

## Research Article

# COMMUNITY PERCEPTION OF WILD BOAR MEAT CONSUMPTION BASED ON A HALAL PERSPECTIVE IN A RURAL AREA OF EAST JAVA

Roudhotul Lu'luul Jannah<sup>1</sup>, Hamzah Nata Siswara<sup>1,a</sup>, Yuny Erwanto<sup>2</sup>, Meireni Cahyowati<sup>3</sup>, Chairil Anwar<sup>4</sup>

<sup>1</sup>*Animal Science Department, Polytechnic of Agriculture and Animal Science Mapena, Jl. Imam Bonjol, Singgahan District, Tuban Regency 62361, East Java, Indonesia*

<sup>2</sup>*Department of Animal Products Technology, Faculty of Animal Science, Universitas Gadjah Mada, Jl. Fauna No. 3, Bulaksumur, Yogyakarta 55281, Indonesia*

<sup>3</sup>*Animal Production Technology Study Program, Department of Agriculture, Politeknik Negeri Banyuwangi, Jl Raya Jember Km 13, Labanasem, Kabat, Banyuwangi 68461, Indonesia*

<sup>4</sup>*Agroindustrial Study Program, Politeknik Indonesia Venezuela, Jl. Bandara Sultan Iskandar Muda Km 12 Ingin Jaya District, Aceh Besar Regency, 23372, Province of Aceh, Indonesia*

<sup>a</sup>email: [hamzahnata@gmail.com](mailto:hamzahnata@gmail.com)

## Abstract

Consuming wild boar meat is still popular among the people of X Village, even though the religion they believe in is Islam. The aim of this research is to investigate people's perceptions of wild boar meat consumption, understand the background of those who consume it, and examine the distribution of wild boar meat in rural areas of East Java. This research was carried out in several stages: observation, interviews with a sample of 100 respondents, and documentation. Perception measurement uses a Likert scale with scores of 1-3, and data processing uses descriptive and correlation analyses. The results showed that wild boar meat consumption has a positive effect on the halal knowledge perspective. However, the criteria for interpreting the relationship between these two variables are weak correlation. This means that people know consuming wild boar meat is not halal, yet they still do so. It is also known that consuming wild boar meat is not good for health, and distributing it is contrary to government regulations, yet local people hold the belief that it is a good and proud thing. The village's remote location, far from the city center, also contributes to the consumption of wild boar meat. Wild boar meat consumption is related to the price, income, taste, and distribution of wild boar meat. Wild boar meat is distributed not only in this region, but demand is greater in Blora, Central Java.

**Keywords:** rural area, community perception, halal perspective, wild boar meat

## INTRODUCTION

Indonesia's population increased by 1.17% in 2022 (BPS, 2022), underscoring the need to improve food security. The largest Muslim population is in Indonesia, reaching 241.7 million Indonesians (Rizaty, 2022). This figure shows the large number of potential halal consumers, especially in Indonesia. In X Village, Tuban Regency, the majority of adherents are Muslims. Attention to halal food and drink consumption is one of the main factors for achieving success in the halal

industry. This has become fundamental in Islamic beliefs, food and drinks must be halal, income must be generated from halal sources, and people must deal with a halal trading system (Hidayati et al., 2020). Halal usually refers to the consumption of permitted foods and to moral and ethical behavior (Adekunle & Filson, 2020). The Arabic word for halal means permitted or permitted. Specifically, halal refers to what is permitted by Sharia (Bashir, 2019). Food is divided into two types: plant-based and animal-based. One of the

animal-based foods is food originating from animal sources, which is very much needed to support human needs as the population increases (Kumaat et al., 2019). Consumption of livestock products is linked to people's ability to purchase, which in turn is closely related to income levels and consumption patterns (Giang, 2013). The relatively high price of meat encourages the distribution of cheaper alternatives, one of which is wild boar meat. Referring to Law No. 33 of 2014 and its derivatives, there are three groups of products that must be halal-certified: food and beverage products; raw materials, food additives, and auxiliary materials for food and beverage products; and slaughtered products and slaughtering services (BPJPH, 2023).

Public perception of pork consumption varies widely depending on the consumer's attitude. Perception is the way humans view certain objects, according to Jayanti & Arista (2019) those who state that perception is one of the psychological aspects important to humans in responding to the presence of various aspects around them. Consumer behavior in consuming pork has many factors, including people's purchasing power, easy access to pork, and existing religion and beliefs. According to Islamic law, Muslims are required to eat food that is guaranteed to be halal and holy. The concept of halal products or halal food is now under discussion worldwide because of its recognition as an alternative benchmark for the safety, cleanliness, and quality assurance of what we consume or drink every day (Uyuni et al., 2018). Thus, their consciousness is an internal state or deep feeling arising from sensory perception of the food products they use or consume. According to a research report of Siswara et al. (2022), it was stated that there had been contamination of beef meatballs with pork which was confirmed based on the PCR test. Based on preliminary studies, residents of X Village hunt wild boar, which they consume and sell in the surrounding area. Wild boar meat comes from hunting in the forests around their homes. The amount of pork available depends on the number of catches they manage to obtain. They still hunt conventionally, for example, by setting traps or shooting with air rifles. The government has issued a law requiring food products in Indonesia to be labeled halal. Therefore, food products that come into contact with pork

require special attention to ensure compliance with halal product laws. Therefore, research on the perception of the X Village community regarding the consumption of hunted wild boar meat is of interest to conduct.

## OBJECTS AND METHODS

### Research Design

This study was designed as a survey, using a questionnaire as the primary data collection tool. The independent variable was the community's halal perspective. The dependent variable was wild boar consumption. Materials require a questionnaire taking into account the population of X Village, Tuban Regency, which is 3,241 people. By using the Slovin formula, you can find out the number of respondents who will be interviewed.

