

# Awareness of Chicken Slaughterhouse Business Actors Towards Halal Products

**Basimah Nafisah<sup>\*a</sup>, Imelda Fajriati<sup>b</sup>**

<sup>\*a</sup> Interdisciplinary Islamic Studies Concentration in Halal Industrial and Business Studies, Faculty of Postgraduate, UIN Sunan Kalijaga, Yogyakarta, 55281, Indonesia.

<sup>b</sup> Chemistry Study Program, Faculty of Science and Technology, UIN Sunan Kalijaga, Yogyakarta, 55281, Indonesia.

## **ABSTRACT**

This study aims to provide an empirical picture of halal awareness of chicken slaughterhouse business actors towards halal certification in Indonesia by understanding halal perceptions and the extent of halal risks, critical points, and critical processes in their chicken slaughterhouses. This study uses a descriptive qualitative approach with field research methods. The research informants were two chicken slaughterhouse business actors: Mr. Wafir from RPA Semerak and Mr. Isa from RPA Master Chick. Data were obtained through interviews and documentation, with qualitative analysis using deductive methods. Planning Behavior Theory (SDG) is used to understand business actors' perceptions of halal certification, focusing on actual behavior, intentions, attitudes, and knowledge. The results showed that RPA Semerak already has awareness of halal production but does not have awareness of the obligation of halal certification, which is caused by the lack of public and business actors' understanding of the critical point and urgency of halal certification. In addition, tipping point activity related to chicken slicing after slaughter has not yet been considered. As for the RPA Master Chick, despite having awareness about halal certification, it still lacks a thorough understanding of knowledge. The results of this research are expected to contribute to increasing the understanding and awareness of chicken slaughterhouse business actors towards halal certification, as well as assisting related parties in designing education and training programs that are in accordance with the needs of the industry.

**Keywords:** *Awareness, Chicken Slaughterhouse, Halal, Tipping Point.*

**© 2024 Pusat Kajian Halal ITS. All rights reserved.**

## **1 Introduction**

Population growth has influenced the demand for meat as an important source of protein in the daily diet. Chicken has the highest meat consumption, followed by beef and processed meat. Worldwide chicken production is expected to reach 180 million tons by 2050. Based on the Agricultural Data Center and Information System of the Secretariat General of the

---

\* Corresponding author

Email address: [basmahnafisah@gmail.com](mailto:basmahnafisah@gmail.com)

Ministry of Agriculture, the broiler population in 2022–2026 is estimated to grow by 1.45% per year. In 2022, the broiler population will reach 3.17 billion heads; in 2025 and 2026, it is estimated to reach 3.28 billion heads and 3.35 billion heads, respectively. From this population, in 2025 purebred chicken meat production is estimated to reach 3.56 million tons in 2026 it will reach 3.65 million tons [1].

Indonesia as a Muslim-majority country plays an important role in chicken meat production. This increasing chicken consumption has a major influence on industrial economic opportunities every day; even during the celebration season or religious holidays, chicken needs usually increase to around 10%-20% of normal needs [2]. Chicken is a type of poultry often used for meat, eggs, and feathers. Other business actors, such as stalls and restaurants, also rely heavily on the availability and quality of chicken meat to meet consumer demand. In the food industry, chicken meat is often used as a basic ingredient in various food products, such as processed meat into nuggets and meatballs, because it is relatively cheap, convenient (easy to cook), considered healthier (low fat) than other types of meat, and more versatile for various dishes [3].

According to the Islamic view, chicken meat is an animal commodity that includes critical ingredients that must be guaranteed safety and halal. When chicken meat is not processed using facilities and slaughter methods that are in accordance with Sharia, it can affect the quality and cleanliness of the meat. Halal principles are important for minimizing the risk of contamination of unclean goods, bacteria, or improper handling, which in turn has a negative impact on food safety and health [4]. Therefore, the issue of "halal" has become a prominent concern in various countries around the world, including Indonesia, which stipulates the obligation of halal certification on all products in circulation. However, so far, the chicken slaughter industry is still carried out traditionally, and the facilities owned are still limited. Few chicken slaughterhouse industries have been found to have adequate facilities, modern tools, NKV, or halal certification.

Previous research related to halal and slaughterhouses can be seen from several aspects, the first normative aspects of law or religion, as Kristin Pufpaff and Mian N. Riaz, and Munir M. Chaudry did entitled Halal Production Requirements for Meat and Poultry deep handbook Halal Food Production [5], Second aspects of animal welfare or animal welfare ethics, as done by Awal Fuseini, Mara Miele, John Lever, in an article entitled Poultry Welfare at Slaughter [3] and Halal Slaughter of Livestock: Animal Welfare Science, History and Politics of Religious Slaughter [6], third aspects of marketing and religious commodification that affect the economy and politics arising from halal regulations as done by John Lever, John Fischer, in his article entitled slaughterhouse on the book Religion, Regulation, Consumption, fourth, aspects of halal regulation in various countries, as done by I.A. Shahdan, J.M. Regenstein in an article entitled Developing Control Point for halal Slaughtering of Poultry [7], fifth aspects of chicken slaughterhouse practices such as supply chain analysis or halal critical point risk as done by Dini Wahyuni in an article entitled Halal Risk Analysis at Indonesia Slaughterhouses Using The Suply Chain Operations Refrence and House of Risk Methods [8], and RPA halal tracing using technological developments such as blockchain [9].

