

Urban community preferences for rabbit meat products: a case study in Karawang Regency, West Java Province, Indonesia

¹Medi Nopiana, ¹Meila Sevira, ¹Jelita E. Siagian, ²R. Tati Kurniati,
²Siti U. Kulsum

¹ Faculty of Economics and Business, Universitas Singaperbangsa Karawang, 41361 Karawang, West Java Province, Indonesia; ² Regional Research and Development Agency of Bekasi Regency, 17811 Bekasi, West Java Province, Indonesia. Corresponding author: M. Nopiana, medinopiana@yahoo.co.id

Abstract. Most studies related to the economic activities of rabbits and their products highlight the discussion from the supply side. However, only a few studies discuss the demand side. This study aims to discuss one of the issues on the demand side, namely the preferences of the urban communities in Karawang Regency, West Java, Indonesia. The analysis method employs descriptive statistics, while data collection utilizes a survey by distributing questionnaires in urban areas in the regency. The results of the study indicate that there are problems concerning the knowledge and attitudes of the community about deciding on rabbit meat as a consumption product. Socialization to students and a massive and consistent campaign is needed to increase the community's consumption of rabbit meat.

Key Words: demand-side analysis, descriptive statistics, rabbit economy.

Introduction. Economic activities of rabbit-based products, including in Indonesia, can be reviewed from the supply side and discussed based on demand. Most studies of rabbit economic activities discuss the supply side, primarily related to the technical production or cultivation of rabbits in terms of reproduction and genetics (Susetyarini et al 2019; Setiaji et al 2023), feed (Widiyastuti et al 2015; Nurkholis et al 2022; Adli et al 2024), and rabbit health (Ramli et al 2020). In addition, these studies discuss business management (Cahya et al 2021), business feasibility (Azizah et al 2021) and empowerment of rabbit farmers (Swastika et al 2017).

Rabbit economic activities should also discuss various studies from the demand side. Based on current facts, it is demonstrated that only sometimes can the products produced by producers be absorbed by the market. One of the classical economic theories, Say's Law, states that supply creates its own demand (Rahardja & Manurung 2019); in current economic conditions, it is no longer relevant. Understanding the demand side of rabbit products can explain, among other things, consumer behavior, including the socio-economic conditions of the community as consumers of these products. It is essential to balance the supply and demand of rabbit products so that economic activities carried out by producers and consumers can operate efficiently and mutually beneficially. Based on this, the study aims to discuss the preferences of the urban communities of Karawang Regency, West Java Province, Indonesia, as consumers of rabbit products, particularly rabbit consumption or meat rabbit products.

Karawang Regency in West Java Province is one of the interesting areas in Indonesia to observe, considering that economic activities continue to grow rapidly, which are predominantly supported by the industrial sector. The per capita income level and minimum wage for workers are among the highest in Indonesia, one of which impacts the community's high purchasing power (especially in urban areas) for goods and services, including food products. These aspects are why the region is the object of this study.

Material and Method

Time and location of the study. This study was completed for three months, from May to July 2024. The research location is in Karawang Regency, West Java Province, Indonesia. The regency has an area of 1,911.09 km² or 3.73 percent of the area of West Java Province, covering 30 sub-districts and 309 urban villages and villages. The geographical location of this regency is between 107°02'-107°40' East longitude and 5°56'-6°34' South latitude. Karawang Regency is one of the areas with fertile land in West Java, so most of its land is used for agriculture. The landform in Karawang Regency is mainly in the form of relatively flat plains with variations between 0 and 5 m above sea level. Only a tiny part of the area is undulating and hilly, with an altitude of 0-1200 m above sea level (BPS Kab. Karawang 2024a).

However, the economy of Karawang Regency is dominated by the contribution of the manufacturing sector of 70.92% in 2023 (BPS Kab. Karawang 2024a). More than 1600 companies engaged in the industrial sector operated in the Karawang Regency area in 2022. Companies in this sector employed more than 23 thousand people in the same year (Diskominfo Kab. Karawang 2023).