Formula:

$$n = \frac{N}{1 + N (e)^2}$$

Information :

n : Estimated sample size

N : Number of Population (people/breeders)

e : Error rate (0.10)

$$n = \frac{3241}{1 + 3241 (0.10)^2}$$

$$n = \frac{3241}{1 + 3241 (0.01)}$$

$$n = \frac{3241}{1 + 32.41}$$

$$n = \frac{3241}{33.41} \quad n = 97$$

So the sample was taken using a random sampling method, as many as the number of respondents (3,241 people), resulting in 97 and rounded up to 100 respondents.

### Variables

This research uses the X variable as wild boar meat consumption, and the Y variable as the Islamic perspective on halal rules. The sub-variables of X contain: X1: uncertainty about the consumption of wild boar meat; X2: enjoyment in consuming wild boar meat; X3: influence of respondent's income; X4:

suitability of wild boar meat in society; X5: price difference between wild boar meat and livestock products for consumption; X6: delicious taste in consuming wild boar meat; X7: reasonableness in consuming wild boar meat. The sub-variables of Y contains: Y1: knowing that wild boar meat is not halal (haram); Y2: consuming wild boar meat affects faith in Islam; Y3: agree that wild boar meat should not be consumed as a Muslim; Y4: the need for halal education for the community; Y5: Meat-based food sellers need to state whether their products are halal or haram. The other indicators are: consumption of wild boar meat in X Village based on age, gender, livelihood, monthly income and education categories; wild boar meat consumption according to government regulations; consumption of wild boar meat in view of health. Additional information such as profile of respondents according to respondents' livelihoods, monthly income, education and age.

### Data Collection Methods

**Observation:** Direct observation in the study area using a format arranged based on items regarding people's perceptions of consuming wild boar meat. After that, put a check mark (✓) in the desired column in the format.

**Interview:** Face-to-face and conducting a question-and-answer process with 100 respondents in X Village, to obtain and identify accurate information about awareness of wild boar meat consumption and the community's views on consuming wild boar meat.

**Documentation:** This documentation is used to search for data sources, related matters, or several variables, notebooks, agendas, transcripts, and so on. A general overview from start to finish to capture the situation and conditions of the research site in the field.

### Data Analysis

To measure public perception, the data was measured with a Likert Scale. According to Siregar (2016), the Likert scale is a scale used to measure a person's opinion about a certain phenomenon. The Likert Scale has 3 levels of agreement: Agree (A), Neutral (N), and Disagree (D). These 3 levels are shown in Table 1.

Data analysis was carried out by tabulating the observed variable using IBM SPSS software. Data is processed using descriptive statistical analysis. Descriptive statistical analysis is a data processing technique used to describe data obtained from field studies or summarize data obtained from interviews as will be explained briefly through measures of distribution with percentages.

## RESULTS AND DISCUSSION

### Respondent profile

Geographically, X Village is a village adjacent to a forest area. The forest in the X Village area is designated as a social forestry area, allowing the people of X Village to use the land for corn farming. This is in collaboration between Perhutani (state-owned enterprises) and the community. The majority of X Village residents work as self-employed or farmers. This is due to the level of school completion. The type of work carried out independently affects the monthly income in each household budget by utilizing the natural potential in forest areas as a side income to meet daily meat consumption.

Every household cannot be separated from consumption behavior to fulfill daily needs for household survival. Consumption patterns tend to be allocated to food elements. Household consumption expenditure is the largest because food is the most basic thing to fulfill (Anam & Yuniar, 2020). The following respondent profiles can be seen in Table 2.

Judging from the livelihoods of respondents in X Village, self-employment is the dominant livelihood (36%). This means that the size of household income really determines the level of meat and processed meat consumption. Seen from Table 2, there is an average income of Rp. <1,000,000 respondents/month (74%). The income of the people living in X Village depends on livelihoods by exploiting the region's potential. Based on Table 2, the average final education level of respondents is Junior High School (37%). Age is the life expectancy, which is measured in years. The type of age calculation is chronological age (age from birth to the time of calculation). There are age groups ranging from early teens to seniors, and mental age (an age obtained from a person's level of mental ability) (Santika, 2015). It should be

noted that the average respondent is of working age, meaning they can do the work and achieve better results.

### **The relationship between wild boar meat consumption and the halal perspective**

Based on calculations of data tabulation and correlation analysis regarding the relationship between wild boar meat consumption and the halal perspective in X Village, Table 3 shows this. It shows the relationship between the consumption of wild boar meat from a halal perspective. This is shown in the significance of the consumption table and the halal perspective, with a value of 0.043, which is significant for two variables. It is said to be related between two variables if the significance value is  $<0.05$ . However, the criteria for interpreting the relationship between these two variables are said to be a weak correlation, or the value shown in the table is 0.203. At the same time, this value shows that the correlation value is positive, which means the relationship between the two variables moves in the same direction. In this research, respondents were aware of the halal perspective in consuming wild boar meat, but respondents still consumed wild boar meat. Another factor that could influence it is education, age, income, and religious adherence.

The main factor in meat consumption is not only the halal perspective, but there are several other factors. Among them are prices, income, education, and the environment. Price has an impact on consumers' decisions to buy; if the price is high, the decision to buy will be lower, and if the price is low, the decision to buy will be higher. However, the opinion of Jan et al. (2022), Ruslan et al. (2018), and Umar et al. (2021), that halal labels influence consumer purchasing decisions. In contrast to the research results of Lin-Schilstra et al. (2022), which stated that the motive for consuming meat is not closely related to price, they are more concerned with the welfare of the animal being consumed. This can happen in developed countries that have better economies. The more advanced a country's civilization becomes, the quality is more considered than price (Xie et al., 2015)

Households with higher average incomes are expected to buy more commodities even when their prices remain

the same (Kastalani et al., 2017). Starting from price factors, income factors, and education factors are now closely related to consuming meat, one of which is wild boar meat. This is supported by research by Lin-Schilstra et al. (2022) that in both developed and developing countries, education is one of the most important things in determining daily consumption segmentation patterns. The higher a person's education, the higher their consumption expenditure will be, thus influencing consumption patterns and their relationships positively (Kastalani et al., 2017). According to a report from Kastalani et al. (2017), it was stated that higher education tends to choose food of better quality. With higher education you can change your mindset towards consumption because of your experiences.

