

Improving the Capabilities of Village Officials in the Management of Village-Owned Enterprises and Understanding Village Data

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Abstract

Purpose: Village-Owned Enterprises (VOEs), mandated by Law No. 6 of 2014, are crucial for driving village economies and improving community welfare. However, many village officials face challenges understanding sound business governance and the significance of village data for effective development planning.

Method: The activity included lectures on VOE and village data, interactive discussions between facilitators and participants, and practical simulations for managing VOEs and compiling village data. Conducted smoothly in Naga Umbang Village, the program involved preparation, implementation, ongoing guidance, and evaluation to ensure success and sustainability.

Practical Applications: Professional management of businesses through transparent governance—such as financial record-keeping, clear role division, and operational rules—and integrating village data in planning based on asset inventories, population, and economic potential.

Conclusion: This activity enhanced the knowledge and skills of village officials and VOE administrators, fostering more professional VOE management and better utilization of village data for sustainable village development.



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Introduction

Village-Owned Enterprises (VOE) are an important instrument mandated by Law No. 6 of 2014 on Villages. VOE are expected to be the driving force behind the village economy and improve community welfare. However, in practice, many village officials still face obstacles in understanding good business governance, as well as a lack of understanding of the importance of village data in supporting development planning. Based on the above background, the following issues can be formulated: how to improve the capacity of village officials in managing VOE and how to provide comprehensive understanding to village officials regarding the importance of village data (Bake et al., 2021). The objectives of this activity are to improve the understanding of village officials in managing VOE professionally, provide skills to village officials in utilising village data for development, and encourage the creation of more transparent and accountable village governance. This community service activity is expected to provide benefits for village officials: increased capacity in village administration and business management; for the community: increased welfare through well-managed VOE; and for academics: a means of applying knowledge in a real-world context.

The literature review covers the theoretical basis relevant to community service activities. According to Law No. 6 of 2014 on Villages, VOE is a business entity whose entire or majority capital is owned by the village through direct participation originating from the village's separated wealth, in order to manage assets, services, and other businesses for the maximum welfare of the village community. Village data has a strategic position in development planning. Valid data will make it easier for villages to formulate the Village Medium-Term Development Plan (RPJMG) and the Village Government Work Plan (RKP Desa). Therefore, it is essential for village officials to understand data management. The preparation of the Village Medium-Term Development Plan (RPJMG) and the Village Government Work Plan (RKP Desa) requires valid, accurate, up-to-date and accountable data. Valid data plays an important role in providing evidence-based development direction, because through this data, village governments can analyse actual conditions, formulate problems, set priorities, and develop programmes that are relevant to the needs of the community. The presence of the national policy of One Data Indonesia (ODI) through PreSIVential Regulation No. 39 of 2019 emphasises the importance of data governance that meets standards, metadata, interoperability, and the use of reference codes and master data, so that the planning process at the village or sub-district level can be aligned with regional regional and national planning documents (PreSIVential Regulation No. 39 of 2019; BPK RI, 2019).

In addition, the Ministry of Villages, Development of Disadvantaged Regions and Transmigration, through Permendesa No. 21 of 2020, emphasises the obligation to periodically update village data and mainstream the Sustainable Development Goals (SDGs) indicators for villages as a framework for long-term development. With valid data, the RPJMG and RKP Desa can be formulated in a more precise and measurable manner, capable of accommodating community aspirations while remaining in line with regional policies (Kemendesa PDTT, 2020). The regulatory framework related to village planning over the past ten years provides a strong basis for prioritising data as the foundation for policy. Permendagri No. 86 of 2017 emphasises the importance of synchronising planning between the RPJMD at the district/city level and village planning, so that alignment of indicators can only be achieved if villages have standardised and compatible data (Kemendagri, 2017).

Ministry of Village, Development of Disadvantaged Regions and Transmigration Decree No. 82 of 2022 concerning Food Security in Villages also emphasises the need for sectoral indicators sourced directly from villages. This indicates that the more national thematic policies require valid data from villages, the greater the urgency of increasing village capacity in data management. Specifically in Aceh, the nomenclature of the RPJMG and RKP Desa is regulated through Qanun (local regulations) and Mayor Regulations that are tailored to the specificities of Aceh. These documents have the same substance as the national RPJMDes

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and RKPDes, but still require a valid database as their main foundation (Banda Aceh City Government, 2019; 2021). The main data sources used as references in the preparation of the RPJMG and RKP Desa can come from several instruments. First, the Village Information System (SIV) developed in various regions serves as a database for population, administrative services, economic potential, and village asset inventory. VIS has been proven to increase transparency and accountability in planning when supported by adequate equipment and skilled village officials (Yulianti et al., 2021).