The population of Karawang Regency reached 2.526 million people in 2023 (BPS Kab. Karawang 2024a). Household consumption expenditure has the most considerable role in forming Karawang Regency's Gross Regional Domestic Product (GRDP) after net exports, which is 38.15% in 2022. The most significant percentage of per capita expenditure per month of the people of this regency, 51.58%, is allocated to the food group (BPS Kab. Karawang 2024b).

Data, data collection, and analysis methods. The study relies on primary data accepted from a survey through questionnaire distribution. Respondents' answers from the questionnaire distribution results were then analyzed using descriptive statistics. The data collection method uses a combination of probability sampling and nonprobability sampling. The probability sampling method used is simple random sampling. Meanwhile, the nonprobability sampling method employs convenience sampling and incidental sampling. The number of accepted respondents follows the rules directed by Roscoe (1975), which states that a reasonable sample size in research is between 30 and 500 (Sugiyono 2012). Respondents come from urban communities and are from Generation Z and Millennials. Researchers believe these two population generation groups have excellent purchasing power and are comfortable moving in consumption that follows expanding trends. According to BPS (2020), the Millennial generation population was born between 1981 and 1996, while the Generation Z population was born between 1997 and 2012.

Secondary data was utilized in this study to enrich the analysis so that the analysis results were incisive. The data comes from search literature from various sources, such as the Central Statistics Agency and the Karawang Regency Communication and Informatics Office, as well as other sources.

Results and Discussion

Respondent characteristics. The number of community respondents in the Karawang Regency area was 46, following Roscoe's (1975) direction regarding determining the number of research samples. The respondents were determined from 7 sub-districts with village status of urban following the Central Statistics Agency. The majority of respondents (65.22%) were female, and the remaining 34.78% were male respondents (Table 1). Most respondents were from the Generation Z group at 93.48%, while the remaining 6.52% were Millennials. Most respondents also were university students (36.96%), followed by private employees and traders, 26.09% and 19.57%, respectively. Most respondents' education levels were quite good, and those with senior high schools and university education were 41.30%, respectively. The average income of respondents obtained from average daily expenses was mostly between IDR 1,500,000.00 - IDR

2,000,000.00 (39.13%). In addition, as many as 32.61% of respondents have income below IDR 1,500,000.00.

Table 1

The respondent characteristics

<i>Variable</i>	<i>Criteria</i>	<i>Number of respondents</i>	<i>% of total respondents</i>
Domicile	Kotabaru Subdistrict	2	4.35
	Cikampek Subdistrict	6	13.04
	Klari Subdistrict	9	19.57
	Majalaya Subdistrict	1	2.17
	East Karawang Subdistrict	9	19.57
	East Telukjambe Subdistrict	11	23.91
	West Karawang Subdistrict	8	17.39
Gender	Male	16	34.78
	Female	30	65.22
Age	18-27 years	43	93.48
	> 27 years	3	6.52
Main job	Trader	9	19.57
	Private employee	12	26.09
	Government employee	1	2.17
	University students	17	36.96
	Farmers	1	2.17
	Housewives	1	2.17
	Entrepreneurs	1	2.17
	Others	4	8.70
Years of formal school	Not completed and completed primary school	3	6.52
	Not completed and completed junior high schools	5	10.87
	Not completed and completed senior high schools	19	41.30
	Not completed and completed university	19	41.30
Average monthly household expenditure	< IDR 1,500,000.00	15	32.61
	IDR 1,500,000.00 – IDR 2,000,000.00	18	39.13
	> IDR 2,000,000.00 – IDR 3,000,000.00	9	19.57
	> IDR 3,000,000,00	4	8.70

Preferences of urban communities in Karawang Regency in consuming rabbit meat. The survey results stated that only 21.74% of respondents had ever eaten rabbit meat, while most respondents (78.26%) had never consumed it (Figure 1). It indicates that rabbit meat is yet to be a favorite food in urban communities in Karawang Regency. Those who have never eaten rabbit meat mostly reasoned that they did not want to consume or did not like rabbit meat (69.44%). Meanwhile, 25.00% of other respondents said no traders were selling processed rabbit meat products (Figure 2). Based on the facts observed by researchers, it is understandable that so far, there have been no reports of traders of processed rabbit meat products in Karawang Regency. Accordingly, if they want to try or taste processed rabbit meat, they must put much effort into going to other nearby cities that market many of these products, such as Jakarta and Bandung.

