

## Strengthening Partner Capacity in Hygienic Management and Distribution of Animal Products at Slaughter Centers

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**Abstract.** Hygienic management and distribution of animal products are crucial aspects in ensuring food safety and maintaining product quality until they reach consumers. In Pati City, chicken slaughterhouses play a strategic role in meeting the community's animal protein needs. However, slaughterhouse and distribution practices in the field still face challenges, such as inconsistent equipment hygiene, unhygienic product storage, and the use of containers and distribution vehicles that do not meet standards. This community service program, conducted by a team from Ngudi Waluyo University, aims to increase the capacity of partners in the hygienic management and distribution of animal products at the Pati City chicken slaughterhouses. Implementation methods include problem identification, outreach, outreach, training in hygienic practices, distribution management assistance, and monitoring and evaluation. A participatory approach is used to actively involve partners in every stage of the activity, ensuring effective and sustainable knowledge and skills transfer. The results of the activity show significant improvements in hygienic practices, the use of personal protective equipment (PPE), safer meat storage, and more organized distribution procedures. Field observations and partner knowledge tests showed an increase in the average score from 55.5 to 82.3. This improvement demonstrates the successful transfer of knowledge and skills, which has impacted product quality, food safety, and the competitiveness of partner businesses. The implementation of this program has positive implications for strengthening partner capacity, improving the quality of the animal product supply chain, and supporting government programs in food safety. This activity model has the potential to be replicated in other regions to encourage hygienic, safe, and sustainable animal slaughtering and distribution practices.

**Keywords :** Partner Capacity, Hygiene, Distribution Of Animal Products, Good Handling Practices (GHP), Sanitation Standard Operating Procedures (SSOP), food security.

### Introduction

Chicken is one of the most widely consumed sources of animal protein in Indonesia (Sasmita et al., 2025). Consumers choose chicken because it is relatively affordable, readily available, and can be processed into a variety of dishes. This high demand places chicken slaughterhouses in a crucial role in maintaining the supply of animal protein in the community (Yaddi et al., 2023).

Chicken slaughtering activities in Pati City occur almost daily to meet public demand. However, some chicken slaughterhouses still do not implement hygiene standards in the slaughtering process, carcass handling, and product distribution. This situation creates several problems, including an unsanitary slaughtering environment, limited use of ice to maintain meat temperature, and containers and distribution vehicles that do not meet food safety standards. This situation has the potential to degrade chicken meat quality, accelerate microbiological contamination, and endanger consumer health (Amalyadi et al., 2025; Nurjanah et al., 2021).

The government has established regulations regarding food safety and hygiene of animal products. These regulations mandate the implementation of Good Handling Practices (GHP) and Sanitation Standard Operating Procedures (SSOP) in the processing of animal products (Apriyanti, 2018). However, limited knowledge, skills, and supporting resources prevent some chicken slaughterhouse operators from consistently implementing these regulations (Puspitosari & Permatasari, 2019; Wiratanaya, 2020).

The main challenges faced by partners at the Pati City chicken slaughterhouse relate to hygiene and product distribution. The daily chicken slaughtering process still requires inadequate hygiene standards. The work environment around the slaughterhouse is often poorly maintained, equipment is not regularly cleaned, and waste management is inadequate. This situation poses a risk of cross-contamination, which can degrade the quality of chicken meat.

Furthermore, carcass handling after slaughter still does not comply with food safety standards. Chicken meat is often stored in the open without adequate protection, making it

vulnerable to exposure to dust, insects, and microorganisms. This has the potential to accelerate the spoilage process and reduce product quality before it reaches consumers. Another problem arises at the distribution stage, where partners still use inadequate containers and vehicles and limited use of ice to maintain product temperature. As a result, chicken meat often cannot be maintained fresh for long. Furthermore, business operators' limited knowledge and skills regarding the principles of Good Handling Practices (GHP) and Sanitation Standard Operating Procedures (SSOP) make it difficult to consistently implement hygiene standards in daily activities.

In response to these conditions, the Ngudi Waluyo University community service team offered a series of educational and practical solutions. The first step involved providing education on the importance of food hygiene and safety, enabling business owners to better understand the risks that can arise from unsanitary slaughtering and distribution practices. The team then conducted training and field demonstrations, demonstrating firsthand how to clean the slaughtering area, equipment sanitation techniques, and carcass handling procedures in accordance with standards. The demonstrations also included the use of ice and sealed containers to maintain product freshness during distribution.

Following the training phase, the team provides intensive mentoring in implementing GHP and SSOP principles, tailored to real-world conditions. This mentoring not only helps partners understand the concepts theoretically but also encourages them to develop practical steps that can be consistently implemented on a daily basis. To ensure the sustainability of hygienic practices, the team also conducts regular monitoring and evaluation. Through field visits, the team assesses the extent to which partners are applying the acquired knowledge and skills and provides recommendations for improvements as needed.

