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ANALYSIS OF FACTORS AFFECTING TOFU DEMAND IN CITAMAN JERNIH VILLAGE, PERBAUNGAN DISTRICT, SERDANG BEDAGAI REGENCY

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Abstract

This study seeks to identify the elements that affect how much tofu is wanted in Bintaro Village, which is part of the Pesanggrahan District located in South Jakarta City. It examines how these elements specifically affect the desire for tofu within the Bintaro Village community. The information utilized comes directly from people who answered questions, representing a selection of families residing in Bintaro Village. The methodology employed in this study involves multiple linear regression analysis. The study's findings indicate that the price of tofu, the price of tempeh, the size of families, and the amount of money families earn all play a role in determining the demand for tofu. The t-test results, derived from multiple linear regression analysis and set at a 95% confidence level, showed that the variables like the price of tofu, the number of people in a family, and how much money families earn significantly affect how much tofu is wanted in Bintaro Village. The demand for tofu is influenced by these factors by 40.2% in Bintaro Village, which falls under the Pesanggrahan District in South Jakarta City, while the other 59.8% is affected by different things not looked at in this study.

Keywords: Tofu, price, Demand, Income, Family

INTRODUCTION

In the agricultural sector, almost all types of agricultural products can be processed, which influences consumers' decisions to purchase available products. A purchase decision is a process carried out by a consumer in conducting transactions for products marketed by producers (Indrasari, 2019).

Human beings, as essential resources, need to obtain quality food intake to meet nutritional requirements necessary for their development process. Regarding the recommended daily nutritional adequacy levels for Indonesian citizens, Articles 1 and 2 describe that the *Nutritional Adequacy Rate* (*Angka Kecukupan Gizi* or AKG) is a measure that indicates the average nutrient requirement that should be met daily by almost all individuals with specific characteristics, including age, gender, level of physical activity, and physiological condition, in order to achieve optimal health (Ministry of Health of the Republic of Indonesia, Regulation No. 28 of 2019).

AKG applies to the adequacy levels of energy, protein, fat, carbohydrates, fiber, water, vitamins, and minerals. Caloric needs are generally met through the consumption of staple foods (carbohydrates), while protein needs are fulfilled through foods derived from plants (vegetable protein) and animals (animal protein).

Tofu is one of the foods rich in vegetable protein and is a common choice among Indonesian people. The quality of protein in food ingredients can be evaluated based on their amino acid composition. Among all soybean-based products, tofu contains the most comprehensive amino acid profile. In addition to being a source of protein, tofu is also rich in other essential nutrients such as fats, vitamins, and minerals. Tofu contains about 86% water, 8–12% protein, 4–6% fat, and 1–6% carbohydrates. It also contains minerals such as calcium, iron, phosphate, potassium, sodium, as well as vitamins like choline, vitamin B, and vitamin E. Its saturated fat content is low, and it contains no cholesterol (Santoso, 2005).

Protein is a macronutrient that serves as an energy source, along with carbohydrates, and is essential for the body. The main role of protein is crucial for the formation of new tissues during growth and development, as well as for maintaining the immune system. Based on their origin, proteins are classified into animal protein and plant protein. Sources of animal protein include fish, meat, and milk, while sources of plant protein include soybeans, nuts, grains, and legumes (Indriani, 2014).

Food-related issues in Indonesia currently face challenges related to limited food stock and dependency on specific staple crops. One of the main constraints is that the expansion of land for certain food crops cannot always keep pace with the growing population. As the population and public welfare increase, the demand for various types and qualities of food products also grows and diversifies (Food Security Agency, 2015).

An unbalanced nutritional intake among children can affect their physical development in the future (Esfarjani, Roustee, Mohammadi-Nasrabadi, & Esmaillzadeh, 2013). Nutritional deficiencies may lead to malnutrition in children, resulting in reduced cognitive abilities, lower physical activity, poor concentration in learning, weakened immune systems, and stunted growth due to inadequate physical development (Esfarjani et al., 2013).

