Widjaja (2014) defines BUMDes as a pillar of the village economy managed collectively by village communities to improve local economic welfare. This concept aligns with the participatory development paradigm, which emphasizes active community involvement in the economic development process. The theory of entrepreneurship incubators was first developed by Hackett and Dilts (2004), who defined

business incubators as organizations designed to accelerate the growth and success of start-up companies through various resources and business support services. This concept has since been adapted in various contexts, including rural economic development. Sherman and Chappell (1998) identified five main components of entrepreneurship incubators: access to financing, management support, market access, technical support, and infrastructure services.

From a rural development perspective, the concept of entrepreneurship incubators has been adapted to suit the characteristics and needs of rural communities. Flora and Flora (2013) emphasize that rural entrepreneurship incubators must consider the social capital, human capital, political capital, financial capital, natural capital, and infrastructure available in the village. This approach provides a more contextual analytical framework for understanding the role of BUMDes as entrepreneurship incubators. Empirical research on BUMDes has demonstrated various positive impacts on the village economy. A study conducted by Anggraeni (2016) in East Java showed that BUMDes were able to increase village original income by an average of 40% within three years of operation. Meanwhile, research by Ridlwan (2014) in Bantul, Yogyakarta, identified that BUMDes play a role in creating new jobs and reducing rural-to-urban migration.

The institutional aspects of BUMDes were the focus of a study by Sutoro (2014), who analyzed BUMDes governance from a good governance perspective. This study identified transparency, accountability, and community participation as key to BUMDes' success. This finding is supported by a study by Ramadana, Ribawanto, and Suwondo (2013), which showed that village-owned enterprises (BUMDes) with good governance tend to have better financial performance. The social entrepreneurship theory developed by Dees (1998) provides a conceptual framework for understanding the role of BUMDes in developing rural entrepreneurship. Social entrepreneurship is defined as innovative activities with an explicit social mission, which can occur in the nonprofit, business, or government sectors. BUMDes, as entities oriented towards the welfare of rural communities, can be categorized as a form of social entrepreneurship.

The triple helix concept developed by Etzkowitz and Leydesdorff (2000) is also relevant in the context of BUMDes as entrepreneurship incubators. This model emphasizes collaboration between academia, industry, and government in fostering innovation and entrepreneurship. In a rural context, BUMDes can act as a bridge between these three elements to develop an entrepreneurial ecosystem in the village. Recent research by Sulistiyani, Handayani, and Wulandari (2019) identified that BUMDes have significant potential as entrepreneurship incubators through community economic empowerment programs. This study shows that village-owned enterprises (BUMDes) that perform entrepreneurial incubation functions are able to create a greater multiplier effect than those that only operate conventional businesses.

Putnam's (1993) social capital theory provides another perspective on understanding the role of BUMDes as entrepreneurial incubators. Social capital, consisting of trust, norms, and social networks, is a key factor in the success of BUMDes in developing entrepreneurship in rural communities. Coleman (1988) adds that social capital can facilitate collective action and reduce transaction costs in economic activities. Porter's (1998) industrial cluster concept is also relevant in the context of BUMDes as entrepreneurial incubators. By developing small business clusters at the village level, BUMDes can create collective efficiency and greater competitiveness. Schmitz (1995) identifies that small industry clusters can provide a competitive advantage through specialization, innovation, and collective learning.

The gender perspective on rural entrepreneurship has also received attention in recent literature. Kabeer's (2012) research shows that women's economic empowerment through entrepreneurship can have a multiplier effect on family and community welfare. In the

context of village-owned enterprises (BUMDes), the role of women as entrepreneurs deserves special attention, given their significant contribution to the household economy and village communities. Isenberg's (2011) entrepreneurial ecosystem theory provides a useful analytical framework for understanding the role of BUMDes in creating a conducive environment for the growth of entrepreneurship in villages. The entrepreneurial ecosystem consists of six domains: culture, policy and leadership, financing, human capital, markets, and institutional support. BUMDes has the potential to contribute to all of these domains in a rural context.

METHOD

This study employed a mixed-methods approach with a sequential explanatory design. Quantitative data were collected and analyzed first, followed by qualitative data collection and analysis to explain and deepen the quantitative findings. This approach was chosen to provide a more comprehensive understanding of the role of Village-Owned Enterprises (BUMDes) as entrepreneurship incubators. The research locations were selected through purposive sampling in three provinces: West Java, Central Java, and East Java, considering that these three provinces have a relatively large number of BUMDes and diverse business types. Five BUMDes were selected from each province that had been operating for at least three years and demonstrated good performance based on evaluations by the local government.