To continue the previous research, the author conducted a study on the production process of chicken slaughterhouse businesses that have not received halal certification, as well as the perception of halal certification regulations. This research is important in understanding the obstacles and challenges of the halal industry in the chicken slaughterhouse sector, as well as understanding the extent of food safety and food safety risks, tipping points, and critical processes of chicken meat products found in chicken slaughterhouses that have not received halal certification.

## **2 Materials and methods**

This research is field research using a descriptive qualitative approach. The purpose of this study is to provide an empirical picture of the perception of chicken slaughterhouse business actors towards halal certification in Indonesia and to understand the extent of halal risks, critical points, and critical processes of chicken slaughterhouses. The informants of this research were two chicken slaughterhouse business actors: Mr. Wafir from the Semerak chicken slaughterhouse and Mr. Isa from the Master Chick chicken slaughterhouse. The source of this research data consists of two types: primary and secondary. Primary data were obtained from interviews with business actors or chicken slaughterhouse owners. Secondary data are obtained from interviews with village extension workers from the regional religious affairs office to determine the extent to which the halal industry is implemented, and refers to books, articles, and documents from some information related to this study. To obtain valid data, researchers use several data collection techniques, namely observation, interviews, and documentation. Data analysis techniques obtained from interviews are described qualitatively through deductive methods, namely thinking about conclusions or decisions that are general in nature to obtain conclusions.

To understand how business actors perceive halal certification, the author also uses The theory of planned behavior (SDG) or planned behavior theory, which has been widely used to interpret the behavior of consumers, sellers, and producers [10]. In general, this theory states that actual behavior is influenced by intention, while intention is primarily influenced by attitude. At the end of the chain, attitudes are influenced by knowledge [11]. Therefore, the behavioral variables in RPH clustering are divided into four categories: actual behavior, intention, attitude, and knowledge. Clustering was chosen as a method for segmenting chicken slaughterhouses based on the behavior of their owners. As for the extent of food safety and halal food risks, critical points, and critical processes of chicken meat products found in the chicken slaughterhouse, the author uses references to SJPH Criteria Decree of the Head of the Halal Product Assurance Organizing Agency Number 57 of 2021 concerning Halal Product Assurance System Criteria, Decree of the Head of the Halal Product Assurance Organizing Agency Number 77 of 2023 concerning Guidelines for the Implementation of the Halal Product Assurance System in Ruminant and Poultry Slaughter, as well as SNI reference 990002 2016 concerning Halal Slaughter in Poultry [12].

### 3 Discussion

#### 3.1 Halal Regulations for Chicken Slaughterhouses in Indonesia

Through regulation, the rise of Islamic and non-Islamic, halal, and non-halal foods can be traced back to the Iranian revolution and the origins of political Islam. In 1979, the Islamic Republic of Iran was a major step in the political role of Islam in halal regulation. First, Iran demanded that the meat imported from other countries be halal. This influences other countries, such as New Zealand and Australia, which proves that the products produced are halal. Some countries, such as Saudi Arabia, also competed in halal control, until finally the initial stage of halal certification regulation began, although it was limited to meat products [13].

In 1980, the idea was proposed that food products should be subjected to lab testing. The entry of the era of globalization brings consequences that need to be considered for halal food. Therefore, there are provisions for halal certification in various countries, including Indonesia, that stipulate halal certification regulations. Since the enactment of the Law on Halal Product Assurance No. 33 of 2014, the original regulation has been voluntary (voluntary) and has become mandatory (obligation). That is, all products must have halal certification, both food, beverages, drugs, cosmetics, chemical products, biological products, genetically modified products, as well as use goods used by the community, as well as services related to the halal industry such as slaughter services both slaughterers and slaughter sites [14]. This is important because the existence of animal slaughterhouses (RPH) and poultry or chicken slaughterhouses is an important aspect of the critical point of all products. The practice of animal slaughter continues to develop from traditional methods to modern practices. The invention of machines and conveyor systems was also introduced for the cutting process, helping to speed up the production process on a large scale [15].

Slaughterhouses and Poultry Slaughterhouses are meat supply business units regulated by the Directorate of Veterinary Public Health, Directorate General of Livestock and Animal Health of the Ministry of Agriculture. The implementation of the slaughterhouse quality assurance and food safety system must meet the aspects of hygiene, sanitation, and veterinary public health supervision, as in the Regulation of the Minister of Agriculture Number 13/Permetan/Pt.140/1/2010 concerning the requirements of Ruminant Slaughterhouses and Meat Handling Units [16], as well as Minister of Agriculture Regulation Number 11 of 2020 concerning certification of Veterinary Control Numbers of Animal Product Business Units [17].