The origins of the taboo surrounding the consumption of pork in Islam based on research by García (2023) are impacted by Semitic customs. However, we must acknowledge that Islamic food laws did not become clear-cut in the seventh century. In actuality, there are a lot of these problems (which, in the particular situation of food of animal origin, range from things that are allowed and those that are prohibited to the manner in which cattle should be slaughtered). Although parents reacted to food avoidance, in their children, little change occurred. Parents are the main factor in regulating consumption patterns. X Village is a village that is surrounded by forestry. Forest is an asset that has great potential to be utilized by local residents. The forest can be planted with corn and can also be a center for hunting wild boar meat. Not a few people consume wild boar meat, but some of the residents of X Village who consume wild boar meat, from teenagers to the elderly. Some residents consume wild boar meat, apart from being a daily consumption, it is also used as an incentive (*tambul*) to drink alcohol (get drunk). *Tambul* is a local term that describes food that is used as an ingredient to strengthen or increase the urge to get drunk. Although most respondents identified themselves as a Muslims on their identity card, others identified themselves as adherents of a particular faith. *Prana Jati* is their preferred faith. This belief is beginning to spread in several areas of East Java, particularly in the rural area. It means that

respondents who consume wild boar meat are Muslims.

### Consumption of wild boar meat

Respondents still have a lot of interest in consuming wild boar meat in X Village. From the interview results, 59% of respondents consumed wild boar meat. It is very rare to consume domestic pork or farmed pork because there are no pig farmers in the area. It's just that wild boar hunting and the wild boar meat trade still exist in the X Village area. There is research data on the type of meat consumed is wild boar meat with a value of 59%. Consumption of wild boar meat is very popular among respondents because it is delicious, tender, easy to find and has a distinctive taste compared to other meat.

A number of people in X Village think that they prefer wild boar meat to beef. This is a result of several factors, namely, the price of beef is higher, the distinctive smell of beef is still present when it is cooked, and wild boar meat is easier to obtain. Wild boar meat consumption can be seen in Table 4. Based on the results of field research through the distribution of questionnaires, it can be seen in Table 4 that the village population still consumes wild boar meat, in terms of early adulthood, is around 23 respondents (23%).

The consumption of wild boar meat is reviewed from the livelihood category of X Village, with as many as (25%) of the workers being self-employed, which means that income influences meat consumption patterns. The highest consumption of wild boar meat according to monthly income is Rp. 1,000,000-Rp. 2,000,000 (39%). Based on Table 4, the income of people living in X Village, depends on income/month by utilizing regional potential. One of them is by hunting wild boars in the Forest. Wild boar (*Sus scrofa*) are a common game species, because of their abundant numbers in the forests around their homes. With this, the people of X Village hunt for pests and get results from these pests. They explained that with their low incomes, they needed a tasty and affordable source of animal protein. Wild boar meat was believed by the community to be the solution to this problem.

The highest consumption of wild boar meat based on respondents' final education was Junior High School (28%). According to

research of Anam & Yuniar (2020), that the higher the education, the lower the consumption of meat. In Novarista & Suprianti (2021) research, it was stated that the influence of housewives' education on the demand for meat, which means that the higher the household's education, the greater the decrease in demand for meat consumption. Based on data tabulation and descriptive statistical analysis, Table 5 presents calculations regarding community perceptions of wild boar meat consumption in X Village.

Report from Keintjem et al. (2016) stated that 40 respondents (80.00%) consumed pork while most 2 respondents (4.00%) consumed the least amount of bone mixture. Because pork meat inside and out has a soft and delicious texture compared to other meats that have been consumed. Judging from the research results, it shows that those who consume wild boar meat are mostly men. Consuming more wild boar meat by men shows masculinity (Ritzel & Mann, 2021). Research from Kastalani et al. (2017), states that the higher the income, the higher the chicken meat consumption pattern. This is because chicken meat is cheaper than beef. This is supported by research by Giang (2013), Rizaldi Maulana et al. (2023), and Badoa et al. (2015). Many government agencies around the world classify wild boar as an invasive species that poses a major threat to the natural and agricultural environment, the economy, and human health (Barrios-Garcia & Ballari, 2012; Wehr et al., 2018; Risch et al., 2021). Wild boars cause environmental damage, because they eat agricultural plants. This is because they better understand that meat is a source of cholesterol which can make them sick (Anam & Yuniar, 2020).

As a Muslim, one should feel uncomfortable or hesitant about consuming wild boar meat. However, this differs from the opinions of respondents when they consume wild boar meat. Ninety-five percent of respondents stated that they felt comfortable eating wild boar meat because they were used to it. It's like eating beef or chicken in general. Consuming wild boar meat has become a habit in this village. Although some respondents stated they were Muslim, this can be explained by the fact that what they eat is the most readily available and accessible type of food. Supported by research of Nguyen-Viet et al. (2019), which stated that pork is always

available throughout the year and is easy to buy from roadside traders to markets located around villages or consumers, compared to other animal food sources. Because this research was conducted in a non-Muslim area, the higher availability and accessibility of pork meat at a reasonable or cheaper price. So it can be said that in X Village they don't feel anything strange when consuming wild boar meat. Judging from the opinion of (Lin-Schilstra et al., 2022) Chinese consumers feel anxiety and doubt about consuming new foods. They fear that new foods are harmful to health and unnatural.

In consuming wild boar meat, respondents enjoyed this dish. Many say they enjoy 55% for the reason that it is delicious, savory and fatty. In Rompis & Komansilan (2014) research, it was stated that wild boar is a wild animal that has great potential to use its meat as a source of meat for consumption because it has a distinctive, delicious, tender and oily taste. Apart from that, the reason consumers consume pork is that it is easy, affordable and reduces pests, because people's rice fields are often destroyed. Minahasa people like to consume wild boar meat, one of the reasons is that they use it as a source of meat for consumption. Apart from that, this animal is considered a pest in some places and cannot be consumed by some people. Minahasan people enjoy cooking wild boar meat because it has less fat compared to domestic pork (Rompis & Komansilan, 2014).

