

## ANALYSIS OF THE CALCULATION ON COST OF PRODUCTION AT NARD SUPPLY COMPANY

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### ABSTRACT

The purpose of this study is to analyze the Cost of Good Manufactured (COGM) to determine the selling price of products by comparing calculating of COGM method and Full Cost method that used by Nard Supply. The data used is primary data in the form of interviews, observations, and documentation. The results of this study concluded that the comparison of each method calculated resulted in different COGM. The results of the calculation of COGM using the full cost method resulted in a higher selling price of 69,358 IDR. The company's calculation result is 56,136 IDR. Then a difference of 13,222 IDR is obtained. Based on COGM obtained, it can be concluded that the calculation of the COGM using the full cost method is better than the company's calculation.

**Keywords:** Cost Accounting, Cost of Good Manufactured, Full Costing

### 1. INTRODUCTION

In the modern era of globalization, the economic growth of large and small businesses is growing very rapidly with the aim of obtaining maximum profit. In Indonesia, there are several types of business industry sectors, one of which is Micro, Small and Medium Enterprises which play an active role in the economic welfare of the community. Micro, Small and Medium Enterprises are businesses that have a small initial capital or small value of assets and a small (limited) number of workers, the value of capital (assets) or the number of jobs according to the definition given by the government or other institutions with specific objectives (Sukirno, 2004).

One of the sources of problems faced by MSMEs is the weakness in providing financial recording and management information in the form of reports. In the absence of proper financial records, this will make it difficult for MSMEs to make financial reports and can have an impact on making inappropriate decisions for business operations. Business profit will be obtained if a business is able to market its products at an affordable price but still of high quality, so that the costs incurred can be covered properly, and will get profits according to the target, and be able to compete with the selling price of products from other business actors (Hayat & Sulistiyo, 2019).

There are several things that need to be determined so that a business can get maximum profit, namely determining the selling price of the product. Selling price is the production cost submitted by a business to customers for a product that requires consideration in making decisions regarding its determination. MSMEs must calculate COGM which includes the price of raw materials, factory overhead costs, and labor costs which can be calculated using various methods, one of which is full costing. Full costing is a method of determining production costs that takes into account all elements of production costs into production costs, both variable and fixed (Mulyadi, 2014).

One of the businesses engaged in convection is Nard Supply. This convection began accepting orders for making t-shirts and screen printing clothes from 2021. So far, Nard Supply convection still uses simple methods and does not make detailed records such as spending on building rental costs, equipment costs, depreciation costs, telephone / wifi costs, electricity costs, and consumption costs that are not allocated to the calculation of factory overhead costs charged to the calculation cost of good manufactured. In addition, the seller does not set a target to take how many orders per month. There is an increase in certain months or a large number of orders at one time so that the amount of direct and auxiliary raw material costs used adjusts to the number of shirts needed for each order.

Calculation of the correct COGM is very helpful to run management better, get maximum profit, and can help with decision making. The correct cost of good manufactured can be calculated if the company carries out good financial recording and management, so this convection is suitable for using the full costing method.

### 2. LITERATURE REVIEW

#### 2.1 Understanding Cost Accounting

Cost accounting is a branch of accounting science regarding cost management that provides cost information for a company or organization. Company internal parties really need precise and accurate cost calculations and information in order to gain profits by reducing costs effectively and efficiently so that input can be smaller than output. (Martin, 2022)

Based on the definition above, it can be concluded that cost accounting is the process of identifying, recording and analyzing costs to be reported in order to obtain accurately for decision making.

## **2.2 Understanding Cost of Good Manufactured**

Cost of Good Manufactured is all costs incurred to produce goods or services during the relevant period. In other words, COGM is the cost of obtaining finished goods that are ready to be sold. (Mulyadi, 2015).

Based on the definition above, it can be concluded that COGM is a collection of costs that are sacrificed starting from raw material costs, direct labor costs and factory overhead costs for processing from raw materials to finished goods during a certain period.

