



## REVITALIZATION OF VILLAGE CHICKEN FARMING MSMEs: PRODUCTION AND ENTREPRENEURSHIP INNOVATION TOWARDS INTEGRATED VILLAGE AGRIBUSINESS

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### Abstract

Mbangkong Village is predominantly inhabited by young people, accounting for 58% of the total population. Most of the youth in this village, especially women, do not pursue higher education and tend to marry at an early age. This socio-demographic condition has limited the community's livelihood choices, which are primarily concentrated in agriculture, animal husbandry, and micro, small, and medium enterprises (MSMEs). One of the MSMEs that partnered in this community engagement program is a free-range native chicken farming business that generates monthly revenue of IDR 8–10 million. Although market demand for native chicken continues to grow, the business faces a 35% supply gap that has yet to be addressed. The partner MSME faces several core challenges, including: (1) inadequate security of the farm area due to the absence of proper fencing, making it vulnerable to external threats; (2) limited managerial capacity in business planning, management, and evaluation, which are still carried out using traditional methods; and (3) lack of product diversification, with income solely dependent on the sale of live chickens and eggs, without any value-added products. This community engagement program aims to provide comprehensive solutions through three main approaches: (1) improving production capacity by building or repairing chicken coops and securing the farm area to make it safer and more productive; (2) providing entrepreneurship management training for MSME actors and local business communities in Mbangkong Village to enhance their business sustainability skills; and (3) developing derivative products from native chicken to increase added value and expand market reach. The expected outcomes of this program include: (1) improved farm safety and productivity through physical infrastructure enhancement; (2) strengthened managerial knowledge and skills of the MSME partner through entrepreneurship training; and (3) increased business income through product diversification and market development. Ultimately, this program is expected to strengthen the MSME partners' economic resilience and promote sustainable local economic growth.

**Keywords:** Entrepreneurship, Product Diversification, Integrated Agribusiness, Production Capacity Strengthening, MSME Innovation

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## INTRODUCTION

Gunungpati District, Semarang City, is one of the city's buffer zones that still boasts pristine natural surroundings and potential to support the development of local resource-based businesses (Naibaho et al., 2023). One village in this district that possesses this potential is Mbangkong Village. This village is dominated by young people, who make up 58% of the total population. However, most young men and women in this village do not continue their education beyond the university level and tend to marry young, especially women. Despite this, many of them continue to strive for productivity, including through independent free-range chicken farming at home (Wahyuni et al., 2025).

Free-range chicken farming is a promising business alternative in rural areas because it not only contributes to household food security but also helps address malnutrition and increase family income (Mattioli et al., 2025; Pebriyanti et al., 2025). In line with the results of a study by Dal Bosco et al. (2021), which showed that free-range chicken farming has the potential to be developed on a larger scale, although it requires improvements in management and infrastructure (Hossain et al., 2024;

Sitorus et al., 2024). In Mbangkong Village, these social and demographic conditions encourage the growth of the agricultural and livestock sectors as the community's primary livelihoods. This potential is evident in the growing number of livestock and agricultural businesses, including the MSME Partners focused on in this community service program, namely free-range chicken farming businesses that are already operational and have significant market potential.



Figure 1. Condition of the farm

The partner in this service is a free-range chicken farming business with a monthly turnover of 8-10 million rupiah. This turnover is obtained from the sale of free-range chickens and eggs. Free-range chickens are considered easy to raise, can be sold at any time, and are a high-nutrition source (Singh, 2024). The nutritional sources in question include omega-3 fatty acids, which are good for the heart, and meat that is more chewy and full, not soft or fatty, which is widely preferred (Singh, 2024). Then, free-range chicken eggs also have higher nutritional content than broiler eggs, including magnesium and beta-carotene, which are antioxidants useful for health (Tugiyanti et al., 2024). The benefits of free-range chickens and their eggs can be optimally obtained if the quality of the free-range chickens is maintained. The main key to maintaining this quality is the cultivation method (Caffa et al., 2025). An important factor in cultivating free-range chickens, especially in the context of free-range, is a safe environment.

