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IMPLEMENTATION OF SALES PLANNING AND CONTROL OF RAW MATERIALS FOR THE CURRENT PRODUCTION PROCESS IN WINGKO COMPANY BAMBANG INDRAAYA BABAT LAMONGAN

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Abstract - *Raw material control is the control carried out to carry out the production process at the company. Raw material control is very important. so that there is no delay in the availability of raw materials, the company must determine the supply of raw materials properly. The purpose of writing this scientific paper is to determine the implementation and control of raw materials for the smooth production process. In writing this scientific paper, the writer uses three methods, namely the interview method, the observation/observation method, and the literature study method. The results and conclusions of this scientific work can determine the sales plan for the future, it can be seen that the Wingko Bambang Indrajaya company produces the same sales composition as the previous year. The sales plan in 2021 is 132,000 while in 2020 it is 130,900 so the sales before and after being analyzed are the difference of 2,000 bags. The production process carried out by Wingko Bambang Indrajaya Babat is a continuous production process, this can be seen from the course of the production process, where the available materials are sufficiently used according to the work schedule, as well as keeping the flow of materials through the work steps. which exists. So that with a continuous production process or continuously will produce quality goods, namely wingko.*
Keywords: raw material control, sales planning

1. INTRODUCTION

Every company was founded with the aim of making a profit, in getting this profit, of course, the company must make a plan in advance because profits cannot be obtained without going through several company operating activities whose planning is standard. Thus planning must be prepared by every company both planning short term and long term. To ensure that the plans that have been set by the company can be implemented and achieve the objectives, it is necessary to have supervision, because after all a good plan without supervision is most likely not going well. As for one of the supervision to achieve the goals that have been set is budgeting which is part of the planning. Budget is one form of planning that is very effective, because in the budget there is an integrated planning and control system mechanism.

Planned control of an activity is a basic characteristic of modern industry because basically effective control over people, materials, machines and money is a very important aspect for the survival of the company. In line with the development of a company, it is necessary to face the factors mentioned above.

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2. RESEARCH PROCEDURE

This research includes quantitative research because this method has been used for a long time so that it has become a tradition as a research method. Descriptive method is a method of examining the status of a human group, an object, a condition, a system of thought, or a class of events in the present.

The data obtained, then rearranged, grouped according to the purpose of the data analysis used is an analysis with quantitative methods, namely the analysis used to connect two or more variables which are expressed in mathematical form or in the form of numbers.

Adi Sapuptro, Gunawan and Marwan Asri (1998:159), in the calculation and data processing the following formula is used

Sales planning

The sales budget can be prepared using the trend equation as follows:

Y: a + bx

To project this trend line, the least square method is used.

By formula

$a=(\sum y)/n$

$b=(\sum xy)/(\sum x2)$

Where :

y= sales rate

a= value of y if x= 0

b = the magnitude of the change in the variable y that occurs for every change in one unit of the variable x

x= time period

n = number of data

Production planning

Sales	xx	
Ending inventory	xx-	
Total	xx	
Beginning inventory	xx+	
Budget		xx

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Raw material planning	
Raw material requirements	
Production plan (from production budget)	xx
Standard usage per unit of raw material	xx
Raw material requirements (in units of weight)	
inventory of raw materials in units of money	
Raw material requirements (from production budget)	xx
Ending inventory	xx+
number	xx
beginning inventory	xx
Raw materials to be purchased in units of weight	xx
purchase of raw materials in units of money	
Raw materials to be purchased (in units of weight)	xx
Purchase price of raw materials (per unit weight)	xx-
Purchase of raw materials (in units of money)	xx

calculate the most economical purchase

to calculate the most economical purchase using the formula:

EOQ=√(2xRxs/pxl)

Where

EOQ= economic order quantity

R = raw material requirements for a certain period of time

s = ordering cost

p = unit cost of raw materials To determine the maximum inventory level

I = storage cost expressed in percentage and average inventory.

Calculating reorder points

To calculate the reorder point using the formula

ROP =(LixAU) +SS

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Where :

ROP : Unit value of raw materials purchased or reordered.

LT : Lead Time, which is the period of time required from the time an order is placed until the arrival of the ordered raw materials.

