Livestock and Animal Research

Accredited by Directorate General of Higher Education, Research, and Technology No. 152/E/KPT/2023

Open Access
Livest. Anim. Res., March 2024, 22(1): 189-198
p-ISSN 2721-5326 e-ISSN 2721-7086
https://doi.org/10.20961/lar.v22i3.91402

Original Article

A case study at Sumber Market on factors influencing beef demand among housewife consumers

Fitri Dian Perwitasari[1*], Desi Setiani [2], Bastoni[3], Bayu Arisandi[4]

[1234] Animal Husbandry Study Program, University of Muhammadiyah Cirebon

*Correspondence: fitri.dian@umc.ac.id

Received: October 10th, 2024; Accepted: November 20th, 2024; Publish online: November 30th, 2024

Abstract

Objective: Beef demand has not been met by beef production. Household consumers are one of the many types of beef consumers. Beef consumers consist of housewives, meatball traders, catering entrepreneurs, or owners of food stalls or restaurants. The objectives of this study are 1) to analyze the factors affecting beef demand and 2) to analyze demand elasticity consisting of income, beef price demand, and cross elasticity.

Methods: The research method is a case study in Sumber's traditional market. Respondents are 68 respondents housewives. Data analysis using multiple linear regression was conducted using SPSS version 25.

Results: The results of this study test simultaneously variable X, which has a real influence on variable Y. Factors that affect the demand for beef in the Sumber market are income and family size. The elasticity of demand for beef prices on weekdays is inelastic. While the price elasticity of demand for beef on the five days before Eid al-Adha and Eid fitri is positive if the price increases by 1%, the demand for beef will increase by 0.591 kg and 0.864 kg. The income elasticity is 0.343, which means that if there is a 1% increase in income, beef demand will increase by 0.343 kg. The positive income elasticity value indicates that people's income is directly proportional to beef consumption around the Sumber Sub-district area and beef is a normal good. Cross-elasticity is inelastic where if broiler meat prices increase by 1%, the demand for beef will increase by 0.319 kg.

Conclusions: factors influencing beef demand Case study in traditional markets Sources It can be concluded that the factors influencing beef demand are income, number of family members and consumption. The elasticity of the demand for feeding, the price of beef, and the elasticity of the cross are inelastic.

Keywords: Beef; demand; household consumers; traditional market source

INTRODUCTION

The livestock sector plays a vital role in fulfilling people's food needs. Animal husbandry is one of the subsectors of the agricultural industry that helps provide animal protein such as meat, milk and eggs, as well as by-products such as offal, skin, bones and manure. Animal husbandry fulfills people's need for meat, especially animal protein found in beef because beef has the best nutritional value. Population growth and improved living

standards will continue to increase the demand for protein foods. Household consumption patterns are also gradually changing towards increased consumption of animal protein, including animal products [1][2].

West Java is one of the provinces in Indonesia with a lot of potential for the livestock industry, especially beef cattle. In addition to its large population, beef cattle represent a good opportunity due to the high demand for beef. West Java province is a strategic area close to the consumption area (Jabodetabek). As the price of meat is always changing, the demand for beef decreases every year, while the cost of beef increases. However, the demand for meat fluctuates. Cirebon Regency's beef production in the last 5 years, from 2017 to 2021, has experienced fluctuations that tend to decrease.

Data from the Central Bureau of Statistics (BPS Cirebon Regency, 2022) shows that beef production in Cirebon Regency decreased by 0.16% to 3.59% in 2018, 2019, and 2021, but in 2020, production increased to 4,371,936 kg. Regency District is the center of government and economy of Cirebon Regency. There are offices, such as the DPRD, District Court, Religious Court, Police Office, Prosecutor's Office, and other government offices. There are also sports venues such as the Ranggajati Stadium and Gor. In addition, the type C terminal in Sumber has various departments and is owned by the Cirebon Regency Transportation Agency.

