

Increasing Small Businesses in the Home Chips Industry by Boosting Quality and Market-Reach

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Article Info	Abstract
<p>Article history: Received: June 5, 2024 Revised: August 9, 2024 Accepted: January 19, 2025</p> <p>Keywords: Chips Cassava Home industry</p> <p>This article is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License</p> <p>© 2025 Bubungan Tinggi: Jurnal Pengabdian Masyarakat</p>	<p>Small home industry businesses (UKMRT) play a crucial role in the economy by providing income for marginalized families with limited capital. In Kedungkandang, Malang City, UKMRT, especially cassava chip producers, face challenges such as limited equipment, a lack of hygienic production knowledge, and poor financial management. This study employed Participatory Action Research (PAR) to address these issues by engaging the community in problem identification and solution implementation. Training sessions focused on financial management, hygienic production techniques, and marketing strategies. Introducing modern cassava-cutting tools and improved packaging significantly enhanced production efficiency and product appeal. Results indicated increased production capacity, higher product quality, and improved financial practices among partners. The economic impact was evident as daily income for producers increased substantially, and marketing expanded beyond local markets from 200 thousand rupiahs per day to 500 thousand rupiahs. This holistic approach, integrating economic, social, and technological aspects, highlights the potential for significant socio-economic transformation in similar communities. Further geographical expansion and product diversification are recommended to sustain and enhance these positive outcomes. The study demonstrates a replicable model for community service that effectively addresses the multifaceted needs of small home industry businesses.</p> <p>To cite this article: Ati, N. U., Mahardhika, B. P., Pinastika, P. P., Nuriyanti, I., & Ingsih, I. S. (2025). Increasing small businesses in the home chips industry by boosting quality and market-reach. <i>Bubungan Tinggi: Jurnal Pengabdian Masyarakat</i>, 7 (1), 144-151.</p>

INTRODUCTION

Small Home Industry Business (UKMRT) is usually run at home by individuals or small groups, using simple equipment and limited labour (Suminartini & Susilawati, 2020). UKMRT often produces consumer goods such as food, handicrafts, or textile products. However, they can also be involved in the service sector, such as data processing or consulting services (Farisi & Amalia Desviany, 2022). UKMRT have an important role in

the economy because they can be a source of income for marginalized families who do not have large capital to start a business (Febriani & Saleha, 2021).

In several countries, the government provides special support for the development of UKMRT through programs such as entrepreneurship training (Syahdan, 2019), capital assistance (Febriani & Saleha, 2021), or market access. Even though they have the potential to develop, UKMRT is also faced with various challenges, such as limited capital and access to technology (Diana & Laila, 2020), tight market competition, and complicated regulations and bureaucracy (Suminartini & Susilawati, 2020).

In the Kedungkandang area, Malang City, UKMRT have a significant role in supporting the local economy. Many residents in this area are involved in UKMRT as their main or additional source of income, especially those run by tribal women (Astuti et al., 2016), including chips and cassava. Knowledge of the process of selecting raw materials, cleanliness, and hygiene (Febriani & Saleha, 2021) Cassava chips and financial management (Murwadi & Saraswati, 2019), which are not good, will make it difficult for this household industry to develop (Widyanti et al., 2020). Lack of basic knowledge about producing hygienic and hygienic cassava chips and other things, including how to market the cassava chips to get maximum profit with good market analysis (Widiastuti & Abdi, 2021). This is the basis for the service team working with partners to improve the production process and financial system in the partners' cassava chip business.

From the description above, we can see that the partners face several main problems. The first is using simple equipment, such as manual knives for cutting cassava, which limits production efficiency and consistency. Then, the lack of development of product packaging and labelling results in low market attractiveness. In addition, a lack of knowledge regarding hygienic production processes causes product quality to be below standard. Financial management is another major concern, as partners do not maintain proper financial records, thereby mixing business and personal finances, hindering accurate tracking of profits and business growth. These challenges collectively hinder the partners' ability to scale their operations and improve their economic situation.

METHOD

This study employed the Participatory Action Research (PAR) method, which involves active participation from the community at every stage of the research. First, we identified the problems faced by the cassava chip businesses in Kedungkandang Village through discussions and interviews with owners and workers. Then, we collaboratively designed solutions, including training in financial management, hygienic production techniques, and marketing strategies. During implementation, the community participated in testing the new cassava slicer, applying cleaner production techniques, and designing attractive product packaging. Data were collected through observation, surveys, and interviews to evaluate the effectiveness of the applied solutions. We conducted regular reflection and evaluation to assess the program's impact and determine the next steps. The results showed significant improvements in the quality and quantity of cassava chip production and increased understanding and management skills among the partners.

Apart from that, close collaboration between team members and partners is key to formulating concrete problem-solving steps. The service team and partners continuously discuss and coordinate to obtain input and ideas needed for program implementation. This approach ensures the proposed solution is relevant to the partner's business needs and conditions.

