# Cost of Goods Manufacturing Implementation With Job Order Costing Method at PT. Citra Sarungtangan Indonesia

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# ABSTRACT

This study aims to find empirical evidence related to the calculation of the cost of goods manufacturing to determine the selling price of PT. Citra Sarungtangan Indonesia, especially in orders for military gloves. Quantitative research is used, along with descriptive analysis that concentrates on the application of the calculation of the cost of goods ordered by PT. Citra Sarungtangan Indonesia. This study describes PT. Citra Sarungtangan Indonesia sets the cost of ordered products based on Labor, Overhead, and Profit (LOP) method which is inaccurate because the calculation method does not group overhead costs according to the actual situation. The results showed that there were differences in the calculation of the cost of goods manufacturing between the LOP method and the Job Order Costing method. The results of calculations using the LOP method are known that the company recognizes profits that are too large compared to the Job Order Costing method. This can affect management decisions in the development and plans of the company in the future. PT. Citra Sarungtangan Indonesia should organize an order cost card, and a working hour card, as well as in the charging of factory overhead costs.

**Keywords:** Cost of Goods Manufacturing, Job Order Costing Method, LOP Method, PT. Citra Sarungtangan Indonesia.

# INTRODUCTION

PT. Citra Sarungtangan Indonesia which is the object of research is a business engaged in the manufacturing industry that makes gloves of several different types. The types of gloves produced by the company are of various types according to consumer orders. During running its business, the management cannot know for sure whether it will achieve the expected profit or even suffer a loss. Operations continue to order and success is assessed from the difference between the total selling price and costs incurred during the operating period. The company does not have proper information regarding product cost per order and profit generated per order. The costs incurred by the company are not grouped by order so that the company has difficulty in analyzing the feasibility of production costs. The manager in determining the selling price is only based on market prices and cost estimates that have been made previously with the price of raw materials as a reference to increase or decrease the selling price. Managers also set prices on considerations of product specifications, difficulty in manufacturing, and competing products. In other words, the company does not have information related to the cost of the product to determine the price policy to be taken. So far, the company uses the LOP method.

According to Hansen and Mowen (2009) the method to, determine cost of goods manufacturing can be grouped into two methods. They are the Process Costing Method and the Job Order Costing Method. Process Costing is used in companies whose production activities are continuous, without waiting for orders from consumers. While the JOC method is used in companies whose production activities are carried out if there is an order. The JOC method has never been used by PT Citra Sarungtangan Indonesia.

According to Fitriana, Sandora, and Yuniati (2014) In determining the calculation of the cost of production, the company experienced a discrepancy in the budget plan which caused the company not to get maximum profit. In determining the cost of goods manufactured based on an order method that is precise and accurate according to the work system at the company, namely the job order costing method. This method can calculate all cost classifications, namely direct costs and indirect costs. The classification is charged to the product ordered.

Alfarisi and Boediono's (2021) research that CV. Adi Guna Utama concluded is charging BOP is not right on the table leg orders at. This research shows that there is a difference in determining the price according to the company by determining the price using the job order costing method. According to the company, the calculated result is lower than the job order costing method. This is because in the calculation method at the company there are costs that have not been calculated, such as the cost of machine maintenance when determining the cost of production.

Ardi (2019) to carry out cost control, management prepares a budget to be used as a guideline for each expenditure made by the company and then compares the budget with actual cost information to be used as a guideline for each production activity.

Br. Sitanggang's research (2020) was conducted on Gemilang Jaya SME's in Riau which is engaged in the furniture business. It appears that the SME's have applied the determination of the cost of goods manufactured correctly. However, The SME's did not calculate the cost of the product the order or calculated directly when the order was entered or ordered. In other words, the company in calculation the cost of products as the basis for determining the selling price has not been thorough. Calculation of overhead costs that do not include depreciation costs for machinery and equipment.