Second, the Village Potential (PODES) data released by the Central Statistics Agency provides a periodic overview of social and economic conditions, infrastructure, and basic services. This data is often used as a baseline by the government to validate information from the VIS or the results of village deliberations (BPS, 2022). Third, the Village Development Index (IDM) and Village SDGs launched by the Ministry of Villages, Development of Disadvantaged Regions and Transmigration. The latest IDM 2023 measures the social, economic and ecological resilience of villages, making it an important reference in determining the status and direction of village development. Village SDGs, with a target horizon of 2030, provide comprehensive indicators that require regular data updates so that villages can align their planning with the global development agenda (Ministry of Villages, Development of Rural Areas and Transmigration, 2023; National Development Planning Agency, 2023).

Valid data facilitates the preparation of RPJMG in various aspects. First, problem diagnosis and community needs mapping can be carried out more precisely because measurable data can reveal the root causes of problems such as poverty, access to basic services, and infrastructure. A study in the border region of NTT–Timor Leste shows that village planning based on needs mapping produces programmes that are more relevant to local conditions (Sari et al., 2024). Second, setting measurable priorities and targets in the RPJMG becomes easier because valid indicators enable a results framework with clear baselines and targets. Third, budgeting can be evidence-based, so that village fund or village fund allocations are more efficient and targeted.

World Bank research (2019) shows that villages that use valid data in multi-year planning are able to accelerate the achievement of 'independent' status because cross-sector investments are more targeted. Fourth, synchronisation with the RPJMD and RKPDes at the district/city level is smoother because the suitability of indicators allows village proposals to easily enter the development planning consultation forum (Musrenbang) at the higher level. Fifth, village performance control and evaluation can be carried out objectively because measurable baselines and targets become references in annual monitoring. In the context of the Village Work Plan (RKP Desa) which is compiled annually, valid data plays an equally important role. The RKP serves to translate the RPJMG into annual activity plans accompanied by budgets. With regular data updates, village governments can select priority activities, set indicative ceilings, and identify target groups accurately. The data from the semesterly data collection as stipulated in Permendesa PD TT No. 21 of 2020 helps village governments respond to new dynamics in the community. In addition, valid data also enables villages to develop risk management and preparedness, for example by using indicators of disaster vulnerability or social conflict available in PODES.

Transparency and accountability are also better maintained because VIS is able to document the entire process from planning to implementation. With open data, the community can participate in monitoring and participating in development, thereby strengthening the legitimacy of planning documents. Various studies and good practices show the positive impact of using valid data at the village level. Rahmawati et al. (2023), for example, found that villages that compiled development plans based on data on facilities and infrastructure in VIS were able to produce more complete and consistent documents between plans, budgets, and implementation. The World Bank (2019) also noted the experience of villages in Indonesia that accelerated development progress by utilising data in multi-year plans. In fact, a recent study in border areas emphasises that without valid data, it is difficult for villages to design

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programmes that are appropriate to the local context, especially in areas with isolation and service disparities (Sari et al., 2024). Thus, valid data not only strengthens the technocratic capacity of village governments, but is also a prerequisite for the success of participatory development. However, there are still a number of challenges in providing valid data at the village level. Standardisation and metadata are often weak, making it difficult to integrate data across sectors. Updates are also not yet routine due to limited human resources, rotation of village officials, and connectivity constraints. VIS infrastructure still varies, and is often not matched by ongoing training for data operators. In addition, differences in the definition of indicators between village and regional documents often hinder synchronisation. Therefore, it is necessary to increase the capacity of village officials through training, technical assistance, and the formation of village data task forces focused on data management, validation, and publication (PreSIVential Regulation No. 39 of 2019; Kemendesa PD TT, 2020). Practical recommendations that can be implemented by village governments include forming a special team or data task force, setting a data update schedule every semester, integrating various data sources such as SIV, PODES, IDM, and sectoral data, and using a results framework with indicators compatible with Village SDGs. Open data publication through information boards and village VIS websites can also strengthen transparency.

In addition, villages need to ensure that indicators are aligned with district/city RPJMDs from the outset of strategic issue formulation so that proposals are more easily accepted at the regional level. Thus, RPJMG and RKP Desa can be better formulated, more efficient, and have a real impact on the community. Overall, literature from the past ten years shows that valid data is key to the successful preparation of RPJMG and RKP Desa. Accurate and updated data can improve the quality of problem diagnosis, clarify development priorities, strengthen evidence-based budgeting, and facilitate the synchronisation of planning across levels of government. Technical and capacity challenges do remain, but with a commitment to implementing the One Data Indonesia policy, utilising the SIV, and conducting regular updates, villages in Aceh and other regions can develop planning documents that are more focused, accountable, and sustainable.