Meats are halal if they are produced by slaughtering halal animals, according to Islamic law. To create this ecosystem, it is necessary to prepare competent Halal Slaughterers (juleha) with a number proportional to the products to be certified. Based on the Decree of the Minister of Manpower of the Republic of Indonesia, number 147 of 2022 [18], slaughterhouses or slaughterhouses have several national standards, namely SNI 01-6159-1999 concerning slaughterhouses [19], SNI 99001:2016 concerning halal management systems [20], SNI 99002 concerning Halal Slaughter in Poultry [12], SNI 99003:2018 concerning Halal Slaughter in Ruminants [21], and SNI 6160 concerning Poultry Slaughterhouses [22]. Therefore, the animals to be slaughtered and the various slaughter

facilities are identified according to requirements. Procedures for handling animals must also be carried out in accordance with Islamic law by considering the adab/sunnah, makruh, and animal health and welfare [23].

Based on the Fatwa of the Indonesian Ulema Council Number 12 of 2009 concerning Halal Slaughter Certification Standards [24], meat can be said to be halal if slaughtered by a halal slaughterer who is Muslim, mature (puberty), and reasonable. The slaughtered animal must be ensured that the slaughter with the intention of calling the name of Allah recites Bismillah Allahu Akbar or Bismillah Manir Ahim. And must cut The base of the upper neck 3 channels, namely the respiratory tract (hulqum or trachea), food channel (mari'/esophagus), and two right and left blood vessels (wadijain), and slaughter must be done once using a sharp knife tool with one incision, not using tools derived from bone, nails, or teeth. The slaughterhouse must also have post-slaughter handling procedures, including blood slicing, scalding, feather removal, offal removal, and carcass washing. Packaging must be clean, hygienic, and not contaminated by feces. In the provisions of halal certification regulations, slaughterhouses must have halal slaughterers and be under the supervision of halal supervisors who meet these requirements [25].

This provision is also mentioned in the Decree of the Head of the Halal Product Assurance Organizing Agency Number 77 of 2023 concerning the Guidelines for the Implementation of the Halal Product Assurance System in Ruminant and Poultry Slaughter [26]. If a livestock is said to be halal when alive at slaughter, the animal must also meet animal health standards according to the rules of law. In a living state, the animal should not be given feed containing pigs or derivatives. Animal feed is also not the result of engineered elements of haram products that cause changes in smell, taste, and harm if consumed, nor is it feed that contains unclean raw materials.

If traditional slaughter is to be performed, care must be taken to closely follow Islamic teachings to prevent animal suffering. Animals should not be hung or dragged before slaughter. Poultry restraint before shackling or slaughter is usually performed with leg shackles, cones, or by hand. If leg shackles are used, the poultry should be placed carefully and gently so as not to injure it, and should always be held and hung on two legs. If the restraint is done by hand, the pressure should be strong enough to stop the bird from injuring itself, but gentle enough to prevent injury or bruising caused by humans on meat [5]. Whether slaughtered by hand or by machine, chickens or poultry must be completely dead before entering burn tanks and/or depilation areas. It must be ensured that all poultry have bled properly. We recommend that poultry be slaughtered without refrigeration but using a humane system of detention. However, non-lethal methods of ingestion can be used to meet the legal requirements for humane slaughter regulations in some countries. The animal must be alive at the time of slaughter and die from slaughter bleeding, not from electrocution or other stunning systems [5].

Process stunning for poultry farm animals that are allowed to use water bath electrical stunning. This method is performed by hanging and turning the animal. Usually, chickens are hung upside down using their feet or dip the animal's head in water supplied with electric current with certain parameters. This controlled electric current flows from the head, through

the body, and to the animal's feet, and then to the ground through hangers, causing temporary unconsciousness (electronarcosis). Slaughter of animals. After fainting, the animal was immediately slaughtered. Water bath electrical stunning is a common method used in slaughterhouses because it is considered more humane than other methods, such as hitting the head. Therefore, Stunning only causes the animal to faint temporarily and does not lead to death [27].

### 3.2 Profile of the Sliver and Master Chick Cut House

The Semerak chicken slaughterhouse is a slaughter service Micro Business owned by Mr. Wafir's family located in Semerak village, Margoyoso district, Pati regency. Starting with selling chickens while continuing his education at a madrasa in the 1980s, Mr. Wafir learned to trade by buying and selling chickens to become a chicken slaughter service. After marrying in 1992, he developed the services of a butcher by providing tools and machines that helped speed up the cutting process. On the initiative of his wife, Mr. Wafir bought a chicken feather plucker, which became the forerunner of his business development to this day. Although it is still fairly limited and does not have more modern equipment than standard chicken slaughterhouses, Mr. Wafir can cut chickens from 40 to 100 chickens every day and already has regular consumers from meat sellers in the market. The supply of chickens is sourced from one's own livestock as well as from different markets every day. In carrying out the cutting process, Mr. Wafir was assisted by three people, namely his two children who were in charge of helping cut chicken, boil, and pull feathers, and his wife who helped clean and send to consumers [28].

