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Implementation of Network Governance in the Development of Internet Network Business Units in Bumdes in Batang Asai District, Sarolangun Regency

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ABSTRACT

This study examines the development of internet network service businesses managed by Village-Owned Enterprises (BUMDes) in Batang Asai District, Sarolangun Regency, using a network-based governance approach. The research approach employed was qualitative, with data collection conducted through interviews and document searches. The research findings indicate that BUMDes plays a strategic role in providing internet access for rural communities through the implementation of the RT/RW Net or village WiFi model, which is considered appropriate to the geographical conditions and limited rural infrastructure. The implementation of network governance is reflected in the collaboration between the village government, BUMDes managers, the community, and internet service providers. Active community involvement is a crucial element in maintaining service sustainability. However, the instability of electricity supply and the limited technical capabilities of managers remain major obstacles that require policy support and institutional strengthening.

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INTRODUCTION

The beginning of the founding of the Republic of Indonesia was divided into two main groups: a group that wanted to make Islam the foundation of the state and a group that aspired to become a nationalist or communist state until the political leaders recognized Pancasila and the 1945 Constitution as the foundation of the Republic of Indonesia. Two main groups: a group that wanted to make Islam the foundation of the state and a group that aspired to become a nationalist or communist state until the political leaders recognized Pancasila and the 1945 Constitution as the foundation of the state. The Republic of Indonesia. The first part of Pancasila "Belief in the One and Only God" colors the next four principles that shape the nation so that politicians who want to build an Islamic state can do so without disturbing the first part (Sudarsa, 2023). Pancasila "Belief in the One and Only God" colors the next four principles that shape the nation so that politicians who want to build an Islamic state can do so without disturbing the first part (Sudarsa, 2023).

Islam consistently serves as a guide for human life in many areas, including religion, economics, society, human life, education, health, and many more (Sudarsa, 2022). in various fields, including religion, economics, society, politics, education, health, and many more (Sudarsa, 2022). The progress of education has encouraged people to pursue intellectual and cultural development. Education has encouraged people to pursue intellectual and cultural development. All of which are based on teachings taken from the teachings of the Qur'an and Hadith. sourced from the Qur'an and Hadith.

In Islam, Public policy refers to general laws that promote racial harmony or welfare. To achieve this goal, classical Muslim scholars and scholars such as Imam Al-Ghazali and Imam Ash-Syatibi emphasized the importance of upholding sharia principles in all general policies implemented by Islamic leaders (ulil amri). Democracy (Sudarsa, 2023) is a political system that is able to enable society to be able to participate in the decision-making process by providing opportunities for leaders and organizations to provide alternative policies. Enables society to participate in the decision-making process by allowing leaders and organizations to provide alternative policies.

Development in Indonesia, particularly in rural areas, requires serious attention and involvement from leaders to continuously improve the quality of public services. Good leadership enables the creation of policies and decisions that promote village progress and prosperity. One strategic factor contributing to accelerating village development is the effective and sustainable management of Village-Owned Enterprises (BUMDes).

The implementation of BUMDes policies is the stage of implementing government-established provisions and guidelines for establishing and managing businesses at the village level, aimed at improving community welfare by strengthening the local economy. The process of establishing and managing BUMDes reflects village governance practices that emphasize the principles of cooperation, openness, and sustainability, with the primary goal of encouraging improvements in village economic conditions.

Village-Owned Enterprises (BUMDes) function as village institutions focused on improving community welfare through economic empowerment and public service provision. In the digital era, internet access is an increasingly crucial public service. The role of BUMDes in providing internet services is highly strategic, particularly in rural areas that still face limited access to reliable and affordable internet. By optimizing local potential and resources, BUMDes can address the need for internet services in villages while supporting equitable access to information and technology.

Village-Owned Enterprises (BUMDes) can play a role as internet service providers for village residents. Through BUMDes' management of internet services, communities that previously had difficulty accessing internet due to the limited reach of commercial providers can now enjoy more affordable and accessible internet services. The existence of BUMDes allows for the provision of connectivity services tailored to the needs and local conditions of the village.

In addition, Village-Owned Enterprises (BUMDes) contribute to the development of village internet network facilities and infrastructure, using both cable-based technologies like fiber optics and wireless technologies, including Wi-Fi and cellular networks. This infrastructure development opens up opportunities to expand internet access to households and public facilities, thus supporting the social and economic activities of village communities.

Adequate internet access also accelerates the digitalization of village governance. Various administrative services can be performed online, including the delivery of public information and e-government-based services, increasing efficiency and transparency. Broader connectivity also strengthens villages' connections to markets and external networks, thus supporting local economic growth through the marketing of village products and increasing digital-based economic transactions.