The selection criteria for sample BUMDes include BUMDes that have legal status, have orderly financial reports, run at least 3 (three) types of businesses, and have community economic empowerment programs. Furthermore, the sample BUMDes were selected to represent various geographic characteristics, including highland villages, lowland villages, and coastal villages, to provide variation in the analysis. The study population consisted of BUMDes administrators, entrepreneurs mentored by the BUMDes, and village communities within the BUMDes' operational areas. The research sample was determined using stratified random sampling, with a total of 45 respondents consisting of 15 BUMDes administrators, 20 BUMDes-assisted business owners, and 10 village community leaders.

Quantitative data collection was conducted through a survey using a structured questionnaire that had been tested for validity and reliability. The questionnaire was designed to measure respondents' perceptions of the role of BUMDes as an entrepreneurial incubator, the effectiveness of BUMDes programs, and the impact of BUMDes on entrepreneurship development in villages. The measurement scale used a 5-point Likert scale ranging from strongly disagree to strongly agree. Qualitative data were collected through in-depth interviews with key informants consisting of BUMDes administrators, village heads, and business owners who have long-standing BUMDes partnerships. In addition, participant observation was conducted to observe BUMDes' operational activities and interactions with the village community. Focus group discussions (FGDs) were also conducted with various stakeholders to gain diverse perspectives on the role of BUMDes.

Quantitative data analysis used descriptive statistics to describe the characteristics of respondents and research variables, and inferential analysis used multiple regression analysis to examine the relationships between variables. SPSS version 25 software was used for quantitative data processing. Prior to the regression analysis, classical assumption tests were conducted, including tests for normality, multicollinearity, heteroscedasticity, and autocorrelation. Qualitative data were analyzed using thematic analysis techniques through coding, categorizing, and theming. NVivo 12 software was used to assist in the qualitative data analysis process. Data triangulation was performed by comparing interview results, observations, and documentation to ensure the validity of the research findings.

Indicators measuring the role of Village-Owned Enterprises (BUMDes) as entrepreneurial incubators were developed based on business incubator theory adapted for the

rural context. These indicators include providing access to capital, business training and mentoring, facilitating market access, providing infrastructure and technology, and developing business networks. Each indicator was measured using multiple questionnaires to ensure measurement reliability. The dependent variable in this study was the level of entrepreneurship development in the village, as measured by the number of new businesses formed, the increase in turnover of existing businesses, and the number of workers absorbed. The independent variable includes the role of BUMDes as an entrepreneurial incubator, while the control variables include village characteristics, community education level, and infrastructure access. Data collection was conducted between May and September 2024, involving a team of trained enumerators to ensure consistency in data collection. Research ethics protocols were implemented, requiring informed consent from all respondents and ensuring the confidentiality of their identities and data provided.

RESULT AND DISCUSSION

The characteristics of the Village-Owned Enterprises (BUMDes) studied demonstrate interesting diversity in terms of business type, operational scale, and business orientation. Of the 15 BUMDes studied, 80% had been operating for more than five years with an average initial capital of IDR 125 million. The most commonly developed business types were savings and loans (100%), general trade (87%), and agribusiness (73%). Data shows that the BUMDes studied had an average of four business units with total assets averaging IDR 850 million per BUMDes. The role of BUMDes as providers of capital access has demonstrated significant results in encouraging village entrepreneurship. Data shows that 85% of business respondents stated that BUMDes were the primary source of financing for starting or expanding their businesses. The average loan disbursed by BUMDes to the MSME sector was IDR 15.2 million per borrower, with a 94% repayment rate. Flexible financing systems with competitive interest rates of 12-18% per year are a major attraction for village communities. Further analysis shows that BUMDes have successfully reached segments of the community previously underserved by formal financial institutions. Data shows that 68% of BUMDes borrowers are women running micro-businesses, and 45% are start-up entrepreneurs. It indicates that BUMDes play an effective role as a financial inclusion agent at the village level. The business training and mentoring provided by BUMDes has shown a positive impact on the entrepreneurial capacity of village communities. During the 2022-2024 period, the BUMDes studied held 847 training activities with a total of 3,240 participants. The most popular training types were business financial management (78%), digital marketing (65%), and product processing (52%). Post-training evaluations showed that 72% of participants experienced an increase in business turnover within six months of attending the training.