Mr. Isa's Master Chick is a fairly large slaughterhouse in the Pati area, especially in the Tayu sub-district, which was established in 2002. Although RPA Master Chick, including MSMEs on a small business scale, every day RPA Master Chick cuts 300-500 chickens per day. Chickens are supplied from partners from the Pati area every day or evening, then slaughtered at 12 pm to 6 am. Currently, it has outlets in four markets, namely Tayu Market, Fern Market, Pasir Ngemplak, Ngagel Market, and Bulumanis Market. Master Chick also has 8 employees, with details of 5 as slaughterers, 1 officer in feather plucking, 2 people in cleaning, and cutting chicken meat parts [29].

### 3.3 Knowledge of Halal Certification Regulations for Chicken Slaughterhouse Business

actors

Cognitively, Mr. Wafir, the owner of the RPA business, already knows the procedures for slaughtering chickens in accordance with Islamic law, both the cutting requirements and slaughtering procedures. However, halal certification regulations have not been considered important; Mr. Wafir himself does not know the mandatory policy of halal certification regulations and still believes that the community is not so needy. Besides, because there has been no consumer demand for the legality of halal meat products, consumer trust has been inherent for a long time because the owner of this chicken slaughterhouse is a Muslim who graduated from an Islamic boarding school and is a village modin who implements programs related to village religion. This public trust closes potential concerns regarding fraud or harams committed. This indicates that the halal certification policy in the Semerak chicken

slaughterhouse has not met the established standards because there has been no interest from business owners and even no knowledge base about the urgency of halal certification. This low knowledge was also reinforced when the author interviewed village extension workers at the Margoyoso sub-district religious affairs office, that public awareness of participating in the halal certification program is still fairly minimal, even the self-declaration certification program, which is a free halal certification program for MSMEs, still does not affect the attractiveness of the community [30].

Unlike the Master Chick chicken slaughterhouse located in Pondowan village, Tayu district, Pati regency. Awareness of halal certification has grown in recent months. Mr. Isa admitted that he was conducting the process of registering for halal certification. Although so far there has been no consumer demand, for Mr. Isa, halal certification is an anticipation of consumer demand in the future. However, procedurally, Mr. Isa has not understood in detail; the registration process that is being carried out is handed over to outside parties who are trusted to be able to assist in registration [29].

Knowledge of halal certification in some communities began to emerge. This was confirmed by the village extension officer of Tayu sub-district, who is responsible for being the Companion of Halal Products in the Tayu area, that awareness about the obligation of halal certification has grown in the community. The Ministry of Religious Affairs itself has provided socialization and invited business actors. However, awareness is still dominant in micro businesses that register halal certification, so it is necessary to provide more education for MSE business actors or those who register regularly [31].

In its development, the concept of halal evolved from Muslim companies (Muslim producers or companies), namely the belief in the validity of halal initially based on consumer confidence in the responsibility of Muslim business actors, towards halal products (halal products), halal supply chain (halal supply chain), that is the use of different standards halal validity is based on halal certification from supply chain partners, supplier manufacturers, logistics, retail, etc. and at the ideal stage of achieving halal value chain (halal value chain), which is to fulfill halal aspects from upstream to downstream in accordance with the halal supply chain, and pay attention to aspects of environmental impact, use Islamic branding and marketing, and use Islamic financial institution management [32]. From this concept, RPA is still at the stage of a Muslim company, while Master Chick's RPA began to enter the stage halal product.

#### 3.4 Critical Points of Chicken Slaughterhouse Activity

Chicken slaughterhouse activities are described sequentially, starting from the arrival of chickens taken from suppliers, then prepared before slaughter, the slaughter process, and post-slaughter to distribution to consumers. The slaughter stages of peacock RPA chickens and Master Chick have no differences; the slaughter stages of both can be described in the following scheme in Fig. 1.