Method

The methods applied in this community service activity were structured to enhance both knowledge and practical skills among village officials. First, lectures were conducted where material related to Village-Owned Enterprises (VOE) and village data was presented clearly and systematically, laying the theoretical foundation for participants. Following this, interactive discussions provided a platform for facilitators and participants to engage actively, allowing questions, clarifications, and knowledge sharing that helped deepen understanding. In addition to theoretical learning, simulations played a crucial role by offering hands-on practice in simple VOE management and the compilation of village data. This approach enabled participants to translate concepts into real-world skills, fostering confidence and practical competence. The community service activities in Naga Umbang Village proceeded smoothly, with village officials demonstrating high enthusiasm and a positive attitude toward the materials and methods used.

The procedural steps throughout the activities were carefully designed to ensure effectiveness; they began with thorough preparation to set clear goals and materials, followed by the implementation phase where lectures, discussions, and simulations took place. Subsequently, guidance or assistance was provided to the participating community, ensuring support in applying newly learned skills to their actual village contexts. Finally, an evaluation phase assessed both the achievement of the activity's objectives and the sustainability of its impact. This assessment allowed facilitators and stakeholders to understand the progress made and identify areas for future improvement, ensuring that the initiative not only met immediate learning needs but also contributed to long-term village development and governance improvement.

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Result

The evaluation results show an increase in participants' understanding of VOE governance and the importance of village data in development. The discussion also revealed that village officials still face obstacles in managing village administration and enterprises. Through this activity, village officials acquired new skills that can be applied in VOE management and development planning. The existence of valid data is fundamental in supporting the preparation of the Village Medium-Term Development Plan (RPJMG) and the Village Government Work Plan (RKP Desa). Various recent literature and regulations indicate that the quality of planning documents at the village level will depend on the extent to which the village government is able to manage and utilise data. Invalid or outdated data will result in biased, overlapping, and difficult-to-implement planning. Conversely, valid data enables village governments to identify issues more precisely, set development priorities in line with community needs, and ensure more effective and efficient use of budgets.

In the context of Aceh, this becomes even more important because the RPJMG and RKP Desa documents have specific nomenclature but are substantively equivalent to the RPJMDes and RKPDes at the national level. In practice, a major challenge often faced by village governments is the limited human and technological resources available for data management. The Village Information System (VIS), although widely implemented, is still not running optimally in most villages due to limitations in network infrastructure, equipment, and operator capacity. This results in population data, socio-economic data, and infrastructure data that is not always up to date or complete. However, the RPJMG, as a six-year document, requires consistent longitudinal data in order to map the development of indicators from year to year. Data inaccuracies also often result in errors in determining priorities, such as excessive physical development while the need to improve the quality of education and health services is neglected.

Figure 1. The Iskandar Muda University Community Service Team takes a group photo



Source: Private Documentation, 2025.

Thus, investment in strengthening the capacity of village officials and the sustainability of VIS is an absolute requirement in ensuring data validity. In addition to technical aspects, regulatory aspects also play an important role in ensuring that village data is standardised and can be integrated into regional and national planning systems. The One Data Indonesia (ODI) policy provides a legal framework to ensure data standards, metadata, and interoperability between systems. The implementation of this policy at the village level will facilitate the synchronisation of RPJMG and RKP Desa indicators with district/city planning documents. This is not only beneficial for policy alignment, but also opens up greater opportunities for villages to obtain programme support from local and central governments because the data presented meets national standards. Without data standard compliance, local governments often find it difficult to accept or integrate proposals from villages, which ultimately reduces the effectiveness of development. Therefore, it is important for villages to refer to ODI standards in every stage of data management, from collection and updating to publication. In terms of practical benefits, valid data facilitates the preparation of the RPJMG in four key areas. First, it facilitates the analysis of village issues and potential. Community service activities resulted in behavioural changes among participants, particularly in terms of improving their

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understanding and implementing more orderly and procedure-based work practices. In addition, a data management team was formed and new standard operating procedures (SOPs) were developed to serve as a reference for future activities. The impact of the activities was evident from the positive responses of the participants and the clear comparison between the conditions before and after the programme, in terms of knowledge, skills and governance.

Discussion

With accurate data, village governments can more accurately determine the number of poor residents, unemployment rates, infrastructure conditions, and local economic potential (Qin et al., 2020). Second, it assists in determining measurable development priorities. Clear indicators enable villages to set realistic targets, such as reducing stunting by 2% per year or increasing the number of households with access to clean water to 80% within five years (Komaruzaman et al., 2023). Third, it strengthens the effectiveness of village fund allocation. With evidence-based data, budgets can be directed towards programmes that are truly needed by the community, thereby reducing the risk of waste or misallocation. Fourth, it facilitates control and evaluation. With clear baselines and targets, village governments can conduct annual monitoring and make policy corrections if necessary. These four aspects are in line with the principles of sustainable development (Village SDGs) which emphasise the importance of measurable indicators.