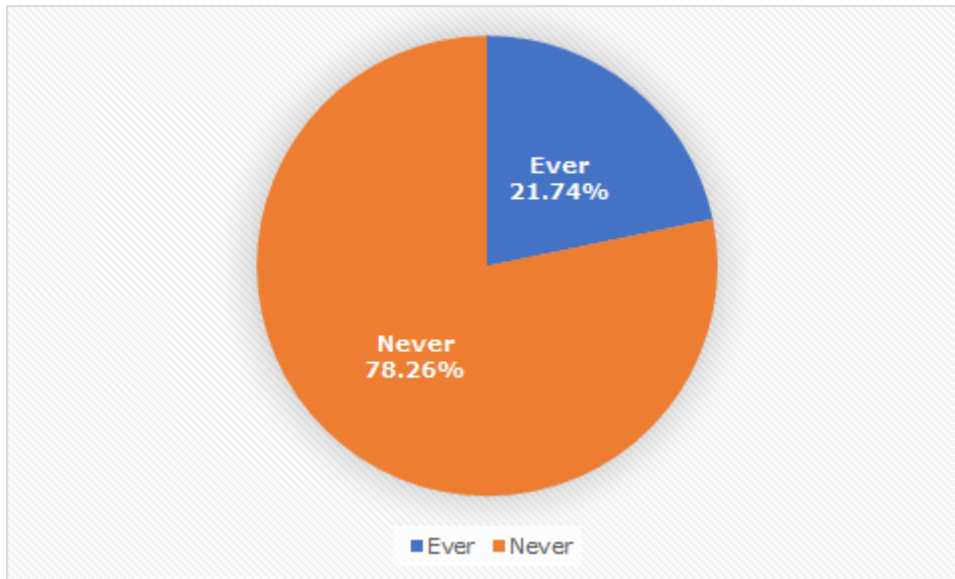


Figure 1. Respondents' answers regarding rabbit meat consumption.

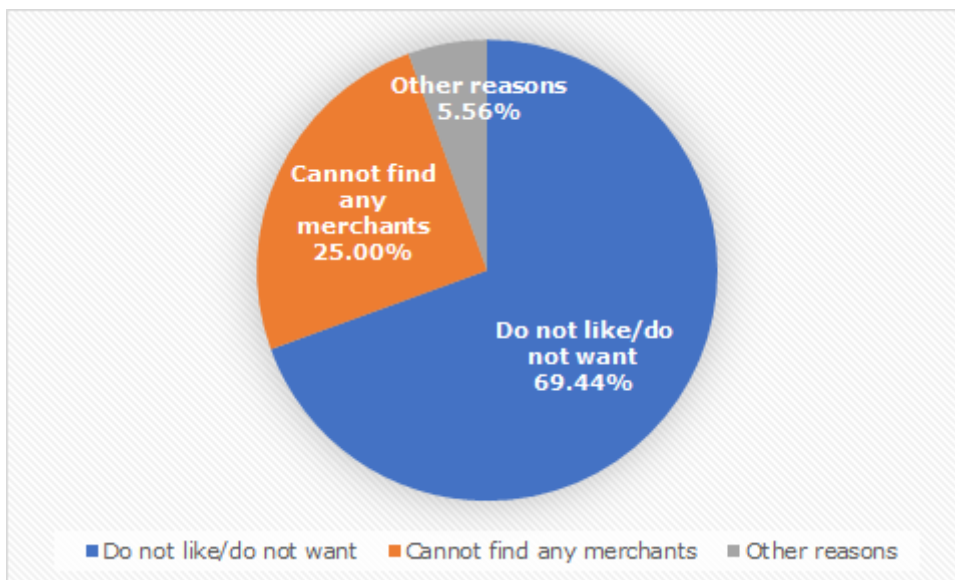


Figure 2. Respondents' answers regarding the reasons for consuming rabbit meat.