The partners in this community service program are free-range chicken farmers who currently raise around 250 chickens. This business has generated a monthly turnover of between IDR 8 and 10 million from the sale of live chickens and eggs. Free-range chickens were chosen because they are relatively easy to raise, flexible in sales, and have high nutritional value (Rahmaniya & Haryanto, 2024). Free-range chicken meat is known to have a chewier texture, is low in fat, and is denser, making it popular with consumers (Arjin et al., 2025). Furthermore, the omega-3 content in free-range chicken meat is beneficial for heart health (Prameswari et al., 2024), while the eggs contain important nutrients such as magnesium and beta-carotene, which function as natural antioxidants (Hariharan et al., 2024).

These nutritional benefits can be optimally achieved only if the quality of the chickens and their farming system is maintained (Purnamasari et al., 2024). In this regard, the rearing environment plays

a crucial role, particularly in free-range systems that house chickens in open areas. While this system allows chickens to move freely and produces better-quality meat and eggs, open environments also carry high risks, especially if the area's security is not guaranteed. Currently, MSME Mitra still employs traditional farming methods with limited facilities and infrastructure, and lacks adequate security systems such as fences. Furthermore, the production approach remains conventional and lacks a professional business management system, thereby hampering the business's expansion.

The root problems faced by MSME partners in this community service program encompass three main aspects: production, business management, and product development. First, in terms of production, the free-range chicken farming system implemented by partners still uses the free-range method, but with unsafe environmental conditions. The farm's location is adjacent to a river, and the agricultural land is limited only by crops, making it vulnerable to attacks by wild animals such as owls, snakes, and other predators. These disturbances often result in the loss of chickens and eggs, as well as reduced productivity. It contributes to a 35% monthly production capacity gap, where partners are unable to meet all available market demand.

Second, from a business management perspective, partners still traditionally operate their businesses without an adequate management system. There is no clear separation between business and household finances, resulting in a lack of systematic recording of cash inflows and outflows. The lack of valid financial data makes it difficult for partners to evaluate business performance, develop long-term plans, and access capital loans from formal financial institutions. Furthermore, partners' understanding and skills in business planning, management, and evaluation are still limited.

Third, in terms of product development, partners have so far sold only live chickens and broilers, without diversifying their product line. Although these products have a market, their added value and profit margins are relatively small. Limited product innovation has underutilized the economic potential of free-range chicken farming. However, processed free-range chicken products have significant market potential and can expand consumer reach.

These three issues are the main focus of community service activities. The solutions offered include: (1) improving livestock areas through the construction of secure fences and the use of solar panel lights to support increased production capacity; (2) increasing partner managerial capacity through entrepreneurship training and the implementation of a simple Android-based financial recording system, to encourage professionalism and business accountability; and (3) training in processing free-range chicken derivative products as an effort to diversify businesses and increase income. With this approach, the community service program is expected to strengthen the independence and sustainability of Partner MSMEs as a whole.

## **METHOD AND PROCEDURES**

The solutions offered to partner MSMEs are developed based on the needs and challenges that

arise in production, financial accounting, and marketing. These solutions will focus on developing entrepreneurial skills that can increase the productivity of partner MSMEs. The implementation method for this service is described in Figure 1.