Stunting is one of the chronic nutritional problems still widely found among children, characterized by a shorter height compared to age norms (Ministry of Health RI, 2018). A child is considered stunted if their height-for-age is below minus two standard deviations from the WHO Child Growth Standards median (Ministry of Health RI, 2010). Between 2005 and 2017, the average prevalence of stunted children in Indonesia was 36.4%. Data from the Directorate General of Public Health's Nutrition Status Monitoring (PSG) reported that the prevalence of stunting increased by 2.1% from 2016 to 29.6% in 2017. In Central Java, the prevalence of stunting in 2017 was 28.5% (Ministry of Health RI, 2018).

Consumption trends for tofu between 2016 and 2019 show a gradual increase—from 7.87 kg per person in 2016 to 7.88 kg in 2017, and further rising to 8.03 kg per person in 2019. The high demand for tofu in Indonesia makes it widely

available throughout the country, including in North Sumatra. One example is Citaman Jernih Village, located in Perbaungan District, Serdang Bedagai Regency (Food Consumption Bulletin, 2019).

Based on research conducted on tofu vendors in Citaman Jernih Village, it was found that their income varied. Vendors operating in Dusun 1 to Dusun 6 earned an average monthly turnover of Rp 4,160,000, while those selling in Dusun 7 to Dusun 14 earned around Rp 3,520,000 per month. If vendors with lower turnover could better understand consumer needs and preferences regarding tofu demand, they could minimize low-income issues. Therefore, factors influencing product demand are crucial in increasing sales and ultimately boosting vendor income in Citaman Jernih Village.
Household income growth is believed to play an important role in shaping food consumption patterns. The demand for tofu is certainly influenced by various consumer characteristics, including demographic, geographic, and psychographic factors.

Nine elements may influence interest in a product: the product's price, the price of other products, income level, number of consumers, promotion, income distribution, preferences, consumer expectations, and product availability (Masyhuri, 2007).

Based on previous research conducted in Medan, four of the nine elements were found to significantly affect tofu demand—namely, the price of tofu itself, the price of tempeh, family size, and income level. The price of tofu serves as the main factor determining how much tofu is demanded; thus, price fluctuations will directly affect its demand. When tofu prices increase, consumers may shift to alternative protein sources such as tempeh.
In Citaman Jernih Village, the population has continued to grow from year to year. In 2017, the population was recorded at 59,140 people, increasing to 65,497 people by 2021. The increase in household size may lead to higher food consumption. Moreover, tofu demand is also strongly influenced by income levels, as variations in income can shift demand toward different types of goods—higher income provides consumers with greater purchasing power to choose better-quality products.

Based on these issues, it is essential to analyze the factors that influence consumer demand for tofu in Citaman Jernih Village, Perbaungan District, Serdang Bedagai Regency.

RESEARCH METHOD

This study was conducted in Citaman Jernih Village, located in Perbaungan District, Serdang Bedagai Regency. The research site was selected purposively, as Citaman Jernih is considered a strategic area—situated closest to the city center of Serdang Bedagai Regency and characterized by relatively high population density. The residents of Citaman Jernih Village generally consume tofu and tempeh as part of their daily diet. The village has one main market that supplies tofu to meet the needs of the local population and neighboring areas. Administratively, Citaman Jernih Village has 7,929 inhabitants, comprising 2,179

households distributed across 14 hamlets (dusun) (Source: https://citamanjernih.web.id/index.php/first/wilayah).

The research was conducted from April to August 2025. The data collected in this study include tofu consumption per household (JTh), tofu purchase price per transaction (HTh), tempeh purchase price per transaction (HTm), household income (PK), and number of family members (JAK). Based on the source, the data used in this study are primary data, obtained through interviews and questionnaire distribution to respondents in Citaman Jernih Village.

Sampling was carried out using the Proportional Random Sampling method. This method involves randomly selecting samples from the population without considering specific subgroups, ensuring that each individual has an equal opportunity to be chosen. The sample selection process was conducted through a random draw to determine the respondents participating in the study.
Data were analyzed using a quantitative approach. The quantitative analysis employed was multiple linear regression, processed using Statistical Product and Service Solutions (SPSS) software version 20. The regression model was estimated through the Ordinary Least Squares (OLS) method, which yields the Best Linear Unbiased Estimator (BLUE)—indicating that the estimates are both efficient and unbiased.

RESULTS AND DISCUSSION

Tofu Demand in Citaman Jernih Village

The quantity of tofu demanded by households serves as the dependent variable in this study. Household tofu demand refers to the total amount of tofu purchased by respondents over a one-month period, measured in kilograms. The total monthly tofu demand was calculated by multiplying the daily tofu demand by four (1 month = 4 weeks).

