

Improving the Independence of Small and Medium Enterprises through Strengthening the Management of Plastic Waste Management Businesses in Kedungkandang District, Malang City

¹Rita Indah Mustikowati*, ¹Maris Kurniawati, ¹Chandra Sundaygara

¹Universitas PGRI Kanjuruhan Malang, Indonesia

*Corresponding author

Email: ritaindah@unikama.ac.id

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Abstract

Purpose: This study focuses on enhancing the sustainability of plastic waste management for small and medium enterprises (SMEs) in a community context. The objective is to bolster their independence by providing business management and financial training, ultimately contributing to environmental conservation and employment opportunities.

Method: Employing a Community Partnership Empowerment (PKM) approach, this research entails business management training and financial management guidance for SMEs engaged in plastic waste management. It aims to address stagnation issues and improve its comprehensive management system.

Practical Applications: Strengthening the management of plastic waste businesses not only supports environmental conservation but also boosts the local economy through job creation. Additionally, reducing the reliance on imported raw materials for plastic recycling contributes to the sustainability of the industry.

Conclusion: This research underscores the importance of empowering SMEs involved in plastic waste management through enhanced business and financial management practices. The outcome is expected to promote environmental conservation, create employment opportunities, and reduce dependency on foreign raw materials, thus benefitting both the community and the environment.



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Introduction

The problem of plastic waste that is difficult to decompose is an issue of environmental problems that are never resolved, so the plastic waste recycling process is still a mainstay solution to overcome it. The parties that play a significant role in the plastic waste recycling process include scavengers, collectors, sorters, and plastic recycling factories (Ghadge et al., 2022) (Kristina et al., 2018). The process of collecting plastic waste begins with the collection of waste by scavengers and then sold to plastic collectors. Plastic collectors distribute to plastic sorters such as partner SMEs (Bernat, 2023) (Santos et al., 2022). The partner SMEs are able to sort plastic with a capacity of 6-7 tons of plastic per week by their six employees. Plastics from collectors have not been sorted by type, so plastic waste cannot be directly recycled into plastic ore at the factory (Khathir et al., 2023). Partners admitted that there is no business planning and business management, especially financial management, in running their business (Mizar et al., 2022).

Business planning is essential to provide direction for business development towards SMEs that have competitiveness (Carreras et al., 2018) (S.M et al., 2021). Competitiveness is influenced by factors of product excellence, innovation, human resource capacity, marketing management, working capital, and professional managers (John et al., 2023) (Lemańska-Majdzik, 2022). Partners really need to get training and assistance in the preparation of business plans so that every business development of partner SMEs is more directed and measurable. Partners are very open to suggestions and ideas for business development. However, partners feel that they have never received assistance from related agencies, such as the cooperatives and SME offices, to provide direction for business development. It turns out that the partners have never registered their business with the relevant agencies to get business coaching. In terms of financial management, partners have done bookkeeping but only record cash inflows and outflows. The partners' business financial management is also still mixed with household finances and based on estimates, so they have not been able to calculate capital, assets, and business profits with certainty.

Financial management is vital to apply so that it can calculate the development of the amount of capital, assets, and profits obtained in real terms, not just estimates, because they are still mixed with family finances (Rosli & Jamil, 2021) (Rosmawati et al., 2023). The problems that partners are facing are: Partners need a business plan for business development. Partners need to implement business management, especially financial management, properly. Partners only make records based on cash inflows and outflows, so they cannot calculate the amount of capital, assets, and results obtained. Partners have not yet registered with the Cooperative and SMEs office, so they have never received guidance and assistance from the relevant agencies. SMEs need to register with the Cooperatives and SMEs office to get business coaching and direction for capital solutions. The objectives of this activity are to increase partner independence through strengthening business management and to increase knowledge for partners about a comprehensive management system.