## **2.3 Benefits of Cost of Goods Production**

1. Determine the selling price of the product. Companies that produce and process their products to meet inventory in the warehouse, thus production costs are calculated over a certain period of time to produce information on production costs per product unit. In determining product selling prices, production costs per unit are one of the data considered in addition to other cost data and non-cost data.
2. Monitor the realization of product costs. Management requires information on actual production costs incurred in implementing the production plan. Therefore, cost accounting is used to collect information on production costs incurred within a certain period of time to monitor whether the production process consumes total production costs according to those previously calculated.
3. Calculate the period's profit or loss. To find out whether the company's production and marketing activities in a certain period are able to produce gross profits or result in gross losses, management needs information on production costs that have been incurred to produce products in a certain period. Periodic gross profit or loss information is needed to determine the product's contribution to covering non-production costs and generating profit or loss.
4. Determine the cost of inventory of finished products and products in process which are presented in the balance sheet. When management is required to make periodic financial accountability, management must present financial reports in the form of a balance sheet and profit and loss statement. In the balance sheet, management must present the cost of finished product inventory and the cost of goods that are still in process at the balance sheet date. (Mulyadi, 2015)

## **2.4 Elements of Cost of Good Manufactured**

1. Raw material costs are the costs of acquiring all materials that will ultimately become part of the cost object (work in process and then finished goods) and that can be traced to the cost object in an economical way.
2. Direct labor costs or direct wages are costs paid to direct labor. The term direct labor is used to designate workers (laborers) who are directly involved in the process of processing raw materials into finished goods.
3. Factory overhead costs are all costs that are related to a cost object but cannot be traced to the cost object (goods in process and then finished goods) in an economical way. (Dewi and Kristanto, 2015)

## **2.5 Calculation Method for Cost of Good Manufactured**

The method for determining the cost of production is a way to include costs in COGM, there are 2 approaches, namely:

1. Full costing is determining the cost of a product which takes into account all elements of production costs, namely raw materials, direct labor costs, and variable and fixed factory overhead costs.
2. Variable costing is determining the cost of a product which only includes variable production cost elements.

## **2.6 Accumulated Production Costs**

There are 2 methods of accumulating production costs which are the basis for determining and calculating the cost of production, namely:

1. Order Cost Method

This method of accumulation based on orders is a method of collecting basic costs when costs are collected for each order or contract or service separately and each order or contract can be identified separately.

## 2. Process Cost Method

In the cost cost method the process focuses on departments within the factory or cost centers and the production process. This method accumulates cost data based on the departments where production occurs.

## 3. RESEARCH METHOD

The object used in this research is Nard Supply Company in Tanah Baru area, Beji, Depok which has been established since 2019. This convection place produces and sews shirts at affordable prices and there is a willingness from the owner to provide the necessary data.

The types of data used in this study are qualitative data in the form of oral and written about the description and production activities of convection and quantitative data in the form of figures on the production costs of convection Nard supply convection for the period September 2023. The data source used in this research is primary data, namely data through interviews and observations with the owner of Nard Supply.

The techniques used in collecting this data are:

### a. Interview

In collecting research data, the author conducted questions and answers with informants or owners to obtain information in the form of costs that would be calculated and work on the production process.

### b. Observation

Observation is a data collection technique carried out through direct observation. The author made on-site observations to see directly the conditions of the work environment, materials used, processing of raw materials, labor productivity, equipment used in production, auxiliary materials used, etc.

### c. Documentation

The author collected data by recording data in the production process and other data related to research on Nard Supply Covection convection.

Analysis Techniques The analytical tools used in this research include:

### 1. Qualitative Descriptive Analysis

This analysis is used to discuss research results by considering and comparing the preparation COGM of Nard Supply Covection's use information that is not in the form of numbers.