Beef is a commodity that commands a premium price compared to other animal products. The demand for beef varies every year. This is due to fluctuations in beef prices each year. Demand for animal food is influenced by many factors: a. beef availability; b. public knowledge about the importance of animal nutrition; c. increased income; and d. price fluctuations [3][4][5]. Meanwhile [1][2], the demand for animal products, such as meat and eggs, is influenced by product prices, substitute and complementary commodities prices, household income levels, and consumer preferences for available alternatives.

The imbalance between production and demand leads to price increases. Beef prices, in particular, never return to their starting point after an increase. The upward trend in beef prices impacts the high and low demand for beef in the market. Beef prices increase rapidly for several months, especially around religious holidays, including the holy month of Ramadan. The demand for beef increases significantly, causing prices to spike higher than they started. After significant holidays, demand usually decreases gradually, causing prices to fall until they stabilize. Factors affecting beef consumption, including price, income, family composition, and certain demographic traits, have all been well-studied in the past [6][7][8][9]. Increasing beef demand and environmental conditions represent opportunities for production and marketing, while seasonal and price fluctuations can affect beef demand. Factors affecting beef demand are price, consumer age, education level, number of dependents, and household beef consumption preferences [10][11]

Homemakers are among the consumers of beef. One factor that influences the behavior of household buyers is a. beef availability, b. desire, and c. nutritional needs of animal protein. The objectives of this study are 1) to analyze the factors that influence beef demand, 2) to analyze the factors that influence beef demand in Sumber Market, Cirebon Regency, and 3) to analyze income elasticity, beef price demand, and cross elasticity.

MATERIALS AND METHODS

Materials

The location selection in this source market was carried out by purposive sampling, with two reasons: 1. because this location is close to the local government center and 2. because it is in the middle of the culinary tourism center. The research

implementation time was from May to July 2023, and based on population demographics, the research location was easy to reach so that the research could be carried out smoothly. Respondents used were housewife consumers.

This data collection method involved interviewing housewife consumers in Sumber Market, Cirebon Regency. Primary and secondary data were used in this study. Primary data comes from sources that provide data to data collectors (Sugiyono, 2013). Still, secondary data sources are data sources that are not directly given to data collectors, for example, through other people or documents (Sugiyono, 2013). Secondary data is also available data collected by researchers conducting research from existing sources (Hasan, 2002).

Methods

The Non-Probability Sampling method is used in this study to measure the number of samples to conduct research (Sugiyono, 2013). Non-probability sampling is a sampling technique that does not provide equal opportunities or opportunities for each component or member of the population to be included in the sample. The accidental sampling technique is used to collect samples, which means that the sample is collected by chance without prior planning and the researcher feels that the individual is suitable to be a source of information for his research (Sugiyono, 2013). This states that with an unknown population as a whole, the sample size can be calculated using the Lemeshow formula sample calculation method. In this study, the respondent criteria used are consumers or households. The population calculation uses the Lemeshow formula as follows:

$$\frac{Z^2 \; x \; P(1-P)}{d^2}$$

Information:

n = Number of Samples,

z = z score on 90% confidence = 1.64,

p = Approximate proportion of population,

d = Error Rate.

The population of household consumers in one market is not yet known, therefore the researcher calculates the number of sample respondents using the Lemeshow formula with an estimated population proportion of 50% and an error rate of 10%. So the calculation is as follows:

$$n = \frac{1{,}64^2 \; X \; 0{,}5 \; (1-0{,}5)}{0{,}1^2}$$

$$n = \frac{2{,}6896 \; .0{,}5 \; .0{,}5}{0{,}1^2}$$

$$n = \frac{0{,}6724}{0{,}01}$$

$$n = 68$$

Based on the results of the above calculations, the total sample of research respondents is 68 respondents. The Multiple Linear Regression method is used because there are more than one independent variable: a) beef price by differentiating beef prices at different times (weekday beef price, beef price five days before Eid al-Fitr, beef price five days before Eid al-Adha. b) chicken price, c) income, d) number of family members, e) consumption. The beef demand equation can be systematically formulated as follows: The beef demand equation can be formulated systematically as follows:

$Y = a + b1\ X1 + b2\ X2 + b3\ X3 + b4\ X4 + b5\ X5 + b6\ X6 + e$

Information:

Y: Beef demand,

a: Constant,

X1: Weekday beef price,

X2: Beef price 5 days before Eid al-Fitr,

X3: Beef Price 5 days before Eid al-Adha,

X4: chicken meat price

X5: Income

X6: Number of family dependents.