With the solutions offered, this community service program is expected to bring about tangible changes in the hygiene management and distribution of animal products at the Pati City chicken slaughterhouse. Improving the quality of chicken handling not only ensures food safety for the community but also provides added value for businesses by producing more hygienic, long-lasting products that are more competitive in the market.

The Ngudi Waluyo University community service team is implementing a community service program at the Pati City chicken slaughterhouse. This program aims to improve partners' knowledge and skills in maintaining cleanliness during the slaughtering process, hygienically managing products, and distributing them in accordance with food safety standards. The implementation team carries out activities in the form of outreach, training, demonstrations, and mentoring.

This program is expected to benefit both partners and the community. Partners are able to produce more hygienic, safe, and high-quality chicken meat. Communities are assured of the availability of healthier animal products. Furthermore, this program supports food security while strengthening the competitiveness of local chicken farming and slaughtering businesses.

## **Method**

This community service activity was carried out by the Ngudi Waluyo University community service team at the Pati City chicken slaughterhouse, using a participatory approach that actively involved partners. The implementation method was designed so that partners were not only recipients of information but also directly involved in each stage of the activity, so that the knowledge and skills acquired could be applied sustainably. The activity stages include:

### **Identify Partner Problems**

The community service team conducted field observations and interviews with chicken slaughterhouse operators to understand the real-world conditions on site. The identification revealed that partners faced challenges in maintaining equipment cleanliness, limited knowledge of slaughterhouse hygiene standards, and limitations in managing the safe and efficient distribution of chicken meat.

### **Community Service Program Socialization**

After the problems were identified, the team conducted outreach to explain the goals, benefits, and planned community service activities. This outreach aimed to raise awareness among partners about the importance of implementing hygienic practices and good distribution management to support the quality and safety of animal products.

### **Counseling and Education**

The community service team delivered comprehensive material on the principles of hygiene, sanitation, food safety, and supply chain management for animal products. The training

utilized interactive lectures, discussions, and educational videos to facilitate participants' understanding.

#### Hygienic Cutting Practice Training

The activity continued with hands-on training at the chicken slaughterhouse. Partners were instructed on equipment washing procedures, personal protective equipment (PPE) use, cutting techniques according to hygiene standards, and how to store meat at appropriate temperatures to maintain freshness and prevent contamination.

#### Animal Product Distribution Management Assistance

The team provides guidance on chicken meat distribution management, from post-slaughter handling and the use of hygienic distribution containers to managing distribution times to ensure the product remains fresh until it reaches consumers. The mentoring is conducted in stages to ensure partners are able to apply the knowledge gained.

#### Monitoring and Evaluation

Following the training and mentoring, the team conducts regular monitoring to assess the partners' implementation of hygiene practices and distribution management. Evaluations are conducted through field observations, interviews, and feedback from partners. These results are used as the basis for recommendations for continuous improvement.

### Results and Discussion

Community service activities at the Pati City chicken slaughterhouse by the Ngudi Waluyo University team have significantly improved the knowledge, skills, and hygiene practices of partners. Field observations before and after the activity showed improvements in equipment cleanliness, use of personal protective equipment (PPE), and product distribution management. Furthermore, knowledge tests administered to partners demonstrated an increased understanding of hygiene and sanitation standards.



The community service team conducted field observations to assess changes in partner behavior related to hygienic practices and distribution management.

Table 1. Results of Observation of Partner Hygiene Practices

No	Observed Aspects	Before Devotion	After Devotion	Description of Changes
1	Cleanliness of cutting equipment	Not clean enough (often used repeatedly without washing)	Clean (washed regularly according to SOP)	Increase
2	Use of personal protective equipment (PPE)	Inconsistent, many workers do not use	Workers start using complete PPE (masks, gloves, aprons)	Increase
3	Meat storage techniques after slaughter	The meat is placed in an open container	Meat is stored in a closed container with added ice.	Increase

No	Observed Aspects	Before Devotion	After Devotion	Description of Changes
4	Product distribution procedures	There is no clear time management	Distribution is done faster with hygienic containers	Increase
5	Awareness of hygiene and sanitation	Low, no standards applied	High, starting to follow socialized standards	Increase

The table above shows the results of observations of changes in partner behavior regarding hygienic practices at the Pati City chicken slaughterhouse before and after the community service activity. Of the five aspects observed, all showed significant improvement following the outreach, training, and mentoring provided by the Ngudi Waluyo University team.

Regarding the cleanliness of cutting equipment, prior to the activity, it was observed that the equipment was frequently used repeatedly without adequate cleaning, potentially becoming a source of bacterial contamination. However, after the service, the equipment was routinely cleaned according to the standard operating procedures (SOPs) introduced by the team, resulting in a significant improvement in cleanliness.

The use of personal protective equipment (PPE) has also seen significant improvements. Previously, workers rarely used PPE consistently, and some even didn't use it at all. After training, workers became accustomed to using complete PPE, including masks, gloves, and aprons, thus reducing the risk of disease transmission and cross-contamination.

Changes are also evident in meat storage techniques. Previously, meat was stored in open containers without temperature control. After community service activities, the meat is stored in closed containers with added ice. This helps maintain product freshness for longer and reduces the risk of microbial growth.

