

# The Effect of Labor and Raw Materials on Production Results at Home Industry Tofu in Kabunan Village, Balen District, Bojonegoro Regency, Indonesia

MOEHADI

*Faculty of Economics, University of Bojonegoro*

**Abstract:** This study aims to determine the effect of labor and raw materials on the tofu home industry in Kabunan Village, Balen District, Bojonegoro Regency, whether it has a significant effect on tofu production. This type of research is descriptive associative with a quantitative approach. The population in this study is the owner of the tofu home industry in Kabunan Village, Balen District, Bojonegoro Regency. Sampling technique in this study using saturated sampling, data collection used through a questionnaire. The data analysis technique in this study uses multiple linear regression analysis to find out how much influence more than one independent variable has on one dependent variable with the formula  $Y = a + b_1X_1 + b_2X_2 + e$ . Based on the results of multiple linear regression analysis obtained equation  $Y = 2,711 + 0,555X_1 + 0,288X_2 + e$ . And it was found that labor ( $X_1$ ) partially affected the production ( $Y$ ) with a significance value of  $0,000 < 0,05$  and value  $t_{count} 3,985 > t_{table} 2,051$ . Raw material variable ( $X_2$ ) partially affect production results ( $Y$ ) with significance value  $0,033 < 0,05$  dan  $t_{count} 2,253 > t_{table} 2,051$ . The variables of labor ( $X_1$ ) and raw materials ( $X_2$ ) simultaneously affect production results ( $Y$ ) with a significance value of  $0,000 < 0,05$  and value  $F_{count} 21,893 > F_{table} 3,34$ .

**Kata Kunci :** *Labor, Raw Materials and Production*

## I. INTRODUCTION

The economy in Indonesia is currently entering the arena of intense competition in various existing sectors, especially in the industrial sector. To overcome this, Indonesia is required to be able to improve knowledge and technology so that it does not lag behind other countries. The industrial sector is a sector that is quite reliable in the economy in Indonesia, because the industrial sector is able to become one of the contributors to the country's foreign exchange which is quite large in value.

The industrial sector also has an important role in expanding job opportunities, increasing per capita income, and supporting regional development. Therefore the industrial sector must be developed. The development of this industrial sector must also be supported by the presence of human resources, natural resources and capital resources. Because without these resources, developments in industrial development will experience a decline in increasing income.

Human resources play an important role in the implementation of industrial activities even though the role and function of the workforce has been replaced by industrial machines. But in reality until now, labor is still an important factor in determining the course of production. Every industrial company in carrying out production activities cannot only rely on the use of facilities with technology, but also requires manpower to facilitate the production process. Therefore, the workforce must always improve their abilities and skills both through formal education and non-formal education so that every workforce can work effectively and efficiently so that they become professional workers.

The tofu industry in Kabunan Village, Balen District, Bojonegoro Regency has an important role in overcoming the problem of inequality. Because with the tofu industry, it can provide job opportunities for the surrounding community. Thus, the number of unemployed will also decrease. The industrial sector, especially the tofu industry is closely related to the agricultural sector, for that it needs to be improved by developing agro-industry. Agro-industry is an industrial activity that utilizes agricultural products as raw materials. The tofu industry is an industry whose main raw material is soybeans. Therefore, soybean is one of the most vital factors in the tofu production process. According to Lincoln (1995) the use of raw materials for small industries in Indonesia generally runs the production process inefficiently, because the use of production factors is not optimal. Most likely the cause of the production of tofu in Kabunan Village, Balen District, Bojonegoro Regency which tends to decrease is that the use of production factors is not optimal.

The rapid development of the industry along with increasing consumer demand requires every company to continue to maintain and increase its production. The tofu home industry in Kabunan Village, Balen District, Bojonegoro Regency is one of the tofu industry centers which must also continue to maintain and increase its production in order to compete with similar industries.

## II. METHODS

The research approach used in this research is quantitative research. While the research method used is descriptive associative quantitative research method. According to Sugiyono (2013), the quantitative method is a method based on the philosophy of positivism used to examine certain populations or samples. This method is carried out on data obtained from the results of questionnaire answers and is used to analyze data in the form of numbers and calculations with statistical methods.

The scope of this research discusses the Independent Variable, namely labor ( $X_1$ ) and raw materials ( $X_2$ ), while the Dependent Variable is the result of tofu production ( $Y$ ). The indicator variable in this study is the Henry Simamora Labor Indicator (2004): quantity of work, quality of work, timeliness. Indicators of Raw Materials Situmorang Netty Marlyna (2016) : quality of materials, availability of raw materials, time and source of raw materials, prices of raw materials. Indicators of production results: the amount of product produced, the quality of production. The sampling technique used is saturated sampling, which is a sampling technique when all members of the population are used as samples. According to Arikunto (2006). The research location is in Kabunan Village, Balen District, Bojonegoro Regency.

## III. RESULT AND DISCUSSION

Based on the results of multiple linear regression analysis, it can be seen the relationship between the dependent variable and the independent variable and determine how much influence the independent variable has on the dependent variable either partially or simultaneously.