There is an opinion that the price comparison for wild boar meat and beef is very different. However, in texture and taste it is almost the same as beef. From the research results, 57% knew the difference in the price of wild boar meat and livestock products. Wild boar meat is priced at Rp. 40,000/kg compared to the price of chicken meat of around Rp. 32,000/kg, chicken meat is cheaper, but people there like to consume wild boar meat because it can be harvested for free or can be obtained by hunting. Judging from the research of Badoa et al. (2015), which stated that the level of meat consumption in West Siau District is still low. People tend to consume protein sources from fish because they are easy to obtain and can be seen in community settings adjacent to the sea or coast. However, the respondents' opinions contradict research by Lin-Schilstra et al. (2022) that "price" is the least significant factor influencing food intake

among Chinese and Italians. This could be because Chinese consumers have a deep connection between the food they eat and animal welfare. These goods are safer, fresher, and taste better when animals are treated humanely (Xie et al., 2015). Another possible reason is that at the time this research was conducted in 2013, meat prices in China were at low levels (CEICDATA, 2021). However, according to research by Giang (2013), income is closely related to meat consumption in Indonesia. So, the results of income stated that income has an influence on food purchasing power.

According to respondents, the suitability of the meat is seen from its fresh and not pale color. A total of 95% of respondents stated that wild boar meat is suitable for consumption. Respondents also believe that consuming wild boar meat is the same as consuming meat from other livestock. Because respondents stated that there were no diseases that attacked the respondent's body when consuming wild boar meat and were able to increase stamina or after consuming wild boar meat, the body became fitter. This is in line with a report from Nguyen-Viet et al. (2019) that pork is valued as a nutritious food and care is taken when preparing meals for children. Even though people feel that it is reasonable and appropriate to consume wild boar meat, opinions regarding the distribution of wild boar are considered negative or disapproval of wild boar meat is widely shared among the public. All respondents disagreed that wild boar meat is easily distributed within the community. This means they distribute wild boar meat secretly according to consumer demand. However, they did not hide the fact that they also enjoy eating wild boar meat with their families, as most in their neighborhoods share the same habit. Another fact shows that the distribution of wild boar meat is greater in the Blora region. Demand from consumers in the Blora region is higher than that from local consumers. Wild boar meat sellers also have cold storage to store their hunted meat before shipping it to consumers. However, unfortunately, this cold storage for wild boar meat is still mixed with other food products labeled halal, such as meatballs, sausages, chicken, and beef.

### Wild boar meat consumption in view of health

Based on data tabulation and descriptive statistical analysis, Table 6 presents calculations regarding the consumption of wild boar meat and its impact on health in X Village. Based on field research using questionnaires, 95% of the public believes that consuming wild boar meat has a negative impact on body health. However, the people of X Village still consume wild boar meat. This happens because the people of X Village have not contracted the disease caused by consuming wild boar meat. This means they have concerns about it, but the things they fear have never happened, so the practice of consuming wild boar meat continues. However, there appear to be significant health concerns associated with the wild boar meat value chain. The high degree of bacterial contamination in pork or wild boar meat was the most alarming discovery.

The primary large game species hunted in Europe is the wild boar (*Sus scrofa*). There are serious concerns about zoonotic infectious agents, as the epidemiology of some diseases in big game animals remains unclear. Consuming animal products for health requires monitoring hygiene and sanitation in processed animal products. Monitoring of animal products must be carried out immediately to prevent meat adulteration in animal products. Wild boars are described as hosts and spreaders of zoonotic agents according to research by Abrantes & Vieira-Pinto (2023), which states that in the health of wild boars, there are 5 infectious diseases that have zoonotic potential, including Hepatitis E, Toxoplasma, Trichinellosis, Tuberculosis, and Salmonellosis. This is supported by research by Maiyena & Mawarnis (2022), where pork has the risk of being contaminated with the dangerous *Yersinia enterocolitica* bacteria. Unhygienic handling between slaughterhouses and retail drives general contamination, but coliform numbers are already high in slaughterhouses and need to be controlled there (Nguyen-Viet et al., 2019). There are zoonotic diseases or diseases that are transmitted to humans, such as HEV, TB, *Salmonella sp.*, *Thirinnella sp.*, and *Toxoplasma sp.*, which are caused by consuming game meat or wild boar meat (Abrantes & Vieira-Pinto, 2023).

The risks of consuming wild boar meat are already known to the people of X Village. It can be seen that 100% of respondents' knowledge concerns the impacts that cause disease in the human body, yet the people of X Village are indifferent to this knowledge. Based on current evidence, there are no diseases known to affect the human body from consuming wild boar meat. However, this is contrary to research by Maiyena & Mawarnis (2022), which states that consuming pork can cause disease in the human body, because pork is difficult for the digestive system to digest. Therefore, consuming pork will slow down the body's digestive process. However, research shows that pork consumption is linked to a 0.86 kg decrease in body weight and a 0.77% decrease in body fat percentage; in energy-restricted experimental investigations, pork consumption was linked to a 5.56 kg decrease in body weight (An et al., 2020). Looking at developed countries in Europe, there are many types of zoonotic diseases that can harm humans. Health concerns, such as diseases that can be transmitted to humans through interfaces, are of concern due to the progressive proximity of wild species (wild boar) to the habitat. Major zoonotic viruses are more likely to infect people due to dietary and socioeconomic factors. Although it is challenging to forecast emerging zoonotic disease outbreaks linked to human-large animal interactions, education and preventative strategies must focus on the relevant and emerging hazards. Respondents' knowledge of the positive impacts of consuming pork appears to be only 5%, with a disagreement rate of 95%, indicating that respondents believe consuming wild boar meat has no positive impact on the body. Knowing that bacteria are present in wild boar meat, respondents agreed with this statement 100%. Respondents knew that there were only bacteria and tapeworms in pork, but the impact of these bacteria and tapeworms had not yet occurred, so respondents still consumed wild boar meat. This is supported by research of Dharmawan et al. (2013), which states that pork contains tapeworms, also known as *beberasan* in Balinese. It can be transmitted to humans, and pigs will become infected with germs if they consume human waste.

