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PRODUCTION COST CALCULATION ANALYSIS USING VARIABLE COSTING METHOD

Ella Anastasya Sinambela, Didit Darmawan

University of Sunan Giri Surabaya

correspondence: easinambela@gmail.com

Abstract- *Information on the cost of goods manufactured is calculated for a certain period of time useful for management. determine the selling price of products, monitor the realization of production costs, calculate periodic profit or loss, determine the cost of goods inventory of finished products and products in process presented in the balance sheet. This will then serve as the basis for setting the selling price as well as a tool to monitor the realization of production costs and guide business decision making. This study will analyze the company's production costs with a variable costing approach. The type used in this study is qualitative, namely a description of the object of research and quantitative, namely in the form of the production process, types of production, company production cost reports obtained from the Roti Maknya company in Mojokerto. Based on the calculation of the variable costing method obtained different results with calculations made by the company. By using a calculation through a variable costing approach, the total production cost is obtained which is lower than the calculation made by the company. The Baking Company should use the calculation using the variable costing method, because in this variable costing method only all costs related to the production process are calculated, while in the real calculation the company costs are also calculated.*

Keywords: production cost, variable costing, direct material, direct labor,manufacturing overhead.

INTRODUCTION

In this increasingly modern era, competition between businesses in the economic field has been very pronounced. Every company is also required to be able to run the company very well. Of course, in all manufacturing enterprises the calculation of production costs must be observed. Production costs are one part of the internal steps taken by the company in an effort to improve efficiency. Cost control must mainly be aligned with the goals to be achieved by the company, one of the goals to be achieved by the company is to obtain maximum profit by issuing the lowest costs, therefore by controlling production costs the company hopes to get a large profit.

Cost accounting has three main objectives, namely determining the cost of goods, controlling costs and making special decisions. To fulfill the purpose of determining the cost of goods, cost accounting records, classifies and summarizes the costs of making products or delivering services. The cost of goods produced is a collection of costs incurred to obtain and process raw materials until they become finished goods. In the collection of production costs are largely determined by the way of production, namely production on the basis of orders and mass production (Kee & Schmidt, 2000).

Production costs are a number of economic sacrifices that must be sacrificed to produce an item (Louderback & Patterson, 1996). Production costs are also costs that are used in converting raw materials into finished goods. This production cost usually consists of three elements, namely direct raw materials, direct labor and factory overhead. Where direct raw materials are all raw materials that form integral parts and finished products and are included in the excerptical manner in the calculation of the cost of products. Direct labor is labor that carries out the conversion of raw materials directly into finished products and can be properly charged to a particular product, while factory overhead is all manufacturing costs that are not traced directly to a specific output. This cost of production is also an important element in the calculation of the cost of goods produced. The cost of goods produced aims to determine the amount of profit to be achieved by the company in an accounting period (Sinambela, 2020). Therefore, for manufacturing companies, production costs are an important factor in the success or failure of the company in terms of finances.

Information on the calculated cost of goods produced for a certain period of time is beneficial for management to. determining the selling price of products, Monitoring the realization of production costs, calculating periodic profits or losses, determining the cost of goods on inventory of finished products and products in the process presented in the balance sheet (Weiss, 2010). In the presence of cost allocation, the resulting product reflects the total cost of production as a whole. If the allocation can be done correctly, then the calculation of the cost of goods produced can also be done correctly so that it can be used for profitability analysis and facilitates decision making (Sinambela, 2011).

In calculating the elements of production costs, there are two approaches that can be used, namely full costing and variable costing (Lockamy, 2003). This variable costing method is known as direct costing. This term is not actually related to direct costs. In the variable costing method, fixed factory overhead costs are treated as an element of the cost

of goods produced so that factory overhead costs are still charged as costs in the period of occurrence (Boyd & Cox, 2002). Thus, the fixed factory overhead costs withthe variable costing method are not attached to the inventory of products that have not been sold, but are directly considered as costs in the period of occurrence. The variable costing method is widely applied for internal reporting purposes, because this method is considered consistent with the assumption of cost behavior that is often used in management decision making.

At the Roti Maknya Mojokerto company, the cost of production is calculated in detail. The author in this case wants to analyze the production costs of the company with a variable costing approach. Because judging from the calculation method, variable costing is more practical. Based on the background of the problem, the author gives the title of this study to analyze the calculation of production costs using a variable costing approach to the producer of Maknya Mojokerto Bread.

RESEARCH METHODS

The type of data used in this study is quantitative data in the form of a list of variable costs and company fixed costs year. The techniques used in this study are documentation and interviews. The data analysis method used in this study is a quantitative descriptive method, which is a method of discussing problems that are in the nature of describing, describing, comparing a data or situation, and writing and explaining a situation in such a way that it can draw conclusions. For data analysis techniques is to make observations to the company to find out what calculation methods the company uses in determining production costs. Next, take data on costs from the company and calculate costs based on the variable costing method.

RESULTS AND DISCUSSIONS

Because of the special orders received by this company, the classification of costs on the basis of cost behaviors in the company should be used. The costs in the Roti Maknya company are divided into three major groups, namely direct material costs, direct labor costs, and factory overhead costs. The direct cost of ingredients for producing bread is not so religious. The cost of its direct ingredients consists of: flour, sugar, chocolate, eggs, butter and yeast. The following are the prices and uses of raw materials in one month of the Roti Maknya company.