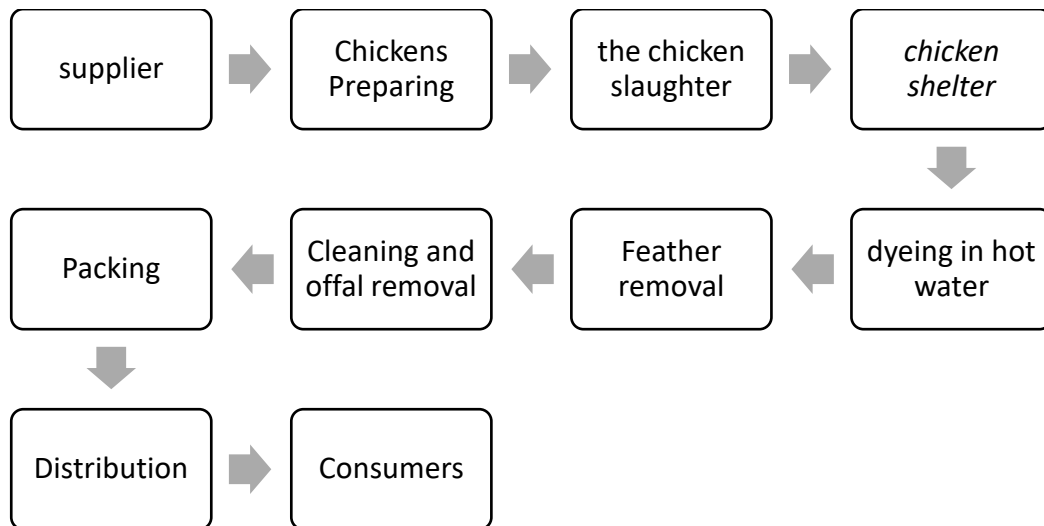


Fig. 1 Scheme of slaughter stages of peacock RPA chickens and Master Chick

The difference that occurs between Master Chick chicken RPA and Semerak RPA is related to the separation of places in each process. If RPA Semerak has a limited area, the slaughter location with the location of cleaning the chicken after cleaning is in one place. It is just that the place is cleaned or watered with water before being used for offal removal. In slaughtering mater chick chickens, there is a separation of locations with sufficient distance at each place of processing.



Fig.2 RPA cutting activity of a peacock.



Fig. 3 Chicken soaking activity using hot water





Fig. 4 Chicken cleaning activity after peacock RPA feather removal



Fig. 5 Catfish Pond of semerak RPA blood disposal waste



Fig. 6 Carcass cleaning and cutting site after slaughter in RPA Master Chick



Fig. 7 Hot spring bath after RPA Master Chick slaughter



Fig. 8 Chicken shelter



Fig. 9 RPA Master Chick feather removal place and device

For clarity, the location scheme of the description of the peacock chicken slaughterhouse is shown in Figure 9.

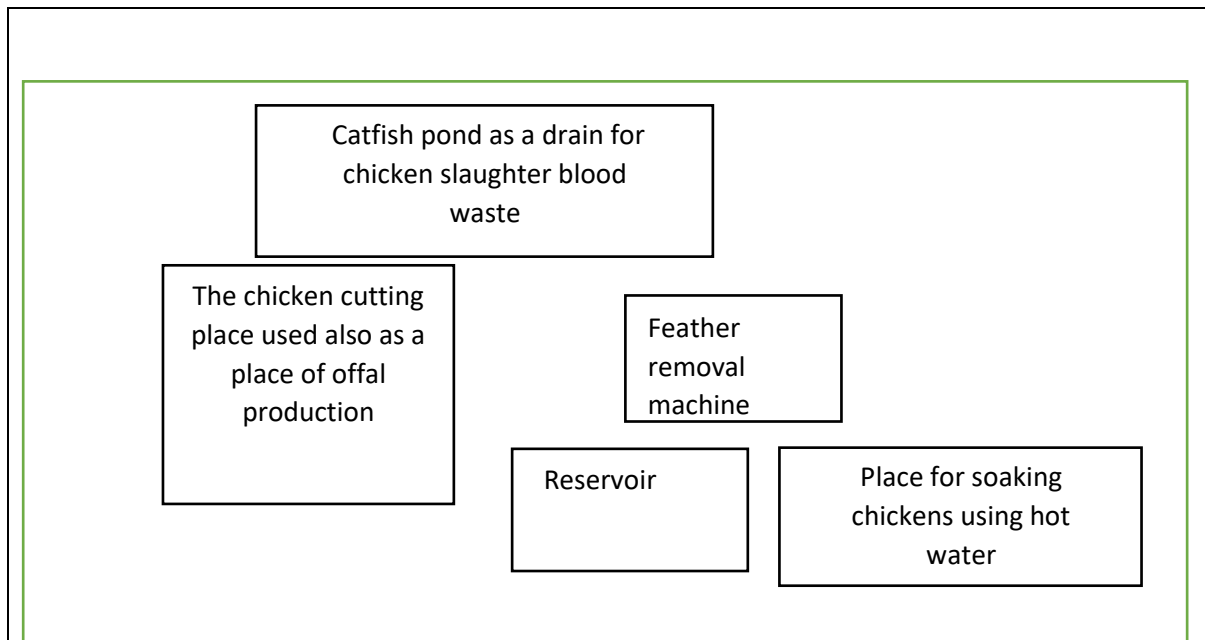


Fig. 10 Semerak RPA schematic

A description of the Master Chick's RPA cutting stage is depicted in Figure 10.