X7 : Consumption

e: Confounding variable.

To test the results of the calculation to produce an unbiased equation, a classical assumption test is carried out in the form of; (1) Autocorrelation Test, (2) Normality Test, (3) Multicollinearity Test and (4) Heteroscedasticity Test.

Statistical tests include the R2 test which is done to determine the proportion of the influence of independent variables on meat demand and the F test which is used to determine the proportion of the influence of independent variables on meat demand. demand for beef in the traditional market of Sumber. The F test is used to find out whether the independent variables together affect the amount of beef demand.

F test (simultaneous test)

With the following hypothesis:

H0: The independent variables (X1, X2, X3, X4, X5, X6) together have no significant effect on the dependent variable (Y).

H1: The independent variables (X1, X2, X3, X4, X5, X6) together have a real influence on the dependent variable (Y).

The F test criteria are as follows:

F_hitung< F_tabel then H_0 is rejected

F_hitung> F_tabel then H_1 is accepted

T-test (partial test)

With the following hypothesis:

H0: The independent variables (X1, X2, X3, X4, X5, X6) individually have no significant effect on the dependent variable (Y).

H1: The independent variables (X1, X2, X3, X4, X5, X6) individually have a real influence on the dependent variable (Y).

The T-test criteria are as follows:

Testing is done using a significant level of 0.05 (a = 5%) t_hitung< t_tabel then H_0 is rejected t-test is used to determine how the influence individually or each independent variable (X1, X2, X3, X4, X5, X6) on the dependent variable is real or not.

t_hitung> t_tabel then H_1 is accepted

Elasticity analysis, usually referred to as the degree of sensitivity of variables due to changes in free variables, can be used to measure and determine how sensitive an item is to changes in price and other variables. Demand elasticity to price is a coefficient that measures the sensitivity of a particular product to other relevant products, either as a substitute or a complement. The percentage change in demand for a commodity divided by the percentage change in price is called the elasticity of demand to income[2]

RESULTS

The results of this study explain the classical assumption test, f-test, t-test, and demand elasticity. The classic assumption test in this multiple regression model uses several tests, namely 1. Heteroscedasticity Test Autocorrelation Test, 2. Multicorrelation, 3. Normality, 4. Heteroscedasticity. The tests used in this study are: 1. Autocorrelation test, 2. Multicorrelation, 3. Normality, 4. Heteroscedasticity. Autocorrelation is seen from the Durbin-Watson value, the Multicorrelation test is seen from the results of the VIF value, and the normal data distribution is used using one sample Kolmogorov Smirnov. The results of the classical assumption test consisting of 4 tests show that the data is normally distributed as discussed below:

Table 1. Autocorrelation test results (DW Test)

Information	Sign
Number of Observations (n)	68
Number of Independent Variables (k)	6
Durbin-Watson Table Lower Limit Value (dL)	1,453
Durbin-Watson Table Upper Limit Value (dU)	1,867
4-dU	2,233
Status DW	1,930
DW Statistical Value (dU<d<4–dU)	1,867<1,930<4–2,233

Source: Primary Data Processed (2023)

Autocorrelation Test in Table 1. Below it can be seen that the Durbin-Watson value is 1.930, which means that this multiple regression model is not autocorrelated, based on the Durbin-Watson decision table, the value of dU (1.867) < DW (1.930) < 4 – dU (2.233). This result is consistent with the opinion that the DW value ranges from 1.55-2.46 and does not experience autocorrelation[12]

Test for normality.