According to Gazzonis et al. (2018), consuming raw or undercooked meat from live animals that have tissue cysts is thought to be

a significant risk factor for human illness. A roundworm infection that enters the human body can cause trichinellosis. When conducting research, Abrantes & Vieira-Pinto (2021) have documented cases of trichinellosis in people from wild boar meat in countries including Romania, Bulgaria, and Spain. One of the most prevalent zoonotic infections shared by people and wild animals is *Salmonella sp.* Similarly, in accordance with Molino et al. (2019), the potential involvement of wild boars as *Salmonella sp.* carriers are substantial. Foodborne pathogens are also zoonotic. The literature on large game meat does not consider tuberculosis zoonotic because it is not a true foodborne illness. However, it has a special hazard role as a public health danger because it can spread through aerosols and by contact with TBL during evisceration and initial investigation. For specialists working in game slaughterhouses, hunters, veterinarians, and game managers, this zoonosis is crucial (Abrantes & Vieira-Pinto, 2021)

#### **Wild boar meat consumption under government regulations**

Indonesia is a country with a large Muslim population. They are required to consume halal food. The halal concept is truly from the farm to the table. Based on data tabulation and descriptive statistical analysis, Table 7 presents calculations regarding wild boar meat consumption according to government regulations in X Village. Table 7 shows that 95% agree that the government is preventing the consumption of wild boar meat. However, another opinion holds that if pork consumption is prevented, the government must be ready to provide a substitute at a price appropriate to income. Supported by government regulations in Law no. 33 of 2014, Article 4, which states, "products circulating and traded in Indonesian territory must be halal certified". That by 17<sup>th</sup> October 2024, there are three groups of products that must be halal certified, firstly, food and beverage

products, secondly, raw materials for food additives and auxiliary materials for food and beverage products, thirdly, slaughtered products and slaughtering services, if not yet certified and in circulation in society, there will be sanctions (BPJPH, 2023).

Monitoring and overseeing halal production, including storage and transit, can be achieved through halal accreditation. A government-appointed organization can certify products as halal once producers adhere to halal criteria and procedures. (Hamdan et al., 2013). This research states that Muslim consumption is not influenced by the Halal label in consumer purchasing decisions. However, there are different opinions, as explained by Alim et al. (2018), that the perception of the halal label will influence Muslim consumers' purchasing decisions. Karoui & Khemkhem (2016) contend that Islamism is a comprehensive social movement and that, as an ideology, being an Islamist means having particular habits, attitudes, ideas, and behaviors. Aside from that, when examining the impact, such as buying intents, there is a lack of understanding of the halal concept itself. Similarly, nothing is known about how Islamic marketing-based ideas like branding and promotion, affect halal purchase intentions. Very little is known about the halal elements that affect purchasing intentions, despite marketers beginning to better understand the significance of certification and awareness of halal items (Aziz & Chok, 2013). With these explanations, of course, the people of X Village need education on halal meat consumption and increased awareness of it in accordance with existing laws and regulations. The perception of halal products is still believed by respondents, but they are still underestimated, and they still consume meat, which is completely forbidden in the Koran. This is the same as research by Hidayati et al. (2020), which shows that perception of halal products is not a consideration in determining or purchasing food products.

**Table-1.** Likert Scale Assessment

Information	Mark
AGREE (A)	3
NEUTRAL (N)	2
DISAGREE (D)	1

**Table-2.** Profile of respondents according to respondents' livelihoods, monthly income, education and age

No	Information	Frequency	(%)
<b>Livelihood</b>			
1	Self-employed	36	36%
2	Farmer	32	32%
3	House wife	12	12%
4	Trader	10	10%
4	Farm Workers	1	1%
5	Village Officials	1	1%
<b>Monthly income</b>			
1	0	8	8%
2	<500.000	5	5%
3	<1.000.000	74	74%
4	1.000.000-2.000.000	11	11%
5	2.000.000-3.000.000	2	2%
<b>Educational background</b>			
1	Elementary School	32	32%
2	Junior High School	37	37%
3	Senior High School	31	31%
<b>Age</b>			
1	Children (5-11 Years)	-	-
2	Early Teenagers (12-16 Years)	5	5%
3	Late Teenagers (17-25 Years)	24	24%
4	Early Adulthood (26-35 Years)	33	33%
5	Dewasa Akhir (36-45 Tahun)	17	17%
6	Late Adulthood (36-45 Years)	11	11%
7	Late Elderly (56-65 Years)	7	7%
8	Seniors (65- to Above)	3	3%

**Table-3.** Relationship between wild boar meat consumption and halal perspective

		<b>Consumption</b>	<b>Islamic Perspective</b>
<b>Consumption</b>	Pearson Correlation	1	.203*
	Sig. (2-tailed)		.043
	N	100	100
<b>Islamic Perspective</b>	Pearson Correlation	.203*	1
	Sig. (2-tailed)	.043	
	N	100	100

\* Correlation is significant at the 0.05 level (2-tailed).