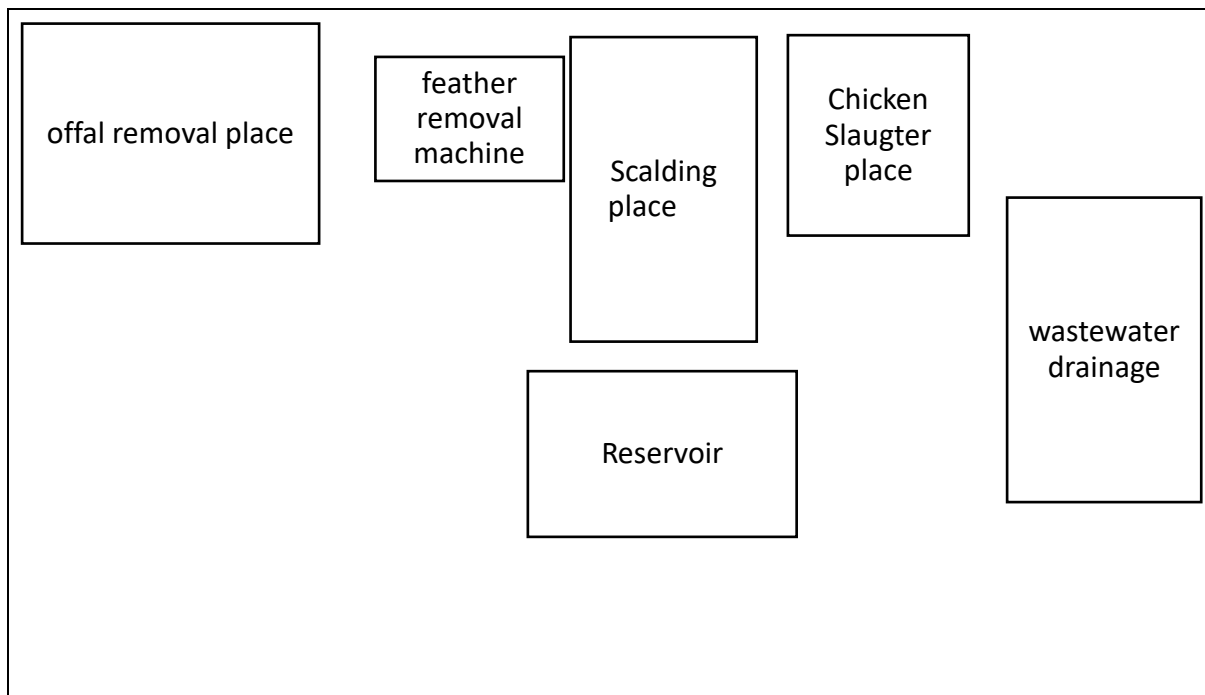


Fig. 11 Master Chick RPA schematic

It is certain that the Master Chick RPA owned by Mr. Isa is more hygienic and clean than the Semerak RPA owned by Mr. Wafir. Master Chick's RPA immersion tool is also more modern than Semerak's. A number of potential critical points in slaughterhouses start from the origin of raw materials, slaughtering, production processes, or equipment, where there is a possibility of contamination with non-halal objects, storage, transportation, and distribution to consumers. This rule is regulated in the Halal Assurance System so that a product can avoid

good haram products, haram lidzatihi (because of its content), or haram (due to the production process) [33]. To maintain product subtleties, halal products should not be combined with nonhalal products throughout the process supply chain. That is, the application of the principle of halalan toyyiban throughout the supply chain, from the source of supply to the consumer, must be in accordance with the concept of halalan toyyiban mandated by Islamic law [34].

In this case, RPA Semerak and RPA Master Chick both have a commitment to implement halal in their slaughterhouses in the process stages of purchasing, receiving, pre-slaughter, and post-slaughter. Facilities, locations, buildings, and cutting process tools have also been avoided in illegal cases. However, this chicken slaughterhouse has not been able to meet the hygiene of the cleanliness of the location and places related to slaughtering.

Ensuring procedures for handling dead chickens and carcasses that do not meet the requirements for halal slaughter. When handling RPA Semerak, chickens that died under non-halal conditions were used as food for their pond catfish. While in the RPA Master Chick, the owner did not explain the handling because so far, chicken slaughter has never experienced failure. These two RPAs do not have written provisions regarding their handling.

Related materials in this RPA include chicken, water, and plastics. In this case, RPA Master Chick and RPA Semerak have ensured that the chicken to be slaughtered is in good health because the critical point of chicken haram is when the chicken is found sick, disabled, or dead. To make preventive efforts, slaughterers should ensure that the condition of the chicken is good and ready to be slaughtered. The water used in the chicken cleaning process in this RPA was confirmed to come from a well. These two RPAs ensured that the water was also clean and not contaminated with impurities.

The activities in the second RPA Cutting Process can be described as three activities: first, pre-cutting. RPA Mater Chick and RPA Semerak ensured a clean place to put chickens. Before slaughter, these two RPAs categorized the differences in size and body weight of chickens into their respective groups. In particular, RPA Master Chick already has a pickup car specifically to pick up slaughtered chickens, while RPA Semerak still relies on its own motorbike and chicken kendang transportation. When taking chickens at purchase from partners, RPA Semerak and Master Chick already have knowledge to identify healthy chickens. The knife tool used has been confirmed to be sharp, straight, smooth, not jagged, not hollow, or has no damage.

The second is cutting or slaughtering activities. In the slaughter of RPA Semerak and RPA Master Chick, chickens are slaughtered halally. However, there is a difference between RPA Semerak and RPA Master Chick, in RPA Semerak the basmalah reading is done once for repeated cuts, while the basmalah reading on RPA Master Chick is every time the cut. Both RPAs have also ensured cuts on three channels.

