

Factors Affecting Tofu Home Industry Production in Mekar Sari Village, Wasile District

Bayu Adi Priyono¹, Aziz Hasyim², Nurdin I. Muhammad³

¹²³Development Economics Study Program, Faculty of Economics and Business, Khairun University
Ternate

Email: bayuadipriyono@gmail.com, azkangeilo.unkhair@gmail.com, nurdinmuhammad@unkhair.ac.id

Abstrak

Received: 08 Agustus 2023

Revised: 25 Agustus 2023

Accepted: 29 September 2023

This study aims to determine what are the factors that affect the production of tofu home industry in Mekar Sari Village, Wasile District, East Halmahera Regency, using quantitative research. The subjects of the study were tofu entrepreneurs in Mekar Sari Village, Wasile District. The sampling method is random sampling. The sample in this study consisted of 5 entrepreneurs. The data collection method in this study is Questionnaire.

The technique used by this study to obtain conclusions is multiple linear gergersi with the Eviews program, resulting in the equation: $Y = 665620 + 142.9692 x_1 + 1397603 x_2 - 19.32795 x_3 + e$. Hypothesis testing using the R test, shows the value of R Square is 0.999696 meaning that together the independent variable has an influence of 99.9% on the dependent variable, and 1.1% is influenced by other independent variables that are not included in this study. It can be concluded that the factors affecting the production of tofu home industry in Mekar Sari Village, Wasile District, East Halmahera Regency. Independent variables are Working Capital (X1), Raw Materials (X2), Labor (X3).

Keywords: *Tofu, production, capital, labor raw materials, Home Industry.*

How to Cite:

Priyono, B., Hasyim, A., & Muhammad, N. (2023). Factors Affecting Tofu Home Industry Production in Mekar Sari Village, Wasile District. *Al-Kharaj: Journal of Islamic Economic and Business*, 5(3).
doi:<https://doi.org/10.24256/kharaj.v5i3.4156>

INTRODUCTION

Economic development in Indonesia is currently very rapid, be it small industry, medium industry, or large industry. The technology used for product processing in an industry has also changed, from using human services (traditional), machine services, to using robot services. With the development of industry in Indonesia, it is expected to be able to prevent existing socio-economic problems, such as reducing unemployment by creating jobs, meeting unlimited community needs, and reducing poverty (Fani Eliano, 2016).

At present, the process of development is often associated with the process of industrialization. Industrial development is one of the pathways to improve the welfare of the people. In addition to getting profits, another purpose of building an industry is to reduce unemployment in Indonesia. As in the construction of small industries which are to reduce the amount of unemployment in Indonesia itself. In line with the development of the national and regional industrial sectors, the development of small industries in Mekar Sari Village, This can be seen from the name of the business owner, Tofu industry business unit, labor and capital in Mekar Sari Village, Wasile District.

Table 1.1. Names of Tofu Industry Business Owners and Labor, Capital in Mekar Sari Village, Wasile District.

No	Name of Business Owner	Unit Usah	Labor (people)	Capital (Rp)
1	Profit	1	3	5.000.000
2	Parjan	1	5	9.000.000
3	Nasum sp 1	1	4	18.000.000
4	Mr. Saiman	1	6	28.000.000
5	Then Tur	1	5	60.000.000

Source: Mekar Sari Village Processed Data

The decline in the number of small industries in Mekar Sari Village is caused by several factors. Factors include, the location of the business that is not suitable for opening a business, the rupiah exchange rate against the dollar rises so that the owner of the small industry finds it difficult to buy raw materials, so that tofu production decreases day by day. This has caused a decrease in labor and there are even industries that have gone out of business or went bankrupt because they could not cover the problem of shortages. However, some industries continue to carry out new innovations to maintain the continuity of the industry. Even workers who have quit with enough experience, open new businesses that can absorb new labor.

Small industries in Mekar Sari Village have a very positive influence on improving the economy of the surrounding community, where these small industries can absorb workers in the vicinity or from other areas so as to reduce the unemployment rate in Mekar Sari Village.

One of the small industries in Mekar Sari Village is the tofu industry. Tofu is a food product that uses raw materials from soybeans. Tofu has long been favored by the people of Indonesia (Salim 2012: 7). With an affordable price, delicious taste and has a high nutritional content, it is what causes tofu to be much favored by the people of Indonesia, especially the people of Mekar Sari Village.

In general, the tofu industry is a cottage industry with a small amount of work and the investment required in the development of the tofu industry is not too large. In addition to side workers, the investment that is not too big is also one of the reasons for the people of Mekar Sari Village to build a tofu industry. Here are the names of tofu industry owners in Mekar Sari Village in the table below.