The normality test was carried out using the Kolmogorov-Smirnov test of one sample. If the significant value is above 0.05, the distribution is normal. The Kolmogorov-Smirnov test value of one sample is 0.200> 0.050 based on the test results. It can be concluded that the distribution is normal. The distribution of data can be said to be normal if it is significant > 0.05 [13]

Multicorrelation Test.

The multicorrelation test can be seen from the VIF value and tolerance. This can be seen in Table 4. This multiple regression model shows that the tolerance value is less than 0.1 (0.506 – 0.853) while the VIF value is not greater than 10, ranging from 1.173 – 1.977. The resulting VIF values and tolerances show no multicollinearity. The function of the multicollinearity test is to test whether the regression model finds correlations between independent variables. If the VIF value is not greater than 10 and the tolerance value is at least 0.1, this indicates that there is no multicollinearity problem [13]

Heterokedasticity test.

The heteroskedasticity test aims to test whether the regression model causes the inequality of residual variance from one observation to another. Based on the results of the heteroscedasticity test shown in Figure 1. Showing that the dots are scattered above and below zero (0) on the y-axis and there is no clear pattern, this multiple regression model is said to be free of heterodicity. If the dots are scattered, then there is no heteroskedasticity[13]

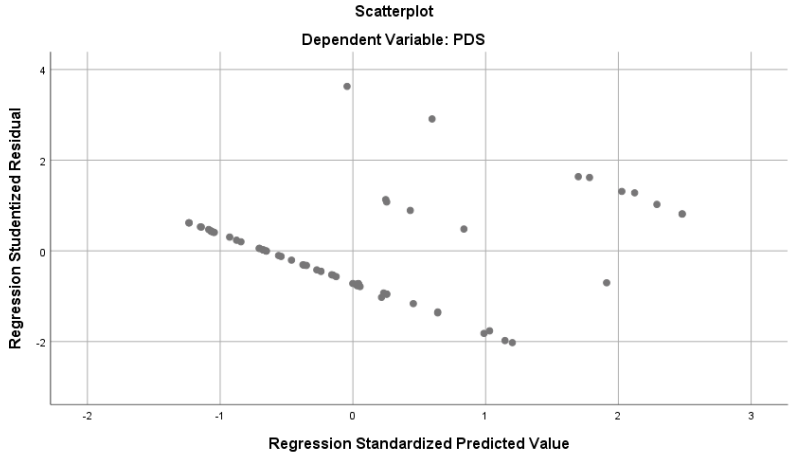

Figure1. Heteroscedasticity test results

Coefficient of Determination

The coefficient of determination is the benefit of knowing the relationship between the percentage of influence of the independent and dependent variables in the study. Variable X affects beef demand (Y) by 82.5%, according to the modified R-squared value of 0.825 or 82.5%, while the remaining 17.5% is from other factors outside the research model. These variables include substitute goods other than the price (price of freshwater fish, price of eggs), complementary goods (rice, oil, and flour), and consumer tastes[14][12]

Table 2. Model Summary

R	R Square	Adj R Square	Std error in the forecast	R Square Changes	Change Statistics			Sig F Changes
					F Changes	DF1	DF2	
.918a	.843	.825	.07702	.843	46.173	7	60	.000

Source: Primary Data Processed (2023)

Test F. The F test aims to find out whether all the independent variables used in the regression model simultaneously (together) have a significant effect on the dependent variables or not. The F test is based on the table below, you can see the results of the analysis, the Fhit value is 46,173 with a significance level of 0.00, the value of the F table is 2,350 obtained the Fhit value > Ftable, it can be concluded that simultaneously (together) there is a significant influence between the daily beef price variable, the beef price variable five days before Eid al-Fitr, the beef price variable five days before Eid al-Adha, chicken meat prices, income variables, variables in the number of family members and consumption variables on beef demand (Y).