**Table-4.** Consumption of wild boar meat in X Village based on age, gender, livelihood, monthly income and education categories

No	Information	Frequency	Percentage (%)
<b>Age</b>			
1	Children (5-11 Years)	-	-
2	Early Teenagers (12-16 Years)	2	2
3	Late Teenagers (17-25 Years)	18	18
4	Early Adulthood (26-35 Years)	23	23
5	Dewasa Akhir (36-45 Tahun)	7	7
6	Late Adulthood (36-45 Years)	5	5
7	Late Elderly (56-65 Years)	4	4
8	Seniors (65- to Above)	-	-
<b>Gender</b>			
1	Man	51	51
2	Woman	8	8
<b>Livelihood</b>			
1	Self-employed	25	25
2	Farmer	16	16
3	Housewife	4	4
4	Trader	8	8
5	Farm Workers	1	1
6	Village Officials	-	-
<b>Monthly income</b>			
1	0	2	2
2	<500.000	2	2
3	<1.000.000	16	16
4	1.000.000-2.000.000	39	39
5	2.000.000-3.000.000	-	-
<b>Educational background</b>			
1	Elementary School	13	13
2	Junior High School	28	28
3	Senior High School	18	18

**Table-5.** Data on community perceptions in consuming wild boar meat

<b>Indicator</b>	<b>Answer Category</b>	<b>Frequency</b>	<b>Percentage (%)</b>
(X1.1) uncertainty about the consumption of wild boar meat	Agree	95	95
	Neutral	2	2
	Disagree	3	3
<b>TOTAL</b>		<b>100</b>	<b>100</b>
(X1.2) enjoyment in consuming wild boar meat	Agree	55	55
	Neutral	43	43
	Disagree	2	2
<b>TOTAL</b>		<b>100</b>	<b>100</b>
(X1.3) influence of respondent's income	Agree	57	57
	Neutral	43	43
	Disagree	-	-
<b>TOTAL</b>		<b>100</b>	<b>100</b>
(X1.4) suitability of wild boar meat in society	Agree	95	95
	Neutral	-	-
	Disagree	5	5
<b>TOTAL</b>		<b>100</b>	<b>100.</b>
(X1.5) price difference between wild boar meat and livestock products	Agree	57	57
	Neutral	-	-
	Disagree	43	43
<b>TOTAL</b>		<b>100</b>	<b>100</b>
(X1.6) delicious taste in consuming wild boar meat	Agree	55	55
	Neutral	45	45
	Disagree	-	-
<b>TOTAL</b>		<b>100</b>	<b>100</b>
(X1.7) reasonableness in consuming wild boar meat	Agree	57	57
	Neutral	17	17
	Disagree	26	26
<b>TOTAL</b>		<b>100</b>	<b>100</b>
(X1.8) distribution of wild boar meat in society	Agree	-	-
	Neutral	-	-
	Disagree	100	100
<b>TOTAL</b>		<b>100</b>	<b>100</b>

**Table-6.** Consumption of wild boar meat in view of health

Indicator	Answer Category	Frequency	Percentage (%)
(X2.1) consumption can affect health	Agree	95	95.0
	Neutral	-	-
	Disagree	5	5.0
TOTAL		100	100.0
(X2.2) risks of consuming wild boar meat	Agree	100	100.0
	Neutral	-	-
	Disagree	-	-
TOTAL		100	100.0
(X2.3) positive impact of consuming wild boar meat	Agree	5	5.0
	Neutral	-	-
	Disagree	95	95.0
TOTAL		100	100.0
(X2.4) wild boar meat bacteria	Agree	100	100.0
	Neutral	-	-
	Disagree	-	-
TOTAL		100	100.0
(X2.5) fear of getting sick	Agree	50	50.0
	Neutral	-	-
	Disagree	50	50.0
TOTAL		100	100.0

**Table-7.** Wild boar meat consumption according to government regulations

Indicator	Answer Category	Frequency	Percentage (%)
(X3.1) Prevention of wild boar meat consumption	Agree	95	95.0
	Neutral	-	-
	Disagree	5	5.0
TOTAL		100	100.0
(X3.2) Food and beverage products must be halal certified by 2024	Agree	99	99.0
	Neutral	1	1.0
	Disagree	-	-
TOTAL		100	100.0

**CONCLUSIONS**

The relationship between consumption of wild boar meat and the halal knowledge perspective is positive, but the criteria for interpreting this relationship are weak. This means that people know consuming wild boar meat is haram, but they still do so. According to public perception, respondents' background

in consuming game or wild boar meat is influenced by several factors, including price, monthly income, taste preferences, and distribution. Wild boar meat is not only distributed in this region; the majority of demand is in the Blora region of Central Java.

## ACKNOWLEDGMENT

The author would like to thank the Head of X Village for allowing the author to conduct research in the village and the people of X Village for their participation in the author's research. Thanks to the colleagues who participated in this research, we have received various stories, knowledge, and valuable time. Thank you to Tri Hadi Saputro, who always provided support and assistance during this research.

## CONFLICT OF INTEREST

The authors declare that they have no competing interests.