The service team's assistance to partners is also an integral part of this implementation method. Regarding financial governance and procurement of machines for cutting raw materials for cassava chips, the team provides guidance and support so that partners can

increase production efficiency. In addition, through equipment grants and product label designs, the team aims to increase the quality and quantity of cassava chips produced by partners.

Increasing product quality and quantity is the main focus of partner business development efforts. By creating attractive product packaging designs, it is hoped that cassava chip products will be more popular with consumers. These steps are based on an in-depth understanding of the partner's business conditions and the results of previous observations. Thus, the method of implementing this service work focuses on identifying problems and implementing concrete solutions to improve partner businesses sustainably.

RESULTS AND DISCUSSION

In the process of community service in Kedungkandang Village, the service team carried out a series of activities and technical actions designed to overcome the problems faced by players in the cassava chip home industry. This activity includes training on efficient and hygienic production techniques, modern cassava cutting tools, business financial management, and innovative marketing and product packaging strategies. Intensive mentoring is carried out to ensure that partners can apply new knowledge and skills in their daily practice. Figure 1 shows the raw materials used for cassava chips, highlighting the initial stage of the production process.



Figure 1 Raw materials for cassava chips

The dynamics of the mentoring process revealed several significant changes in the target community, including improvements in partners' technical and managerial skills, which contributed to production efficiency and higher product quality. Implementing more modern cassava-cutting equipment helped increase production capacity, while packaging and marketing training resulted in more attractive packaging designs and effective branding strategies, opening up access to a wider market. This is illustrated in Figure 2a, which depicts cutting raw cassava, a crucial step improved by introducing new tools. Additionally, Figure 2b shows the process of frying cassava chips, emphasizing the importance of the hygienic practices taught during the training. Furthermore, Figure 2c illustrates the design of the cassava cutting tool, showcasing the technological improvements introduced to the community. The importance of this innovation is further highlighted in Figure 2d, where the service team is seen handing over the cassava-cutting tools to partners, marking a significant milestone in the project.

The expected social changes would directly result from this service program. One significant example is the formation of new institutions, such as joint business groups, that facilitate cooperation between players in the cassava chip industry.

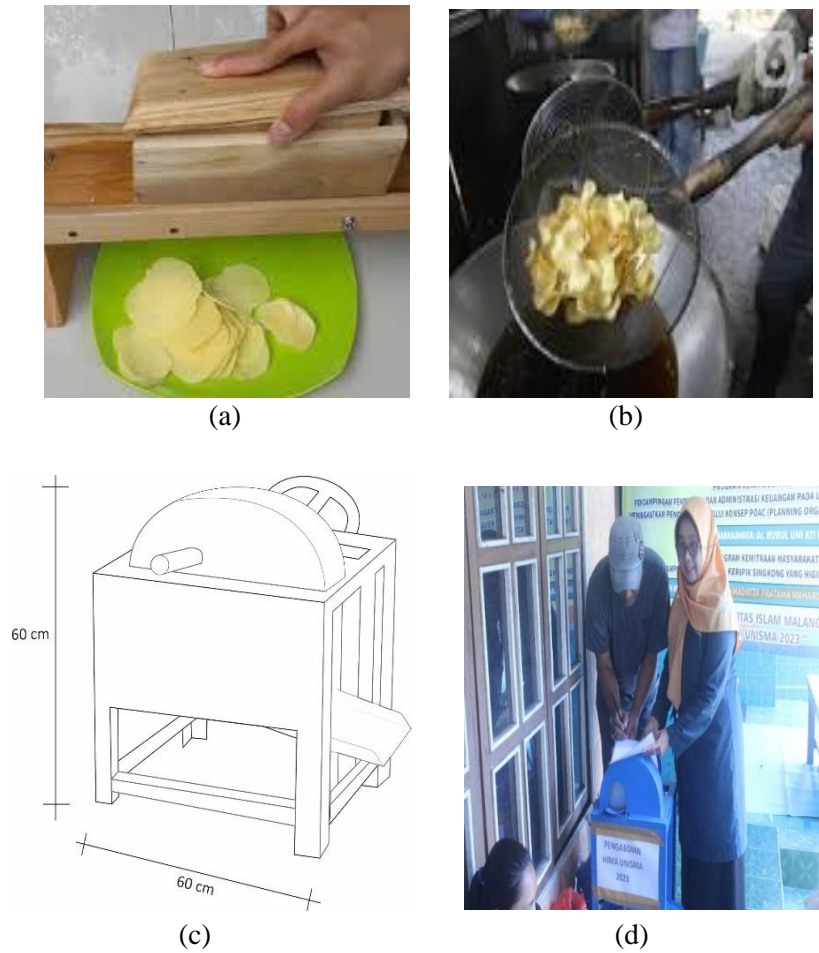


Figure 2 (a) Process of cutting raw cassava, (b) The process of frying cassava chips, (c) Cassava cutting tool design, and (d) Handing over cassava-cutting tools to partners

This institution improves production and marketing capabilities and strengthens social solidarity within the community. Figure 3a captures a speaker discussing hygiene, underscoring the project's training component to improve product cleanliness and safety and financial governance, as shown in Figure 3b.