Table 3. Test Result F (Simultaneous)

Pattern	Sum of Square	Df	Mean Square	F	Sig
Regression	1.917	7	.274	46.173	0.00b
Remnant	.356	60	.006		
Entire	2.273	67			

Source: Primary Data Processed (2023)

T-Test. Partial test (t test) is a test used to test the significance of the regression coefficient partially. This partial test is to determine the partial effect between the independent and dependent variables by looking at the t value at the 5% significance level. The results of the t-test show that the factors that influence beef demand are income, number of family members, and consumption (Table 4).

Table 4. T-test results

Pattern	Non-Standardized Coefficients		Standard Coefficient	T	Sig	VIF
	B	Error td.	Beta			
(constant)	-24.212	21.175		-1.143	.257	
HDS1	-.098	.172	-.037	-.570	.571	1.591
HDS2	.864	1.054	.059	.820	.416	1.977
HDS3	.591	.947	.043	.624	.535	1.862
HAD	.319	.496	.036	.644	.522	1.173
Income	.343	.039	.610	8.851	.000	1.821
Number of household members	.195	.036	.363	5.428	.000	1.715
Consumption	.067	.024	.157	2.803	.007	1.207

Source: Primary Data Processed (2023)

Information:
$Y = -24.212 - 0.098 X_1 + 0.864 X_2 + 0.591 X_3 + 0.319 X_4 + 0.343 X_5 + 0.195 X_6 + 0.067 X_7 + e$
HDS1= Weekday beef price
HDS2 = Beef price (5 days before Eid al-Fitr)
HDS3 = Beef price (5 days before Eid al-Fitr)
HDA = Chicken meat price

DISCUSSION

The discussion of the results of this study is to test the classical assumptions of the data obtained, the results of primary data show normal data. then this discussion is about the F-test, T-test, and demand elasticity. Based on the F test results of the data analysis above, it can be concluded that together the variable beef prices based on time (Weekdays, 5 days before Eid al-Fitr, and 5 days before Eid al-Adha), chicken meat prices, income, number of family members and consumption have a significant effect on beef demand. This is evidenced by hypothesis testing with the F-test obtaining a significance value of 0.000 <0.05.

Based on the table below, the T-Test discussion yields the following findings: Daily beef price affects demand (Table 4). The T-table value is 1.669 and the Thit value is -0.570 with a negative sign (-), so it can be said that -0.570 < 1.669 and the significance value is 0.571 > 0.05. This indicates that the price of beef on weekdays has decreased but has no significant effect on beef demand.

Beef demand and price five days before Eid al-Fitr (Table 4), the Thit value of 0.820 is positive (+), the p-value is 0.416 > 0.05, and the T-table value level is 1.669, indicating that 0.820 < 1.669. Therefore, an increase in the beef price of 0.820 five days before Eid will not significantly affect beef demand.

Beef Price 3 (5 days before Eid al-Adha) on Beef Demand Based on Table 3. The Thit value is 0.624 with a positive sign (+), with a T-table value of 1.669, it can be concluded that Thit < T-table and a significant value of 0.535 > 0.05 is obtained. This means that the increase in beef price 5 days before Eid al-Adha has no significant effect on beef demand. The results of the above explanation show that the beef price variables (HDS1, HDS2, HDS3) experiencing an increase or decrease have no significant effect on beef demand. This is because, at certain times or moments the availability of beef is abundant, income, and the number of family members and processed Cirebon beef dishes become culinary tourism.