### 2. Quantitative Descriptive Analysis

The quantitative descriptive analysis used in this research is the full costing method as the basis for calculating the cost of production which takes into account all elements of production costs into the cost of production, which consists of raw material costs, direct labor costs, factory overhead costs, both behavioral variable or fixed.

**Table 1**  
**Calculation Price Tree Production Method Full Costing**

Raw Material Cost	xxx
Labor Cost	xxx
Fix Overhead Factory Cost	xxx
Variable Overhead Factory Cost	xxx
	+
Cost of Good Manufactured	xxx

#### 4. RESULTS AND DISCUSSION

Nard Supply Convection is a business engaged in convection founded by Mr. Bonard Alfin in 2019 which is located in Tanah Baru, Beji, West Java. Nard supply convection operating hours every at 09.00 WIB until 17.00 WIB. Nard Supply Convection provides sewing and screen printing services for t-shirts, hoodies, bags, and so on.

Nard Supply Convection currently has 4 employees in charge of processing raw materials, sewing, packing clothes into orders ready for sale and 3 employees to serve consumers. In achieving the goal of producing high quality finished goods, Nard Supply Convection has coordination in each field of activity, so that Nard Supply Convection can carry out and be responsible for all activities in accordance with their respective sections, the owner also gives orders to employees in a family manner.

The duties and responsibilities of each section in Nard Supply Convection are:

a. Business Owner

The business owner is a person who has full power over the business which is controlled by Mr. Alfin who leads, coordinates and directly supervises the production and service of employees, and establishes policies and work programs to obtain optimal operating results.

b. Employees

Employees are people who provide services either in the form of thoughts or in the form of labor and get a reward or compensation whose amount has been determined. Employees who work at Nard supply convection are in charge of cutting materials, sewing materials, adding auxiliary materials, splicing materials, to packing finished goods until they are ready to be sent to customers and in charge of serving consumers.

#### 4.1 Research Results Data

Data obtained by the author from Nard Supply Convection regarding production costs consisting of raw material costs, supporting material costs, direct labor costs, variable and fixed factory overhead costs. During September 2023, Nard Supply Convection produced 515 shirts with various kinds of screen printing.

#### 4.2 Calculation of Raw Material Costs

The following is a table for calculating the cost of raw materials for Nard supply convection for the period September 2023

**Table 2**  
**Calculation Cost Material Raw Nard Supply Covection**

Direct of Raw Material:						
No.	Information	Need Order	Needper units	Amount Need	Cost Material per meters	Total (IDR)
1.	Cloth Base AmericansDrill	295 pcs	1.5 meters	442.5 meters	19,800	8,761,500
2.	Cloth Base Polyester	220 pcs	1.5 meters	330 meters	17,000	5,610,000
Total Direct of Raw Material						14,371,500
Component:						
No.	Information	Need Order	Amount Need	Total (Rp)		
1.	Ink	515 pcs	8 kg	1,894,000		
2.	Ink White	515 pcs	5 kg	453,000		
3.	Ink Flo	515 pcs	2kg	298,000		
4.	Thread Sew Currently &Obras Big	515 pcs	11 pcs	217,000		

5.	Thread Sew Yellow	515 pcs	7 pcs	92,000
6.	Plastic Packing	515 pcs	515 pcs	450,000
Total Component				3,404,000
Total Cost Raw Material				17,350,500

Source: Nard Supply Convection

#### 4.3 Calculation Direct of Labor Cost

The following is a table for calculating Direct Labor Costs from Nard Supply Convection for the September period 2023.

**Table 3**  
**Calculation Direct of Labor Cost**

No.	Information	Price/pcs	Total
1.	Cut Cloth Cost	1,000	515,000
2.	Packing Cost	1,000	515,000
3.	Cost of Sew Craftsman Agus	2,500	640,000
4.	Cost of Sew Craftsman Cahyani	4,500	1,165,500
Total Direct of Labor Cost			2,835,500

Source: Nard Supply Convection

#### 4.4 Calculation Fixed and Variable Cost Overheads Factory

The following is a table for calculating Overhead Costs from Nard Supply Convection for the September period 2023.