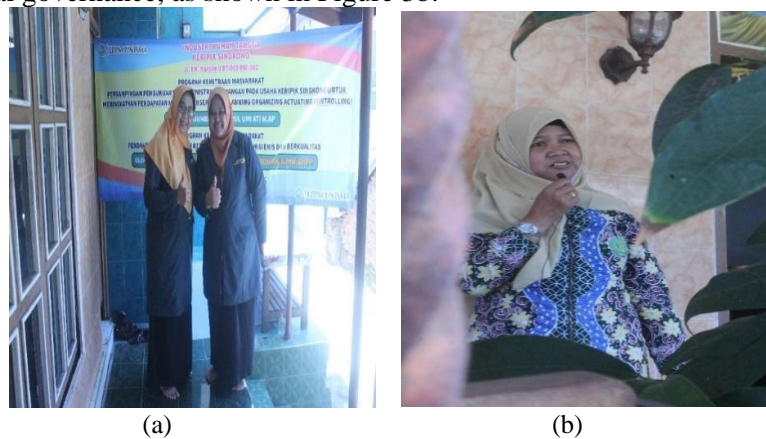


Figure 3 (a) Speaker about hygiene and (b) Speaker on financial governance

This program has also triggered changes in behavior among business actors, who now pay more attention to product cleanliness and quality and have more organized financial management. Another important impact is the emergence of regional or local leaders who take the initiative in promoting and advocating best practices in business production and management. This marks a step towards social transformation, where communities become more self-reliant, forward-looking, and innovative.

Community service activities in Kedungkandang Village have increased the production capacity and quality of cassava chips through more efficient cassava-cutting tools, production hygiene training, and better financial management. These results reflect an increase in the economic well-being of business actors and their knowledge of sustainable business practices. Before getting help with this cassava-cutting tool, the daily income earned was around 200 thousand rupiah. After getting help from this cassava-cutting tool, the income earned was around 500 thousand rupiahs.

Product marketing was also initially limited to the Kedungkandang market and small shops. However, after production increased, marketing was also carried out online and penetrated the Jember and Banyuwangi markets.

These results can be analyzed through the lens of microeconomic theory, which emphasizes the importance of efficiency in production. Technological improvements and skills training contribute to production efficiency ([Andiana & Yuliarmi, 2022](#)), directly affecting business profits and growth. Furthermore, Castells' (2017) theory of social change provides a framework for understanding how this kind of intervention can trigger transformation in communities' social and economic structure and encourage innovation and social empowerment ([Kirtiklis, 2017](#)).

Research by Banerjee and Duflo (2020) ([Banerjee et al., 2020](#)) on the economics of poverty shows that interventions that increase access to technology and education can significantly impact poverty reduction. In the context of this service, increasing the capacity and efficiency of cassava chip production can expand income and reduce economic vulnerability. In addition, Putnam's (2000) social capital theory in Fathy (2019) provides insight into how the formation of joint business groups and increasing social networks can increase social cohesion and strengthen communities, which is important for sustainable socio-economic development ([Fathy, 2019](#)).

CONCLUSION

This service activity underscores the importance of a holistic approach to community development that does not only focus on economic aspects but also social and technological aspects. As emphasized in microeconomic theory, production efficiency, increased product quality, and improved financial management contribute to the economic welfare of business actors. Adopting technological innovations and forming social capital, supported by diffusion of innovation theory and social capital theory, show how well-designed interventions can trigger social and economic change in communities.

Further, service needs to expand geographically by expanding the reach of service programs to other areas with similar characteristics to increase the socio-economic impact more broadly. Apart from that, encouraging the diversification of cassava-based products would increase the economic resilience of business actors through new market opportunities. To support innovation and continuous learning, it is also necessary to strengthen social networks between cassava chip business actors and other stakeholders, such as raw material suppliers, distributors, and educational institutions. Organizing

ongoing training programs focusing on developing business management skills and technological innovation will support business sustainability and growth.

The implication of the results of this service is an increase in the capacity of the cassava chip home industry, which has the potential to significantly contribute to the local economy through job creation and increased income. This activity also proves the potential for social transformation through economic empowerment, where business actors become more innovative and independent and contribute to sustainable community development. Lastly, this activity offers a model for community service that can be adapted and applied in other contexts because it shows how integrated interventions can achieve positive socio-economic impacts.

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest.

AUTHOR CONTRIBUTIONS STATEMENT

For community service articles with multiple authors, a short paragraph stating the contributions of each should be included. The following statement should be used: "Conceptualization, NUA and IN; methodology, BPM; formal analysis, PPP; writing—preparation of the original draft, ISI. Authorship should be limited to those who have contributed substantially to the reported work.

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