Table 1. Total Monthly Tofu Consumption in Citaman Jernih Village, 2021

No	Tofu Purchased (Kg)	Number of Respondents (Households)	Percentage (%)
1	1-3	53	53%
2	4-6	26	26%
3	7-10	21	21%
	Total	100	100%

Source: Primary Data, 2021 (processed)

Tofu purchased by households is generally packaged in units weighing approximately 300 to 500 grams per pack. The majority of respondents—53% of total households—purchase between 1 and 3 kilograms of tofu per month. This relatively small amount is primarily due to the limited number of family members in these households, resulting in lower tofu consumption. Meanwhile, only 21% of respondents purchase tofu in larger quantities ranging from 7 to 10 kilograms

per month. These respondents typically have more family members, which increases their monthly tofu consumption compared to smaller households.

Factors Affecting Tofu Demand

In this study, the dependent variable (Y) is tofu demand, which represents the total amount of tofu purchased by respondents within a month, measured in kilograms. The factors influencing tofu demand are denoted as independent variables (X). There are four independent variables in this study Tofu Price (HTh), Tempeh Price (HTm), Number of Family Members (JAK), Household Income (PK)

1. Tofu Price (HTh)

The first variable is tofu price (HTh), which refers to the purchase price of tofu bought by respondents. In this study, the price of tofu is measured per kilogram. To determine the tofu price per kilogram, the weight of tofu per pack (ranging from 300 to 500 grams) was converted into kilograms.

The tofu price for each respondent was then calculated by dividing the total weight purchased (in kilograms) by the number of packs bought and multiplying it by the purchase price per pack. This approach was designed to make it easier for respondents to provide accurate answers to the questionnaire.

Based on the respondents' answers, the tofu price data were then converted and standardized into rupiah per kilogram. The details of tofu prices purchased by respondents are presented in the following table :

Table 2. Tofu Prices in Citaman Jernih Village, 2021

No	Tofu Price (Rp/Kg)	Number of Respondents (Households)	Percentage (%)
1	18.000-19.000	37	37%
2	20.000-21.000	51	51%
3	22.000	12	12%
	Total	100	100%

Based on Table 2, most respondents (51%) purchased tofu at prices ranging from Rp 20,000 to Rp 21,000 per kilogram. This is because the tofu prices paid by respondents reflect the rates set by mobile tofu vendors (*pedagang tahu keliling*). Many respondents prefer buying from these vendors since they are easily accessible and eliminate the need to travel to markets that are farther from their homes. Meanwhile, 12% of respondents purchased tofu at slightly higher prices because they bought it from supermarkets, where tofu generally sells at a higher retail rate.

2. Tempeh Price (HTm)

The second independent variable is the price of tempeh (HTm), representing the purchase price of tempeh as reported by respondents. Similar to the tofu price variable (HTh), the tempeh price is measured per kilogram.

To determine the price per kilogram, the weight of tempeh purchased (measured per pack) was converted into kilograms. The price of tempeh purchased by respondents was then calculated by dividing the total weight in kilograms by the number of packs purchased, and then multiplying by the price per pack.

The data on tempeh prices purchased by respondents are presented in the following table.

Table 3. Tempeh Prices in Citaman Jernih Village, 2021

No	Tempeh Price (Rp/Kg)	Number of Respondents (Households)	Percentage (%)
1	14.000-15.000	55	55%
2	16.000-17.000	42	42%
3	18.000	3	3%
	Total	100	100%

Based on the table, most respondents purchased tempeh at prices ranging from Rp 14,000 to Rp 15,000, accounting for 55% of the total respondents. This occurred because they typically bought tempeh at traditional markets or from mobile vendors, where prices are generally cheaper. Meanwhile, only three respondents bought tempeh at a price of Rp 18,000. These respondents were working housewives who purchased tempeh at supermarkets after work, as they did not have time to buy it at the market or from mobile vendors. Tempeh sold in supermarkets is typically more expensive than that sold in markets or by mobile vendors.

3. Number of Family Members (JAK)

The third variable is **the number of family members (JAK)**. This variable refers to the total number of people living in a respondent's household, including the respondent themselves. The following table presents the distribution of respondents based on family size.