Meanwhile, respondents who answered that they had eaten processed rabbit meat stated that 60.00%, or only six respondents, really liked or enjoyed the food. The reason is because the food tastes good or suits their taste. Rabbit meat dishes commonly served, especially in the West Java Province, are rabbit satay (Hakim et al 2022). Rabbit meat can also be processed into meatballs, nuggets, sausages, jerky, shredded meat, rendang, and corned rabbit (Susanti et al 2021). Even in several other regions, rabbit meat is utilized as an ingredient to be processed into traditional Indonesian foods, including Rica-rica (a spicy Indonesian braised dish), Tongseng (Javanese sweet soy sauce stew), Gulai (Indonesian curry), and Gongso (an Indonesian traditional street food made from tripe stew with sweet and spicy sauce) (Putri & Ashshidiqy 2023). On the other hand, 40.00% or four other respondents stated that they no longer wanted to enjoy processed rabbit meat because they felt reluctant to eat rabbit meat or loved rabbits as pets. The survey reinforced that 47.83% of respondents had pet rabbits. People's attitudes toward consuming rabbit meat are influenced by many factors, including social values, cultural determinants, and perceptions of quality (Zamaratskaia et al 2023).

Regarding respondents' knowledge about the efficacy or benefits of consuming rabbit meat for their health, most respondents stated that they needed to learn and were very ignorant (more than 67%). Only about 13.04% of respondents knew the benefits of rabbit meat (Figure 3), whereas the respondents' education level is quite good (see Table 1). It indicates that more socialization in the urban community, mostly among students, is needed regarding the efficacy of rabbit meat for human health. Socialization to students is expected to be effective through cooperation between the Agriculture Office and the Education Office of Karawang Regency. Socialization through schools under the guidance of the Education Office of Karawang Regency, primarily elementary and junior high schools, by involving teachers (especially in life science) as influencers for students.

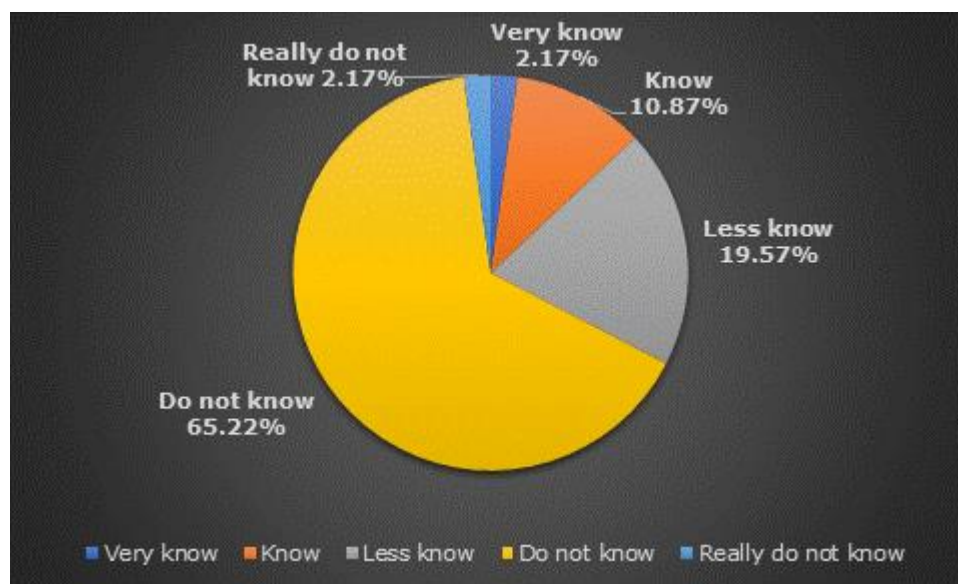


Figure 3. Respondents' knowledge regarding the benefits and properties of rabbit meat.