The BUMDes business mentoring program includes regular business consultations, monitoring business development, and problem-solving when facing operational challenges. Data shows that entrepreneurs who receive intensive mentoring from BUMDes have an 89% survival rate, compared to only 34% for independent businesses. It demonstrates the effectiveness of the incubation function performed by BUMDes. BUMDes's role in facilitating market access demonstrates interesting innovations in marketing village MSME products. Seventy-three percent of the BUMDes studied have their own sales outlets to market their fostered products. Furthermore, 60% of BUMDes have utilized digital platforms for marketing, with an average increase in market reach of 150% in the past two years. 80% of the sample BUMDes have also successfully established partnerships with hotels, restaurants, and modern shops.

Economic impact analysis shows that BUMDes that function as entrepreneurship incubators make a significant contribution to the village economy. The average increase in

Village Original Income (PADEs) in the villages studied reached 35% over the past three years. Furthermore, BUMDes has successfully created 2,847 new jobs, both as direct employees and through the growth of fostered businesses. The social impact of BUMDes' role as entrepreneurship incubators is also significant. Data shows a 23% decrease in rural-to-urban migration in villages with active BUMDes. This indicates that BUMDes has successfully created attractive economic alternatives for rural communities, thereby reducing the tendency for urbanization.

Gender analysis shows that BUMDes plays a role in the economic empowerment of women in villages. Data shows that 68% of BUMDes-assisted business owners are women, and 78% of these entrepreneurs have experienced increased contributions to family income. Special programs for women's business development, such as savings and loans specifically for women and productive skills training, have shown encouraging results. In terms of business types, BUMDes has successfully encouraged village economic diversification through the development of various business sectors. The agribusiness and agricultural processing sectors experienced the fastest growth, averaging 45% per year. The handicrafts and creative economy sectors also showed significant growth, with market penetration extending beyond the region.

However, several obstacles remain in optimizing the role of BUMDes as entrepreneurship incubators. The limited human resources competent in business and technology are the main obstacles faced by 87% of the BUMDes sampled. Furthermore, limited access to information and communication technology in some rural areas hinders the development of digital-based incubation programs. Multiple regression analysis shows that the role of BUMDes as an entrepreneurial incubator has a positive and significant effect on the level of entrepreneurship development in the village, with a coefficient of determination (R^2) of 0.742. The most influential variable was the provision of access to capital ($\beta=0.387$), followed by training and mentoring programs ($\beta=0.298$), and facilitation of market access ($\beta=0.215$).

The research findings also identified factors influencing the effectiveness of BUMDes as an entrepreneurial incubator. Village government support, quality BUMDes governance, and active community participation are key success factors. BUMDes with good governance and high transparency demonstrated better performance in carrying out their entrepreneurial incubation function. Innovation in BUMDes management also positively impacted the effectiveness of the incubation function. BUMDes that adopted digital technology in their operations demonstrated broader service reach and higher efficiency. The use of mobile applications for savings and loan services and management information systems for monitoring fostered businesses are best practices that can be replicated.

CONCLUSION

This research demonstrates that Village-Owned Enterprises (BUMDes) play a strategic role as entrepreneurship incubators in rural Indonesia. By providing access to capital, training programs, and business mentoring, and facilitating market access, BUMDes have successfully fostered an entrepreneurial spirit and created a conducive business ecosystem at the village level. Empirical data indicate that BUMDes that function as entrepreneurship incubators are able to increase village income by an average of 35% and create 2,847 new jobs. The effectiveness of BUMDes as entrepreneurship incubators is strongly influenced by the quality of governance, village government support, and active community participation. BUMDes with professional and transparent management demonstrate more optimal performance in developing village entrepreneurship. The integration of digital technology into BUMDes operations has also been shown to increase the reach of services and the efficiency of incubation programs.

BUMDes' role in women's economic empowerment has shown encouraging results, with 68% of the entrepreneurs they assist being women, who have seen an increase in their contribution to family income. This indicates that BUMDes contribute to achieving gender equality in economic access at the village level. This research contributes theoretically to the development of the concept of entrepreneurship incubators in rural settings, as well as providing practical implications for the development of village-owned enterprise (BUMDes) policies in Indonesia. The BUMDes model as an entrepreneurship incubator can serve as a reference for developing a more innovative and independent village economy. Policy recommendations that can be formulated based on the research findings include strengthening the human resource capacity of BUMDes managers through ongoing training programs, developing data-driven monitoring and evaluation systems, and increasing BUMDes' access to information and communication technology. Furthermore, policies are needed to encourage collaboration between BUMDes to create economies of scale and greater competitiveness.

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