Hermanto (2016) state that, the results show the elements of the production cost of Raw Material Costs Direct Costs Direct Labor, and Factory Overhead either charged or real. The method used in the calculation of the cost of production "BRKT Number Plate K56" at PT. Rachmat Prime using full costing method taking into account all the costs associated with production activities into the calculation of the cost of production as well as the companies charge Overhead Actual stroke of the amount generated in each process.

Ramintang and Pangemanan (2016) stated that the conclusions are Activity Based Costing system can be applied and used to calculate the cost of goods sold in Wisata Bahari Restaurant Manado. Job Ordering Costing system can be applied and used to calculate the cost of goods sold in Wisata Bahari Restaurant Manado.

According to Saputro (2021) showed that organizational support that has an effect on creative problems (perceived organizational support for creative problem solving), as well as perceived organizational support and ambidexterity ability have a positive effect on creative problems (perceived organizational support and dynamic ambidexterity capabilities influence creative problem solving).

According to Maulana (2011) based on the results of the analysis, there is a difference in the calculation of the cost of production between the company's calculations and the job order costing method because the company does not identify the overhead costs in detail, so the cost of production calculated by the company becomes too high.

Manoppo (2016) shows that differences appear between the company's calculation and the calculation using job order costing method, where the latter results in higher value. Therefore, an improvement on the calculation method of cost of goods manufactured will help the company in making policy in regards to determination of selling price and expected profit.

Putri and Gunawan (2021) there is a difference in the cost of production caused by cost classification errors, loading errors to orders, and several cost components that have not been taken into account by the company. Thus, the company should make adjustments to the selling price to avoid a decrease in profits.

According to Mulyani (2013) companies in recognizing environmental costs (in terms of operational costs for waste treatment) are included as a component of production costs with the consideration that waste arises as a result of the production process. It is supported by Yang and Bentley (as cited in Distiawati,

Wardhana, & Handayati, 2021) who said that the company need to focus on environmental cost in order to achieve sustainable competition.

Anggareni (2019) the selling prices of aluminum mirrors based on the calculation of researchers using the cost-plus pricing method with full costing approach and the variable costing approach with an expected profit is 1% of total assets with different mark-up percentages for each approach.

Hilmiyanti's research (2020) on Berkah Printing which is engaged in the production of office need show that the company does not yet know the role of the job order costing method as the basis for determining the selling price, so the researcher aims to apply the job order costing method to the selling price at the Berkah Printing company. In this study, the researchers concluded that the Berkah Printing business unit currently has not calculated the cost of production correctly in determining the selling price, this is because the printing business does not make financial reports. With the application of the Job order costing method, the company has information related to the cost of production and accurate information in determining the selling price.

In accordance with the background and focus on the problem above, the formulation of the problem in this study is: "How is the application of the Job Order Costing method in calculating the cost of ordered products in determining the selling price at PT Citra Sarungtangan Indonesia?".

# LITERATURE REVIEW

According to Dunia, Abdullah, and Sasongko (2012) manufacturing or production activities are the processes of converting raw materials into finished goods using labor and factory facilities. The costs incurred in manufacturing activities are called production costs or manufacturing costs. Production costs consist of direct material costs, direct labour costs, and factory overhead.

Mulyadi (2015) states that, the cost of production or cost of goods manufacturing is the cost incurred to produce a good or service during the period concerned. In other words, that the cost of goods manufacturing is the cost to get finished goods ready for sale.

Hansen and Mowen (2009) stated that, production cost or manufacturing cost is the total of all costs used in making or producing an item. The costs used for the production of goods are calculated by the company carefully in order to determine an accurate cost of goods manufactured.

Soejanto, Nursubiyantoro, and Awalu (2016) state that, determination of the cost of production is based on the cost of raw materials and direct labor for each time of production, this causes the cost of production to not be accurate which can affect profit and loss which is the company's goal. Job order costing is a method of collecting production costs by collecting orders separately.