Third, Post-slaughter. The RPA Master Chick and RPA Semerak check animals that entered boiling water soaking were dead chickens. However, there is a possible tipping point because chickens may die because of the buildup of chickens in the barrel, not because chickens die after slaughter. After soaking, the chicken is put into the feather plucking device alternately.

Then, washing is carried out, and the cleanliness of the chicken carcass is ensured by removing the offal or cutting the parts. At the post-slaughter stage, it still contains potential critical points and critical processes that can affect halal because if you adjust the provisions of SNI, chickens should be ensured to be in a clean blood incision site and not mixed with items that can affect halal. The slicing time was carried—3-5 minutes until the blood drained completely and the chicken no longer moved.

Fourth, there are production activities. After the chicken is cleaned, it is ready to be produced and accepted by consumers. The packaging used in RPA Master Chick and RPA Semerak uses white plastic that is not contaminated by feces. The majority of chicken produced by these two RPAs was fresh. As for the storage of leftover unsold chicken, these two RPAs do not yet have a blast freezer, which is guaranteed to have a halal aspect. In fact, RPA Semerak still relies on the chunks of ice cubes to cool stored chickens. Thus, the potential tipping point at this stage may occur before it is accepted by consumers.

Fifth, Sewage handlers. Waste in this slaughterhouse consists of two parts: liquid waste, such as blood and water used for sanitation, and solid waste consisting of animal carcasses, fur, and animal waste. In this case, the RPA Semerak and RPA Master Chick have special ponds to accommodate the liquid waste that is managed so that it does not cause odor and is separated from the WWTP process. Carcasses and dirt are also disposed of and managed so as not to enter the WWTP saluran. Chicken feathers are placed in containers to be sold or taken by chicken feather managers. Therefore, we can ensure that the waste handling process of these two RPAs is halal because they are not included in the WWTP channel and are not used as feed material. If the chicken produced is given feed from manure or feces, it will have haram legal consequences because it is called Jallalah, as in MUI fatwa Number: 52 of 2012 [35].

Therefore, some of these important notes need to be used as evaluation material by business actors to make improvements, and it is necessary to monitor them regularly to anticipate contamination or bad speculation that occurs. Thus, the integrity of Halal and Tayyib chicken production can continue to be maintained within the framework of Islamic Sharia.

#### **4 Conclusion**

Sharia halal perception has been understood in Indonesian chicken slaughterhouses. However, the perception of halal regulations, knowledge of halal critical points, and the obligation of halal certification are still obstacles for service businesses or chicken slaughterhouses. In this study, the author found that RPA Semerak in Pati does not have awareness about the obligation of halal certification because the community and business actors do not have an understanding of the critical point and urgency of halal certification, so RPA Semerak does not have NIB and NKV, nor do it have human resources, locations, and buildings, which are adequate and clean according to SNI procedural standards. In addition, there are still tipping point activities related to chicken slicing after slaughter that have not been noticed by the RPA. This also happens to RPA Master Chick, who already has awareness about halal certification but in actual behavior does not understand the full knowledge related to the halal supply chain. Although the RPA Master Chick already has a location that complies with SNI standards, it is still not clean and hygienic enough and does not have human resources who have attended training as Juleha.

Therefore, RPA Semerak and Master Chick have challenges in halal procedures, ensuring that locations, tools, and buildings are in accordance with the safety and hygiene standards listed in SNI. Both RPAs also need to attend Juleha training as a requirement for halal certification registration. This challenge is also a challenge for the Ministry of Religious Affairs or village extension workers who are tasked with helping to succeed in halal certification, because so far, public awareness about halal is still fairly minimal. Halal certification regulations, both self-declare and regular, have not been conveyed evenly to the public and business actors in Indonesia, including in Pati City.