**Table 4**  
**Calculation Fixed and Variable Cost Overheads Factory**  
**Nard Supply Convection**

No.	Information	Cost Still	Cost Variable
1.	Indirect Labor Cost	7,500,000	
2.	Electricity Cost		700,000
3.	Transport Cost (Purchase)		181,700
4.	Transport Cost (Shipping)		342,800
Total Cost <i>Overheads</i> Factory		8,724,500	

Source: Nard Supply Convection

#### 4.5 Calculation Cost of Good Manufactured

The following is a table for calculating the Cost of Goods Production from Nard Supply Convection for the September period 2023.

**Table 5**  
**Calculation Price Tree Production Nard Supply Covection**

No.	Information	Cost
1.	Cost of Raw Material	17,350,500
2.	Labor Cost	2,835,500
3.	Overhead Factory Cost	8,724,500
Total Cost		28,910,500
Amount production (pcs)		515
Cost of Good Manufactured per pcs		56,136

Source: Data Processed from Writer

#### 4.6 Calculation Raw Material with *Full Costing Method*

The following is a table for calculating Raw Material Costs using Nard Supply Convection's *full costing* method for the September period 2023.

**Table 6**  
**Calculation of Raw Material with *Full Costing Method***

Direct of Raw Material:						
No.	Information	NeedOrder	Needper units	Amount Need	Cost Material per meters	Total (Rp)
1.	Cloth Base Americans Drill	295 pcs	1.5 meters	442.5 meters	19,800	8,761,500
2.	Cloth Base Polyester	220 pcs	1.5 meters	330 meters	17,000	5,610,000
Total Direct of Raw Material						14,371,500
Component:						
No.	Information	Need Order	Amount Need	Total (Rp)		
1.	Ink	515 pcs	8 kg	1,894,000		
2.	Ink White	515 pcs	5 kg	453,000		
3.	Ink Flo	515 pcs	2kg	298,000		
4.	Thread Sew Currently & Obras Big	515 pcs	11 pcs	217,000		
5.	Thread Sew Yellow	515 pcs	7 pcs	92,000		
6.	Plastic Packing	515 pcs	515 pcs	450,000		
Total Component				3,404,000		
Total Raw Material Cost				17,350,500		

Source: Data Processed from Writer

#### 4.7 Calculation Direct Labor Cost with *Full Costing Method*

The following is a table for calculating Direct Labor Costs with using the *full costing method* from Nard Supply Convection period September in 2023.

**Table 7**  
**Calculation Direct Labor Cost with *Full Costing Method***

No.	Information	Price/pcs	Total
1.	Cut Cloth Cost	1,000	515,000
2.	Packing Cost	1,000	515,000
3.	Cost of Sew Craftsman Agus	2,500	640,000
4.	Cost of Sew Craftsman Cahyani	4,500	1,165,500
Total Direct Labor Cost			2,835,500

Source: Data Processed from Writer

#### 4.8 Calculation Fixed and Variable Cost *Overheads* Factory with Method *Full Costing*

The following is a table for calculating fixed and variable factory overhead costs with using the *full costing method* from Nard Supply Convection period September in 2023

**Table 8**  
**Calculation Fixed and Variable Cost Overheads Factory with Method Full Costing**

Fixed Overhead Factory Cost		
No.	Information	Cost
1.	Indirect Labor Cost	7,500,000
2.	Depretiation Equipment	5,654,250
3.	Depretiation Building	775,000
Total Fixed Overhead Factory Cost		13,929,250
Variable Overhead Factory Cost		
No.	Information	Cost
1.	Electricity Cost	700,000
2.	Wifi Cost	280,000
3.	Transport Cost (Purchase)	181,700
4.	Transport Cost (Shipping)	342,800
5.	Maintenance Cost	100,000
Total Variable Overhead Factory Cost		1,604,500

Source: Data Processed from Writer

#### 4.9 Calculation Cost of Good Manufactured with Full Costing Method

The following is a table for calculating COGM using *full costing* method from Nard Supply Convection for the September period 2023.