Method

The PKM project began with an initial coordination phase, bringing together the PKM team, students, and partners involved in plastic waste management in small and medium enterprises (SMEs), along with employees from these SMEs. During this stage, the team engaged in discussions to define the clear goals and objectives of the PKM program. It was a crucial starting point to align all stakeholders towards a common purpose. Additionally, a significant aspect of the preparation phase was the socialization of the PKM programs. This involved educating partners about the goals, objectives, and specific focus areas of the program, which primarily revolved around enhancing business management and production methods. Clear communication during this phase was vital in setting the stage for the subsequent activities. Once the groundwork was laid, the project moved into the implementation phase, which comprised several vital components. First and foremost,

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partners were encouraged to complete SME registration with the Cooperative and SMEs office. This step not only conferred legal recognition to their businesses but also opened avenues for potential access to valuable business support services.

To equip SMEs with the necessary knowledge and skills for improvement, business management training sessions were conducted. These training sessions encompassed various aspects of business management, including business planning, financial management, and organizational development. The aim was to empower partners with the tools needed to enhance their business operations. Furthermore, specific training on financial management was provided to partners. This training aimed to instil good financial practices, emphasizing the separation of personal and business finances, meticulous record-keeping, and the effective utilization of financial applications. Simple financial statement applications were introduced to assist partners in tracking cash flows, sales, purchases, receivables, payables, capital, and overall financial performance.

Another critical element of the implementation phase was educating partners on the criteria for classifying income and expenses within their businesses. This educational effort included distinguishing between personal capital deposits, sales revenue, purchases, operational costs, and debt repayment, ensuring clarity and accuracy in financial management. The project also offered guidance on risk management strategies to partners. This included discussions on product innovation, diversification, optimizing production processes, and strengthening relationships with suppliers. By understanding these risk management principles, partners were better prepared to navigate challenges and opportunities in their businesses.

Lastly, the project encouraged partners to engage in future planning based on data generated through financial applications. This forward-looking approach involved setting aside profits for business growth and critically evaluating business performance, laying the foundation for sustainable business development. Throughout the project, ongoing support and evaluation mechanisms were in place to ensure that partners were effectively implementing the knowledge and skills acquired. This iterative process aimed to identify areas for improvement and offer additional assistance as needed, fostering continuous growth among the participating SMEs. An essential aspect of the project was encouraging partners to register their businesses with the Cooperative and SME offices. This step not only provided legal legitimacy but also positioned partners to receive further guidance and support from relevant agencies when encountering business challenges.

Result

The implementation of PKM is divided into stages: (1) Preparation for community service and (2) Implementation of community service. The preparation stage for community service includes initial coordination activities and socialization of PKM programs that have been agreed upon with partners. The implementation stage of community service includes activities related to the field of business management and production as a solution to partner problems.

Preparation Stage: At this stage, initial coordination and socialization of PKM programs from the Unikama Community Service team to PKM partners are carried out. This activity was attended by the entire team of servants assisted by student partners and employees who work in partner SMEs. The initial PKM coordination discussed the programs and technical implementation of PKM, the division of tasks in the PKM team, and the role of partners who are indispensable in running the program. **Implementation stage:** Partners have a Micro, Small and Medium Enterprises License (IUMKM) and are registered with the cooperative and SMEs office. Partners have an IUMKM and are registered with the cooperative and SME office, and it is hoped that in the future, partners will get guidance and opportunities for business expansion. SMEs that have a business license also mean that they have the legality of business establishment. Being registered with the Cooperative and SME office is very important, especially when facing business problems. The SME and Cooperative office will

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provide assistance efforts. Business management training is conducted to provide insight into business management so that SMEs become competitive. The business management material will explain the management of micro units needed by SMEs that are structured and organized.

Discussion

This activity was attended by the entire service team, assisted by students as well as partners and employees who work in partner SMEs. The initial PKM coordination discussed the programs and technical implementation of PKM, the division of tasks in the PKM team, and the role of partners who are indispensable in running the program.