Village-Owned Enterprises (BUMDes) also have the opportunity to form partnerships with the government, internet service providers, and technology companies to accelerate infrastructure development and reduce operational costs. For sustainability, BUMDes can implement business schemes such as affordable subscription services or pay-as-you-go systems. This model not only meets community needs but also generates village revenue that can be allocated to other development programs.

Improved internet access has had a positive impact on the quality of life of rural communities, particularly in education, health, information, and entertainment. It has become easier for people to access online services such as distance learning and health consultations. To ensure the sustainability of these benefits, Village-Owned Enterprises (BUMDes) are responsible for monitoring, evaluating, and regularly maintaining the network to ensure service quality is maintained.

The use of information and communication technology is a crucial element in improving the quality of village services. Village-Owned Enterprises (BUMDes) can optimize digital technology for data management and village government administration, the provision of internet-based education services, and the implementation of management information systems to enhance

efficiency and accountability. Furthermore, supporting village MSMEs through e-commerce and digital marketing opens up broader market opportunities and increases community income.

In the agricultural sector, village-owned enterprises (BUMDes) can adopt smart agricultural technology to help farmers increase productivity through real-time monitoring of land and crop conditions. All of these efforts will be more effective if implemented with a community-based approach. This approach emphasizes active community involvement in the planning, decision-making, and management of BUMDes businesses, ensuring that implemented programs truly align with the needs, potential, and aspirations of village communities.

METHOD

This research uses a qualitative approach, as described by Waruwu (2023). This approach was chosen because the data is presented based on the informants' perspectives and experiences and is used to examine naturally occurring phenomena. The research process was conducted by adjusting the focus and formulation of the problem, then analyzing it to understand the background of the informants' actions, including their ways of thinking, attitudes, and behavior. Furthermore, the obtained data was selected and simplified through a reduction process, before finally being interpreted and conclusions drawn by the researcher.

RESULTS AND DISCUSSION

Sarolangun Regency is geographically located between 102o 03'39" and 103o 13'17" East Longitude and between 01o 53'39" and 02o 46'24" South Latitude. To the north, it borders Batanghari Regency; to the east, it borders Musi Rawas Regency; to the south, it borders Rejang Lebong Regency; and to the west, it borders Merangin Regency.

The area of Sarolangun Regency is 6,174 km2, consisting of :

1. Batang Asai District 858 km2 (13.90%).
2. Limun District 799 km2 (12.94%).
3. Cermin Nan Gedang District 320 km2 (5.18%)
4. Pelawan District 330 km2 (5.34%).
5. Singkut District 173 km2 (2.80%).
6. Sarolangun District 319 km2 (5.17%).
7. Batin VIII District 498 km2 (8.07%)
8. Pauh District 1,770 km2 (28.67%).
9. Air Hitam District 471 km2 (7.63%)
10. Mandiangin District 636 km2 (10.30%).

The largest area in Sarolangun Regency is in Pauh District, covering 1,770 km2 or 28.67 percent of the total area of Sarolangun Regency, followed by Batang Asai District and Limun District, covering 858 km2 and 799 km2, respectively. In 2012, the population of Sarolangun Regency was 259,963, increasing to 267,549 in 2013 and 290,231 in 2017. The highest population growth occurred in Sarolangun District and the lowest in Cermin Nan Gedang District.

Table 2.1 Population

No	subdistrict	Male Type	Female genital	Amount	Sex Ratio
1	Batang Asai	8 352	9 053	17,405	92.26
2	Limun	8 977	8 877	17,854	101.13
3	Cermin nan Gadang	6 254	6 186	12,440	101.1
4	Pelawan	16 091	15 875	31,966	101.36
5	Singkut	21 404	20 458	41,862	104.6
6	Sarolangun	29 480	28 569	58,049	103.19
7	Batin VIII	10 201 9	801	20,002	104.08
8	Pauh	12 629	11 838	24,467	106.68
9	Air Hitam	15 421	14 042	29,463	109.82
10	Mandiangin	18 990	17 733	36,723	107.09
	Total number	**147 799**	**145 253**	**290 231**	**103.77**

Research findings indicate that the development of internet network services managed by a Village-Owned Enterprise (BUMDes) in Batang Asai District has been implemented through synergy between the village government, BUMDes administrators, the community, and internet service providers. The network model implemented is RT/RW Net or village WiFi, which is considered most relevant to the geographic conditions and limited infrastructure in rural areas.