The elasticity of demand. Beef price elasticity 1 (weekdays) is negative at 0.098 (E p < 1), meaning that for every 1% increase in beef price, beef demand will decrease by 0.098 kg per month. Beef prices conform to the law of daily demand: When commodity prices increase, buyers' purchasing power will decrease. Since the price elasticity of beef is inelastic, the amount of meat demanded will change by a smaller percentage than the change in price[15]

The price elasticity of beef at H-2 (five days before Eid al-Fitr) is positive at 0.864 (E p < 1). If there is a 1% increase, the demand for beef will increase by 0.864 Kg. The price elasticity of beef at H-3 (five days before Eid al-Adha) is positive at 0.591 (E p < 1). If there is a 1% increase, the demand for beef will increase by 0.591 Kg. If the price of meat five days before Eid al-Adha and Eid al-Fitr increases by 1%, the demand for beef meat will also increase by 0.591 Kg and 0.864 Kg. This is because, during the five days leading up to Eid al-Fitr and Eid al-Adha, people's income increases, the availability of beef is abundant and more family members gather so that it can affect the demand for meat beef.

Chicken meat prices. T-hit 0.644 is positive (+), with a Ttable value of 1.669 it can concluded that 0.644 < 1.669 and a significant value of 0.522 > 0.05. That means that any increase in chicken price by (0.319) will not affect beef demand. If the price of chicken meat increases or decreases, the demand for beef remains the same. Chicken meat can be a substitute good, but consumers in the source market still buy beef[16].

Cross elasticity is inelastic, The price of broiler chicken is indicated by a price elasticity value of less than one, which is 0.319 kg. This means that changes in the price of broiler chicken do not respond to changes in beef consumption, where if the price of broiler chicken increases by 1%, the demand for beef will increase by 0.319 kg. This cross-elasticity result indicates that chicken meat is a substitute. The law of demand for goods states that a change in the price of a good will result in a change in the amount demanded for that good. Chicken meat is a substitute for beef meat in function and utility [15][1][8].

Income. Household income positively influences beef demand, where a one-way relationship between income increases would cause an increase in beef demand. Income and demand have a positive relationship, meaning the more income is obtained, the more beef demand. The

results of this research agree with [12] and [17], who said that a positive regression coefficient value indicates that consumption will increase as income increases. This means that beef is normal stuff for households in Sijunjung Regency, Medan Sunggal District, and Medan City.

Income elasticity. Revenue elasticity is the percentage change in beef demand caused by the percentage change in real consumer income. Based on the results of the analysis, it is known that the amount of revenue elasticity is 0.343, which means that if there is an increase in revenue by 1%, the demand for beef will increase by 0.343 kg Conversely, if there is a decrease in revenue by 1%, it will reduce the demand for meat beef by 0.343 kg. The result of this income elasticity is inelastic where the elasticity value is Ep < 1. This is because an increase in revenue will only cause a small change to the amount requested[15][2]

The positive income elasticity value indicates that people's income is directly proportional to beef consumption around the Sumber market region, and beef is a normal good. The higher the income of consumers, the higher the demand for beef. That is the opinion that beef is a normal good because the higher the income, the higher the demand for beef. According to economic consumer behavior theory, demand elasticity analysis shows how beef consumption adapts to changes in income. Income elasticity estimates can also be used to simulate beef consumption trends [4][12].[9]

The main factor influencing beef demand is income. Consumers in higher income groups have a greater preference for higher quality foods than those in lower income groups, and they are better able to diversify their diets to include beef, which provides higher quality protein than pork [9][18], [19][20][21]

Number of family members. The number of family members has a positive effect on beef demand and has a one-way relationship where an increase in the number of family members will lead to an increase in demand. The number of family members to beef needs (Table 4). The Thit value of 5,428 is positive (+), with a Ttable value of 0.5% of the significance level of 2,171, it can be concluded that 5,428 > 1,669 and a significant value of 0.000 < 0.05 are obtained. This means that if the number of family members increases by (5,428), the demand for beef will increase by (5,428). The number of family members affects how much or how little beef is consumed. The greater the number of family members, the greater the amount of beef consumed[3][16][22]The large population is a potential market for various food products, including livestock product[1]

Consumption is based on Table 3. This T-hit 2,803 is positive (+), with a Ttable value of 0.5% of the significant level of 1,669, it can be concluded that a value of 2,803 < 1,669 and a substantial value of 0.007 > 0.05 were obtained. This means that beef demand will also increase if consumption increases by (2,803). Increased consumption has a significant influence on the increase in beef demand. The results from the explanation above that the factors that affect beef demand are income, consumption, and number of family members. The result of the above explanation is that the variables of income, number of family members, and consumption are directly proportional to the demand for beef. This is based on the opinion [23] that beef consumption is influenced by income and the number of dependents in the family.