Table 1
Direct Material Costs

Raw Materials	Price	Total per Month	Total in IDR
Egg	21,000/kg	1000	21.000.000
Flour	168,000/25kg	1550	260.400.000
Sugar	610,000/50kg	225	137.250.000
Chocolate Paste	30,000/kg	10000	300.000.000
Cheese Paste	35,000/kg	5000	175.000.000
Butter	181,000/15kg	325 doses	58.825.000
Yeast	22,000/pack	125	2.750.000
Total			955.225.000

Direct labor costs According to the Maknya Bread Company, direct wages are the total amount of wages paid to employees working in the production department from the processing of raw materials to becoming finished goods. The amount of the wage rate is determined according to the policy of the company. And the company took a policy to provide wages to employees of IDR 60,000 / day. The number of workers = 48 people. Employee status = permanent employees 12 people and contracts 36 people.

In Maknya's company there are 48 people involved. There are 36 of them are direct workers. The wages for this direct labor are calculated every day, and the wages per day of direct labor are IDR 60,000 per person. For this reason, the labor costs per month are:

a. Wages per day x number of working days in a month IDR 60,000 x 26 days = IDR 1,560,000 So, for direct labor costs per month is 36 people x IDR 1,56,000 = IDR 56,160,000 Wages per month

b. A total of 12 indirect workers spends IDR 32,500,000 as indirect labor costs per month.

Table 2
Maknya Bread Personnel

No.	Position	Sum
1	Manager	1
2	Head of Production	1
3	Head of Finance	1
4	Head of Marketing	1
5	Subsectionof Personnel	1
6	Subsection ofProcurement	1
7	Subsection of Administration	1
8	Subsection of Shipping	1
9	Production Employees	17
10	Employee Packing	15
11	Delivery Employees	2
12	Marketing Force	2
13	Employee Hygiene	2
14	Security	2
		48

Factory Overhead Costs The factory overhead costs in the Bakery Company are the costs of auxiliary materials such as paper packs, plastic wrapping, electricity costs, telephone, fuel, water, factory equipment, factory maintenance.

Table 3
Factory Overhead Costs

OHC	Fixed	Variable	Total
Indirect ingredients		5.400.000	5.400.000
Indirect labor wages	32.500.000		32.500.000
Factory fixtures	27.350.000		27.350.000
Electricity		5.750.000	5.750.000
Fuel		6.700.000	6.700.000
Water		760.000	760.000
Phone/credit/WIFI		2.300.000	2.300.000
Depreciation/repair of the machine	129.000		129.000
Insurance	3.000.000		3.000.000
Total	62.979.000	20.910.000	83.889.000

1. Calculation of The Company's Real Production Costs

In the Roti Maknya company, the company uses detailed calculations of production costs. In this case the company charges all elements of production costs on the basis of actual costs. The following is the determination of the price of production costs based on the real calculations of the Roti Maknya company.Company Real Calculations

a. Direct Material IDR 955.225.000
b. Direct Labor IDR 56,160,000
c. Variable Factory Overhead IDR 20.910.000
d. Fixed Factory Overhead IDR 62,979,000
e. Production Cost IDR 1.095.274.000

2. Calculation of Production Costs using a variable costing approach

In determining the production costs in the Roti Maknya company, it only imposes elements of production costs that are variable. As for the elements of variable costs, they are direct material costs, direct wage costs, and variable overhead costs. The charge of production costs is carried out based on historical costs or actual costs that occur.

Based on the existing theory, factory variable costs should preferably be charged based on existing overhead cost rates, since it is not possible to measure the exact variable overhead costs that a product should be charged. In addition, by using existing overhead cost rates, standards and cost budgets can be drawn up for the purposes of supervision and work efficiency.

Allocation of overhead costs according to the existing theory. From the results of the analysis that has been carried out, the following author will calculate the cost of goods produced using variable costing

a. Direct Material IDR 955.225.000

b. Direct Labor IDR 56,160,000
c. Variable Factory Overhead IDR 20.910.000
d. Total Variable Production Cost IDR 1.032.295.000

So, the difference in calculations between the company's real calculations and variable costing can be clearly seen in the following table:

Table 4.
Comparison of Production Costs with Variable Costing Method

Information	Real Company	Variable Costing
Direct ingredients	IDR 955,225,000	IDR 955,225,000
Direct labor	IDR 56,160,000	IDR 56,160,000
Variable Factory Overhead	IDR 20,910,000	IDR 20,910,000
Fixed Factory Overhead	IDR 62,979,000	
Total	IDR 1,095,274,000	IDR 1,032,295,000

The calculation of the variable costing method obtained different results from the company's calculations. Calculations using real company results are obtained per month IDR. 1,095,274,000 while using variable costing calculations obtained monthly results of IDR. 1,032,295,000.

CONCLUSIONS

Based on the calculation of the variable costing method that has been made by the author, different results are obtained from the calculations made by the company. Using calculations with a variable costing approach, the total cost of production is obtained which is lower than the calculations carried out by the company, namely IDR. 1,032,295,000 using variable costing calculations and IDR. 1,095,274,000 using real calculations made by the company. There is a main difference between the company's real calculation and the calculation of variable costing, which lies in the treatment of factory overhead costs. The company's real calculation uses the calculation of fixed and variable factory overhead costs while the variable costing method only calculates variable overhead costs.

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