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Table 4. Number of Family Members in Citaman Jernih Village, 2021

No	Number of Family Members (Persons)	Number of Respondents (Households)	Percentage (%)
1	1-2	9	9%
2	3-4	56	56%
3	5-6	27	27%
4	7-8	8	8%
	Total	100	100%

Source: Primary Data, 2021 (processed)

Based on Table 4, most respondents (56%) had 3 to 4 family members per household. This suggests that the majority of families in Citaman Jernih Village are of moderate size, consisting mainly of parents and one or two children. Meanwhile, 27% of respondents had 5 to 6 family members, indicating slightly larger households. A smaller proportion of respondents, 9%, lived in small households (1–2 members), while 8% of respondents had large families of 7–8 members. Generally, household size affects the level of tofu consumption—larger families tend to have higher tofu demand compared to smaller ones.

4. Household Income

The fourth variable influencing tofu demand is **household income (PK)**, which represents the total income earned by each household per month. The household income levels of respondents in Citaman Jernih Village are presented in the following table:

Table 5. Household Income Levels in Citaman Jernih Village, 2021

Income Level (Rp/Month)	Total	Percentage %
2.500.000-3.500.000	35	35%
3.600.000-4.600.000	44	44%
4.700.000-5.700.000	7	7%
5.800.000-6.800.000	10	10%
≥6.900.000	4	4%
Total	100	100%

Based on Table 5, it can be seen that among the 100 household respondents who consume tofu, household income levels vary. The majority of respondents—44 households (44%)—had a monthly income ranging from Rp3,600,000 to Rp4,600,000. Meanwhile, respondents with higher income levels, ranging from Rp5,000,000 to above Rp6,000,000, were mostly working housewives, meaning that their family income came not only from the head of the household but also from additional sources such as the wife's income.

Classical Assumption Test

The classical assumption test is a type of statistical test conducted to determine whether the data used in the study meet the required conditions to produce a valid and reliable regression model. This test ensures that the regression analysis results are consistent with the assumptions underlying the classical linear regression model. Several classical assumption tests were performed in this study, including the normality test, multicollinearity test, and heteroscedasticity test. Based on the analysis results, the outcomes of each classical assumption test are presented in Appendix 6. The explanations of these results are as follows:

1. Normality Test

The purpose of the normality test is to determine whether the data used in the study follow a normal distribution. A normal distribution implies that the data are symmetrically distributed and form a bell-shaped curve. To observe the distribution pattern, the data can be visualized through a distribution graph. Residual values that are normally distributed will produce a curve that resembles a bell shape, indicating that the regression model satisfies the normality assumption.

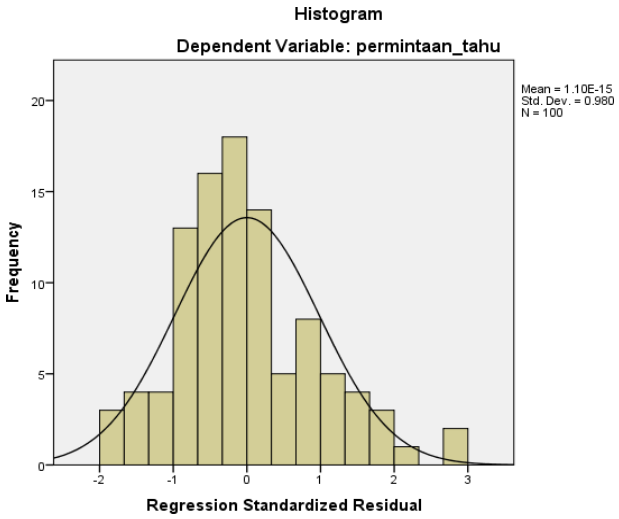


Figure 1. Histogram of the Dependent Variable: Tofu Demand in Citaman Jernih Village

The next step in testing normality is to use the normal probability plot (P–P plot), which is applied to determine whether the data used in the regression model are normally distributed. A regression model can be considered appropriate if the residual values follow the diagonal line. As shown in Figure 1, the residuals are normally distributed. The points in the diagram follow the diagonal line closely, indicating that the data used in this study are normally distributed. Thus, the regression model satisfies the normality assumption.