CONCLUSION

Based on the results of the research on factors affecting beef demand, the variables that affect beef demand are income, number of family members, and consumption. The three variables are directly proportional where if the income, number of family members, and consumption variables increase, it will be followed by an increase in beef demand. Income elasticity, price elasticity of beef demand, and cross-elasticity are positive, indicating that chicken meat is a substitute good. Meanwhile, the price elasticity of beef demand in the five days before Eid al-Adha and Eid al-Fitr is positive, i.e. if the price of beef increases by 1%, the demand for beef will increase by 0.591 kg and 0.864 kg respectively. The positive income elasticity value indicates that beef around Kecamatan Sumber is a normal good.

CONFLICT OF INTEREST

Declare conflicts of interest or state "The authors declare no conflict of interest with any financial organization regarding the material discussed in the manuscript".

ACKNOWLEDGMENTS

We would like to thank the PP Muhammadiyah Centre for providing funding for the research entitled Factors Influencing Beef Demand among Housewife Consumers, a case study in Sumber Market.

REFERENCES

1. H. A. Hadini, S. Nurtini, And D. E. Sulastri, "Demand And Consumption Analysis And Broiler Meat Production In Kendari City, Southeast Sulawesi," *Buletin Peternakan*, Vol. 35, No. 3, Pp. 202–207, 2011.
2. S. E. Adi, Nurliza, And Imelda, "Analysis of Household Demand for Broiler Chicken Meat in Mempawah Regency," *Journal of Social Economy Of Agriculture*, Vol. 6, No. 2, 2017.
3. Z. Dilago, "Analysis of Chicken Meat Demand at the Household Level in Tobelo District, North Halmahera Regency," *Agroforestry*, Vol. VII, No. 3, pp. 16–24, 2011.
4. W. Sitinjak And J. A. Tanjung, "Factors Affecting Beef Demand in Pematangsiantar City (Case Study of Horas Market in Pematangsiantar City)," *Agriclinical*, Vol. 2, No. 2, pp. 86–90, 2020.
5. C. O. Emokaro And O. Dibiah, "Demand Analysis For Chicken Meat, Beef And Fish Among Urban Households In Edo And Delta States, Nigeria," *Journal Of Applied And Natural Science*, Vol. 6, No. 1, Pp. 239–245, 2014, [Online]. Available: www.Ansfoundation.Org.
6. M. D. Rusdi And M. Suparta, "Analysis of Factors Affecting Beef Demand in the City of Surabaya," *Journal of Economics and Business*, Vol. 1, No. 2, pp. 283–300, 2016.
7. J. Atmakusuma, Harmini, And R. Winandi, "Is It Possible for Meat Self-Sufficiency to Materialize?," *Agricultural and Environmental Policy Treatise*, Vol. 1, No. 2, pp. 105–109, 2014.
8. R. H. Puradireja, L. Herlina, And Arief H, "Analysis of Factors Affecting Beef Demand in Lampung Province," *Agribusiness Pulpit*, Vol. 7, No. 2, pp. 1439–1448, 2021.
9. W. Bo Zhu, Y. Fu Chen, J. Zhao, And B. Bei Wu, "Impacts Of Household Income On Beef At-Home Consumption: Evidence From Urban China," *J Integr Agric*, Vol. 20, No. 6, pp. 1701–1715, Jun. 2021, doi: 10.1016/S2095-3119(20)63582-1.