## REFERENCES

- Abrantes, A. C., & Vieira-Pinto, M. (2021). Challenges and Insights Regarding Fenced Large Game Populations and the New EU Animal Health Law. *EcoHealth*, 18(3), 272–274. <https://doi.org/10.1007/s10393-021-01550-y>
- Abrantes, A. C., & Vieira-Pinto, M. (2023). 15 Years Overview of European Zoonotic Surveys in Wild Boar and Red Deer: A Systematic Review. *One Health*, 16, 1–10. <https://doi.org/10.1016/j.onehlt.2023.100519>
- Adekunle, B., & Filson, G. (2020). Understanding Halal Food Market: Resolving Asymmetric Information. *Food Ethics*, 5(13), 1–22. <https://doi.org/10.1007/s41055-020-00072-7>
- Alim, S. A., Mawardi, M. K., & Bafadhhal, A. S. (2018). Pengaruh Persepsi Label Halal dan Kualitas Produk Terhadap Keputusan Pembelian Produk Fesyen Muslim (Survei pada Pelanggan Produk Zoya Muslim di Kota Malang). *Jurnal Administrasi Bisnis (JAB)*, 62(1), 127–134.
- An, R., Liu, J., & Liu, R. (2020). Pork Consumption in Relation to Body Weight and Composition: A Systematic Review and Meta-analysis. *American Journal of Health Behavior*, 44(4), 513–525. <https://doi.org/10.5993/AJHB.44.4.12>
- Anam, K., & Yuniar, K. . (2020). Pengaruh Pendapatan dan Pendidikan Terhadap Konsumsi Daging Sapi. *Agrimas*, 4(1), 7–21.
- Aziz, Y. A., & Chok, N. V. (2013). The Role of Halal Awareness, Halal Certification, and Marketing Components in Determining Halal Purchase Intention Among Non-Muslims in Malaysia: A Structural Equation Modeling Approach. *Journal of International Food and Agribusiness Marketing*, 25(1), 1–23. <https://doi.org/10.1080/08974438.2013.723997>
- Badoa, I. V, Salendu, A. H. ., Elly, F. H., & Waleleng, P. O. . (2015). Pengaruh Pendapatan Terhadap Konsumsi Daging Dan Telur Di Kecamatan Siau Barat Kabupaten Kepulauan Siau Tagulandang Biaro. *Zootec*, 35(2), 61. <https://doi.org/10.35792/zot.36.1.2016.9468>
- Barrios-Garcia, M. N., & Ballari, S. A. (2012). Impact of Wild Boar (*Sus Scrofa*) in Its Introduced and Native Range: A Review. *Biological Invasions*, 14(11), 2283–2300. <https://doi.org/10.1007/s10530-012-0229-6>
- Bashir, A. M. (2019). Applying the Institutional Theory at the Level of Halal Consumers: The Case of Cape Town in South Africa. *Journal of Food Products Marketing*, 25(5), 527–548. <https://doi.org/10.1080/10454446.2019.1607645>
- BPJPH. (2023). *Produk Ini Harus Bersertifikasi Halal di 2024, Kemenag: Ada Sanksi Bagi Yang Belum! (This Product Must Be Halal Certified in 2024, Ministry of Religion: There Are Sanctions For Those Who Haven't!)*.
- BPS. (2022). *Laju Pertumbuhan Penduduk (Persen) 2020-2022 (Population Growth Rate (Percent) 2020-2022)*.
- CEICDATA. (2021). *Eceran Cina Harga: Pameran Pasar Pedesaan Babi Hidup (China Retail Price: Live Pig Rural Market Exhibition)*. CEIC Data.
- Dharmawan, N. ., Damriyasa, I. ., Oka, I. ., Agustina, I. K. K., Swacita, I. B. N., & Mahardika, I. G. (2013). Sosialisasi

- Penyakit Cacing Pita Daging Babi Dan Beberasan Pada Masyarakat Di Desa Binaan Unud, Desa Tianyar Barat, Karangasem. *Udayana Mengabdi*, 12(1), 23–26.
- García, M. G. (2023). Pork Consumption, Gastro-Politics and Social Islamisation in Early Al-Andalus (Eighth To Tenth Centuries). *Journal of Medieval Iberian Studies*, 15(2), 321–343.  
<https://doi.org/10.1080/17546559.2023.2204862>
- Gazzonis, A. L., Villa, L., Riehn, K., Hamedy, A., Minazzi, S., Olivieri, E., Zanzani, S. A., & Manfredi, M. T. (2018). Occurrence of Selected Zoonotic Food-Borne Parasites and First Molecular Identification of *Alaria Alata* in Wild Boars (*Sus Scrofa*) in Italy. *Parasitology Research*, 117(7), 2207–2215.  
<https://doi.org/10.1007/s00436-018-5908-5>
- Giang, R. R. (2013). Pengaruh Pendapatan Terhadap Konsumsi Buruh Bangunan Di Kecamatan Pineleng. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 1(3), 248–256.
- Hamdan, H., Issa, Z. M., Abu, N., & Jusoff, K. (2013). Purchasing Decisions among Muslim Consumers of Processed Halal Food Products. *Journal of Food Products Marketing*, 19(1), 54–61.  
<https://doi.org/10.1080/10454446.2013.724365>
- Hidayati, N., Sunaryo, H., Pradesa, H. A., & Slamet, A. R. (2020). Exploring Perception of Halal Product Among Moslem Consumer: A Preliminary Study. *International Journal of Academic Research in Business and Social Sciences*, 10(8), 178–187.  
<https://doi.org/10.6007/ijarbss/v10-i8/7523>
- Jan, R. H., Bachdar, F. N., & Hasan, F. (2022). Pengaruh Label Halal Terhadap Keputusan Pembelian Daging Ayam. *ARBITRASE: Journal of Economics and Accounting*, 3(2), 198–206.  
<https://doi.org/10.47065/arbitrase.v3i2.436>
- Jayanti, F., & Arista, N. T. (2019). Persepsi Mahasiswa Terhadap Pelayanan Perpustakaan Universitas Trunojoyo Madura. *Competence: Journal of Management Studies*, 12(2), 205–223.  
<https://doi.org/10.21107/kompetensi.v12i2.4958>
- Karoui, S., & Khemkhem, R. (2016). To More Understanding The “Halal” Market and The Islamic Consumer-Factors Affecting The Islamic Purchasing Behavior. *International Journal of Academic Research in Business and Social Sciences*, 6(8), 65–99.  
<https://doi.org/10.6007/ijarbss/v6-i8/2260>
- Kastalani, Yemima, & Sularso, H. (2017). Analisis Pendapatan, Pendidikan dan Jumlah Anggota Keluarga Terhadap Pola Konsumsi Daging Ayam Broiler di Desa Sei Asam Kabupaten Kapuas. *Jurnal Ilmu Hewani Tropika*, 6(2), 48–51.
- Keintjem, R., Oley, F. ., Lensun, G. ., & Pandey, J. (2016). Pengaruh Pendapatan Terhadap Konsumsi Daging Babi di Kecamatan Wanea Kelurahan Ranotana Weru. *Jurnal Zootek (“Zootek” Journal)*, 36(1), 139–146.
- Kumaat, B. K. ., Elly, F. H., Wantasen, E., & Kalangi, L. S. (2019). Analisis Konsumsi Daging Babi Oleh Masyarakat Pesisir Danau Tondano. *Zootec*, 39(2), 249.  
<https://doi.org/10.35792/zot.39.2.2019.24868>
- Lin-Schilstra, L., Backus, G., Snoek, H., & Mörlein, D. (2022). Consumers’ View on Pork: Consumption Motives and Production Preferences in Ten European Union and Four Non-European Union Countries. *Meat Science*, 187, 1–11.  
<https://doi.org/10.1016/j.meatsci.2022.108736>
- Maiyena, S., & Mawarnis, E. R. (2022). Kajian Analisis Konsumsi Daging Sapi dan Daging Babi Ditinjau dari Kesehatan. *Jurnal Pendidikan Tambusai*, 6(1), 3131–3136.
- Molino, M. G., Pérez, D. R., Blanco, P. G., Llario, P. F., Molina, A. Q., Sánchez, A. G., Gerveno, J. M. C., Gordo, L. G., Cano, F. E. M., Martínez, R. P., Fernández, E. V., & Pérez, J. R. (2019). Outbreaks of Antimicrobial Resistant *Salmonella Choleraesuis* in Wild Boars Piglets from Central-Western Spain.

