

ANALYSIS OF FACTORS AFFECTING THE SUPPLY OF RAW MATERIALS IN BREAD PRODUCER MSMEs IN SOUTH TANGERANG CITY

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Abstract

The existence of inventory aims to prevent production activities from being delayed and running smoothly. In raw goods inventory activities, obstacles are felt jointly by bread producers in South Tangerang City which are caused by the lack of capital in bread MSME entrepreneurs. The perceived lack of capital has an impact on the process of inventorying raw materials for production. Then another thing that must also be faced from the lack of capital according to a survey conducted on Bread MSMEs in South Tangerang City in the form of raw material prices and the availability of space for raw material storage so that production can run smoothly without any significant delays. This study aims to (1) analyze the influential factors in raw material inventory and (2) how much these factors affect raw material inventory, especially in bread producer MSMEs in South Tangerang City.

The result of this study is that 3 variables that affect the supply of raw materials, namely capital, raw material prices, and warehouse costs. On the capital variable, the t-test showed a noticeable influence between the capital variable and the raw material inventory at a confidence level of 99.9%. This is because if the capital is not owned by the company, of course, the company cannot carry out its production activities. Then the second variable is the price of materials which has a noticeable influence on the confidence level of <75%. In the third variable, warehouse costs also have a noticeable influence on raw material inventory with a confidence level of 80%. In other words, the variable that most affects the supply of raw materials is the capital variable.

Keywords: Inventory; Raw Materials; MSMEs; Bread

INTRODUCTION

Raw materials are one of several production factors that if not met, production will not proceed according to plan. Another impact caused is a reduction in turnover and profits. This condition if not addressed immediately will affect the health and sustainability of the company. According to a survey conducted on 10 bread producers in South Tangerang City from 20 bakeries recorded at the South Tangerang City Cooperatives and MSMEs Office in 2019, there are several obstacles felt together by bread producers, one of which is the frequent delay in delivery that there is a decline in delivery to some bread consumers. This is caused by delays in purchasing raw materials or running out of stock, causing another long time for the purchase of raw

materials. The lack of capital is felt to have an impact on the process of inventorying raw materials for production, which if activities in raw material inventory are hampered, will hinder the production process as well.

In the case of the companies DK, LS Bakery, and M Bakery, the capital owned to buy raw material supplies exist but in practice the capital is only collected a little because the rest is spread to other consumers who make payments periodically. Especially at the beginning of the month, not too much capital is divided into employees for monthly wages. The fluctuating price of production raw materials is also a trigger for production obstacles. Not only the problem of capital and raw material prices but the lack of raw material storage places also causes MSME entrepreneurs to only provide not too many raw materials in their warehouse. Warehouse costs that have a high value will cut finances for bread production capital.

So, after it was known the problems from the results of the survey, a study was conducted on the analysis of factors affecting the supply of raw materials in bread MSMEs in South Tangerang. Capital is a problem that occurs in every MSME entrepreneur in South Tangerang City. Minimal capital causes MSMEs to be difficult to develop, this is because there will be obstacles in purchasing raw materials and other tools needed in the production process. The second variable is the price of raw materials, where MSME entrepreneurs are very vulnerable to external pressure in the form of prices. The increase in the price of wheat flour raw materials from year to year follows the price of international wheat. The price increase experienced has made bread MSMEs in South Tangerang City reduce the number of purchases at one time so that the intensity of purchases increases which causes a lot of costs incurred for the cost of purchasing raw materials. The last variable is the warehousing factor. The warehouse factor also affects the supply of raw materials. The existence of warehouses is quite important to support the availability of raw materials for production. Warehouses that are not large enough also influence MSME entrepreneurs to not be able to stock up on wheat flour when flour prices are stable.

Based on this background, the formulation of the problem to be studied is (1) How does the capital variable affect the variable raw material inventory on bread producer MSMEs in South Tangerang City? (2) How does the variable price of raw materials affect the variable inventory of raw materials in Bread Producer MSMEs in South Tangerang City? and (3) How does the variable warehouse costs affect the variable inventory of raw materials in MSMEs of Bread Producers in South Tangerang City?

RESEARCH METHODS

Research Location and Time

The research locations are in MSMEs in South Tangerang City, Pamulang District, East Ciputat, Serpong and Pondok Aren. Research in September 2019-June 2020.

Data Types and Sources

The type of data in this study is quantitative. The data sources used in this research are secondary and primary. Primary data were obtained from interviews with bakery MSME owners in South Tangerang. Secondary data in the form of documents from relevant.

Data Analysis

Data analysis was carried out quantitatively using multiple linear regression, classical assumption test, and hypothesis test with the help of SPSS 20. The following model of the regression equation is used:

$$Y = f(X_1, X_2, X_3)$$

Description:

Y = Raw Material Inventory

X₁ = Capital (Rp/Month)

X₂ = Raw Material Price (Rp/Kg)

X₃ = Warehouse Cost (Rp/Month)

Multiple Linear Regression Analysis

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \varepsilon$$

Description:

Y = Raw Material Inventory

b₀ = constant

b₁... b₂ = Regression coefficient value

ε = System error

X₁ = Capital

X₂ = Raw material price

X₃ = Warehouse Cost

ε = Error System

RESULTS AND DISCUSSION

Multiple Linear Regression Analysis Results

The multiple linear regression equation in this study is as follows:

$$Y = -13357646,611 + 1,431 x_1 - 7,128 x_2 - 2,646 x_3$$

Based on the obtained equation, a constant of - 13357646.611 is obtained. The value means that the inventory of raw materials will be worth -13357646,611. The capital coefficient is valued at 1,431 which means that if the capital increases by Rp. 1 Rp per month while the other variables are considered fixed, then the variable raw material inventory (Y) will increase by 1,431 Rp per month. The raw material price coefficient is -7,128, which means that if the raw material price variable increases by 1 Rp/kg while other variables are considered fixed, then the raw material inventory independent variable (Y) will experience a reduction of 7,128 Rp/kg per month. The coefficient of warehouse costs is worth - 2,646 which means that if the warehouse cost variable increases by 1 Rp / Mo, then the variable independent raw material inventory (Y) will decrease by 2,646 Rp per month.

Capital factors in influencing the availability of Raw Materials

The capital factor is suspected to have an influence on the supply of raw materials for bread MSMEs in South Tangerang City. The capital variable has a t value of 17.825 and a t table of 4.318 so the t value > t table is 17.825 > 4.318 which means reject H₀ and accept H₁. The capital variable has a real influence on the supply of bread raw materials in South Tangerang City at a confidence level of 99.9%.

Atmaja (2008:19) stated that capital is the funds used to read the procurement of company assets. So that capital greatly affects the number of raw materials that will be available in the warehouse. If capital is not available, then raw materials will also not be available. In the bread MSME company in South Tangerang City, capital also greatly affects the supply of raw materials in the company. Therefore, because capital greatly affects the supply of raw materials, bread MSMEs in South Tangerang City are very dependent on the availability of capital for the purchase of raw materials.

Raw Material Price Factors in Influencing Raw Material Inventory

Based on the results of the calculation of each independent variable. The following will describe each of the variables of capital, raw material prices, and warehouse costs with a known large value of 0.702 at a confidence level of 75%. Testing by means that if the magnitude of the value of t counts $> t$ of the table, there is a positive influence between the independent variable and the dependent variable. The raw material price factor is suspected to have an influence on the supply of raw materials for bread MSMEs in South Tangerang City. Variable raw material price has a t value of 0.223 and a t table of 0.702 so the t value $< t$ table is $0.223 < 0.702$. So that reject H_0 and accept H_1 , the variable price of raw materials significantly has a real influence on the supply of bread raw materials in South Tangerang City at a confidence level of $> 75\%$. The minus value on the calculated t signifies a relationship in the opposite direction between the price of raw materials and the supply of raw materials. So that if the supply of raw materials increases, the price of raw materials will decrease.

Ma'arif (2003: 274) The price of raw materials purchased is one of the determinants of raw material procurement policy because the price of raw materials will determine how much quantity of raw materials will be purchased or provided by the company in the provision of raw materials other than capital. From the results of interviews with respondents of bread producers in South Tangerang City, the price of raw materials determines how much, or quantity of raw materials will be purchased. If there is an increase in prices, bakery producers will reduce the number of purchases of raw materials, and vice versa.

Warehouse Cost Factors in Influencing Raw Material Inventory

The result t counts from each of the independent variables. The following will describe each of the variables of capital, raw material prices, and warehouse costs with a known magnitude of 1.356 with a confidence level of 80%. Testing by means that if the magnitude of the value of $t > t$ table, there is a positive influence between the independent variable and the dependent variable.

The warehouse cost factor that is suspected to have an influence on the supply of raw materials for bread MSMEs in South Tangerang City is warehouse costs. The warehouse cost variable has a t value of 1,473 and t table of 1,356, so that value $> t$ table is $1.473 > 1.356$. So that rejecting H_0 and accepting H_1 , namely the variable cost of warehouses, has a real influence on the supply of bread raw materials in South Tangerang City at a confidence level of 80%. The minus value on the t calculate on the warehouse cost variable also signifies a relationship in the opposite direction between warehouse costs and raw material inventory. So that if the supply of raw materials increases, warehouse costs will decrease based on warehouse maintenance costs that remain the same every month.

According to a study conducted by Nur Islami with her research entitled "Factors affecting the supply of rubber raw materials at PT. P&P Bargaining" the factor that affects warehousing is very large in the handling of goods, namely in the layout of the goods. The activities in this warehouse are serving the demand for raw materials to be processed with the advantage of reducing the length of time on the way to the point of sale and looking for the desired raw materials. The warehouse factor is also very important because it makes it easier for companies to be on time in meeting market demand and achieving sales targets. However, most MSME companies do not pay much attention to this.

Bread MSMEs in South Tangerang City mostly calculate their warehouse costs by combining them with other costs because usually the warehouse used is mixed with the room used daily such as utilizing their car garage or home warehouse. There is also one MSME that is the source they do not use the warehouse so that the cost of the warehouse used is zero. This is a consideration because the distance between the source of raw materials and the place of production is very close. The owner chooses to buy each raw material once every 3 days for the use which is not too expensive when compared to renting a warehouse.

CONCLUSIONS AND SUGGESTIONS

The variable that has the most influence on this study is the capital variable. The real effect of the capital variable is higher than the variable raw material price and warehouse costs with a confidence level of 99.9%. Among the three variables that have a positive relationship with the variable of raw material inventory is the variable capital.

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