One of the methods of determining the cost of goods produced is the job order costing method. According to Hansen and Mowen (2009) Job Order Costing

Method (JOC) is costs occur due to orders that enter the company. This cost is issued according to the order received, so this cost has also been budgeted before being issued, usually, this method is only used when the company receives an order with a certain amount and the product produced is also certain. Companies that products based on orders do not aim to meet the supply of shrimp but to meet customer demand. Product processed after the order from customers through documents purchase order containing the type and quantity products that ordered, specifications order, date orders received and when must be submitted. In a calculation in determining product costing on an order-to-order basis, manufacturing costs are accumulated for each separate job.

According to Dunia et al. (2012) job order costing method is a perpetual cost accounting system that collects costs according to a specific job or order. This system is appropriate for goods or services produced with unique work or orders, according to the specifications demanded by the consumer.

To apply the job order costing method is divided into several types as below (Hansen & Mowen, 2009):

- 1) The main thing in applying this method is that the company makes the product according to what the customer wants. Usually, the price and type of goods are agreed upon by both parties before the production process is carried out.
- There are ways to classify the cost of production, one of which is production costs such as basic costs that must be incurred by the company when it wants to produce a product.
- 3) Direct production costs are calculated as the cost of production based on the actual costs incurred, namely the cost of direct materials and direct labor costs.
- 4) Ordering costs are calculated according to actual costs after all orders made by the company have been fulfilled and books are available for servant card price tree order. By calculating the cost of production for each order, companies can obtain information about eligibility calculation of the cost of production with the use method of job order costing.

# The Benefit of Job Order Costing Method

The benefit of this method (Mulyadi, 2015) are:

- 1. The company can determine the selling price charged to the order
- 2. Considerations for companies to accept or reject orders that enter
- 3. Production costs can be monitored well because this method requires recording income and expenses during the process production.
- 4. The company can determine the cost of finished product inventory and work in process which is presented in the balance sheet

# **RESEARCH METHOD**

This study uses quantitative and descriptive methods. This research was conducted at PT. Citra Sarungtangan Indonesia, which is located on JI. Ponggok, Sidomulyo, Bambanglipuro, Bantul, Special Region of Yogyakarta. This company is engaged in the production of various gloves, such as gloves for sports, gloves for military purposes, and so on.

Type of data applied in the discussion of this research is quantitative data. Quantitative data used is data on production costs incurred by the company during the year 2022, as well as the calculation of the company's cost of production. The data is obtained from secondary data sources from the company, both sales report documents and production planning documents carried out by the company. The procedure for data collection in this study in general there are three stages. They are preliminary survey, literature study, and field survey. The techniques used include interview, observation, and documentation.

The results of the two calculations (between LOP and JOC Method) will be compared, analyzed, and the researcher draws conclusions. The method of calculating the cost of goods ordered products that are calculated accurately and the allocation of costs for the ordered products more precisely will be used as the basis for determining the selling price and planning the company's profit. The order of data to be applied is data collection, data selection, data analysis, and calculations aimed at obtaining conclusions.

#### RESULTS

PT. Citra Sarungtangan Indonesia is marketing its products in collaboration with distributors who will later be used directly by consumers. PT. Citra Sarungtangan Indonesia has several permanent distributors who place orders with a fairly high number of orders. PT. Citra Sarungtangan Indonesia is also willing to accept other distributors who rarely place orders or new distributors who have never ordered before. PT. Citra Sarungtangan Indonesia does not differentiate orders based on who ordered them. In the order, there is a Surat Perjanjian Kerja (SPK) or Letter of Cooperation Agreement in which there is also a price list that will be agreed upon if the cooperation is established. This is related to how to respond to the prices of gloves to be ordered and the terms of payment.

