

Fostering Rural Economic Development through Penta-Helix Collaboration: A Case Study of Village-Owned Enterprises (BUMDesa) in Maros Regency, Indonesia

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KEYWORDS

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ABSTRACT

This study examines the implementation of the Penta-Helix collaboration model in developing Village-Owned Enterprises (BUMDesa) in Maros Regency, Indonesia. The Penta-Helix model involves collaboration between academics, business, community, government, and media. The research aims to provide theoretical contributions to the development of the Penta-Helix concept and practical recommendations for stakeholders in optimizing collaboration to support BUMDesa development. The study employs a qualitative approach, with data collected through Focus Group Discussions (FGDs) involving representatives from each actor in the Penta-Helix collaboration. The findings reveal that each actor has specific roles and contributions, such as academics as conceptors, businesses as enablers, communities as accelerators, government as regulators and controllers, and media as expanders. Although the Penta-Helix collaboration in developing BUMDesa in Maros Regency has not reached an optimal stage, there is great potential for further development. The collaboration shows synergy and resource exchange that can drive innovation and sustainability in BUMDesa development. However, challenges remain, such as the not-yet-optimal role of media in publication and promotion, and the need to strengthen commitment and involvement of various parties in the collaboration. The study suggests several strategic steps to optimize the Penta-Helix collaboration, including strengthening synergy and coordination, increasing human resource capacity, optimizing the role of media, strengthening government support, encouraging active community participation, developing strategic partnerships, and conducting regular monitoring and evaluation. By implementing these steps, the Penta-Helix collaboration in developing BUMDesa in Maros Regency is expected to become more optimal and positively impact the welfare of rural communities through sustainable local economic development.

Introduction

Social change is an inevitable phenomenon in community development. This change occurs due to dynamics in various aspects of life, both internally and externally (Wagoner & Power, 2022; Grinin et al, 2023; Howlett & Ramesh, 2023). In the context of rural development, social change is often directed toward improving community welfare through the development of local economic potential (Kline & Moretti, 2014; Van der et al, 2017; Deže et al, 2023, Sarfo et al, 2024). Social changes in rural areas can be triggered by internal factors such as population growth, demographic structural changes, increased education levels, and shifts in cultural values (Petrescu-Mag et al, 2022; Luca et al, 2023; Wu & Yuan, 2023). These factors can drive communities to seek new ways of improving living standards and optimizing existing resources. For instance, with population growth, communities may need to develop more intensive agricultural systems or seek alternative livelihoods outside the agricultural sector (Knickel et al, 2018; Berchoux et al, 2019; Khatri et al, 2024).

On the other hand, rural social changes can also be influenced by external factors such as government policies, technological developments, and globalization. Development policies initiated by the government, such as rural industrialization programs or infrastructure development, can create new economic opportunities for communities (Habiyaremye et al, 2020; Jia et al, 2020; Xu et al, 2021). Technological advancement, particularly in information and communication, can expand communities' access to broader markets and social networks (Zheng et al, 2024; Urefe et al, 2024). Globalization, with its increasingly open flow of information and culture, can introduce new values and lifestyles that influence rural communities' perspectives and behaviors. In this process of social change, developing local economic potential becomes one of the key strategies for improving



rural community welfare (Raja et al, 2023; Barooah et al, 2023; Katsir et al, 2024). Local economic potential can include natural resources, traditional knowledge and skills, and the unique cultural characteristics possessed by communities (Aguilar, 2001; Barrera-Bassols et al, 2006; Valente, 2012). One form of rural economic development effort is through the establishment and development of Village-Owned Enterprises (BUMDesa). BUMDesa is a village business institution managed by the community and village government to strengthen the village economy and is formed based on the village's needs and potential (Law No. 6 of 2014). BUMDesa is expected to become the driving force of the rural economy through the management of village potential according to community needs (Srirejeki, 2018; Kania et al, 2021). However, BUMDesa development is often constrained by various problems, such as limited human resource capacity, limited access to capital and technology, and weak support from various stakeholders (Rachmawati, 2024; Febrina et al, 2024).

