

Strengthening the Capacity of BUMDes Astaguna Trihanggo Village in Facing the Industrial Revolution 4.0

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Abstract: The implementation of community service regarding strengthening the capacity of the establishment of Village-Owned Enterprises (BUMDes) Astaguna in facing the Industrial Revolution 4.0 aims to realize information and communication technology in managing BUMDes operations; it is intended to provide BUMDes with a survival strategy for competitors. The renewal effort is motivated by the social behaviour of society, which is dependent on technological developments, marked by the Industrial Revolution, which disrupted multi-fields and had a global impact. The implementation time was held in the Even Semester of 2023 for 30 days from January 1, 2023, to January 30, 2023. Implementing the service begins with planning, activities, and evaluation involving the partner group as the subject and object of service. The conclusion of the service implementation is the impact of increased understanding, which is realized in BUMDes operational activities, which include BUMDes digitalization, which focuses on providing awareness of digital marketing strategies. Then, there is a business plan preparation using the canvas model and SWOT formulation to find BUMDes strategies, then compiling BUMDes governance to be implemented according to the principles of transparency and accountability.

Keywords: BUMDes; digitalization; governance; village communities

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INTRODUCTION

The establishment of Village-Owned Enterprises (BUMDes) has positively impacted the development of the village economy (Susanti, 2021). This is evidenced by government policies that intensify development from the periphery, which is crystallized into the Nawa Cita program, and policies regarding villages, which include Government Regulation (PP) No. 11 of 2021 and Law No. 6 of 2014 (Iyan,

2020). Implementing the village fund program policy with enough funds provides a great opportunity for village economic development (Sasuwuk, 2021). Arguments regarding the BUMDes can reach the targets to be prospered. The village is the lowest entity with the authority to organize and manage its households according to its right of origin (Adnyana, 2022).

Previous findings found that low human resources and uneven

infrastructure influence the digital divide between urban and rural areas (Fuadi, 2021). Therefore, the use of ICT should be prioritized in village management, especially in BUMDes economic institutions (Jakak, 2022). This is also in line with the problems faced by BUMDes Astaguna. Meanwhile, advances in information and communication technology have played an important role in the complex lines of life (Widianto, 2021). Thus, information and communication are needed to establish interactions and carry out activities through sending, receiving, and managing information/activities to achieve effectiveness (Ridwan, 2022).

Technological advances, supported by regulations and infrastructure, have encouraged the development of digital-based businesses (Darma, 2022). This is evidenced by previous findings regarding information and communication technology being a necessity and contribution to the development of BUMDes in intensifying the utilization of potential village assets and marketing of business units (Wijaya, 2021). In essence, information and communication technology is necessary for every institution, including BUMDes (Aji, 2022).

The situation analysis of BUMDes Astaguna found a developing position in the start-up stage category. Therefore, it is necessary to strengthen digital expertise to achieve success (Yuliani et al., 2021). However, as preliminary data shows, there are still several problems faced by BUMDes Astaguna, including :

1. Financial management, which still uses a traditional recording system through bookkeeping, evidences the low quality of human resources (BUMDes managers). This system does not allow for integration and effectiveness in recording and presenting financial reports. Recording through books has a high risk of archiving data in unexpected

situations such as natural disasters or fires.

2. Other problems include business planning that lacks a strategic vision and BUMDes governance issues that have yet to achieve the six variables (cooperative, participatory, accountable, emancipative, sustainable, and transparent) (Widiastuti, 2019). Thus, solution actions are needed to achieve BUMDes renewal.

On this issue, the service team provided a solution by strengthening digital understanding through 1) Focus Group Discussion (FGD), Training, and Assistance as a form of service to fulfil tri dharma and provide increased knowledge, expertise, capacity and utilization of resources through appropriate programs, activities, based on the essence of the problem or priority needs of the target. 2) Business plan training and assistance to provide efforts in achieving BUMDes targets and predicting the future of BUMDes businesses. 3) Assistance in preparing ideal governance, at least implementation in renewing the governance of BUMDes Astaguna to achieve mature development. The road map for community service is depicted in Figure 1.

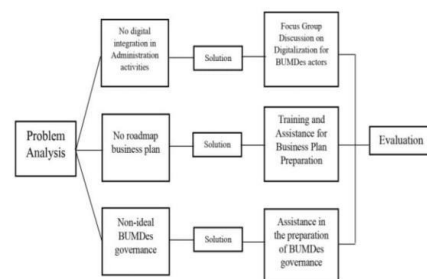


Figure 1 Dedication roadmap

Based on the service road map figure 1 is intended to provide a detailed scheme of service planning, which is the

foundation for aligning planning to implementation through the evaluation stage. The service team chose BUMDes Astaguna as a partner group because the condition of BUMDes Astaguna is still in the pilot stage, with various problems that cause the absence of optimization of the role and function of BUMDes. A successful BUMDes will contribute nationally to alleviating poverty and reducing unemployment.