In addition, the role of parents in getting students used to consuming rabbit meat is important. It is optional to serve rabbit meat dishes every day, but rather occasionally and routinely. The survey results showed that 93.47% of respondents stated that their parents did not encourage or did not get the respondents to adopt eating rabbit meat, for example, by providing rabbit meat dishes at home. This finding is also expected to be due to the lack of parental knowledge about the benefits of rabbit meat. A massive and consistent campaign is needed to increase their knowledge.

Encouraging and getting used to consuming rabbit meat can also be done by touring areas that produce rabbit meat. However, the survey results show that 82.61% of respondents have never visited the areas that produce rabbit meat. Only 17.39% of respondents have visited these areas; most toured one of the rabbit cultivation centers in West Java Province, namely Lembang Subdistrict, West Bandung Regency. Some of them consumed processed rabbit meat at that location.

The price of rabbit meat is higher than beef, which is more familiar and often consumed by the Indonesian people (Putri & Ashshidiqy 2023). This is reasonable, considering that the supply of rabbit meat is relatively limited compared to the abundant beef supply. It follows the economic theory that if the supply of an item is scarce or lower than the demand, it will increase the item's selling price (Rahardja & Manurung 2019).

However, most respondents considered the price of rabbit meat to be still very and relatively affordable, at 6.52% and 73.91% respectively (Figure 4). It shows that rabbit meat is not an exclusive food for respondents, unlike food from other agricultural products, perhaps, for example, seafood. It is an opportunity and optimism that rabbit meat will become a food enjoyed by the people of Karawang Regency in the future, especially in urban communities. Meanwhile, most respondents (84.78%) stated that they would not increase their rabbit meat consumption if they had raised their money. It indicates that although the price is relatively affordable and rabbit meat is not an

exclusive food, things related to the knowledge and attitudes of the community do need to be fixed first. Thus, the optimism that rabbit meat will become a food enjoyed and even loved by the people of Karawang Regency, especially urban communities, can be achieved.

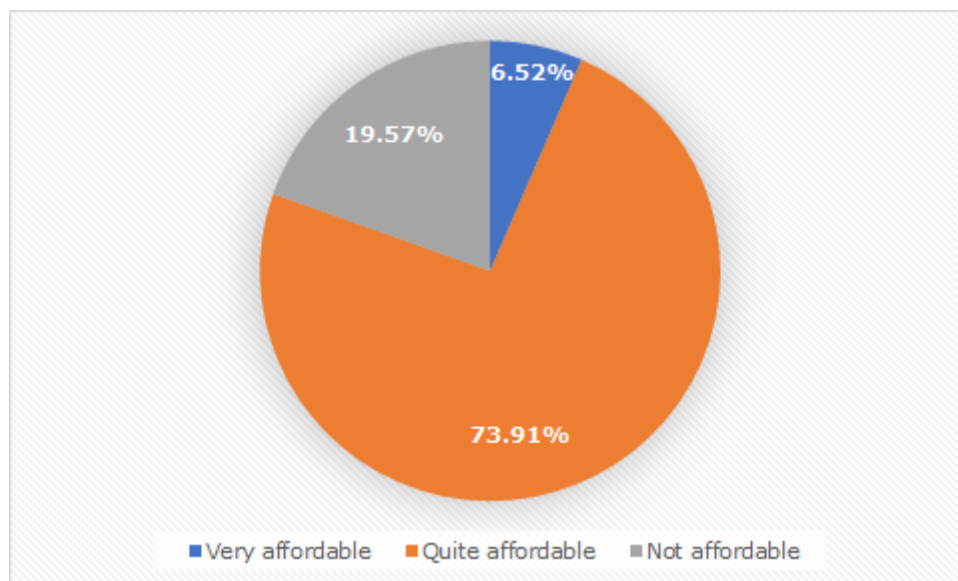


Figure 4. Respondents' ability to purchase rabbit meat.