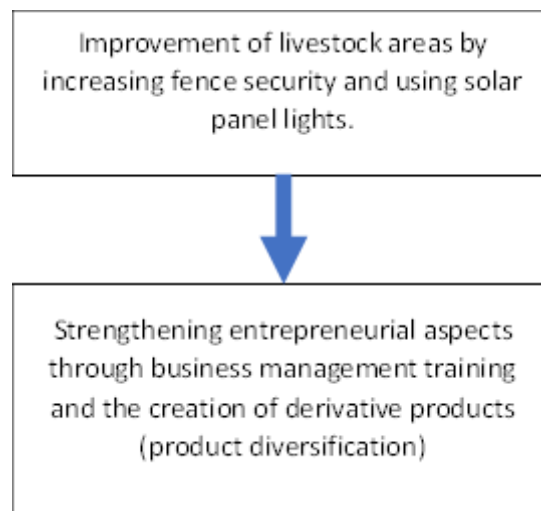


Figure 2. Implementation method

The methods applied in this community service program focus on three main areas: improving production systems, improving business management, and developing derivative products from free-range chicken. These three aspects are implemented in an integrated manner to support the capacity-building and sustainability of partner MSMEs. Furthermore, this community service activity is also directed at market development strategies through leveraging local potential, such as opening stalls or marketing points with beautiful village views. This approach is expected to provide an alternative marketing strategy that not only increases partner income but also encourages long-term business growth based on local potential.

The training evaluation used the Three Box Method. The Three Box Method was applied in the training evaluation, including measuring changes in skills, knowledge, and understanding of entrepreneurial concepts before and after the training. Data analysis was conducted qualitatively and quantitatively through data triangulation and descriptive statistics.

The questionnaire data were collected and analyzed descriptively by calculating an index. This analysis used an index method to describe respondents' perceptions of the questions. The rating scale used in this study ranged from 1 (lowest) to 10 (highest). Therefore, the respondent response index was calculated using the following formula (Ferdinand, 2014):

$$\text{Index Value} = ((\%F1x1)+(\%F2x2)+(\%F3x3)+(\%F4x4)+(\%F5x5)+(\%F6x6)+(\%F7x7)+ (\%F8x8) + (\%F9x9)+(\%F10x10))/10$$

Description:

F1 is the frequency of respondents who answered 1

F2 is the frequency of respondents who answered 2

Thus, on F10, answer 10 of the scores used in the questionnaire.

Thus, the respondents' answers do not start from 0, but from 1 to 10. Because the index value is in the range 10 to 100, with a difference of 90 and no 0. To interpret the index value, the Three-box Method is used, in which the 90-point range is divided into three parts, each worth 30. This division serves as the basis for interpretation: 10.00% - 40.00% (low), 40.01% - 71.00% (medium), and 70.01% - 100% (high). Based on this reference, the researcher then determined the respondents' perception index for the variables used in this study.

## RESULTS

The discussion on implementing community service for the Village Chicken Farming MSME in Gunungpati involves three phases: improving production and management, developing derivative products, and developing marketing plans for these products.

### 1. Improvement of Production Aspects

The production improvement efforts in this community service program focused on enhancing the farm environment by constructing a sturdy fence and installing solar-powered lights as the primary lighting system. This measure aims to improve livestock safety, especially at night, by reducing the threat posed by wild animals such as ants and snakes, which previously frequently preyed on chickens and eggs (Boscarino-Gaetano et al., 2024). Solar-powered lights play a crucial role in providing stable lighting in the pen area without relying on the local electricity grid, which is not yet optimally available at the farm (Chock et al., 2021). The bright light from the lights has proven effective in deterring wild animals, as most predators are nocturnal and tend to avoid brightly lit areas. Furthermore, adequate lighting also helps livestock owners conduct nighttime monitoring and respond quickly to disturbances. With a sturdy fence and optimal lighting, the farm environment becomes more controlled, safe, and conducive to the chicken-rearing process until harvest. These improvements are expected to reduce livestock losses and increase the overall efficiency and success of free-range chicken production.





Figure 3. Farm area and solar panel lights

The implementation results in increased production capacity through environmental improvements in production areas. It will ensure livestock safety and prevent livestock loss.

## 2. Strengthening Entrepreneurial Aspects

The second phase of this community service program focuses on strengthening entrepreneurial aspects, specifically increasing business management capacity and product diversification. This approach is designed to address two key challenges faced by partners: weak business management and limited product ranges. To date, MSME partners lack an adequate business management system, characterized by the lack of separation of household and business finances, and minimal cash flow recording and performance evaluation. These limitations make it difficult to measure business development and access financial support. To address this, business management training is provided that covers basic entrepreneurship, simple financial record-keeping, and small-scale business management strategies.