The equation used is :

$$Y = a + b_1 X_1 + b_2 X_2 + e_i$$

Information:

$Y$  = Tofu Production Results

$X_1$  = Labor

$X_2$  = Raw material

$a$  =Constant

$b_1$  = Regression Coefficient  $X_1$

$b_2$  = Regression Coefficient  $X_2$

$e_i$  = Confounding Variables

**Table 1**  
**Multiple Linear Regression Analysis Results**  
**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2,711	2,130		1,273	,214
Labor (X <sub>1</sub> )	,555	,139	,565	3,985	,000
Raw material (X <sub>2</sub> )	,285	,127	,320	2,253	,033

a. Dependent Variable: Production result (Y)

Source: Primary data processed by SPSS V.23, 2021

The results of multiple linear regression calculations obtained the following regression equation:  
 $Y = 2,711 + 0,555 X_1 + 0,285 X_2 + e_i$

From the table above, it can be seen that the constant value of the unstandardized coefficients is 2,711. This number is a constant number which means that if there is labor (X<sub>1</sub>) and raw materials (X<sub>2</sub>), the production output (Y) is 2,711. The labor variable (X<sub>1</sub>) has a regression coefficient of 0,555, which means that for every increase in labor (X<sub>1</sub>), the production output will also increase. The raw material variable (X<sub>2</sub>) has a regression coefficient of 0,285, which means that for every increase in raw materials (X<sub>2</sub>), the production yield will also increase.

Discussion for each hypothesis in this study:

Hypothesis 1

H1 : It is suspected that labor and raw materials partially affect the production of the tofu home industry in Kabunan Village, Balen District, Bojonegoro Regency. This hypothesis aims to test whether labor and raw materials partially affect production results. Based on the calculation results in table 4.17 the significance value for the effect of labor (X<sub>1</sub>) on production (Y) is 0,000 < 0,05 and value  $t_{count} 3,985 > t_{table} 2,051$ .

The significance value for the effect of raw materials (X<sub>2</sub>) on production (Y) is 0,033 < 0,05 dan  $t_{count} 2,253 > t_{table} 2,051$ . So it can be concluded that statistically labor and raw materials partially have an influence on production results. This indicates that the increase in labor and raw materials can affect the production of a product.

Hypothesis 2

H2 : It is suspected that labor and raw materials simultaneously affect the production of the tofu home industry in Kabunan Village, Balen District, Bojonegoro Regency. This hypothesis aims to test whether labor and raw materials simultaneously affect production results.

Based on the calculation results show a significant value for the effect of labor (X<sub>1</sub>) and raw materials (X<sub>2</sub>) simultaneously on production (Y) is equal to 0,000 < 0,05 and value  $F_{count} 21,893 > F_{table} 3,34$ . So it can be concluded that statistically labor and raw materials simultaneously have an effect on production results. This indicates that the increase in labor and raw materials can affect the production of a product.

#### IV. CONCLUSIONS

The results of the analysis of this study indicate that the variables of labor ( $X_1$ ) and raw materials ( $X_2$ ) partially have a significant effect on production (Y), so that hypothesis 1 is supported in this study. This is evidenced by the partial test results where the significance value for the effect of labor ( $X_1$ ) on production (Y) is  $0,000 < 0,05$  and value  $t_{\text{count}} 3,985 > t_{\text{table}} 2,051$ . For the effect of raw materials ( $X_2$ ) on production results (Y) is  $0,033 < 0,05$  and  $t_{\text{count}} 2,253 > t_{\text{table}} 2,051$ . The results of the analysis of this study indicate that the variables of labor ( $X_1$ ) and raw materials ( $X_2$ ) simultaneously have a significant effect on production results (Y), so hypothesis 2 is supported in this study. This is evidenced by simultaneous testing where the significance value is  $0,000 < 0,05$  and the value of  $F_{\text{count}} 21,893 > F_{\text{table}} 3,34$ .

#### V. ACKNOWLEDGMENTS

The author would like to thank the Head of the Development Economics Study Program, Dean of the Faculty of Economics, Chancellor of Bojonegoro University for his support in this research.

#### REFERENCES

- [1] Arikunto, S. 2006. *Metode Penelitian Kualitatif*. Jakarta: Bumi Aksara
- [2] Henry Simamora, 2004, *Manajemen Sumber Daya Manusia*, Edisi III, STIE YKPN, Yogyakarta.
- [3] Lincoln, Soeratno, 1995, *Metodologi Penelitian Untuk Ekonomi dan Bisnis*, UPPAMP YKPN, Yogyakarta
- [4] Situmorang, Netty Marlina. 2016. *Pengaruh Bahan Baku, SDM, dan Teknologi Terhadap Daya Saing Perusahaan PT. Aquafarm Nusantara (Industri Pengeolahan Ikan Nila) Dengan Kualitas Produk Sebagai Variabel Intervening*. Jakarta : Universitas Terbuka.
- [5] Sugiyono, 2013. *Metode Penelitian : Pendekatan Kualitatif, Kuantitatif dan R&D*. Bandung: Alfabeta.