SS:Safety stock, which is the minimum inventory that is newly owned

AS : Average stock, is the average requirement

Determine the maximum inventory

To Determine the maximum inventory level is used.

Using the formula:

MS=SS +EOQ

M : maximum inventory level, which is the maximum amount that does not need to be added

EOQ : Economic order quantity

SS : Safety stock (safety stock)

3. RESULTS AND DISCUSSION

Discussion and analysis of data is an attempt to present ways to solve problems that are being faced by Wingko Bambang Indrajaya Babat Lamongan Company at this time, before proceeding further to the company, the data used in problem solving efforts will be presented as follows:

Table 1

Hypothesis Test Results

Year	Production	Sales	Remainder
2018	156.000	127.200	28.800
2019	156.000	129.900	26.100
2020	156.000	130.000	25.100

Source: Wingko company, Bambang Indrajaya, Tripe Lamongan

Evaluation of Problem Solving Alternatives

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a) Determine the number of products to be produced.

Namely the determination of the number of products based on the results of a sales plan or the size of the sales plan is determined as a result of the product to be implemented.

b). Prepare a badge for raw material needs

This badget is a plan regarding the amount of raw materials that will be used in production, how to calculate the number of wingko to be produced and how much raw material is used in each production process.

c). Prepare Badget for Purchase of Raw Materials.

This badget is a continuation of the raw material needs budget, where the purchase of raw materials is based on the amount of raw material that has been budgeted or planned so that the amount of raw materials purchased is in accordance with what is needed, thus the possibility of a buildup of raw material inventory that can be avoided.

In making purchases of raw materials, the company cannot be separated from or always pays attention to:

d). Prepare Raw Material Inventory Budget

In preparing the raw material requirement budget and the raw material purchase budget, it is seen that the problem of the value of the initial inventory and ending inventory of raw materials is always taken into account. One of the objectives of preparing a raw material inventory budget is to control uncontrolled raw materials, because uncontrolled raw material supervision will endanger the company.

e). Prepare Budget for Consumed Raw Materials

Not all of the available raw materials are used up for the production process, this is due to iron stock and ending inventory. Raw materials that are used up for the production process must be calculated in value

Discussion

Step _ Troubleshooting Steps

To be able to realize the solution to this problem, several steps are needed. And this problem solving step is from the best alternative with the hope that this alternative will be able to overcome the problems that exist in the Wingko Bambang Indrajaya Babat company.

The steps for solving problems in the company are as follows:

a) Determine the number of products that must be produced.

b. Prepare a budget for the purchase of raw materials.

c. Prepare a budget for the purchase of raw materials.

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d. Deciding on an economical purchase

e. Determine iron stock / safety stock.

f. Determine the reorder point.

Testing Steps - Solving Steps

a) Determine the number of products to be produced

As previously stated, the determination of the number of products to be produced is done by planning future sales and then determining the results to be produced.

The calculation method will use the least query method as follows:

Table 2

2021 sales plan

(in bag)

Year	**Sales**	X	XY	X^2
2018	127.200	-1	-127,200	2
2019	129.900	0	0	0
2020	130,900	1	130,900	2
Amount	388,000	0	3,700	4

Equality

$Y = a+bx$

$a = \text{number of } Y$

n

$b = \text{sum } YX$

n

So the number to be sold in 2021 is 194,925 bags and this amount will be used and defined as the number of products to be produced. And then compile a production budget from the amount of production that has been set. Information

The sales plan in 2021 is 132,000 while in 2020 it is 130,900 so the sales before and after being analyzed are the difference of 2,000 bags.