10. M. Milikias And M. Gebre, "Beef Cattle Fattening Practices, Marketing Systems And Challenges: The Case Of Bench Sheko And Sheka Zones Of Southwest Ethiopia," *Heliyon*, Vol. 10, No. 9, May 2024, Doi: 10.1016/J.Heliyon.2024.E29790.
11. J. Deely *Et Al.*, "Are Consumers Willing To Pay For Beef That Has Been Produced Without The Use Of Uncontrolled Burning Methods? A Contingent Valuation Study In North-West Spain," *Econ Anal Policy*, Vol. 75, Pp. 577–590, Sep. 2022, Doi: 10.1016/J.Eap.2022.06.014.
12. N. Novarista And D. J. Suprianti, "Analysis of Beef Demand in Household Consumers in Sijunjung Regency," *Jurnal Agrifo •*, Vol. 5, No. 2, 2020.
13. E. R. Rahmadani, H. Rusliani, And A. Budiyanto, The Effect of Beef Consumption and Prices on the Income of the Simpang Rimbo Slaughterhouse, Kenali Besar Village, Alam Barajo District," *Journal of Management and Accounting Research*, Vol. 3, No. 2, pp. 118–134, Jul. 2023, doi: 10.55606/jurima.V3i2.2178.
14. H. M. Munarka, S. Bachri, And Askar, "Factors Influencing the Demand for Beef Cattle Trade in Polopo City," *Journal of Development Economics*, Vol. 2, No. 1, pp. 8–15, 2015.
15. D. Dharmastuti, S. Supardi, And W. Rahayu, "Analysis of Factors Affecting Beef Demand in Surakarta City,"*Agrista*, Vol. 4, No. 3, Pp. 94–103, 2016.
16. B. Perdana, M. K. Handayani and Budiraharjo, "The Relationship of Social Economic Factors and Meat Demand at Boja Market Boja District Kendal Regency," 2013. [Online]. Available: Http://Ejournal-S1.Undip.Ac.Id/Index.Php/Aaj.
17. M. Chalidin, Z. Lubis, And M. M. Lubis, "Analysis Of Beef Demand And Elasticity At The Household In Sei Sikambing B, Medan Sunggal District, Medan City," *Jurnal Ilmiah Pertanian (Jiperta)*, Vol. 1, No. 1, Pp. 106–111, 2020, [Online]. Available: Http://Jurnalmahasiswa.Uma.Ac.Id/Index.Php/Jiperta
18. Z. Zheng And S. R. Henneberry, "Give To Agecon Search The Impact Of Changes In Income Distribution On Current And Future Food Demand In Urban China," 2010. [Online]. Available: Http://Ageconsearch.Umn.Edu
19. Z. Zheng And S. R. Henneberry, "Household Food Demand By Income Category: Evidence From Household Survey Data In An Urban Chinese Province," *Agribusiness*, Vol. 27, No. 1, Pp. 99–113, Dec. 2011, Doi: 10.1002/Agr.20243.
20. [20] J. Chen, A. Lobo, And N. Rajendran, "Drivers Of Organic Food Purchase Intentions In Mainland China - Evaluating Potential Customers' Attitudes, Demographics And

Segmentation," *Int J Consum Stud*, Vol. 38, No. 4, Pp. 346–356, 2014, Doi: 10.1111/Ijcs.12095.

21. H. Zhang, J. Wang, And W. Martin, "Factors Affecting Households' Meat Purchase And Future Meat Consumption Changes In China: A Demand System Approach," *Journal Of Ethnic Foods*, Vol. 5, No. 1, Pp. 24–32, Mar. 2018, Doi: 10.1016/J.Jef.2017.12.004.
22. K. Ogundari, "Demand For Quantity Versus Quality In Beef, Chicken And Fish Consumption In Nigeria 1," *Revista De Economia E Agronegócio*, Vol. 10, No. 1, Pp. 29–50, 2012.
23. Zulkarnain, Asmawati, And Sofyan, "Analysis of Beef Consumption at the Household Level," *Agrisep*, Vol. 18, No. 1, Pp. 1–12, 2017