To address these issues, collaboration from various parties is needed to support BUMDesa development. One approach that can be used is through the Penta-Helix model, which involves collaboration between academia, business, community, government, and media (Halibas et al., 2017; Yasir et al, 2021). The Penta-Helix collaboration enables synergy and resource exchange that can promote innovation and sustainability in BUMDesa development (Yunas, 2024).

Maros Regency, with 80 villages and various potentials, should be able to optimize regional potential through BUMDesa, such as fisheries, agriculture, forestry, and mining potential. However, data from the Maros Regency Village Community Empowerment Office shows that BUMDesa business types in Maros Regency are still dominated by savings and loans (60%) and rental services (23%). Only about 15% of BUMDesa have optimized village potential, including livestock farming, agricultural processing, and handicrafts, while 2% still have no business activities. This indicates the need for BUMDesa capacity development in Maros Regency to formulate business types that align with existing village potential.

The issue of BUMDesa capacity development is interesting to examine from the perspective of public administration, particularly through the collaborative governance approach. Collaborative governance views that public issues, including BUMDesa capacity development, are no longer the sole domain of government but must involve various non-governmental institutions, such as the private sector, civil society, academia, and information media. The results of this research are expected to provide theoretical contributions to the development of the Penta-Helix concept while offering practical recommendations for stakeholders in optimizing collaboration to support BUMDesa development. Thus, this research has high urgency in promoting the acceleration of rural development through sustainable local economic development.

Method

This research employs a qualitative approach to conduct an in-depth examination of the Penta-Helix collaboration model implementation in the development of Village-Owned Enterprises (BUMDesa) in Maros Regency, Indonesia. The qualitative approach was selected as it enables researchers to gain comprehensive understanding of the studied phenomenon through exploration of experiences, perceptions, and interactions among actors involved in the Penta-Helix collaboration (Creswell & Poth, 2016).

Data collection was conducted through Focus Group Discussions (FGDs) involving representatives from each actor in the Penta-Helix collaboration: academia, business, community, government, and media. FGDs were chosen as the data collection method because they facilitate dynamic interaction among participants, thereby generating richer and more comprehensive understanding of the discussed topics (Nyumba et al., 2018). FGD participants were selected purposively, considering their involvement and roles in BUMDesa development in Maros Regency. The number of FGD participants was determined based on the data saturation principle, continuing until no new information relevant to the research topic emerged (Guest et al., 2017). FGDs were

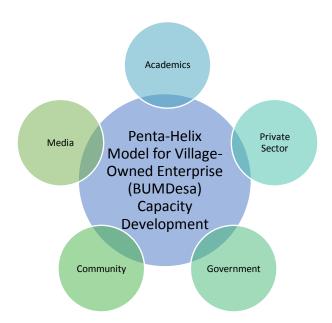
conducted 3-5 times, with each session lasting 90-120 minutes, and were facilitated by an experienced moderator.

The FGD guidelines were developed based on theories and concepts relevant to Penta-Helix collaboration and BUMDesa development, adapted to the local context of Maros Regency. FGD questions covered topics such as the roles and contributions of each actor in the Penta-Helix collaboration, challenges and opportunities in BUMDesa development, and factors affecting collaboration effectiveness. Data obtained through FGDs were analyzed using a thematic analysis approach (Braun & Clarke, 2006). The analysis stages included verbatim transcription, data codification, identification of emerging themes, and interpretation of meaning. To enhance the validity and reliability of research findings, data source triangulation and peer debriefing were conducted (Creswell & Miller, 2000).