In the context of preparing the Village Work Plan (RKP Desa), the role of valid data is no less important because the RKP is an annual derivative of the RPJMG. Data updated every semester as mandated by Permendesa PDTT No. 21 of 2020 enables village governments to prepare annual activities that are responsive to changes in community conditions. For example, if the semester data shows an increase in malnutrition cases, the RKP can allocate nutrition intervention programmes or strengthen integrated health service posts. Conversely, without up-to-date data, village governments risk implementing programmes that are no longer relevant to current conditions (Antlöv et al., 2016). The Village RKP also requires valid data to ensure that programme targets actually reach the communities in need, such as poor families, the elderly, or people with disabilities. Thus, valid data not only affects the quality of medium-term planning, but also determines the accuracy of direct annual interventions.

The results of the study also support the importance of valid data in strengthening village planning. A study conducted by Rahmawati et al. (2023) in Teratak Village, Kampar, shows that the preparation of infrastructure-based development plans compiled through VIS produces more complete and consistent planning documents between plans, budgets, and implementation. Similarly, World Bank (2019) research highlights villages in Indonesia that have succeeded in accelerating development progress by utilising valid data in multi-year planning. These villages were able to improve their status from 'underdeveloped' to 'independent' because development investments were directed at mutually supportive sectors based on data. This confirms that valid data not only has an impact on the quality of planning documents, but also on the acceleration of development and improvement of the welfare of rural communities. However, various challenges still need to be addressed in ensuring the validity of data in villages. The results of the discussion show that village officials still face obstacles in managing village administration and businesses. Therefore, it is necessary to implement simple but transparent business management practices, including financial record-keeping, division of management roles, and establishment of clear operational rules, as well as integration of village data into business planning so that every decision is based on an inventory of assets, population data, and local economic potential in line with the real needs of the community.

The first challenge is the weak standardisation of indicators and metadata. Many villages use different definitions in recording categories such as poor, productive or vulnerable, making it difficult to integrate with district data (Andries et al., 2022). The second challenge is limited human resources. Not all villages have skilled data operators who understand the technical

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aspects of data collection. The rotation of village officials also leads to a loss of institutional knowledge. The third challenge is the limitations of VIS infrastructure, which is often hampered by internet connectivity and device issues. The fourth challenge is the synchronisation of indicators with regional planning documents. Often, the indicators used by villages differ from those in the district RPJMD, making integration difficult. To overcome these challenges, several practical recommendations can be implemented. First, village governments can form data task forces that specifically manage standards, validation, and publication of village data (Bake et al., 2021). Second, establish a schedule for regular data updates, at least every semester, so that planning can be more responsive. Third, integrate various data sources, including SIV, PODES, IDM, and sectoral data such as posyandu, schools, and VOE.

Fourth, use the results framework in the RPJMG, which contains baselines, targets, and performance indicators that are aligned with the Village SDGs. Fifth, publish data openly through village information boards or the VIS website to encourage participation and transparency. Sixth, synchronise from the outset with the district RPJMD so that planning indicators are aligned and village proposals are more easily accepted at the development planning forum (musrenbang). Overall, this discussion shows that valid data is not only a technical requirement, but also a key prerequisite for effective, participatory and accountable village planning. By utilising regulatory frameworks such as Satu Data Indonesia and Permendesda PDDT No. 21 of 2020, as well as strengthening data management capacity through SIV, village governments can develop more focused and relevant RPJMG and RKP Desa. As a result, village development in Aceh will not only proceed as planned but also contribute to achieving sustainable development goals. Therefore, investing in data validity must be a top priority for every village, as only with good data can development plans be realised in a tangible and sustainable manner.

Figure 1. Tourist Attraction Signboard Contributed by Iskandar Muda University



Source: Private Documentation, 2025

Conclusion

This activity successfully enhanced the knowledge and skills of village officials and VOE administrators, empowering them to manage Village-Owned Enterprises more professionally and effectively. The training provided practical tools and insights that will enable them to utilize village data more efficiently to support decision-making and village development planning. To ensure the sustainability and continued progress of VOE governance, ongoing assistance is essential. Continuous support will help village officials overcome challenges, apply best practices, and maintain transparency and accountability in managing village enterprises. This can be achieved through routine mentoring, technical guidance, and regular monitoring. Furthermore, local governments play a critical role by providing regulatory backing and facilitating ongoing training programs. They are encouraged to develop policies that nurture VOE growth and capacity building. At the same time, village officials are urged to be proactive in collecting, updating, and managing village data accurately, as this is crucial for effective planning, resource allocation, and achieving long-term community welfare goals.

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