After an order is agreed upon with the customer, the finance department will make an order document to the head of the factory and receive a Purchase Order (PO) from the customer regarding the order to be ordered. The head of the factory will immediately make a production order addressed to the head of the production department. Furthermore, the finance department will provide a Purchase Order (PO) to the head of the factory. The production process will run after the head of the production department receives a production order and a Purchase Order (PO) which contains information related to the order information, order type, materials used, expected order delivery date, instructions regarding the packaging of goods, order quantity, and specifications addition.

Estimated production costs are made at the time the SPK (Letter of Cooperation Agreement) is given for each type of product. This estimate can be changed according to the order received. There is no special treatment for orders received. Special treatment is given if the order received is a special order with a model that has never been produced by the company. In cases like this, management needs to consider several things such as the number of orders, the price of raw materials, the level of difficulty, and the relationship with the customer. After an agreement is made, the order will be produced immediately.

PT. Citra Sarungtangan Indonesia in calculating the cost of products per order based on the calculation of LOP (Labor, Overhead, and Profit). The Cost of goods sold is calculated by grouping the types of production costs based on the required needs. The cost of raw materials is obtained from the purchase of materials related to the type of gloves ordered. Direct labor costs are obtained from records related to factory labor payments. Factory overhead costs are calculated roughly like packing costs. PT. The image of Gloves in determining profit is not always the same in magnitude. The amount of profit is determined based on the difficulty of the order, the duration of the order, and the type of order. Orders based on subcontract or cooperation contracts that only use sewing services from companies with orders made in full from the initial purchase of materials to finished goods have differences in the amount of profit determination.

An overview in calculating the cost of goods at PT. Citra Sarungtangan Indonesia describes the company's internal accounting and production data in 2022, namely the cost design:

In terms of sales transactions, PT. Citra Sarungtangan Indonesia sets an up-front price for each type of glove it produces. The upfront price set by the company is the standard price. The standard price is determined by considering the estimated costs carried out in the production department as well as adding a mark up which is estimated to cover factory overhead costs and can provide benefits for the company. The components contained in the standard price are applied by PT. Citra Sarungtangan Indonesia is LOP (Labor, Overhead, and Profit).

If the cost of goods produced by the TNI's glove is calculated with the JOC method, the calculation is as follows:

Information	Amount (Rp)
Goat Leather Batting 0.7mm Black	37,800
Goat Leather Digital Matrix 0.7mm Black	22,000
Nomex Fire Resistant Fabric Black	42,750
Lining Material	7,500
Kevlar Fabric Cut Level 3 Yellow	42,750
Tongda Touchscreen Material	5,000
Armortec Laminated Kevlar Black	4,250
Knucle PET Clear	20,000
Nylon Thread	2,000
Foam 3mm Black	750
Black Tape	250
Velcro Black	1,000
Emboss Logo	2,000
Raw Material Cost per unit	188,050
Unit produced	2,390
Total Raw Material Cost	449,439,500

**Table 1.** Calculation of the raw material cost with the JOC method for TNI's glove

 Table 2. Calculation of the labor cost with the JOC method for TNI's glove

Information	Amount (Rp)
Labour cost per unit	10,000
Number of employee	3
Unit produced	2,390
Total Direct Labor	71,700,000

**Table 3.** Calculation of the factory overhead cost with the JOC method for TNI's glove

Information	Amount	
Depreciation asset factory	2,750,000	
Utility factory cost (electric, water, and so on)	2,250,000	
Supervisor salary	3,000,000	
Packing material	5,497,500	
Factory overhead cost	14,497,500	

**Table 4.** Calculation of the manufacturing cost with the JOC method for TNI's glove in The Job Order Cost Sheet (in Rupiah)

For: CV. PANDU B	ERKAH MULIA	COF: No.0422/COF/005			
Person In Contact	: MR. SUPARDI	Date Ordered : April 21, 2022			
Item Description	: TNI TA 2019	Date Completed : April 25, 2022			
Quantity Completed : 2,390 Dat		Date Sh	Date Shipped : -		
Direct Materials Direct Labor		r	Factory Overhead		
Billoot Materials	Biloot Edb		i dotory overneda		
449,439,500	71,700,000		14,497,500		
	71,700,000		-		