For more details, it has been presented as shown in the following table:

Information	Wingko produced

Journal of Industrial Engineering & Management Research
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Information Sales plan Ending inventory	132.000 394.041.200
Initial inventory	394.054.400 106.314
Production quantity	393.948.086

Table 3
2021 Raw Material Needs Budget
(in bag)

,

Month	**Day**	**Coconut (grain)**	**Sugar (kg)**	**Glutinous Rice Flour (kg)**
Januari	30	6.240	1.040	832
Februari	30	7.500	1.250	1.000
Maret	30	6.900	1.150	920
April	30	6.240	1.040	832
Mei	30	7.500	1.240	1.000
Juni	30	7.800	1.250	1.040
Juli	30	6.120	1,300	816
Agustus	30	6.900	1.020	920
September	30	6.240	1.150	832
Oktober	30	6.900	1.040	920
November	30	6.240	1.040	832
Desember	30	7.200	1.200	960
Jumlah	**360**	**81.780**	**13.630**	**10.904**

Source: Wingko company, Bambang Indrajaya, Tripe Lamongan

This budget is prepared with the aim of

Raw material requirement plan per day

Coconut 200 grains = 1,400,000

Sugar 23 Kg = 368.000

Glutinous Bers Flour = 30 Kg 345.00 Thus the amount of raw materials in 2021 that must be purchased or needed can be calculated as follows:

Coconut = 83,460 grains

Granulated Sugar = 13. 910 Kg

Glutinous Rice Flour 11,128 Kg

Total of all raw materials = 108,490

Based on past experience and historical data, to calculate economic purchases it can be known

The cost of each time the purchase of raw materials Rp.2.113.000

Storage costs 10% of average inventory

Economical raw material requirement in 2021 is 108,490

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Prices of raw materials in 2021
Coconut = 7,000
Sugar = 16.000
Glutinous Rice Flour = 11.50
Thus EOQ can be calculated as follows:
EOQ = 2 x Rx S
P x I
Information :
R = Amount of Raw Materials needed
S = Cost per order
P = Price per kg of raw materials
I = Average storage cost
supply
EOQ
For Coconut
= y2x108,490x2.113,000
10 x 7000
=y458,478,740
For Granulated Sugar
= y 2x108,490x2.113,000
10 x 16.00
= y733.565.984
For Glutinous Rice Flour
=y2x108,490x2.113,000
10 x 11,500
= y 527.50.551
total 1,749,295,275
3
=583,098,425
Based on the EOQ calculation, it can be known or determined how many times to buy raw materials, then it can be calculated
= Total requirement
Amount of each purchase
= 108.409
583,098,425
= 1 cal

On the basis of the above calculations, it is better if Wingko Bambang Indrajaya Babat Lamongan Company makes a purchase

The purpose is to determine the most appropriate time to make a purchase or purchase or reorder for the purchase of the raw materials needed
reorder points

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= usage during grace period + net inventory
= 5,868 + 112,300
= 118.168

Each company established has the same goal, namely to obtain results or profit as well as the Wingko Bambang Indrajaya Babat Lamongan Company. By carrying out the solution steps that have been proposed, the company will obtain several results or benefits, including the following:

1. By determining the amount of production to be produced on the basis of the sales plan, the company can find out the number of goods to be produced.
2. The amount of raw material needs that will be used in the production process can be clearly identified so that the company can adjust the needs according to usage.
3. Purchases can be made in accordance with the required quantity. so that there will be no accumulation of raw material inventory in the production process
4. The company knows how much it costs to provide for the production process.

Production And Production Process

The production process carried out by Wingko Bambang Indrajaya Babat is a continuous production process, this can be seen from the course of the production process, where the available materials are sufficiently used according to the work schedule, as well as keeping the flow of materials through the work steps. which exists. So that with a continuous production process or continuously will produce production goods, namely quality wingko

The stages of the product process as for the raw materials are as follows:

A. Basic ingredients

Materials that are directly used in the production process, namely, among others:

1. Glutinous flour

Which is the main ingredient obtained by the company from flour traders in the market

2. Coconut

The ones used are also obtained from the nearest market

3. Sugar

Granulated sugar is the sweetener for wingko. The granulated sugar used by this wingko company is ordinary granulated sugar which is sold in shops close to the company.

B. Auxiliary materials

Is a material that indirectly helps complement the basic materials to produce finished goods consisting of:

a. Banana leaf
b. firewood
c. plastic bag
d.Wingko wrapping paper
e. Glue to wrap wingko

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a. mixing process

Before the mixing process begins, the coconut must be removed from the shell or skin, after that the coconut is washed clean until there is no sap. baking pan or put in the furnace for the first stage about 30 minutes then turned over and put again.

b. Oven Process

This process takes a little longer because in this process the finished wingko dough is placed on a baking sheet and baked on the stove and then has to be turned back and forth for maximum results.

c. gluing process

After finishing the next oven process, the gluing process, this gluing process is carried out by female workers. In this process we can find out how many pockets the company produces wingko.