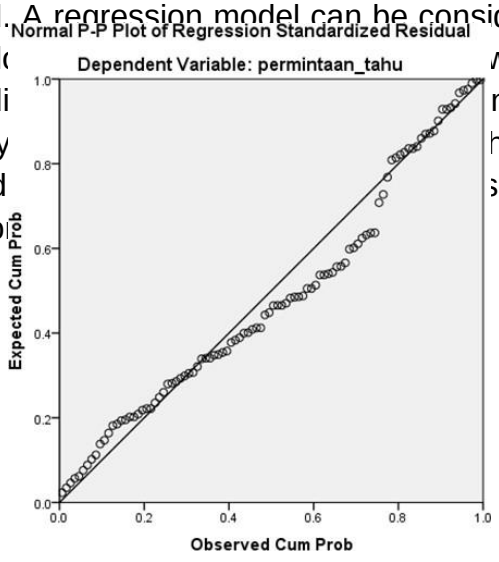


Figure 2 Normal Probality Plot

2. Multicollinearity Test

The multicollinearity test aims to examine whether there is a correlation among the independent variables in the regression model. Multicollinearity occurs when two or more independent variables are highly correlated with each other, which can distort the interpretation of regression coefficients. The criteria used to detect multicollinearity are the Tolerance and Variance Inflation Factor (VIF) values. If the Tolerance value is greater than 0.10, it indicates no multicollinearity; however, if it is less than or equal to 0.10, multicollinearity exists. Similarly, if the VIF value is less than 10.00, it suggests no multicollinearity; whereas a VIF value greater than or equal to 10.00 indicates the presence of multicollinearity. A good regression model should not exhibit multicollinearity among its independent variables. The results of the multicollinearity assumption test, based on the Variance Inflation Factor (VIF), are presented in the following table:

Table 6. Results of the Multicollinearity TestCoefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
	B	Std. Error	Beta	Tolerance	VIF
(Constant)	4.998	4.626			
Tofu Price	-.418	.161	-.213	.940	1.064
Tempeh Price	.127	.214	.050	.877	1.140
Number of Family Members	.394	.157	.241	.685	1.459
Household Income	.096	.024	.400	.622	1.608

a. Dependent Variable: tofu demand

The population growth data in Table 14 indicates that all VIF values for each variable (HTh, HTm, JAK, and PK) show no signs of multicollinearity, as none of the VIF values exceed the tolerance threshold.

3. Heteroskedasticity Test

The population growth model shows a low level of heteroskedasticity. The most common method used to determine whether a regression model is free from heteroskedasticity problems is by examining the Scatter Plot. In addition to the Scatter Plot, several statistical methods can also be applied to test for heteroskedasticity, such as the Glejser Test. In this study, the researcher employed the Glejser Test to detect the presence of heteroskedasticity. According to the results of this test, if the significance value (Sig.) for all explanatory variables is not statistically significant ($p > 0.05$), it can be concluded that the regression model does not exhibit heteroskedasticity.

Table 7. Results of the Heteroskedasticity Test

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.876	2.782		2.472	.015
Tofu Price	-.190	.097	-.194	-1.967	.052
Tempeh Price	-.200	.128	-.159	-1.555	.123
Number of Family Members	.112	.094	.137	1.184	.239
Household Income	.021	.014	.180	1.481	.142

a. Dependent Variable: Abs_RES

Source: Processed Secondary Data

Based on the results of the heteroskedasticity test shown in Table 15, it can be seen that the significance (Sig.) values for each variable are as follows: 0.052 for the tofu price (HTh) variable, 0.123 for the tempeh price (HTm) variable, 0.239 for the number of family members (JAK) variable, and 0.142 for the family income (PK) variable. From these results, it can be concluded that the regression model does not experience heteroskedasticity. This is because the significance values for all variables are greater than 0.05, meaning they are not statistically significant.

The Influence of Tofu Price, Tempeh Price, Number of Family Members, and Family Income on Tofu Demand

The F-test was conducted to determine whether all independent variables jointly influence the dependent variable, namely tofu demand. To test the hypothesis, the calculated F-value (Fcount) is compared with the table F-value (Ftable) or by comparing the probability value (Sig.) with the significance level (α). If Fcount ≤ Ftable or Sig. > α, then H_0 is accepted and H_1 is rejected, meaning that all independent variables in the model do not have a significant effect on tofu demand. Conversely, if Fcount > Ftable or Sig. < α, then H_0 is rejected and H_1 is accepted, which means that all independent variables in the model have a significant effect on tofu demand.