METHOD

As the problems that have been described, PKM activities are carried out in Trihanggo Village, Gamping District. Activities start from the planning stage and are carried out according to an agreed schedule. Based on observations and discussions with BUMDes managers, the theme raised is "Strengthening the Capacity of BUMDes Astaguna in Facing the Industrial Revolution 4.0", which then the service activities are carried out through the following stages.

Preparation Phase

In the preparation stage, a survey was conducted to identify the partner group's problems, especially in digital integration. This was followed by coordination of activity planning with partners, including preparing a schedule of activities agreed upon with the MoU. In addition, a proposal submitted to the UMY Community Service Institute was prepared, and students were involved in discussions with the service team.

Implementation Phase

The implementation stage begins with completing a pre-test to measure the partner group's knowledge of BUMDes digitalization. Then, proceed with the core implementation of the service described below.

a. Focus Group Discussion (FGD)

This session provided a forum for discussion on the importance of

digitalization for village economic institutions. The focus of digitalization includes financial administration, taxation, and marketing.

b. Training and Mentoring

This activity session provides training on mapping or road mapping a business plan with a canvas model presented visually. It then continues with internal and external identification of BUMDes to fulfil the elements of strengths, weaknesses, opportunities, and threats to find a strategic position.

c. Mentoring

In this activity, ideal governance guidelines are applied to BUMDes governance. This activity's efforts make managers aware that governance has a foundation as control.

Monitoring and Evaluation phase

Evaluation and Monitoring are carried out in conjunction with the implementation of activities that have been carried out to find out the progress and achievements that have been carried out or that have not been carried out from each activity process if the monitoring and evaluation are found with errors or obstacles so that they can be corrected immediately. This evaluation will also involve partners in obtaining input. Furthermore, in terms of further assistance, the service team will provide material development to adjust further assistance according to the constraints contained in BUMDes management.

RESULT AND DISCUSSION

The service implementation begins with survey and observation activities to find the crucial problems partners face. This is one of the efforts to fulfil the accuracy of solution actions to provide the potential for the service's success through the Community-Based Research approach, which is a research-based service

scheme. As a Participatory Action Research approach, CBR includes community engagement. The CBR paradigm emphasizes grassroots or community-based in all steps and implementation of research-based service (Afandi, 2022).

CBR realized in a series of community service activities that began with observation activities to obtain an agreement/MoU between the service team and the partner group in the context of stating that there was no objection or coercion from other parties in participating in the activity or becoming a partner group in the implementation of the service. Then, proceed with preparing an activity schedule to harmonize the service team's time with the partner group so that the implementation of activities runs smoothly. After that, a proposal was prepared and submitted to the Community Service Institute of Universitas Muhammadiyah Yogyakarta (LPM UMY) to obtain approval and material and non-material support to support the smooth running of community service activities. The implementation of the service begins with filling out a Pre-Test to measure the level of understanding and urgency of the importance of the matters to be discussed and used as material in the implementation of the service. The description of the BUMDes Astaguna service implementation is as follows.

a. FGD

At the activity stage, the FGD aims to encourage BUMDes to become an economic booster for villages through efforts to provide an aware attitude amid the development of globalization. Justification for implementation FGD to obtain primary information from the experience of BUMDes managers and the interaction of each individual in a discussion group. (Afiyanti, 2018). Given that Indonesia has a market-based economic model with government intervention, BUMDes should play an

important role as a representative of the village government in developing local economic potential to provide public services. Therefore, applying digital technology in BUMDes is urgent because it is needed in multiple fields (taxation, finance, and marketing). So, at the FGD implementation stage, there was a discussion about digital marketing strategies that apply e-commerce and upgrade products to survive amidst competitors and reach a wider range of consumers. Then, the FGD on finance is intended to process financial data through software automatically from input of income and expenses, profit and loss balance sheets accompanied by receipts to implement transparency efforts. Followed by a discussion of digital applications in the field of taxation as a body with taxpayer status. The FGD progress is shown in Figure 2.



Figure 2 FGD

The Figure 2 shows that there are activities to operate computers to process BUMDes financial data as a whole, including the income of each work program. This is followed by assistance in using social media to help increase branding.

b. Training and Assistance for Business Plan Preparation

In the training and mentoring stage, there is a business plan implementation which begins with formulating internal factors and external factors with the management of BUMDes Astaguna; the formulation is calculated into four elements, namely strengths, weaknesses,

opportunities, and challenges, making it easier for the service team to find out the business plan or strategy that is prepared. Then, a business model *canvas* visualization will be compiled to identify the business segment. Customer, Value Propositions, Direct Channel and Indirect Channel, Customer Relationship, Revenue Streams, Key Resources, Key Activities, Key Partnership, and Cost Structure. A framework that is useful to

support the effectiveness of a business process and its realization in a fast and sustainable manner (business continuity). So instead of designing a complex business plan, creating a business model canvas will be more effective than a conventional and complex business model. The following is the Astaguna BUMDes SWOT table which has been formulated as shown in Table 1.