## References

- [1] Agricultural Data Center and Information System, "Pedagin's Chicken Meat Farm Commodity Outlook," 2022. [Online]. Available: [satudata.pertanian.go.id/assets/docs/publikasi/Outlook\\_Ayam\\_Ras\\_Pedaging\\_2022\\_Final.pdf](http://satudata.pertanian.go.id/assets/docs/publikasi/Outlook_Ayam_Ras_Pedaging_2022_Final.pdf)
- [2] K. Candra, "Forecasting Analysis of Production and Consumption of Ras Chicken Meat in Indonesia in Order To Make Food Security," *Maj. Technol. Agro Ind.*, vol. 12, no. 2, 2020.
- [3] A. Fuseini, M. Miele, and J. Lever, *Poultry Welfare at Slaughter*. MPDI (Multidisciplinary Digital Publishing Institute).
- [4] H. Catur Wahyuni, "Food Safety and Halal Food Risks in Indonesian Chicken Meat Products," *Int. Conf. Ind. Eng. Eng. Manag. IEEM*, 2008, [Online]. Available: [10.1109/IEEM.2018.8607528](https://doi.org/10.1109/IEEM.2018.8607528)
- [5] K. Pufpaff, M. N. Riaz, and M. M. Chaudry, "Halal Production Requirements for Meat and Poultry," in *Handbook Halal Food Production*, Florida: CRC Press Taylor & Francis Group, 2004.
- [6] A. Fuseini, *Halal Slaughter of Livestock: Animal Welfare Science, History and Politics of Religious Slaughter*. Australia: Springer, 2023.
- [7] A. Shahdan and J. M. Regenstein, "Developing Control Points for halal Slaughtering of Poultry," *Elsevier Poult. Sci.*, vol. 95, no. 7, 2016.
- [8] D. Wahyuni, "Halal Risk Analysis at Indonesia Slaughterhouses Using the Suply Chain Operations Refrence and House of Risk Methods," Dini Wahyuni "Halal Risk Anal. Indones. Slaughterhousing SupTalenta J. Phys. Conf. Ser.", vol. 1542, no. 1, 2020.
- [9] A. Akbar, "Halal Blockchain Application for a Chicken Slaughtering Factory," *Int. J. Food Syst. Dyn.*, vol. 13, no. 3, 2022.
- [10] W. J. *Cluster Analysis and K-means Clustering*. Springer, 2012.
- [11] Harwati, "Capturing Profile of Halal Chicken Meat Slaughterhouse," *Proc. Second Asia Pac. Int. Conf. Ind. Eng. Oper. Manag.*, 2021.
- [12] "SNI 990002 of 2016 concerning Halal Slaughter in Poultry," National Standardization Agency, Jakarta, 2016.
- [13] A. Utriza Yakin, "Halal Certification Standards and Their Ramifications in Belgium," in *Rethinking Halal: Genealogy, Current Trends, and New Interpretation*, Leiden: Brill, 2021.
- [14] Sukoso, *Halal Industry Ecosystem*. Jakarta: Ecosystem of the Sharia Economy and Finance Department of Bank Indonesia, 2020.
- [15] A. J. Fitzgerald, "A Social History of the Slaughterhouse: From Inception to Contemporary Implications," *Hum. Ecol. Rev.*, vol. 17, no. 1, 2010.

- [16] "Regulation of the Minister of Agriculture Number 13/Permentan/Pt.140/1/2010 concerning the requirements of Ruminant Slaughterhouses and Meat Handling Units," the Minister of Agriculture.
- [17] "Regulation of the Minister of Agriculture Number 11 of 2020 concerning the certification of Veterinary Control Numbers of Animal Product Business Units," the Minister of Agriculture.
- [18] "Decree of the Minister of Manpower of the Republic of Indonesia Number 147 of 2022 concerning the Establishment of Indonesian National Work Competency Standards for the Category of Agriculture, Forestry, and Fisheries of the Main Groups of Plant Farming, Livestock, Hunting, and Activities Related to it (YBDI) in the Field of Halal Animal Slaughter," the Minister of Manpower of the Republic of Indonesia.
- [19] "SNI 01-6159-1999 concerning Slaughterhouses," National Standardization Agency.
- [20] "SNI 99001:2016 concerning Halal Management System," National Standardization Agency, 2016.
- [21] "SNI 99003 concerning Halal Slaughter in Ruminant Animals," National Standardization Agency, 2018.
- [22] "SNI 6160 concerning Poultry Slaughterhouses," National Standardization Agency, 1999.
- [23] "Decree of the Head of the Halal Product Assurance Organizing Agency Number 57 of 2021 concerning Criteria for the Halal Product Assurance System," Halal Product Assurance Organizing Agency, 2021.
- [24] "Fatwa of the Indonesian Ulema Council Number 12 of 2009 concerning Halal Slaughter Certification Standards," Indonesian Ulema Council, Jakarta, 2009.
- [25] "Law on Halal Product Assurance No. 33 of 2014."
- [26] "Decree of the Head of the Halal Product Assurance Organizing Agency Number 77 of 2023 concerning Guidelines for the Implementation of the Halal Product Assurance System in Ruminant and Poultry Slaughter," Halal Product Assurance Organizing Agency, 2023.
- [27] "electrical waterbath stunning of poultry," 2016. [Online]. Available: [www.hsa.org.uk](http://www.hsa.org.uk)
- [28] Wafir, "RPA Semerak Business Owner Interview," Jul. 01, 2023.
- [29] Isa, "RPA Master Chick Business Owner Interview," Jul. 03, 2023.
- [30] Yunia, "Village Extension Interview at Margoyoso Religious Affairs Office," Jul. 03, 2023.
- [31] Fathul Inayah, "Village Extension Interview at Tayu Religious Affairs Office," Jul. 03, 2023.
- [32] M. Tieman, The application of halal in supply chain management: principles in the design and management of halal food supply chains. Selangor: PhD thesis, Universiti Teknologi MARA, Shah Alam, 2013.
- [33] M. K. Anwar, "The Urgency of Halal Assurance System for Product Reliability," *Int. J. Islam. Bus. Econ.*, vol. 2, no. 2, p. 123, 2018.
- [34] Md Mahfujur, "Supply Chain Management with Halal Critical Control Points and Impact of Halal Slaughtering in Poultry Industry".
- [35] "Fatwa of the Indonesian Ulema Council Number: 52 of 2012 concerning the Law on Farm Animals Fed from Unclean Goods," Indonesian Ulema Council, 2012.