Tabel 8. Results of the F-Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	222.865	4	55.716	15.999	.000[b]
	Residual	330.845	95	3.483		

Total	553.710	99			

Based on the results of the F-test, it can be seen that all independent variables—tofu price (HTh), tempeh price (HTm), number of family members (JAK), and family income (PK)—included in the tofu demand model in Citaman Jernih Village jointly influence the dependent variable, namely tofu demand. This test compares the calculated F-value (Fcount) with the table F-value (Ftable). The obtained Fcount is 15.999, while the Ftable value is 2.47 at a 95% confidence level. Based on the research hypothesis, H_0 is rejected and H_1 is accepted, which means that all the variables—tofu price (HTh), tempeh price (HTm), number of family members (JAK), and family income (PK)—jointly influence tofu demand (JTh) in Citaman Jernih Village.

Analysis of Tofu Demand in Citaman Jernih Village

This study aims to analyze several factors that are presumed to influence tofu demand and to determine the extent of their effects. The analysis formulates the relationship between the independent variables (HTm, HTh, JAK, and PK) and the dependent variable (PT, tofu demand). The study uses a 95% confidence level, which corresponds to a significance level of 0.05, with the assistance of the IBM SPSS Version 20 analytical tool. The regression coefficient values of the tofu demand model in Citaman Jernih Village are presented in the following table.

Tabel 9. Regression Coefficient Values of the Tofu Demand Model in Citaman Jernih Village

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.998	4.626		1.080	.283
Tofu Price	-.418	.161	-.213	-2.599	.011
Tempeh Price	.127	.214	.050	.595	.553
Number of Family Members	.394	.157	.241	2.516	.014
Household Income	.096	.024	.400	3.977	.000

a. Dependent Variable: tofu demand

Based on the results presented in the table, a multiple regression equation can be formulated to represent the factors influencing tofu demand. This equation corresponds to the model described in the research methodology. The multiple regression equation for the factors affecting tofu demand in Citaman Jernih Village (HTh, HTm, JAK, and PK) is as follows:

PT= 4.998-0.418 HTh+0.127 HTm+0.394 JAK+0.096 PK

The constant value in the regression equation is 4.998. This indicates that tofu demand would have a value of 4.998 if all four independent variables included in the study were equal to zero.

The Effect of Tofu Price on Tofu Demand

Tofu price (HTh) has a significant impact on the results of the tofu demand model in Citaman Jernih Village. The influence of tofu price can be observed from the coefficient values presented in Table 17. The regression coefficient for tofu price (HTh) is -0.418. The negative sign indicates an inverse relationship between tofu price and the quantity of tofu demanded. In other words, if the price of tofu increases, the quantity demanded decreases, and vice versa, assuming all other factors remain constant (ceteris paribus).

This means that the higher the price of tofu, the fewer the amount of tofu consumers will purchase. Conversely, if the price decreases, the quantity of tofu purchased will increase. This finding aligns with Ritonga's (2003:108) demand theory, which states that demand is the quantity of goods or services purchased at various prices and situations: the higher the price, the lower the demand; the lower the price, the higher the demand.

The calculated t-value for tofu price is 2.599, which is higher than the table t-value of 1.984, and the significance value obtained is 0.011. Therefore, the research hypothesis H_0 is rejected and H_1 is accepted, indicating that the tofu price variable has a significant effect on tofu demand in Citaman Jernih Village at the 95% confidence level.

These results are consistent with demand theory, which states that price is one of the key factors influencing the quantity of a product demanded. The negative coefficient shows that as tofu prices rise, the quantity demanded decreases, and conversely, as prices fall, demand increases. This is in line with the law of demand, which asserts that the higher the price of a good, the lower the quantity demanded, assuming other variables remain constant.

The Effect of Tempeh Price on Tofu Demand

Based on Table 17, the coefficient for tempeh price (HTm) is 0.127. The positive sign indicates a direct relationship between tempeh price and tofu demand, meaning that if the price of tempeh increases, tofu demand also increases. This is consistent with Masyhuri (2007:77-79), which states that substitute goods are products that can replace the function of other goods. If the price of a substitute good rises, the demand for that substitute decreases, and the demand for the related good increases. Conversely, if the price of the substitute decreases, the demand for the related good will decrease.