Table 1.2 List of Tofu Industries in Mekar Sari Village, Wasile District

No	Village Name	Number of Tofu Industry (Units)
1	Blooming Sari	5
2	Bumirestu	2
3	King's stone	3
4	Cemara Jaya	2
5	Rawamangun	4
6	Sidomulyo	2
7	Akedaga	4
8	Gulapapo	1

Sum	23
-----	----

Source: Mekar Sari Village Processed Data 2022

Table 1.2 can be seen that, according to processed data in Mekar Sari Village, there are 23 tofu industries that are developing until 2022. Of the 23 tofu industries, the highest number of industries are found in Mekar Sari Village, which is as many as 5 tofu industries. In Bumirestu Village, Cemara Jaya, Sidomulyo there are 2 tofu industries and in Batu Raja Village there are 3 tofu industries. In Rawamangun Village and Sidomulyo Village, there are 4 tofu industries. While Gulapapo Village has 1 tofu industry.

Based on a preliminary survey conducted in January 2022, several problems have been found in the tofu industry work system. The work system in the tofu industry is evaluated using several questionnaires.

Based on this study, the author wants to learn more about: Factors Affecting Tofu Home Industry Production in Mekar Sari Village, Wasile District.

RESEARCH METHODOLOGY

Data Types and Sources

According to Supranto (2016: 28) population is a collection of all elements / objects studied, while the sample is part of the population. In this study, the population is all tofu industries in Mekar Sari Village, Wasile District, which are as many as 23 industries. This type of research uses accidental *sampling*, which is accidental sample determination. So the author used a sample of 5 tofu industry units in Mekar Sari, Wasile District.

Data Analysis Techniques

The data analysis technique used in processing the results of this study is a multiple regression analysis technique where the method is used to measure the influence of the independent variable on the dependent variable. Where the formula is as follows (Suparto, 2016: 237)

$$\text{And} = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Remarks :

Y = Tofu (Fruit) Production

X1 = Capital (Rp)

X2 = Raw Material (Kg)

X3 = Labor (People)

b_1, b_2, b_3 = Parameters to be estimated

E = Tram error

RESULTS AND DISCUSSION

Production in Mekar Sari Village

Based on the results of the study, data processing using the Eviews 12 Program is known to have the effect of capital, raw materials, and labor on the amount of tofu production in Mekar Sari Village can be explained in the following table. (X1)(X2)(X3)(y)

Multiple Regression Coefficient Estimation Intervals.

Dependent Variable: Y
 Method: Least Squares
 Date: 05/10/23 Time: 20:30
 Sample: 1 5
 Included observations: 5

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6656202.	149676.0	44.47073	0.0143
X1	142.9692	6.955418	20.55508	0.0309
X2	1397603.	108172.3	12.92016	0.0492
X3	-19.32795	1.586337	-12.18401	0.0521
R-squared	0.999696	Mean dependent var		9900000.
Adjusted R-squared	0.998786	S.D. dependent var		3090307.
S.E. of regression	107679.4	Akaike info criterion		26.00227
Sum squared resid	1.16E+10	Schwarz criterion		25.68982
Log likelihood	-61.00567	Hannan-Quinn criter.		25.16368
F-statistic	1097.854	Durbin-Watson stat		2.838309
Prob(F-statistic)	0.022181			

From the results above, it is known that the function of the equation is as follows:

$$Y = 665620 + 142.9692 x_1 + 1397603 x_2 - 19.32795 x_3$$

From the equation above, it is known the influence of the three production factors on the three tofu industries in Mekar Sari Village. The following will be explained about the influence of these production factors on the production of home tofu industry in detail.

Regression Coefficient

Based on the function of the equation above, it is known the value of the coefficient of each variable. The following will explain the purpose of the value of the coefficient of each variable.

