

The role of digitalization of village-owned enterprises in equitable village economic growth

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ABSTRACT

Studies related to Village-Owned Enterprises (BUMDes) have produced a lot of literature discussing the role of BUMDes in advancing the rural economy and improving the welfare of village residents. However, studies regarding the digitalization of BUMDes are still relatively limited. BUMDes digitalization refers to the use of digital information technology in carrying out various business activities carried out by BUMDes. The focus is to evaluate the feasibility of the Android-based BUMDes SAKU (Business Feasibility Analysis System) prototype. The methodology used is descriptive qualitative research with an expert testing method. Primary data was collected through questionnaires and interviews. Research respondents were divided into two groups, namely the first group consisted of experts who acted as validators, including business feasibility analysis experts, BUMDes experts, and system development experts, while the second group was the prototype users, represented by the BUMDes director who also serves as chairman of the BUMDes Forum at the Semarang Regency level. Validation results show that this prototype can present the data needed by BUMDes to assist in compiling a business feasibility analysis, with a success rate of 75 percent. As many as 70 percent of users stated that this prototype provided benefits in developing BUMDes businesses. The implementation of SAKU is a concrete step in encouraging the digitalization of BUMDes in their business activities and supporting the achievement of equitable economic growth at the village level.

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1. INTRODUCTION

BUMDes, an abbreviation for Village-Owned Enterprises, refers to economic entities jointly owned by the government and village residents. Regulations regarding the existence of BUMDes are contained in several laws, including Law Number 6 of 2014 concerning Villages, Regulation of the Minister of Villages Number 4 of 2015 concerning the Establishment, Management, Management, and Dissolution of Village-Owned Enterprises, and Government Regulation Number 11 of 2021 regarding Village-Owned Enterprises. This PP provides a strong legal basis for BUMDes, in contrast

to previous regulations which were weaker because BUMDes were established based on village regulations without higher government support. The BUMDes legal entity, which is recognized by PP Number 11 of 2021, refers to a legal entity formed by a village or several villages to manage businesses, assets, investments, productivity, services, and other businesses for the maximum welfare of the village community. Previously, BUMDes was only considered a business entity, but now with this PP, BUMDes is recognized as a legal entity. The BUMDes legal entity is obtained after being registered and obtaining a legal entity certificate from the Ministry of Law and Human Rights. BUMDes with legal entity status have stronger legality, enabling the management of village assets to improve the welfare of village communities. Village assets, which include village original wealth, can be managed by BUMDes by applicable regulations. The purpose of establishing BUMDes, as regulated in PP Number 11 of 2021, is to manage businesses, increase productivity and economic investment, provide goods and services to meet the needs of village communities, earn profits to increase village income, increase the added value of village assets, and develop a digital economic system in villages. To support this last goal, research has been carried out to develop an Android-based BUMDes Business Feasibility Analysis System (SAKU) application. This research is research that aims to test the feasibility of the SAKU BUMDes prototype. This application is a concrete step in realizing the digitalization of BUMDes and supporting equitable economic growth at the village level.

Research on the role of BumDes was put forward by Hidayat et al (2023) in strengthening the economy of farmer group communities in Ulaweng Cinnong Village, Ulaweng District, Bone Regency. Furthermore, research by Anshori et al (2023) conducted research on strengthening the economy through empowering the community of Jaya Mandiri Village-Owned Enterprises in Buluhcina Village, Siak Hulu District, Kampar Regency. Research on the role of Village-Owned Enterprises (Bumdes) was also carried out by Hilir et al (2023) in marketing coconut products from farmers in Sungai Ara Village, Kempas District, Indragiri Hilir Regency. Furthermore, research by Sianturi (2023) regarding the role of village government in developing Village-Owned Enterprises (BUMDes) in Marsawa Village, Sentajo Raya District, Kuantan Singingi Regency. All of this research shows that BUMDes have an important role in managing village economic growth. By assisting and managing local businesses, BUMDes helps the community in developing agriculture, improving living standards, and assisting the community in managing the village's potential to become a potential economic resource. Research also shows that BUMDes have a role in marketing, monitoring and developing potential sources in the village.

