

Micro-business of Chicken Meat Trading at Yogyakarta City Traditional Markets, Indonesia

A. Purwanto, Y. Drastini, H. Khasanah, H. Qadrianti, E. D. Indana, W. T. Artama
*Faculty of Veterinary Medicine, Universitas Gadjah Mada, FKH UGM,
Jalan Fauna 2, Karangmalang, Yogyakarta 55281, Indonesia*

Keywords: Micro-Business, Chicken-Meat Trading, Traditional Market, Yogyakarta, Indonesia

Abstract. A study was conducted at Yogyakarta City to evaluate the micro-business of chicken meat trading. The city has 22 traditional markets spread in 14 sub-districts that provide daily needs include chicken meat. Seventy-nine chicken meat traders of the markets above were selected randomly using multistage sampling. Evaluation of the chicken meat trading practices, including respondents' background, chicken ownership, trading experience, storage equipment of unsold meat, and transport methods. The data stored in a spreadsheet and analyzed descriptively. The study shows that the majority gender of chicken meat traders (84.81%) is female. They mostly graduated from secondary schools (49.37%). The average age of traders is 48.89 years old, with 19.12 years' experience. The study indicates that only 21.52% of the traders sell their chicken. The unsold meat (68.16%) was usually kept in freezers. The majority of traders choose motorcycles (46.84%) as a transportation mode to bring chicken meat using plastic sacks (54.43%). The present study shows that chicken meat trading at Yogyakarta City traditional markets has good micro-business practices.

1 INTRODUCTION

Micro-business is a productive business owned by individuals and an individual business entity that has the greatest asset and turnover of 50 and 300 million rupiahs, respectively, according to the Indonesian Law 20/2008. The business complements with small and medium enterprise (SME) have significant roles in the Indonesian economy. Their number in 2010 reached 53.83 million or 99.99% of the total national units, with the most significant number (98.85%) achieved by micro-business. During the monetary crisis in 1997-1998, when more prominent companies collapsed, they did not falter and instead became the economy backbone.

The human population is increasing globally, and Indonesia positioned at fourth rank. The United Nations elaborated data that the Indonesian population reached more than 269.54 million in 2019. The figure shares 3.49% of the world population. The country covers 1.81 million square kilometers of land area with a density of 149 people per square kilometers, and the urban population 56%. The nation has a 1.03% growth rate and 23 fertility rate, which contribute to the population above.

Increasing the human population worldwide above raises new problems to include fulfilling protein intake. Protein is necessary for brain development and health in the early stages of human life. Rearing chicken commercially could be chosen to produce eggs and meat quickly. Furthermore, the Indonesian chicken population fluctuated slightly during the 2014-2017 period, with an average population of 14.86 million heads. As a result, the poultry produced 30.15 thousand-tonne egg and 45.02 thousand-tonne meat at the period.

The chicken egg and meat above are also sold both at convenient stores (mini, midi, super, and hypermarkets) and traditional markets. The stores have ideal requirements to trade chicken products. In contrast, traditional markets have lack infrastructures and facilities. The traders sometimes are not aware of public health aspects. Although the markets have lower hygienic standards, it attracts buyers probably due to lower prices and closer personal communication compared to the stores.

Yogyakarta is a small city located in the middle-southern part of Java Island. The city attracts tourists since it has many historical objects, beautiful landscapes, ethnic culinary recipes, and multi-cultural environments. The city also has more than

150 tertiary educations and becomes a study destination for both domestic and overseas students. The synergy enhances harmony and comfort living. The city has been operated a new international airport recently to support the growing demand for the purposes above.

Based on the problems above, this study will evaluate the micro-business of chicken meat at the traditional markets of Yogyakarta City.

2 MATERIALS AND METHODS

2.1 Study Area

The study was conducted in Yogyakarta City, which locates 113 meters above sea level and covers a narrow area of 32.5 square kilometers. The city has 22 traditional markets spread in 14 sub-districts that provide daily needs (including chicken meat) for 0.42 million local inhabitants and tourists.

2.2 Study Methodology

Seventy-nine chicken meat traders of the markets above participated in the study. They were selected randomly using multistage sampling. The investigators visited the markets and interviewed them based on a structured questionnaire. Evaluation of the chicken meat trading practices, including respondents' background, chicken ownership, trading experience, storage equipment of unsold meat, and transport methods. The data stored in a spreadsheet and analysed descriptively.

2.3 Results and Discussion

The study shows that the majority of respondents' gender (84.81%) is female. They work to enhance their husbands' wages as a secondary family income. This figure correlates with the data of the Ministry of Agriculture stated that the greatest of the Indonesian workforce (31.86%) is in the agricultural sector [3]. Their education backgrounds are as follows: elementary (30.37%), secondary (49.37%), and tertiary (6.32%), and even without any education (13.29%). The traders mostly graduated from secondary schools (49.37%). It is an impact of the Ministry of Education policy to eliminate school fees until this level. Better education has a significant role in improving and adapting new science and technology. The average age of the chicken meat traders is 48.89 years (youngest 19 and oldest 71

years old). The data informs that traders are still actively working at that age.

Furthermore, the World Health Organization classified that age as young people, which implies in the productive period. The most extensive experience of chicken meat trading is 41 years and the shortest one year, with an average 19.12 years. The trading of chicken meat is likely a secure occupation with average trading experience reach 19.12 years and even proven to be able to survive until 41 years.