The implementation of network-based governance is reflected in the collaboration and coordination between stakeholders in the planning, operation, and evaluation stages of internet services. In this scheme, the Village-Owned Enterprise (BUMDes) serves as the primary manager, the village government acts as policy support and facilitator, and the community acts as both users and contributors to service sustainability. Community involvement is evident through their willingness to pay fees and their participation in providing input regarding network quality.

However, the development of this business still faces various obstacles. The main problem stems from an unstable electricity supply, particularly during the rainy season, which impacts the quality of internet connections. Furthermore, the limited technical capabilities of village-owned enterprise (BUMDes) managers and the emergence of independent Wi-Fi services owned by individuals also pose challenges to maintaining business continuity.

In general, the research results indicate that the implementation of network governance in the management of internet network businesses by BUMDes in Batang Asai District has been ongoing, but has not yet reached an optimal level. Collaborative governance patterns allow for a clearer division of roles and encourage cooperation in the provision of public services at the village level.

Community involvement is a crucial element in the success of this program, in line with an empowerment approach that positions village communities as an integral part of the management system, not simply beneficiaries. This participation strengthens a sense of ownership of the internet service and contributes to the sustainability of the village-owned enterprise (BUMDes).

On the other hand, limited electricity infrastructure and institutional capacity remain major obstacles. This emphasizes that successful network governance relies not only on coordination between stakeholders but also requires basic infrastructure support and improved human resource quality. Therefore, a more comprehensive development strategy is needed through enhancing the technical competence of managers, strengthening cross-sectoral collaboration, and providing policy and funding support from local governments.

The Village-Owned Enterprise (BUMDes) also recognizes that business sustainability depends not only on infrastructure but also on the community's awareness and ability to use technology. Therefore, digital outreach and education are being conducted for residents, particularly students and MSMEs. This training program aims to expand the use of the internet as a productive tool, not just for entertainment.

Financially, the Village-Owned Enterprise (BUMDes) is implementing a strategy to strengthen its business capital through a contribution system, profit reinvestment, and collaboration with local investors. BUMDes is also beginning to design a sustainable business model, where a portion of profits is used for network maintenance and service quality improvements. This strategy aligns

with the principles of sustainability-based management, which emphasize the importance of balancing profit, service, and social sustainability.

In facing technical and social challenges, BUMDes implements a strategy of adaptation and continuous innovation. When faced with connectivity disruptions or changing market needs, BUMDes management conducts regular evaluations and improves its operational systems. This adaptive approach demonstrates the application of a learning organization, as explained by Kooiman (2003), where local government organizations must continuously learn and adapt to the dynamics of the social and technological environment.

Overall, the Village-Owned Enterprise (BUMDes) strategy for developing internet network business units in Batang Asai District encompasses a collaborative, participatory approach, and is oriented toward community empowerment. Village government support, partnerships with internet service providers, human resource capacity building, and infrastructure strengthening are key factors in the program's success. However, business sustainability still requires innovation, transparent financial management, and continuous improvement in community digital literacy. With the right strategy and network-based governance, BUMDes has the potential to become a key driving force in realizing an independent, inclusive, and competitive digital village.

CONCLUSION

Based on the results of the research conducted using a qualitative approach through data collection techniques in the form of interviews and documentation, as well as analysis of field findings, several conclusions can be drawn. The development of internet network services managed by BUMDes in Batang Asai District has received strong support, both from technical and social aspects. Technically, the implementation of the RT/RW Net network model or village WiFi is considered most appropriate because it can be developed gradually and managed independently by the community through BUMDes without the need for large infrastructure such as the construction of network towers.

The use of access points and the implementation of a Network Management System (NMS) on a small scale are important strategies for maintaining network stability. Furthermore, active community involvement plays a significant role in ensuring service continuity. Communities not only act as users but also contribute through regular payments and participation in service quality evaluations, demonstrating a growing awareness of the importance of internet access in village social and economic life.

The supporting and inhibiting factors in developing this business are quite diverse. The main supporting factor lies in the flexibility of the RT/RW Net or village WiFi network model, which is suited to the geographic conditions of areas that lack large-scale network infrastructure. Meanwhile, the main obstacle faced is the instability of the electricity supply, particularly in remote areas or during the rainy season, which has the potential to disrupt the network and damage equipment. Efforts by village governments to provide alternative electricity sources such as hydroelectric power plants (PLTA) still have limited capacity

compared to the electricity supply from PLN. Furthermore, the availability of private WiFi services, such as WiFi Starling, also poses a challenge to maintaining the sustainability of BUMDes businesses.

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