The calculated t-value for tempeh price is 0.595, compared to the table t-value of 1.984, with a significance value of 0.721. Based on these results, the research

hypothesis indicates that H_0 is accepted and H_1 is rejected, meaning that tempeh price does not have a statistically significant effect on tofu demand in Citaman Jernih Village at the 95% confidence level. This is because tempeh and tofu share the same raw material, soybeans, making tempeh a substitute good.

The Effect of Number of Family Members on Tofu Demand

The regression coefficient for number of family members (JAK) is 0.394, indicating a positive relationship with tofu demand. This means that if the number of family members increases by 1 person, tofu demand will increase by 0.394 units. Conversely, if the number of family members decreases by 1, demand will decrease by 0.394 units, assuming other factors remain constant (ceteris paribus).

The calculated t-value is 2.516, higher than the table t-value of 1.984, with a significance value of 0.014. Thus, H_0 is rejected and H_1 is accepted, indicating that the number of family members has a significant effect on tofu demand at the 95% confidence level.

This finding aligns with demand theory, which states that family size is a key factor affecting the demand for certain goods. According to Daniel (2004), an increase in family members will increase the quantity of needed commodities, thereby increasing demand. Therefore, tofu demand is positively related to family size: the more family members, the higher the demand. This study confirms that households with more members consume more tofu, leading to higher overall demand compared to smaller households.

The Effect of Family Income on Tofu Demand

The regression coefficient for family income (PK) is 0.096, indicating a positive relationship with tofu demand. This means that as family income increases, tofu demand also rises. This finding is consistent with Pracoyo (2006), which states that income has a positive relationship with the quantity of goods demanded. As income increases, demand for a normal good will also increase; however, if the good is considered inferior, demand may decrease as income rises.

Tofu is an affordable source of plant-based protein, making it accessible to households across different income levels. Based on the data, tofu consumption varies depending on household income. Lower-income households typically use tofu as a main protein source, while households earning above Rp 3,600,000 often purchase tofu as a supplementary side dish due to its nutritional benefits. However, in Citaman Jernih Village, some high-income respondents consume tofu in the same quantity as before, resulting in no change in overall tofu purchases.

Coefficient of Determination (R^2)

The regression analysis (Table 18) shows the R^2 value, which indicates the model's ability to explain the variation in the dependent variable (tofu demand) based on the independent variables (HTh, HTm, JAK, and PK). This value reflects the overall success of the model in predicting tofu demand in Citaman Jernih Village.

Table 10. Coefficient of Determination of the Tofu Demand Model in Citaman Jernih Village

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.634[a]	.402	.377	1.86617

Based on the table, the R-square value is 0.402, indicating that 40.2% of tofu demand in Citaman Jernih Village can be explained by the independent variables used in this study, namely tofu price (HTh), tempeh price (HTm), number of family members (JAK), and family income (PK). The remaining 59.8% of demand is influenced by factors not included in this research. This suggests that the variables used in the study do not fully capture all factors affecting tofu demand, as other influences such as consumer taste, level of necessity, and income distribution were not included.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The study found an R-square value of 0.402, meaning that 40.2% of tofu demand in Citaman Jernih Village can be explained by the independent variables: HTh, HTm, JAK, and PK. The remaining 59.8% is not captured by these variables. This indicates that the variables used in this study are not sufficient to fully explain all factors influencing tofu demand, as other factors such as taste preferences, necessity levels, and income distribution were not considered.

Recommendations

The influence of the examined variables on tofu demand is relatively moderate. Based on the R-square value of 40.2%, future research is recommended to include additional independent variables beyond those used in this study, such as taste preferences, egg prices, education levels, and other relevant factors.

Based on the t-test results, tofu price (HTh) has a significant effect on tofu demand. Therefore, it is recommended that the government maintain price stability to ensure consistent tofu demand.

Furthermore, the t-test results indicate that the factors with a significant effect on tofu demand are tofu price, number of family members, and family income.

Based on this finding, tofu sellers are encouraged to develop strategies and policies that can increase sales and revenue by focusing on these three key factors.

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