1. A constant of 665620 means that the amount of tofu production, if capital, raw materials, and labor equal to 0 is 665620 Pieces/Month. b_0
2. The value of the coefficient is 142.9692. This means that the capital variable () has a positive and significant effect on the amount of production (y) in the tofu industry in Mekar Sari Village, Wasile District. This positive influence means that if there is an additional capital of Rp. 1 million, it will increase the amount of tofu production by 142.9692 pieces / month. $b_1 x_1$
3. The value of the coefficient is 1397603. This means that the variable of raw materials () has a positive and significant effect on the amount of production (y) in the tofu industry in Mekar Sari Village, Wasile District. This positive influence means that if there is an addition of raw materials of 1 kg / month, it will increase the amount of tofu production by 1397603 pieces / month. $b_2 x_2$
4. The value of the coefficient is -19.32795. This means that the labor variable () does not have a positive and significant effect on the amount of production (y) in the tofu industry in Mekar Sari Village, Wasile District. This negative influence means that if there is an increase in labor by 1 person, it will reduce the amount of tofu production by -19.32795 pieces / month. $b_3 x_3$

Coefficient of Determination Test (R^2)

The Coefficient of Determination test is performed to determine how far the independent variables (capital, raw materials, and labor) are able to explain the related variables (tofu production). It is known that the value is 0.999696. This means that 79% of the independent variables (capital, raw materials, and labor) are already represented to explain the related variables (tofu production). While the remaining 21% is explained by other variables outside the model. $(R^2)R^2$

T Test (Parasial Test)

The T test is a test of the coefficients of the parasiial independent variable. This T test is carried out to determine whether individual independent variables (parasiial) have a significant influence or not on related variables, with what provisions if prob. The independent variable < 0.05 then H_0 is rejected and if prob. The independent variable > 0.05 then H_0 is accepted. The following is an explanation of the T Test.

1. Testing the Effect of Capital () on Tofu Production (y) x_1

Based on the estimated results, the prob value is known. Capital of $0.0309 < 0.05$ then H_0 was rejected. This means that capital partially has a significant effect on tofu production in Mekar Sari Village.

2. Testing the Effect of Raw Materials () on Tofu Production (y) x_2

Based on the estimated results, the prob value is known. Raw materials of $0.0492 < 0.05$ then H_0 was rejected. This means that partially raw materials have a significant effect on the amount of tofu production in Mekar Sari Village.

3. Testing the Effect of Labor () on Tofu Production (y) x_3

Based on the estimated results, the prob value is known. A workforce of $0.0521 > 0.05$ then H_0 is accepted. This means that partially, labor does not have a significant effect on the amount of tofu production in Mekar Sari Village.

Test F

Test F is a test carried out to determine whether the independent variable simultaneously has a significant effect or not on the production of tofu home industry in Meakar Sari Village. The tenacity in the test is if F prob. < 0.05 then H_0 is rejected and if F prob > 0.05 then H_0 is accepted.

From the estimated results, it is known the value of F prob. As much as $0.022181 < 0.05$ then H_0 is rejected or H_a is accepted. This means that the variables of capital, raw materials, and labor simultaneously (together) have a significant effect on the tofu home industry in Mekar Sari Village.

Multicollinearity Test

Variance Inflation Factors
 Date: 05/10/23 Time: 20:35
 Sample: 1 5
 Included observations : 5

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	2.24E+10	9.660703	NA
X1	48.37784	14.09629	5.414460
X2	1.17E+10	55.50459	10.09174
X3	2.516465	51.00249	7.596123

Source : *Eviews 12*

This test is carried out to determine the presence or absence of a linear relationship between independent variables. The existence of relationships between variables in a regression is called multicollinearity. This test is carried out by taking into account the VIF value provided that

if the VIF value < 10 it is not exposed to multicollinearity, and if the VIF value > 10 it is exposed to multicollinearity.

Based on the results of data processing, it is known that the VIF value of the independent variable, namely the VIF value is 5.414460, the VIF value is x_1x_2 10.09174, the VIF value is x_3 7.596123. It can be seen that the VIF value of the three variables is greater than 10, which means that the three variables are not exposed to multicollinearity. This means that capital, raw materials, and labor have a linear relationship in the model.

Heteroskedastisitas Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

F-statistic	0.197256	Prob. F(3,1)	0.8902
Obs*R-squared	1.858837	Prob. Chi-Square(3)	0.6022
Scaled explained SS	0.061335	Prob. Chi-Square(3)	0.9960

This test is carried out to find out whether in the regression model there is an inequality of variance and residual one observation to another. A good regression model should not occur Heteroscedasticity. How to detect whether the regression model occurs Heteroscedasticity or not, can be seen from the value of Chi-Square (Obs * R-squared) and the critical value of Chi-Square provided that if the value of Chi-Square is smaller than the critical value then heteroscedasticity does not occur and if the value of Chi-Square is greater than the critical value then heteroscedasticity occurs.

Based on the results of data processing, it is known that the value of Chi-Square (Obs*R-squared) is 0.6022. While the critical value of Chi-Square is 1.67848. It can be seen that the Chi-Square value is smaller than the critical value, which means that the regression model does not occur heteroscedasticity

CONCLUSIONS, IMPLICATIONS, FUTURE RESEARCH

Based on the results of research and discussion that have been explained in the previous chapter, the following conclusions can be drawn.