Based on the calculation about the cost of goods produced or manufacturing costs for making TNI's gloves with LOP method and JOC method, the difference is:

**Table 5.** Comparison of the manufacturing cost with the LOP method and JOC method for TNI's glove

		LOP Method		JOC Method		
Product	Quantity					Varian (Rp)
Туре	(unit)	Cost / unit	Total Cost	Cost / unit	Total Cost	
TNI TA 2019	2,390	250,000	597,500,000	224,000	535,360,000	62,140,000

It is known that there are differences in the calculation result about the cost of goods manufacturing between LOP method (the company's version) and the JOC method. The cost of goods manufacturing with the LOP method upper than JOC method.

# DISCUSSION

The company must apply a recording method that can make it possible to know the flow of costs for each order. The company must provide an order cost card that

is used to record all direct costs of each part that the product goes through during the production process. The order cost card will be useful for management to analyze whether the order generates profit, what percentage of profit is generated, whether the profit margin can cover fixed costs, or even if the order causes a loss to the company's share. In addition, the order cost card is also useful for comparative analysis with cost estimates made by the production department for the benefit of the next production that will occur. The accumulation of production costs using the job order costing method:

#### **Direct Material Cost Recording**

Raw materials are recorded at actual cost. Raw materials taken from the warehouse are recorded on the order cost card. The amount recorded on the order cost card is the actual quantity required for the product and not the amount of material or materials taken from the warehouse.

#### **Direct Labor Costs Recording**

Direct labor costs are recorded at actual costs. Through the working hours card, it will be known how many hours it takes for an order to be in the production process for each part. The hours worked required are multiplied by the wage rate of each part and then recorded on the order cost card.

#### **Factory Overhead Costs Recording**

Factory overhead costs are recorded using a predetermined rate at the beginning of the operating period. The use of this rate is used because factory overhead costs have a different nature from the costs of materials and production of goods. The incidence of factory overhead costs is not evenly distributed throughout the year, either because of changes in production levels from one month to another month's production. Based on this, factory overhead costs cannot be directly assigned to products. It is also impossible to calculate factory overhead costs in the cost of ordered products based on actual cost occur because several costs occur at a certain time and can only be determined at the end of the period.

#### CONCLUSION

Based on the background, problem formulation and discussion, the following conclusions can be drawn as PT. Citra Sarungtangan Indonesia does not record the costs used to produce each order on the order cost card. Factory overhead costs used in calculating production costs are actual factory overhead costs. PT. Citra Sarungtangan Indonesia does not provide working hours cards so it is not known how many working hours are required for each order. The standard upfront selling price set by the company tends to be based on the experience of the manager and the price of raw materials. Application of job order costing method at PT. Citra Sarungtangan Indonesia is done by identifying the production costs for each order. The costs of raw materials and labor are charged directly to orders based on the results of the production cost planning. Factory overhead costs are charged using a predetermined rate. The loading basis used is the physical output loading basis based on width/area.

The calculation of the cost of goods using the job order costing method produces a product cost per unit that is different from the company's calculation. Based on the company's calculations, the order has a product cost per unit that is too high

so the sales pricing recognition is too large. PT. Citra Sarungtangan Indonesia does not record the costs used to produce each order on the order cost card. Factory overhead costs used in calculating production costs are actual factory overhead costs. PT. Citra Sarungtangan Indonesia does not provide working hours cards so it is not known how many working hours are required for each order. Application of job order costing method at PT. Citra Sarungtangan Indonesia is done by identifying the production costs for each order. The costs of raw materials and labor are charged directly to orders based on the results of the production cost planning. Factory overhead costs are charged using a predetermined rate. The loading basis used is the physical output loading basis based on width/area.

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## DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interest

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