- Transboundary and Emerging Diseases*, 66(1), 225–233.  
<https://doi.org/10.1111/tbed.13003>
- Nguyen-Viet, H., Dang-Xuan, S., Pham-Duc, P., Roesel, K., Huong, N. M., Luu-Quoc, T., Van Hung, P., Thi Duong Nga, N., Lapar, L., Unger, F., Häsler, B., & Grace, D. (2019). Rapid Integrated Assessment of Food Safety and Nutrition Related To Pork Consumption of Regular Consumers and Mothers With Young Children in Vietnam. *Global Food Security*, 20(September 2018), 37–44.  
<https://doi.org/10.1016/j.gfs.2018.12.003>
- Novarista, N., & Suprianti, J. (2021). Analisis Permintaan Daging Sapi Pada Konsumen Rumah Tangga Di Kabupaten Sijunjung. *Agrifo : Jurnal Agribisnis Universitas Malikussaleh*, 5(2), 131.  
<https://doi.org/10.29103/ag.v5i2.3646>
- Risch, D. R., Ringma, J., & Price, M. R. (2021). The Global Impact of Wild Pigs (Sus Scrofa) on Terrestrial Biodiversity. *Scientific Reports*, 11(1), 1–10.  
<https://doi.org/10.1038/s41598-021-92691-1>
- Ritzel, C., & Mann, S. (2021). The Old Man and The Meat: On Gender Differences in Meat Consumption Across Stages of Human Life. *Foods*, 10(11), 1–15.  
<https://doi.org/10.3390/foods10112809>
- Rizaldi Maulana, C., Anindita, R., & Toiba, H. (2023). Analisis Permintaan Pangan Hewani Di Provinsi Jawa Timur Demand Analysis of Animal Food in East Java Province. *Jurnal Ekonomi Pertanian Dan Agribisnis (JEPA)*, 7(2), 721–731.
- Rizaty, M. A. (2022). *Mayoritas Penduduk Indonesia Beragama Islam Pada 2022 (The majority of Indonesia's population will be Muslim in 2022)*. Indonesian Ministry of Home Affairs.
- Rompis, J. E. ., & Komansilan, S. (2014). Efektivitas Cara Pemasakan Terhadap Karakteristik Fisik Masakan Daging Babi Hutan. *Zootec*, 34(2), 65.  
<https://doi.org/10.35792/zot.34.2.2014.5530>
- Ruslan, A. A. A., Kamarulzaman, N. H., & Sanny, M. (2018). Muslim consumers' awareness and perception of Halal food fraud. *International Food Research Journal*, 25(December), S87–S96.
- Santika, I. G. P. N. . (2015). Hubungan Indeks Massa Tubuh (IMT) Dan Umur Terhadap Daya Tahan Umum (Kardiovaskuler) Mahasiswa Putra Semester II Kelas A Fakultas Pendidikan Olahraga Dan Kesehatan IKIP PGRI Bali Tahun 2014. *Jurnal Pendidikan Kesehatan Rekreasi*, 1, 42–47.
- Siregar, S. (2016). *Statistika Deskriptif Untuk Penelitian Dilengkapi Dengan Perhitungan Aplikasi SPSS Versi 17 (Descriptive Statistics for Research Equipped with SPSS Version 17 Application Calculations)*. PT RajaGrafindo Persada.
- Siswara, H. N., Erwanto, Y., & Suryanto, E. (2022). Study of Meat Species Adulteration in Indonesian Commercial Beef Meatballs Related to Halal Law Implementation. *Frontiers in Sustainable Food Systems*, 6(July), 1–10.  
<https://doi.org/10.3389/fsufs.2022.882031>
- Umar, A. U. A. Al, Mustofa, M. T. L., Fitriana, D., Jannah, A. M., & Arinta, Y. N. (2021). Pengaruh Label Halal dan Tanggal Kadaluarsa Terhadap Keputusan Pembelian Produk Sidomuncul. *Jesya (Jurnal Ekonomi & Ekonomi Syariah)*, 3(1), 641–647.  
<https://doi.org/10.36778/jesya.v4i1.348>
- Uyuni, B., Adnan, M., & Muhibuddin. (2018). Dampak Konsumsi Babi Dalam Pembentukan Karakter Dan Terkabulnya Doa. *Tahdzib Al-Akhlaq: Jurnal Pendidikan Islam*, 1(2), 47–61.  
<https://doi.org/10.34005/tahdzib.v1i2.448>
- Wehr, N. H., Hess, S. C., & Litton, C. M. (2018). Biology and Impacts of Pacific Islands Invasive Species. 14. Sus scrofa, the Feral Pig (Artiodactyla: Suidae). *Pacific Science*, 72(2), 177–198.  
<https://doi.org/10.2984/72.2.1>
- Xie, B., Wang, L., Yang, H., Wang, Y., & Zhang, M. (2015). Consumer Perceptions and Attitudes of Organic Food Products in Eastern China. *British Food Journal*, 117(3), 1105–1121.