In addition to managerial aspects, strengthening is also achieved through training in the development of derivative products from free-range chickens. Previously, partners only sold live and cut chickens, which have low added value and limited market segmentation. Therefore, this community service program facilitates training in the production of processed products, specifically healthy chicken sausages, which offer several advantages: longer shelf life, easy packaging and marketing, and alignment with current consumer trends seeking practical, nutritious products. The chicken sausage production process is supported by equipment, such as a food processor, provided through the community service program. This diversification is expected not only to increase sales value but also to expand market reach and create new marketing opportunities.

Furthermore, the development of these processed products is designed to be integrated into a sustainable and educational free-range chicken farming business model, which can be further developed into a village-based integrated agribusiness unit, given the strategic location for business, as the partner area boasts a beautiful environment, making it attractive for integrated agribusiness ventures. In addition to production training, partners are also equipped with digital

marketing skills through training on utilising online platforms to market their products. This approach is expected to increase partners' competitiveness in the digital economy era, while strengthening the long-term sustainability of their businesses.



Figure 4. Implementation of community service activities

Based on data processing of training participants' responses using the three-box method, the overall average index score was in the high category, with knowledge at 80.00%, skills at 74.83%, and entrepreneurial intention at 75.67%. Indicates that the implementation of innovation and support for business strengthening through community service has had a positive impact on developing livestock farmers' knowledge capacity related to product knowledge, customer knowledge, and managerial knowledge (Munte et al., 2025).



Figure 5. Results of Knowledge Value Index Data Processing

In terms of knowledge, participants gained 88% of new knowledge, and understanding of the

requirements for registering a business with an online merchant increased by 65%. There was an increase in understanding of business registration procedures for online merchants by 64%, of SOPs for making processed chicken products by 94%, of the stages and main ingredients of processed chicken products by 81%, and of strategies for business growth and development by 88%. It shows that business innovation is important because it drives performance and growth (Hassan et al., 2024).

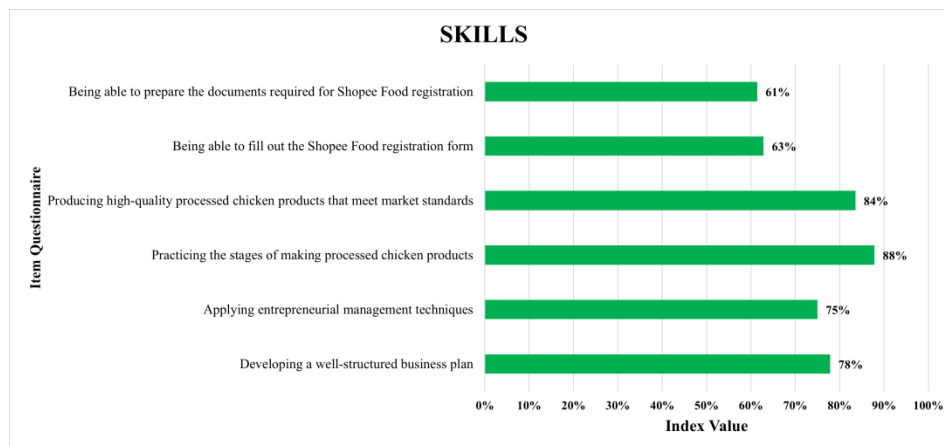


Figure 6. Results of Skills Value Index Data Processing

In terms of skills, training participants became more skilled in preparing online merchant registration documents (61%), were able to fill out online merchant registration forms with a score of 63%, made quality processed chicken products according to market standards with a score of 84%, practiced the stages of making processed chicken products with a score of 88%, and applied entrepreneurial management techniques with a score of 75%, as well as preparing a targeted business plan with a score of 78%. It shows that the training not only improved knowledge but also enhanced participants' business management skills, in line with current developments in the digital market (Rahmawan & Nurhayati, 2025). Participants can apply the material they obtain to entrepreneurial activities.