Result and Discussion

Penta-Helix in BUMDesa Development in Maros Regency

Theoretically, social change cannot be achieved in isolation. Transforming conditions must be accomplished collectively through multi-stakeholder engagement. Only collaboration enables a society to continuously progress and develop. While there are various models of multi-stakeholder cooperation, one significant approach is the Penta-Helix model. Collaboration within the Penta-Helix concept represents cooperative activities across sectors and parties from Academic, Business, Community, Government, and Media sectors, known as ABCGM. The Penta-Helix collaboration model aims to optimize the roles of Academia, Business, Community, Government, and Media as catalysts for social change that can benefit society and the surrounding environment. The Penta-Helix scheme is illustrated in the diagram below:



Academia

In the context of social change, academia can serve as conceptors. For instance, they conduct research aimed at assisting BUMDesa managers in identifying business potential and developing the capacity of BUMDesa management resources. Academia can help enhance the knowledge and skills of BUMDesa managers. In this context, academia serves as a knowledge source for capacity development and business management, encompassing concepts, theories, and contemporary development models relevant to economic potential conditions, capacity, and business opportunities in the village.



Business

Business, also referred to as the private sector, can act as an enabler in the context of BUMDesa development. The private sector represents entities that conduct business processes to create added value and maintain sustainable growth. In this context, the private sector can serve as an enabler by providing technological infrastructure, capital, and various other functions related to product development and marketing of goods and services produced by the community as subjects of social change.

Community

In the context of social change, communities can serve as accelerators. Communities comprise people who share common interests relevant to the potential being developed. They act as intermediaries or liaisons between stakeholders to assist the community throughout the social change process and facilitate business processes. Additionally, communities play a role in promoting products or services produced by the community.

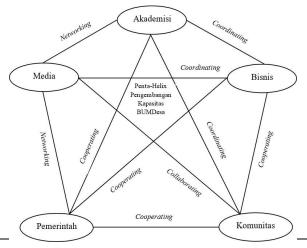
Government

In the context of BUMDesa capacity development, the government must act as both regulator and controller, possessing rules, regulations, and responsibility for these changes. The government's role involves all types of activities such as planning, implementation, monitoring, control, promotion, financial allocation, licensing, development and knowledge, public innovation policy, support for innovation networks, and public-private partnerships. The government also serves as a coordinator for stakeholders contributing to changes in BUMDesa development that the community aims to achieve.

Media

Media in the context of BUMDesa capacity development is also crucial due to its role as an expander. Media supports publication in promoting products and services produced by communities seeking social change. Furthermore, media functions to build the brand image of such social change. This enables others to access information more easily about the social changes being implemented by the community. This ease of information access becomes one of the supporting factors for attracting new collaborators who can support the social changes being undertaken by the community.

The utilization of the Penta-Helix collaboration model as a basis for collaboration in development and social change creates significant potential for sustaining the social changes desired by the community. Moreover, these social changes can benefit the broader public, the surrounding environment, and the parties involved in the Penta-Helix scheme itself (ABCGM). Thus, it can be concluded that the synergy between Penta-Helix elements can be key to the continuity and sustainability of community development and positive social change desired by various parties. In the context of improving management capacity and developing BUMDesa economic business potential in Maros Regency, this can be illustrated as follows.





Academia, as a conceptor, maintains coordinating relationships with business and community sectors. This is characterized by minimal resource sharing with moderate time commitment. The resources referred to here include assistance for capital, business information, facilities, and training facilitators. The specific relationship between academia and government falls under the cooperating category, where relationships are formally established with moderate commitment in sharing risks, resources, and rewards - interpreted as academia's access to contribute to BUMDesa development. Meanwhile, the relationship between academia and media is categorized as networking, as it involves informal connections without necessary resource sharing. The primary focus is on information exchange with minimal time commitment.

In contrast to the formal relationships established between business with government and community, these interactions are categorized as cooperating. This is due to substantial time commitment, significant commitment in sharing resources, risks, responsibilities, and rewards. Business assists by providing training, capital assistance, and facilities. Rewards can be interpreted as increasingly accessible business process access. The relationship between business and media has a coordinating type of relationship. This relationship is characterized by official connections, minimal resource sharing, and no sharing of risks or responsibilities.