**Table 9**  
**Calculation COGM with Full Costing Method**

No.	Information	Cost
1.	Raw Material Cost	17,350,500
2.	Labor Cost	2,835,500
3.	Overhead Cost	15,533,750
Total Cost		35,719,750
Amount production (pcs)		515
COGM per pcs		69,358

Source: Data Processed with Writer

#### 4.10 Comparison between Nard Supply Convection Calculations and Calculations Using the Full Costing Method

Based on previous calculations carried out by Nard Supply Convection with full costing method, there is difference on calculation cost overheads factory.

**Table 10**  
**Comparison COGM Result's with Method Full Costing Method Nard Supply Convection**

Information	Production cost per month (IDR)	Cost Difference Production per month (IDR)	Cost of good manufactured per month (IDR)	Difference COGM per month (IDR)
Calculation Company	28,910,500	6,809,250	56,136	13,222
Full Costing Method	35,719,750		69,358	

Source: Data Processed from Writer

Based on the table above, it can be seen that the difference in production costs between calculations performed by Nard Supply Convection and calculations using the *full costing method* is 6,809,250 IDR which is the price difference principal production per t-shirt is 13,222 IDR.

On calculation COGM with *full costing method* produce COGM more higher than use conventional method. Because calculation use *full costing* detail all cost with clear like Rawa Material Cost, Overhead Cost, Labor Cost.

Nard Supply Convection is not calculation cost production according to the principles used in accounting methods, so no producing an appropriate selling price. To avoid errors in calculation cost production and so that produce cost which efficient detail and good calculation method is required. Method used for calculate costs the production is *full costing method*.

## 5. CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Conclusion

Based on research conducted by the author on Nard Supply Convection, author takes conclusions that is:

1. Calculation of COGM carried out by Nard Supply Convection are use method simple, that costs recognized in calculate of COGM are the costs of raw materials, direct labor costs, fixed and variable *overhead costs* however There are no depreciation costs for equipment and buildings. Total production costs resulting from the sum of these costs are IDR 28,910,500, whereas price principal production 515 pcs as big as IDR 56,136.
2. Calculation COGM use *full costing method* confess all over cost production including raw material cost, Direct Labor Cost, Fixed and Variable Overhead Cost which including depreciation costs for equipment and buildings. Total production costs generated using the *full costing method* is equal to IDR 35,719,750, while the cost of production is per t-shirt in quantity the production 515 pcs amounting to Rp 69,358.
3. Based on comparison calculation COGM using the Nard Supply Convection calculation *full costing method*, the total COGM per t-shirt which generated own difference. Calculation which generated company is lower than *full costing method calculation*. The difference between the two methods is IDR 13,222 causes significant differences because it is in the *full costing method* calculate all production costs, both those that behave variable and still so that businessman need consider return results use of the *full costing* method to determine the selling price of products in order not occur loss in this business.

### 5.2 Suggestions

Based on conclusion above, Nard Supply Convection should calculate COGM by making notes regarding costs incurred in the production process and these costs are classified based on the main function of the company's activities. Apart from that, business actors It is also necessary to reduce production costs in terms of raw material costs and labor costs direct, nor cost *overheads* factory so that can sell shirt with price which is affordable but has added costs that have not been calculated such as equipment depreciation costs, building depreciation, and *wifi costs*. With calculate using the *full costing method* which details all costs, so calculation price principal the production more appropriate and accurate For set selling prices and can increase company profits. Suggestions for further research should choose research objects with a larger scale large and counts all the products entered into production in order seen all component the cost.

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