Table 1 SWOT BUMDes Astaguna

No.	Internal Factors	
	Strengths	Weaknesses
1.	Village Potential	Social Media/Internet
2.	Business Unit	Coordination of Village Government and BUMDes
3.	Community Participation	Work Ethic
External Factors		
Opportunities		Threats
1.	Developing Work Plans with Third Parties	Competitors
2.	Creating a Market Network	Conflicted Perceptions of Some Village Communities
3.	Support from Academia, Private Sector, and Local Government	

From Table 1 SWOT results in identifying strengths, weaknesses, opportunities and threats to BUMDes Astaguna, which then forms a matrix to determine the appropriate strategy points for BUMDes Astaguna in Trihanggo Village. Strategies that can be implemented in the form of activities include: 1. Analyzing the quality of village superior products with a sustainable basis; 2. Participating with other BUMDes or third parties to develop work plans; 3. Taking part with the Regional Government to realize the BUMDes program; 4. Updating information about BUMDes; 5. Utilizing appropriate technology according to the advantages of village products.

c. Assistance in Preparing BUMDes Governance

The mentoring activity begins by compiling ideal BUMDes Governance guidelines through several cooperative, participatory, transparent, emancipatic, and accountable elements. In these elements, alignment is given to the activities or operations of BUMDes Astaguna that have been carried out so far whether they have achieved the elements of ideal governance or there are still improvements to strengthen governance. So, in this activity, the BUMDes manager evaluates BUMDes operations to determine the ideal level of BUMDes governance.

The preparation of BUMDes Governance is shown in Figure 3.



Figure 2 Preparation of Governance BUMDes

The results of the BUMDes governance level found that there needed to be a written organizational structure. As shown above, assistance activities are conducted in preparing the vision, mission, organizational structure, main tasks and functions of the manager, type of business, and capital. These efforts

aim to make the BUMDes a transparent and accountable body through periodic reports.

d. Monitoring and Evaluation

In monitoring activities carried out in conjunction with the implementation of the service, if there is an implementation that is not in accordance with the proposal planning, then there is an update on the next activity; in other words, it is communicated with the partner group in order to get a solution together. In the monitoring results, there is a service implementation that does not follow the plan. This is evidenced by the time difference from the schedule and some absent participants. Then, in the evaluation stage, there was a discussion with the partner group regarding the implementation of the service that had been carried out; from the results of the evaluation, it was found that the BUMDes manager had not mastered the business plan on the SWOT and Canvas models, then in the digitalization of BUMDes some managers were unable to adjust the material that was the subject of discussion. The following are the impacts of the services that have been provided as shown in Table 2.

Table 2 Impact of service implementation

Service Indicator	Before	After	Description
Understanding the importance of implementing BUMDes digitalization	Limited	Improved	Managers are able to follow and provide responses regarding digitalization and the development of digitalization in BUMDes
Understanding the importance of systematic financial bookkeeping	Not Understanding	Improved	Managers are able to practice financial bookkeeping systematically
Understanding of marketing strategy renewal	Limited	Improved	Managers are able to develop marketing plans
Understanding of the Business Model Canvas	Not Understanding	Improved	Managers are able to know the target market and business planning
SWOT Mapping	Not Understanding	Improved	Managers are able to know the strategic direction of BUMDes
Understanding the urgency of ideal BUMDes governance	Limited	Improved	Managers are able to realize that governance is the root of success

Service Indicator	Before	After	Description
The administrative field needs renewal	Limited	Improved	Managers are able to update administration in the financial sector by implementing software

CONCLUSION

In the service that has been carried out, it is concluded that the activity has run according to the plan, with the stage of filling in the pre-test to determine the level of knowledge of the partner group. This was followed by carrying out a service activities *focus discussion group*, which was attended by BUMDes managers to discuss the digitalization of taxation, finance, and marketing. The discussion found that the activity's impact was clearly on the level of understanding from before the service. The evaluation stage evidences this through filling out the post-test, which is considered to have increased the importance of understanding digitalization (30%-70%). Why was only 70% achieved. This is the background Furthermore, in the implementation of the service on the business plan, there were cross opinions regarding the exposure of internal factors and external factors that would be formulated in the BUMDes SWOT and the Business Model Canvas received achievements from up to a percentage (35%-75%), this partner group had an enthusiastic response. Furthermore, there is the preparation of governance with the evaluation method and the applicability of elements with the governance that has been carried out by BUMDes Astaguna so far with a percentage of (45% - 75%).

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