Conclusions. Efforts to increase urban community consumption of rabbit meat products in Karawang Regency still need to improve, primarily related to the knowledge and attitudes of the community. The results of the analysis of urban community preferences in Karawang Regency for these meat products should be used as a basis of thinking for stakeholders, especially the Karawang Regency Government, to formulate policies and actions to increase consumption of these meats. Socialization to students who are, in fact, Generation Z by involving teachers as influencers is necessary, in addition to increasing the role of parents in providing nutritious food, particularly rabbit meat, for students. The government must implement a massive and consistent campaign so that the community, especially parents in urban areas of Karawang Regency, can provide alternative animal protein sources from rabbit meat for their children. Thus, in the end, economic activities originating from rabbit products can rotate even faster and create prosperity for society generally.

Acknowledgements. The authors would like to thank the Institute for Research and Community Service and the administration of the Faculty of Economics and Business of Universitas Singaperbangsa Karawang for supporting this research activity.

Conflict of interest. The authors declare that there is no conflict of interest.

References

- Adli D. N., Sugiharto S., Irawan A., Tribudi Y. A., Wibowo S., Azmi A. F. M., Sjojfan O., Jayanegara A., Tistiana H., Wahyono T., Aditya S., Sholikin M. M., Sadarman S., 2024 The effects of herbal plant extract on the growth performance, blood parameters, nutrient digestibility and carcass quality of rabbits: a meta-analysis. *Heliyon* 10(4):e25724.
- Azizah N. L., Susilowati S., Puspitarini O. R., 2021 [Feasibility analysis of ornamental rabbit cultivation business in Tulungrejo village, Bumiaji Subdistrict, Batu, East Java]. *Jurnal Dinamika Rekasatwa* 4(2):229-235. [in Indonesian]