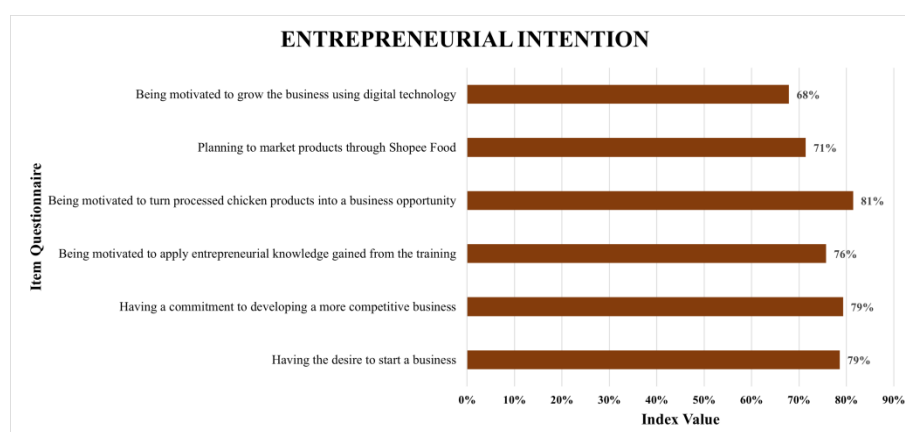


Figure 7. Results of Entrepreneurial Intention Index Data Processing

Regarding entrepreneurial intention, participants demonstrated strong motivation to develop

businesses using digital technology, with a 68% score. MSMEs that adopt digitalization will improve performance, productivity, customer experience, and business efficiency (Kádárová et al., 2023). Furthermore, they had a plan to market business products through online merchants with a score of 71%, had the motivation to make processed chicken products a business opportunity with a score of 81%, had the motivation to apply entrepreneurial knowledge from the training with a score of 76%, and were committed to developing a more competitive business with a score of 79%, and had the desire to open a business with a score of 79%. Indicates that, after the training, participants had stronger entrepreneurial intentions, as evidenced by their high motivation to use digital technology and develop product innovations to become more competitive. In line with comments from participants who considered the activity "very useful," "increased insight," and encouraged them to better understand the importance of knowledge and skills in entrepreneurship. Participants also hope that the training will be conducted regularly, not too densely, so that the material is more optimal, and that it will be supported by ongoing mentoring, both online and offline.

## **CONCLUSION**

This community service program aims to strengthen MSME sustainability by increasing production capacity, improving entrepreneurial management, and diversifying products and marketing. The program's implementation, which focuses on three main aspects-production, business management, and product development, has had a tangible impact on partners. Based on the program's implementation results, the following conclusions can be drawn:

1. Improvements to the livestock area, including the construction of sturdy fences and the installation of solar-powered lights, have significantly enhanced environmental safety. Following the interventions, no more cases of chicken or egg loss due to wild animals have been reported. Impact on increasing production capacity and meeting market demand, which previously experienced a 35% gap.
2. MSME partners have experienced increased knowledge and skills in entrepreneurship through business management training. Partners can now manage business finances more systematically, differentiate between household and business cash flow, and understand the basics of business planning and evaluation.
3. Product diversification has been successfully implemented through the development of a derivative product, a form of innovation, in the form of healthy chicken sausage. This product offers greater added value than the previous raw product and is better suited to the modern market's needs, which prioritise practicality and health.
4. In terms of marketing, partners can now promote their products both offline and online. It is supported by training on utilizing digital platforms provided in the program, allowing partners to reach a wider market and increase their business competitiveness in the digital era.

Overall, this community service program has succeeded in providing concrete solutions to the problems faced by MSME Partners and in encouraging the strengthening of more sustainable, adaptive businesses.

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