Figure 1. Socialization of the Community Partnership Program between the service team and partner



In the program socialization activity, it was explained again about the programs that had been agreed upon at the beginning of the PKM proposal, which included the business management and production fields. The business management sector consists of activities: (1) SME registration with the Cooperative Office; (2) Workshop and training on business management and planning; and (3) Workshop and training on the use of simple financial applications. Strengthening business management simultaneously affects the development and progress of a business (Kalogiannidis & Chatzitheodoridis, 2022) (Huang et al., 2022). In addition, to develop and progress a business, innovation is necessary. Production innovation is one of the factors that can strengthen the performance of a business in addition to business orientation factors and the application of appropriate business strategies (Mignenan, 2022) (Zand & Rezaei, 2020). Partners have insight into business management and business planning through Business management training conducted to provide insight into business management so that it becomes a competitive SME.

The business management material will explain the management of micro units required by structured and organized SMEs. A well-structured and organized business unit will have an impact on the continuity of circulation of goods from collectors until the goods are ready to be sent to the factory. SMEs also need to be directed to further increase revenue by increasing SME competitiveness. Factors of business and product innovation, product excellence, human resources, marketing management, and capital influence competitive SMEs. Planning the direction of future business development is needed by SME partners to provide direction for business development on a regular basis. The required business planning includes short-term business planning (between 1-4 years), medium-term (5-8 years), and long-term more than eight years. A business plan can provide a clear direction on what an entrepreneur should do. A business plan is also a bridge between ideas and reality. The existence of a business plan can provide benefits regarding product clarity, reasons for producing a product, a transparent target market, production time, and production goals. Some steps in a business plan include the marketing plan, production plan, organizational plan,

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financial plan, and risk management.

Figure 2. Training and workshop on business management and planning



The marketing plan includes pricing, distribution, promotion, and control. The production plan contains the type of goods, quality of goods, quantity of goods, raw materials, production control, setting quality standards, timely implementation of production, and quality control. Organizational planning is composed of ownership, management teams, management regulations, employees, and work mechanisms. Financial planning consists of financial resources, calculation of income statement, balance sheet, cash flow, and break-even point. Risk management is an effort to minimize risks that include adding new features to products, product innovation, product diversification, production process efficiency, understanding customer needs, cooperating with suppliers, product protection with patents or copyrights, highlighting added value products that are difficult for competitors to imitate, avoiding product accumulation that can quickly expire, and reducing dependence on one supplier.

Partners are able to use simple financial statement application software through training on standard SME financial statement applications that are relatively simple and easy to apply for partners. The financial application provides transaction features that include cash flow, sales, purchases, receivables, payables, capital, and final balance. It is helpful to help avoid mismanagement of funds, help SMEs access to add capital with a cooperation system, help SMEs evaluate their business performance, help SMEs provide information on cash income and expenditure, planning activities and the amount of funds, and help SMEs in future planning based on existing data.

Figure 3. Training and workshop on the use of simple financial report application software



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SMEs must separate personal money from business money, make a percentage of profits that can be taken for personal business owners, and provide a notebook and keep proof of transactions (notes) of each financial transaction. The speaker also talked about the criteria for business income and expenses. Income criteria come from personal capital deposits, sales revenue, receivables, and additional capital. Expenditure criteria include purchases, operational costs, and debt repayment using the Sepran application. The process of transferring balances, recording incoming and outgoing financial transactions in the application, and reading financial balance reports in the Sepran application. In the future, they are expected to receive coaching and have the opportunity to expand their business. An SME with a business license also means it has the legality of the business establishment. Being registered with the SME and Cooperative office is very important, especially when facing business problems. The SME and Cooperative office will assist.

Conclusion

A series of community service activities have been carried out, which aim to help overcome the problems faced by partners. The implementation of PKM is divided into stages: preparation for community service and implementation of community service. The preparation stage for community service includes the initial coordination of activities and socialization of PKM programs that have been agreed upon with partners. The community service implementation stage includes activities related to the field of business management and production as a solution to partner problems.

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