The relationship between community and media is categorized as collaborating. Here, the community plays a strong role in contributing to the publication process and promotion of BUMDesa business products through websites. One of the website's functions is as a medium for publishing BUMDesa development programs for each village in Maros Regency, where the website contains information about these programs. Meanwhile, the relationship between community and government is cooperating. This relationship is formally established. Community and government have sufficient commitment in sharing resources, responsibilities, risks, and rewards. The government provides various forms of access, for example, through training, comparative studies, and exhibitions.

Government and media maintain a networking relationship. This is due to the absence of government media partners in supporting programs for publication and promotion. Print and electronic media engagement occurs automatically during events. In developing BUMDesa capacity and economic business potential, media is only supported through community-managed websites for publication and promotion. MSME business actors also utilize social media platforms such as Facebook and Instagram for privately managed marketing.

The types of relationships established between stakeholders in the penta-helix collaboration model for cooperation in management capacity improvement programs and BUMDesa business potential development have not yet reached an optimal stage. However, with the existence of collaboration between these stakeholders, there are significant opportunities for further positive development.

The Penta-Helix model emphasizes collaboration between five key sectors - Academic, Business, Community, Government, and Media (ABCGM) - to drive social change and development (Prajanti et al, 2023; Yunas, 2024). Academia serves as the conceptor, providing research, knowledge, and skills training; Business acts as an enabler, contributing technology, capital, and expertise; the Community functions as an accelerator, promoting products/services and facilitating linkages; Government is the regulator and controller, setting rules/policies, allocating resources, and coordinating stakeholders; and Media is the expander, promoting BUMDesa products/services and building brand image.

In Maros Regency, the nature of relationships varies between the Penta-Helix stakeholders, with Academia having coordinating ties with business and community, cooperating ties with government, and networking ties with media; Business having cooperating ties with government and community, and coordinating ties with media; Community collaborating with media on promotion and cooperating with government; and Government and media only having networking ties. While collaboration exists, the relationships are not yet optimal. However, the Penta-Helix model provides significant opportunities to further develop and sustain BUMDesa in Maros Regency through multi-stakeholder synergies, and strengthening the roles and cooperative linkages of the five sectors can enhance the management capacity and economic potential of village-owned enterprises.



Conclusion

The research findings indicate that the Penta-Helix collaboration, involving academia, business, community, government, and media, plays a crucial role in promoting BUMDesa development. Each actor in the Penta-Helix collaboration has specific roles and contributions: academia as conceptor, business as enabler, community as accelerator, government as regulator and controller, and media as expander. Although the Penta-Helix collaboration in BUMDesa development in Maros Regency has not yet reached an optimal stage, there is significant potential for further development. The collaboration among Penta-Helix actors demonstrates synergy and resource exchange that can drive innovation and sustainability in BUMDesa development. However, several challenges remain, such as the suboptimal role of media in publication and promotion, and the need to strengthen commitment and involvement of various parties in the collaboration.

To optimize the Penta-Helix collaboration in BUMDesa development in Maros Regency, several strategic measures are necessary. These include strengthening synergy and coordination among Penta-Helix actors through the establishment of collaboration forums or platforms that involve all stakeholders, and enhancing the capacity and competency of human resources involved in BUMDesa management through training, mentoring, and other capacity development programs. It is also crucial to optimize the media's role in publication, promotion, and information dissemination related to BUMDesa development through the utilization of print, electronic, and digital media. Furthermore, strengthening government support through conducive regulations, policies, and incentives for BUMDesa development is essential, along with ensuring program synchronization across relevant agencies. Additionally, encouraging active community participation in the planning, implementation, and monitoring of BUMDesa development programs, while strengthening community institutional capacity, plays a vital role. The development of strategic partnerships with the private sector and financial institutions is necessary to improve access to capital and markets for BUMDesa products and services. Finally, conducting regular monitoring and evaluation of BUMDesa performance and Penta-Helix collaboration effectiveness, while using evaluation results as a basis for improvement and further development, is crucial. Through the implementation of these measures, it is anticipated that the Penta-Helix collaboration in BUMDesa development in Maros Regency can be optimized and generate positive impacts on rural community welfare through sustainable local economic development.

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