- Cahya A. D., Kriswanto D. A., Lianus J., 2021 [The effect of financial reports and profitability on business performance (case study on rabbit farming in Karanganyar village Gading Harjo Sanden Bantul Yogyakarta)]. *The Ecoment Global Journal* 6(2): 193-201. [in Indonesian]
- Hakim H. M. Z., Rizki M. F., Harahap M. N., 2022 The root of the problems of developing rabbit farming business in Lembang Subdistrict, West Bandung Regency, Indonesia. *Rabbit Gen* 12(1):1-8.
- Nurkholis M., Kalsum U., Puspitarini O. R., 2022 [The effect of addition of *Nitrobacter* sp. and encapsulated *Lactobacillus fermentum* mixture on feed consumption, body weight gain, and feed conversion in rabbit]. *Buletin Nutrisi dan Makanan Ternak* 15(2):20-30. [in Indonesian]
- Rahardja P., Manurung M., 2019 [Introduction to economics (microeconomics and macroeconomics)]. 4th edition. Salemba Empat, Jakarta, Indonesia, 454 pp. [in Indonesian]
- Ramli R. N., Budi A. S., Rizaliyana S., Fauzi A. R., 2020 The effect of deferroxamine injection on composite graft survival in rabbits. *Annals of Medicine and Surgery* 60: 542-545.
- Roscoe J. T., 1975 *Fundamental research statistics for the behavioral sciences*. 2nd edition. Holt, Rinehart and Winston, New York, USA, 483 pp.
- Setiaji A., Lestari D. A., Pandupuspitasari N. S., Agusetyaningsih I., Khan F. A., 2023 Genetic characteristics of complete mtDNA genome sequence of Indonesian local rabbit (*Oryctolagus cuniculus*). *Journal of Genetic Engineering and Biotechnology* 21:96.
- Sugiyono, 2012 [Qualitative quantitative research methods and R&D]. Penerbit Alfabeta, Bandung, Indonesia, 334 pp. [in Indonesian]
- Susanti S., Al-Baarri A. N., Rizqiati H., Aimmati P. A., 2021 [Technology for processing rabbit meat safely, healthily, whole and halal (ASUH)]. Semarang, Indonesia, 131 pp. [in Indonesian]
- Susetyarini E., Wahyono P., Latifa R., Nurrohman E., 2019 [Overview of male reproductive organs and sperm of New Zealand rabbits and local rabbits]. *Proceeding Biology Education Conference* 16(1):151-157. [in Indonesian]
- Swastika N. A., Azizah S., Kusumastuti A. E., 2017 [Empowerment model of rabbit farmer group in agriculture training and self-supporting system of rural program (case study of Mandiri Jaya's Rabbit Farmer Group in Ngijo village, Karangploso Subdistrict, Malang Regency)]. *Jurnal Ilmu-Ilmu Peternakan* 27(3):1-6. [in Indonesian]
- Widiyastuti T., Sutardi T. R., Setyobudi R. H., 2015 Evaluation of protein concentrate from jatropha seed cake as a soybean meal substitution in the rabbit feed. *Energy Procedia* 65:362-367.
- Zamaratskaia G., Havrysh O., Korzeniowska M., Getya A., 2023 Potential and limitations of rabbit meat in maintaining food security in Ukraine. *Meat Science* 204:109293.
- *** [BPS Kab. Karawang] the Karawang Regency Central Statistics Agency, 2024a [Karawang Regency in figures 2024]. Vol. 28. Karawang, Indonesia, 339 pp. [in Indonesian]
- *** [BPS Kab. Karawang] the Karawang Regency Central Statistics Agency, 2024b [Gross Regional Domestic Product of Karawang Regency by expenditure 2019-2023]. Vol. 8. Karawang, Indonesia, 70 pp. [in Indonesian]
- *** [BPS] the Central Statistics Agency, 2020 [Population by region, generation classification, and gender, Indonesia, 2020]. Jakarta, Indonesia, 1 pp. [in Indonesian]
- *** [Diskominfo Kab. Karawang] the Karawang Regency Communication and Informatics Office, 2023 [Sectoral statistics of Karawang Regency 2022]. Karawang, Indonesia, 222 pp. [in Indonesian]
- *** Putri M. N., Ashshidiqy K. H., 25 July 2023, [Not just satay, processed rabbit meat is the most sought-after menu in Tawangmangu]. Solopos, Solo, Indonesia, 1 pp. [in Indonesian]

Received: 08 July 2024. Accepted: 19 July 2024. Published online: 28 July 2024.

Authors:

Medi Nopiana, Faculty of Economics and Business, Universitas Singaperbangsa Karawang, 41361 Karawang, West Java Province, Indonesia, e-mail: medinopiana@yahoo.co.id; medi.nopiana@fe.unsika.ac.id

Meila Sevira, Faculty of Economics and Business, Universitas Singaperbangsa Karawang, 41361 Karawang, West Java Province, Indonesia, e-mail: meilasevira9@gmail.com

Jelita Ernawati Siagian, Faculty of Economics and Business, Universitas Singaperbangsa Karawang, 41361 Karawang, West Java Province, Indonesia, e-mail: jelitaes12@gmail.com

Rd. Tati Kurniati, Regional Research and Development Agency of Bekasi Regency, 17811 Bekasi, West Java Province, Indonesia, e-mail: rd.tati@yahoo.com

Siti Umi Kulsum, Regional Research and Development Agency of Bekasi Regency, 17811 Bekasi, West Java Province, Indonesia, e-mail: sitiumikulsum280@gmail.com

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

How to cite this article:

Nopiana M., Sevira M., Siagian J. E., Kurniati R. T., Kulsum S. U., 2024 Urban community preferences for rabbit meat products: a case study in Karawang Regency, West Java Province, Indonesia . Rabbit Gen 14(1):1-8.