Previous research on BUMDes has highlighted the role of BUMDes in rural development, showing that the presence of BUMDes can reduce population migration from villages to cities and help micro-entrepreneurs in villages free from the practices of loan sharks. However, in several regions, the contribution of BUMDes to entrepreneurship, performance, and welfare of craftsmen is still minimal due to a lack of awareness of the role of BUMDes among craftsmen. Overall, BUMDes has helped reduce unemployment rates in rural areas, improve the welfare of village communities, and support village independence. Support from the government, including the allocation of Village Funds for BUMDes and the BUMDes revitalization program, has had a positive impact on the development of BUMDes businesses. Even though there has been a lot of research on BUMDes, research on digitizing BUMDes to support equitable economic growth in villages is still limited. Therefore, this research is important because it supports government programs, especially in achieving equitable village economic growth. Digitalization, which involves the use of digital technology in various aspects of business, has been proven to provide many benefits such as increased business efficiency, better customer understanding, support in knowledge, and development of design skills. Therefore, digitizing BUMDes is an important step in developing BUMDes businesses. BUMDes digitalization includes the use of information technology in administrative, financial, and marketing management. This helps increase transparency and accountability in fund management and expands market access for BUMDes products.

It is hoped that the use of digital marketing to promote BUMDes products in the long term can make BUMDes an independent entity and support village economic growth towards prosperity, as stated by (Sanjaya et al., 2020). The implementation of BUMDes digitalization through a smartphone-based platform, as seen in BUMDes Retno Sembodo, has had a positive impact in initiating digital transformation to increase the scale of BUMDes businesses, according to the findings

of (Wardana et al., 2022). The digitization of BUMDes, both in administrative and marketing aspects, plays a role in developing BUMDes businesses. However, how does the digitalization of BUMDes shape equitable village economic growth? Economic growth itself refers to increasing a country's capacity in the long term to produce various goods and services that meet the needs of its people, which is driven by advances in production technology. Conventional understanding of economic growth often focuses on increasing national income per capita (Abidin, 2014). However, sustainable economic growth must also include equity and sustainability, as embodied in the sustainable development agenda (SDGs). One of the goals of the Village SDGs is to achieve equitable village economic growth, with a series of predetermined indicators. Previous research has revealed that village fund allocation, the existence of BUMDes, and infrastructure development have a significant positive impact on village economic growth ((Rimawan & Aryani, 2019); (Ompusunggu, 2018); (Wirsa & Prena, 2020); (Candra, 2020); (Hartojo et al., 2022)). However, the main difference with previous research is the approach used in measuring village economic growth. The present study espouses a more comprehensive and scholarly approach, considering not only the conventional economic growth but also the fair and even allocation of village economic growth, as exemplified by the eighth Village Sustainable Development Goals (SDGs) indicator.

2. RESEARCH METHOD

This research is a descriptive qualitative study that aims to test the success of the Android-based BUMDes SAKU (Business Feasibility Analysis System) prototype in supporting equitable village economic growth. In the first year, focus on prototype development through research and development (R&D). In the second year, the research will focus on feasibility testing, while the third year will be dedicated to researching the effectiveness of the SAKU BUMDes application in encouraging equitable village economic growth. To test the feasibility of this year's prototype, the method used was the expert testing method. The data collected in this research is in the form of responses from validators and prototype users submitted via questionnaires. Data analysis was carried out through the stages of data collection, data reduction, analysis, and data presentation.

3. RESULTS AND DISCUSSIONS

This research is a continuation of a study conducted in 2022, in which an Android-based SAKU BUMDes prototype was developed. Previous studies found that the prototype was easy for users to use and provided complete business feasibility analysis data with SWOT analysis and Business Model Canvas (BMC) (Sinarwati, et al., 2020). Aspects that demonstrate the validity of this prototype include the system service quality which includes physical appearance, reliability, and responsiveness. In addition, the quality of the information system, which includes flexibility, ease of use, and system reliability, is also an assessment factor. Meanwhile, the quality of information, which includes accuracy, time adequacy, and relevance, is also assessed. The items in the questionnaire used to test the feasibility of the Android-based SAKU BUMDes refer to previous research (Sinarwati, et al., 2020), which developed a mobile-based accounting information system application for Micro, Small and Medium Enterprises (MSMEs). The business feasibility analysis is prepared using three calculation methods, namely Pay Back Period, Net Present Value, and Profitability Index, with decisions taken based on the calculation results which are explained in detail.

A business proposal is considered suitable to be continued if the payback period is shorter than the estimated project completion time, while if the investment return period is longer than the estimated project completion time, then the conclusion is that the business is not worth continuing. For Net Present Value (NPV), the formula is Present Value Proceed minus Present Value Outlays, where Present Value Proceed is the total income after multiplying by the interest rate, and Present Value Outlays is the total initial business investment. A business proposal is considered feasible if the NPV is positive, and conversely, if the NPV is negative, then the business proposal is not worth continuing. In addition, a business proposal is considered feasible if the Profitability Index (PI) is greater than one, and conversely, if the PI is less than one, then the business proposal is not suitable to continue.