1. Based on the processed data using the Evienws analysis tool R^2 , it is known that it is 0.999696. This means that 99% of the independent variables (capital, raw materials and labor) are already represented to explain the dependent variable (tofu production). While the remaining 1% is explained by other variables outside the model.
2. Based on the coefficient value of the independent variable and the T Test (Partial), it can be seen that the capital variable has a positive and significant effect on the amount of tofu production (Y) in Mekar Sari Village. Then the variable raw material has a positive and significant influence on the amount of tofu production (Y) in Mekar Sari Village. Furthermore, the labor variable does not have a positive and significant influence on the amount of tofu production (Y) in Mekar Sari Village. (x_1)(x_2)(x_3)
3. Judging from the F Test (Simultaneous) known value F prob. As much as $0.022181 < 0.05$ then H_0 is rejected or H_a is accepted. This means that the variables of capital, raw materials, and labor simultaneously (together) have a significant effect on the tofu home industry in Mekar Sari Village.

SUGGESTION

From the conclusion of the research above, the author tries to give suggestions that are expected to be taken into consideration by related parties.

For researchers who want to do the same study, it is better to look for other variables that have positive influences on tofu production.

For entrepreneurs and tofu industry owners, they must pay more attention to the use of capital, raw materials and labor so that tofu production increases. This is because these production factors have a positive influence in increasing the amount of tofu production.

For the government and related agencies, it is hoped that the surrounding government can foster the community or tofu industry owners so that the tofu industry in Mekar Sari Village can increase and open up jobs that can reduce unemployment. This is because the more labor, the more tofu production is produced.

REFERENCES

- Afiyah, A. (2015). Analisis Studi Kelayakan Usaha Pendirian Home Industry (Studi Kasus pada Home Industry Cokelat “Cozy” Kademangan Blitar) (Doctoral dissertation, Brawijaya University).
- Bayly, C. A., & Appadurai, A. (1986). The origins of swadeshi (home industry): cloth and Indian society, 1700–1930 (pp. 285-321).
- Bashford, H. H., Sawhney, A., Walsh, K. D., & Kot, K. (2003). Implications of even flow production methodology for US housing industry. *Journal of construction engineering and management*, 129(3), 330-337.
- Fani Eliana. 2016. Factors Affecting the Production of Klanting Cracker Food Industry in Pasir Penyu District, Indragiri Hulu Regency. Pekanbaru.
- Gertler, P. J., & Waldman, D. M. (1992). Quality-adjusted cost functions and policy evaluation in the nursing home industry. *Journal of Political Economy*, 100(6), 1232-1256.
- Gronau, R. (1980). Home production--a forgotten industry. *The Review of Economics and Statistics*, 408-416.
- H. Ismanto, E. Syofyan, and Y. Yulhendri. 2014. "Factors affecting small industry production in Kerinci District," *J. Kaji. Ekon.*, Vol. 3. No. 05, p. 103782.
- Kusmawan, I made Hary, I Nyoman Widhya Astawa, and I Wayan Suarbawa. 2021. "Factors Affecting Tofu Home Industry Income in Tabanan Regency." *Iimiah Untab Magazine* 18 (1): 86-91.
- McKay, N. L. (1988). An econometric analysis of costs and scale economies in the nursing home industry. *Journal of Human Resources*, 57-75.
- Nishitaten, S. (2013). Global production sharing and the FDI–trade nexus: New evidence from the Japanese automobile industry. *Journal of the Japanese and International Economies*, 27, 64-80.
- Resh, H. M. (2022). *Hydroponic food production: a definitive guidebook for the advanced home gardener and the commercial hydroponic grower*. CRC press.

- Salim, Emil. 2012. *We are Smart Entrepreneurs of Various Processed Soybeans*. Yogyakarta: Lily Publisher.
- Stojkoska, B. L. R., & Trivodaliev, K. V. (2017). A review of Internet of Things for smart home: Challenges and solutions. *Journal of cleaner production*, 140, 1454-1464.
- Scur, G., & Barbosa, M. E. (2017). Green supply chain management practices: Multiple case studies in the Brazilian home appliance industry. *Journal of cleaner production*, 141, 1293-1302.
- Weech-Maldonado, R., Neff, G., & Mor, V. (2003). Does quality of care lead to better financial performance?: the case of the nursing home industry. *Health Care Management Review*, 201-216.