The study indicates their trading categorizes as micro-business with maximum asset and turnover 50 and 300 million rupiahs, respectively, according to the Indonesian Law 20/2008. It supported by data that only 21.52% of the traders sell their chicken while the rest sell chicken meat belongs to somebody else. Although the option of owning chicken meat gives a more significant profit, the rest of the traders sell chicken meat belongs to somebody else. They do not want to take risks related to the meat price fluctuation due to disease outbreaks, religious festivals, etc. The unsold meat was kept in freezers (68.16%), cooked (25.32%), returned to the owner (10.13%), and even kept in ambient temperature (3.61%). Freezing is an excellent and simple method to preserve the unsold meat. In contrast, small numbers of traders (3.61%) just kept it in ambient temperature. This procedure is easily contaminated by pathogens, which harmful to humans.

The study also shows that the traders use motorcycles (46.84%), pickup cars (34.17%), and bicycles (18.99%) to transport the chicken meat. The traders mostly choose motorcycles (46.84%) as a transportation mode to bring the chicken meat. Motorcycles are affordable and reliable for this duty. These multi-purpose vehicles are not only bringing chicken meat but also carrying their family members as passengers on other occasions. They bring chicken meat using plastic sacks (54.43%), bamboo baskets (24.05%), styrofoam boxes (12.66%), and plastic buckets (8.86%). The majority of traders carry chicken meat using plastic sacks (54.43%). Plastic sacks are materials that are cheap, waterproof, sturdy, and flexible to bend. The sack is also heat and chemical resistant to a certain point. This advantage makes the sack easy to clean and disinfect.

3 CONCLUSION

The present study shows that chicken meat trading at Yogyakarta City traditional markets has good micro-business practices. All stakeholders, including

government officials, should campaign for better business practices to meet the public health standards.

REFERENCES

- Ministry of Finance, Republic of Indonesia (MFRI). Crisis Anticipation Policy Through The People's Credit Program. Website <https://kemenkeu.go.id/>. Viewed September 5, 2019.
- Central Bureau of Statistics, Republic of Indonesia (CBSRI). Indonesian Statistical Data. Website <http://sp2010.bps.go.id>. Viewed September 5, 2019.
- Ministry of Agriculture, Republic of Indonesia (MARI). Statistical data on agricultural sector. 2017. Website <https://aplikasi2.pertanian.go.id/bdsp>. Viewed September 5, 2019.
- Regional Development Agency, Yogyakarta City (RDAYC). Profile of Yogyakarta City. 2019. Website <https://bappeda.jogjakota.go.id>. Viewed September 5, 2019.
- Martin SW, Meek, AH, Willeberg P. *Veterinary Epidemiology: Principles and Methods*. (Ames: Iowa State University Press). 1987; 57-68.
- Thrusfield, M. *Veterinary Epidemiology*. (Oxford: Blackwell Science Ltd). 2008; 22-34.
- Navid S, Hilmi M, Sazili AQ. Effects of papaya leaf meal, pineapple skin meal and vitamin D3 supplementation on meat quality of spent layer chicken. *Journal of Animal and Veterinary Advances*. 2010; 9: 2873-2876.
- Ščetar M, Kurek M, Galić K. Trends in meat and meat products packaging - a review. *Croatian Journal of Food Science and Technology*. 2010; 2: 32-48.
- Omar EN, Jaafar HS, Osman MR. Halalan toyyiban supply chain of the food industry. *Journal of Emerging Economies and Islamic Research*. 2013; 1: 1-12.
- Koraish M, El-Lassy R. Assessment of food safety knowledge and hygienic practices among street food vendors in Alexandria. *Alexandria Scientific Nursing Journal*. 2014; 16: 1-24.
- Tuneer K, Madhavi T. A comparative study of hygienic status of butchers and identify bacteria among the slaughters of meat, chicken and fish markets of Jagdalpur city, India. *International Research Journal of Biological Science*. 2015; 4: 16-24.
- World Health Organization (WHO). Age standardization of rates - a new standard. (Geneva: WHO). 2001; 1-9.
- Barbut S. *The Science of Poultry and Meat Processing*. (Guelph: University of Guelph). 2015; 567-618.
- Bagumire A; Karumuna R. Sanitation facilities and practices for street-vended meats at two major highway markets in Uganda. *Journal of Food, Agriculture, Nutrition and Development*. 2019; 19: 14337-14353.
- Muhardi H. This is the region with the most motorcycle sales in Indonesia. September 15, 2017 edition. <https://www.liputan6.com/>. Viewed September 5, 2019.
- Widiaseno GR. Even though the price is higher, used motorcycles in Yogyakarta are targeted by buyers outside the city. Oktober 12, 2018 edition. <https://www.tribunnews.com/>. Viewed September 5, 2019.
- Gradel KO, Sayers AR, Davies RH. Surface disinfection tests with Salmonella and a putative indicator bacterium, mimicking worst-case scenarios in poultry houses. *Poultry Science*. 2004; 83: 1636-1643.
- World Health Organization (WHO). *Pesticides and their application for the control of vectors and pests of public health importance*. 6th ed. (Geneva: WHO). 2006; 38-46.
- Allen VM, Burton CH, Wilkinson DJ, Whyte RT. Evaluation of the performance of different cleaning treatments in reducing microbial contamination of poultry transport crates. *British Poultry Science*. 2008; 49: 233-240.
- Wales AD, Carrique-Mas JJ, Rankin M. Review of the carriage of zoonotic bacteria by arthropods, with special reference to Salmonella in mites, flies and litter beetles. *Zoonoses and Public Health*. 2010; 57: 299-314.
- Förster M, Mehlhorn H Sievert K. Flies as Vectors of Parasites Potentially Inducing Severe Diseases in Humans and Animals. In: *Arthropods as Vectors of Emerging Diseases*. Mehlhorn H (ed). *Parasitology Research Monographs*. (Berlin: Springer). 2012; 227-253.