In the validity test carried out by business feasibility analysis experts, BUMDes experts, and system development experts, 75 percent of the prototype was deemed capable of presenting the

data required by BUMDes to assist in compiling a business feasibility analysis. As many as 70 percent of users stated that this prototype was useful for developing BUMDes businesses. The SAKU BUMDes application helps BUMDes operations to prepare business feasibility analysis work papers. Preparing an Android-based business feasibility analysis provides convenience and speed in making decisions regarding business continuity. BUMDes are required to perform a business feasibility analysis when obtaining capital from village funds, as mandated by Article 28, paragraph 4 of Minister of Home Affairs Regulation No. 20 of 2018 as a mandatory to ensure proper capital participation in BUMDes.

The development of an Android-based BUMDes business feasibility analysis system is a digitalization step in the BUMDes business process. This research continues previous research which helps micro-entrepreneurs in compiling computerized business feasibility analysis. This development focuses on two important aspects, namely first, an Android-based business feasibility analysis system, different from the previous computer-based one; secondly, this system analyzes business feasibility comprehensively, covering aspects of raw materials, marketing, human resources, and finance, and is even equipped with SWOT analysis and Business Model Canvas (BMC). The implementation of this business feasibility analysis system in BUMDes activities is expected to realize equitable village economic growth, which will be tested in the third year of research (2024).

Digitalization of BUMDes, as a concept that refers to the use of digital information technology in carrying out various activities carried out by BUMDes, represents a paradigm shift in local economic management at the village level. By utilizing digital information technology, BUMDes can increase efficiency, transparency and accessibility in carrying out various aspects of their business, including planning, managing and monitoring business performance. The focus of BUMDes digitalization explained in the abstract is the feasibility of the Android-based BUMDes SAKU (Business Feasibility Analysis System) prototype. This indicates that the application of digital technology is not just about adopting technology for technology's sake, but also to increase effectiveness and efficiency in the analysis and decision-making process related to BUMDes business.

The methodology used in the prototype is descriptive qualitative research with expert testing methods. The choice of this method is based on the need to understand in depth the perspectives and experiences of related experts, such as business feasibility analysis experts, BUMDes experts, and development systems experts, to ensure that the prototype meets the expected quality standards. Primary data for this research was collected through questionnaires and interviews, which provided an opportunity for respondents to provide their input and feedback on the prototypes being evaluated. The research respondents were divided into two groups: the first group consisted of experts who acted as validators, while the second group was prototype users represented by the BUMDes director who also served as chairman of the Semarang District BUMDes Forum. This division provides a comprehensive perspective on the feasibility and benefits of the prototype from two different points of view, namely from experts who understand technical and business aspects, and from users who have direct experience in carrying out BUMDes business activities.

The validation results show that the SAKU BUMDes prototype can provide the data needed by BUMDes to assist in preparing business feasibility analysis, with a success rate of 75 percent. Apart from that, as many as 70 percent of users stated that this prototype provided benefits in developing BUMDes businesses. These findings provide strong evidence that digitalization of BUMDes through the implementation of the SAKU prototype has the potential to improve the performance and sustainability of BUMDes businesses. The implementation of SAKU in BUMDes can also be seen as a real step in encouraging the digitalization of BUMDes in their business activities. By using digital information technology, BUMDes can expand the reach and accessibility of their services, increase operational efficiency, and strengthen connectivity with markets and other resources. This in turn can support the achievement of equitable economic growth at the village level by opening up new opportunities for local community economic participation and increasing the competitiveness of the rural economy as a whole.

4. CONCLUSION

This research aims to evaluate the success of the Android-based BUMDes SAKU (Business Feasibility Analysis System) prototype. The success of this research is measured through the responses given by validators and users, who state that the prototype that has been developed is worthy of being continued with several adjustments so that SAKU can provide greater advantages for BUMDes management. The use of SAKU in BUMDes operations helps speed up the process of preparing business feasibility analysis working papers. There are two benefits that BUMDes obtain from implementing SAKU in their operations. First, this helps BUMDes to comply with regulations, especially Minister of Home Affairs Regulation No. 20 of 2018 concerning Regional Financial Management. The second advantage for BUMDes is that by using SAKU, the possibility of success of the business unit to be established will be greater, or the possibility of failure will be smaller because the business has started with an in-depth analysis related to marketing, human resources, raw materials, finance, as well as a SWOT analysis and BMC. The implementation of SAKU by BUMDes is a step in the framework of digitizing BUMDes to encourage equitable village economic growth.

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