Production result

The result of production at this company is that it only produces one kind of product, namely Wingko Bambang Indrajaya tripe.

Price Policy

In determining the selling price, the Wingko company, Bambang Indrajaya, sets the selling price based on the price of raw materials, if the raw material increases, the selling price also increases, but the wingko company does not set a price for agents to sell to consumers, which is important for mutual benefit, the company earns profit. profit.

Determination of Quality Standards

In the implementation of quality control, the determination of product quality standards plays an important role because it is expected that the resulting product can be in accordance with what is desired. Meanwhile, the production quality standards are as follows:

a) Glutinous flour

The glutinous rice flour used must be of good quality and has not been exposed to fleas and is still clean.

b) Coconut,

The coconut used must be good and not rotten.

c). Sugar

The granulated sugar used must be of good quality.

Implementation of inspection (inspection)

The inspection carried out by wingko company Bambang Indrajaya Babat Lamongan on the course of the production process, starting from raw materials until the product is finished processing. Quality inspection is only carried out on some of the raw materials or only for finished goods. Because the inspection of the goods used in the production process, the inspection at the Wingko Bambang Indrajaya Babat Lamongan company includes direct inspections carried out by the production department on the production process and from raw materials to finished materials.

Production Sales

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In selling its products, the Wingko company initially only covered areas in the provinces of East Java, but with the development of the company and the increasing consumer demand for the Wingko company and after getting a muri record, Bambang Indrajaya's wingko company was able to develop its marketing not only in the regions but throughout East Java.

a. Problems faced by the company

Company problems occur because of obstacles in achieving company goals, where obstacles that become problems require immediate action to overcome and eliminate them so that company goals can be achieved so that problems faced by companies can be resolved quickly and correctly so that companies can carry out the production process properly and efficiently. fluent.

b. Cause of Problem

In the previous description of the problems that will be faced by the company along with the data to prove it, then next look for the cause of the problem, because the problem must be shown so that a way can be found to solve the problems faced by the company as for the causes of the problem are as follows:

1). There is no planning for the production process

2). There is no preparation of raw material badges for the production process

3). The company has not determined the method for determining the inventory of raw materials.

4. CONCLUSION

Based on the analysis and discussion above, it can be concluded as follows

1. To be clearer, from the budget in table 5 it can be seen that the Wingko Bambang Indrajaya company produces the same sales composition as the previous year

a. 2021 Sales Plan = 132,000

b. Ending inventory

Coconut = 584,220,000

Granulated Sugar = 222.560.000

Glutinous Rice Flour = 127,972,000

Quantity = 208,650,000

c. Beginning inventoryCoconut = 83,460

Granulated Sugar = 13.910

Glutinous Rice Flour = 11.128

Quantity = 108,498

Information

The sales plan in 2021 is 132,000 while in 2020 it is 130,900 so the sales before and after being analyzed are the difference of 2,000 bags.

2. The production process carried out by Wingko Bambang Indrajaya Babat is a continuous production process, this can be seen from the course of the production process, where the available materials are sufficient to be used in accordance with the work schedule, and to keep the flow of materials through the following steps: existing job steps. So that with a continuous production process or continuously will produce quality goods, namely wingko.

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In the stages of the Wingko production process, the Wingko company requires raw materials, auxiliary materials and machines in the production process as for the raw materials and auxiliary materials and the machines used are as follows:

A. Basic ingredients

Materials that are directly used in the production process, namely, among others:

a. Glutinous rice flour

Which is the main ingredient obtained by the company from flour traders in the market.

b. Coconut

The ones used are also obtained from the nearest market

c. Sugar

Granulated sugar is the sweetener for wingko. The granulated sugar used by this wingko company is ordinary granulated sugar which is sold in shops close to the company.

B. Auxiliary materials

Is a material that indirectly helps complement the basic materials to produce finished goods consisting of:

a. Banana leaf
b. Firewood
c. plastic bag
d. Wingko wrapping paper
e. Glue to wrap wingko

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