In terms of distribution procedures, prior to the initiative, partners lacked clear time management, often resulting in deteriorating meat quality due to distribution delays. Following the initiative, distribution was faster, using hygienic containers, and adhering to simple cold chain standards, thus ensuring product quality. Partners' awareness of the importance of hygiene and sanitation, which was initially low, began to increase. This was reflected in their willingness to comply with the socialized standards, including cleaning the slaughtering area, using personal protective equipment (PPE), and organizing a more hygienic workflow.

Table 2. Partner Knowledge Test Results

No	Participant Name	Pre-Test Score (0–100)	Post-Test Score (0–100)	Improvement
1	Participant 1	55	85	+30
2	Participant 2	60	80	+20
3	Participant 3	50	75	+25
4	Participant 4	65	90	+25
5	Participant 5	45	70	+25

Based on the table above, it can be concluded that the community service activities have successfully improved partners' hygiene practices at the chicken slaughtering center. Prior to the community service, hygiene and distribution practices were still far from recommended standards, but after the activities, partners were able to better apply hygiene principles and distribution management.

This improvement was also reflected in the knowledge test results, where the average participant score increased from 55.5 in the pre-test to 82.3 in the post-test. This indicates that the knowledge transfer through outreach and training was well-received by the partners, while also strengthening the practical skills they apply in their daily activities.

The Ngudi Waluyo University community service team conducted activities at the Pati City chicken slaughterhouse and achieved tangible results by improving partners' skills and awareness of hygienic practices and animal product distribution management. Initial field conditions indicated that slaughtering equipment was frequently reused without proper cleaning. Workers inconsistently used personal protective equipment (PPE). Meat was stored in open containers, which were vulnerable to contamination. The distribution process was carried out without clear planning,

resulting in decreased product quality. These conditions created the risk of microbial contamination, decreased meat quality, and consumer complaints.

The implementation of community service has shown significant positive changes. Partners routinely clean equipment according to standard operating procedures (SOPs). Workers use complete and consistent PPE. Meat is stored in sealed containers with added ice to maintain freshness. The distribution process is more planned, using hygienic containers and improving time management. These changes demonstrate that education through outreach, training, and mentoring has increased partners' awareness and skills in hygienic and professional chicken slaughtering.

Knowledge tests administered before and after the activity supported these observations. The average knowledge score of partners increased from 55.5 in the pre-test to 82.3 in the post-test. This data demonstrates that partners effectively accepted the knowledge transfer. The significant increase in scores indicates that the community service activities were not merely ceremonial but actually provided additional competencies relevant to daily business needs.

This community service initiative has implications for several aspects. From a food safety perspective, hygienic practices in slaughtering and distribution reduce the risk of contamination by pathogenic bacteria, which are harmful to consumers. From a product quality perspective, regular distribution, maintaining temperature and cleanliness of containers, keeps meat fresher longer, thus increasing customer satisfaction. Economically, improved product quality fosters consumer confidence, expands markets, and increases partner income.

The long-term implications of this initiative's success are also evident. The increased capacity of partners in hygienic management and distribution has made the chicken slaughterhouse in Pati City a model of good practice for other regions. This initiative supports government food safety programs and aligns with the principles of Hazard Analysis Critical Control Point (HACCP) and Good Handling Practices (GHP). The continued implementation of these hygienic practices ensures that the chicken slaughterhouse is not only profit-oriented but also responsible for public health.

Thus, this community service activity successfully addressed the challenges faced by partners in the field. It also made a significant contribution to improving the quality of the animal product supply chain, strengthening business competitiveness, and supporting the creation of safe and healthy food consumption for the wider community.

### **Closing**

The implementation of a community service program by the Ngudi Waluyo University team at the Pati City chicken slaughterhouse has yielded significant results in increasing the capacity of partners, particularly in the hygienic management and distribution of animal products. This activity not only provides theoretical knowledge but also equips partners with practical skills that can be directly applied in their daily work processes. The gradual process of counseling, training, demonstrations, and mentoring has built partners' awareness of the importance of food safety standards. Changes in partner behavior are clearly visible through the implementation of hygiene procedures, the use of personal protective equipment, product storage management with closed containers and ice, and more planned distribution management. These results are reinforced by an increase in partners' knowledge test scores, indicating successful knowledge transfer.

More broadly, the success of this program has made a positive contribution to community food security, product quality, and the sustainability of local chicken slaughtering businesses. The implementation of Good Handling Practices (GHP) and Sanitation Standard Operating Procedures (SSOP) principles not only increases the competitiveness of business actors but also supports the achievement of safe, healthy, and affordable food security goals. In addition to its direct impact on partners, this community service program also has strategic value as a model for implementing hygienic practices that can be replicated in other slaughtering centers throughout Indonesia. Thus, this community service not only addresses technical issues in the field but also makes a real contribution to strengthening community capacity in order to realize a more professional, hygienic, and sustainable animal product supply chain system.

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