

Analysis of production cost calculation using full costing method on selling price of Sogistudio MSMEs in Pasuruan

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ARTICLE HISTORY	ABSTRACT
<p>Received : July, 31st 2024 Revised : August, 15th 2024 Accepted : September, 25th 2024</p> <p>Keywords : Cost Full Costing Manufactured Goods Selling Price</p>	<p><i>Cost of goods manufactured (COGS) is the direct and indirect costs incurred to improve an item so that it can be sold. Before determining the selling price, it is necessary to calculate the cost of goods produced. This descriptive qualitative research uses interview methods and literature studies to collect, analyze, and interpret data to obtain a deep understanding. This study aims to determine the importance of calculating the cost of production of t-shirt products at the Nobashi shrimp factory in Sogi Studio MSMEs using the full costing method. this research uses the full costing method analysis tool, where the definition of the full costing method is a method of determining the cost of production to take into account all elements of production costs into the cost of goods manufactured. The results of this study indicate that Sogi Studio MSMEs have made accurate calculations. Researchers classify production costs into three categories: raw material costs, direct labor costs, and factory overhead costs, which can be both variable and fixed costs.</i></p>

INTRODUCTION

The development of the business world is taking place very quickly, including in the industrial sector, such as MSMEs (Giovanni et al., 2022; Gunawan & Hudiono, 2023). MSMEs are defined as businesses that are smaller in size than large companies (Nema et al., 2021). One of the dimensions is seen from the number of employees. For example, in the European Union, MSMEs are companies that have less than 250 employees. One of the currently developing UMKM is screen printing. The tight competition between activities organized by various agencies that require uniforms makes screen printing trendy.

Sablon Sogi Studio is one of the UMKM engaged in printing image designs or writing on t-shirts. Sablon Sogi Studio receives consumer orders through word of mouth and social media. Of course, competitors of UMKM Sablon in Gempol village have reached tight competition where quality and price are things that buyers need to consider. The establishment of Sablon Sogi Studio began with Mas Ya'qub, the owner, who was experiencing a long school holiday due to the COVID-19 outbreak. Mas Ya'qub and his friend, Mas Haqi, had the initiative to establish a screen printing business to fill their free time with pooled capital and learn screen printing from teachers. Finally, "Sablon Sogi Studio" was formed.

At UMKM Sablon Sogi Studio, the calculation of the cost of production already includes an estimate of the production costs incurred, especially in recording costs and grouping factory overhead costs and other production costs. Thus, the actual costs that have been incurred have been recorded and become part of the set cost of production. This allows

UMKM Sablon Sogi Studio to know the total cost of producing t-shirts.

UMKM Screen Printing Sogi Studio has implemented the calculation of production cost (HPP) using the full costing method. The total costing method provides more comprehensive information in calculating production costs, allowing UMKM Sablon Sogi Studio to manage expenses efficiently. In addition, this method provides an accurate estimate of the cost of production, which is very important for UMKM in achieving profit targets and setting competitive selling prices. Determining the selling price is setting the price of a product or service by adding up all production costs incurred by the company and adding the percentage of profit the company wants to obtain (Antong & Riyanti, 2021; Kristinae et al., 2024).

LITERATURE REVIEW

Cost of goods sold

Cost of goods manufactured is all costs incurred to produce goods or services during the relevant period (Palange & Dhatrik, 2021).

Full Costing Method

The full costing method is a method of determining production costs that consider all elements of production costs, consisting of raw material costs, direct labor costs, factory overhead costs, both variable and fixed (Garrison et al., 2021).

Determination of Selling Price

The cost plus pricing method or determining the selling price, is a company's approach method to determining the selling price of a unit product, where the selling price that has been set will be able to cover all costs incurred during the production process and produce the level of return on investment desired by the company (Qin et al., 2021).

RESEARCH METHODS

Place and Time of Research

The research location is UMKM Sogi Studio, Kauman Baru Village, Gempol District, Pasuruan Regency. Data collection was carried out on June 5, 2024.

Research Object

The research object chosen by the researcher is the cost of goods manufactured (HPP) at UMKM Sogi Studio, which received an order on 15-25 December 2023 for 43 pieces of Nobashi Shrimp Factory T-shirts.

Data collection technique:

1. Observation, which is a method that directly observes the condition of Sogi Studio MSMEs
2. Interview, namely a question-and-answer interaction with the owner of Sogi Studio
3. Documentation, namely, the compiler requests data for calculating the cost of production

- Literature Study, a technique used to search for ideas or references in research.

Data Analysis Methods

The research analysis method is qualitative, namely analyzing the results of observations, interviews, and document research with related parties.

RESEARCH RESULT

Calculation Of Cost Of Production (HPP) of Nobashi Shrimp Factory T-Shirts

Raw Material Costs

Table 1. Production Raw Material Costs

Raw material	Amount	Price For 43 pcs	Price For Pcs
T-shirts	15 Kg	Rp 2.005.200	Rp 46.633
Plastisol Ink	43	Rp 430.000	Rp 10.000
Total Cost of Raw Materials		Rp 2.435.200	Rp 56.633

The raw materials for 43 pieces used in the production process of Nobashi Shrimp Factory T-Shirts require 15 kg T-shirts and 43 pieces of Plastisol Ink, with a total price of Rp 2.435.200 for 43 pcs and Rp 56.633 for 1 pc.

Direct Labor Costs

Table 2. Direct Labor Costs

Information	Amount	Price For 43 Pcs	Price Per Piece
Screen Printer Assistant	1 Person	Rp 301,000	Rp 7.000
Total Direct Labor		Rp 301,000	Rp 7.000

The direct workforce for 43 pcs of Nobashi Shrimp Factory T-shirts consists of 1 screen printing assistant.

Factory Overhead Costs

Table 3. Factory Overhead Costs Variables

Information	Price For 43 Pcs	Price Per Piece
Design Services	Rp 30.000	Rp 698
Sticker	Rp 129.000	Rp 3.000
Packaging	Rp 15.050	Rp 350
Electricity cost	Rp 21.500	Rp 500
Accommodation Fees	Rp 129.000	Rp 3.000
Total Factory Overhead Cost	Rp 324.550	Rp 7.548

The total Factory Overhead Cost for 43 pcs of Nobashi Shrimp Factory T-shirts is Rp 324.550. consisting of Design Services, Stickers, Packaging, Electricity Costs, and Accommodation Costs, and for 1 pcs T-shirt is Rp 7.548.

Calculation of Fixed Factory Overhead Costs

Depreciation Calculation Results Machine Per Month

Table 4. Fixed Factory Overhead Costs

Information	Acquisition cost	Depreciation Cost For 43 Pcs
Depreciation machine	Rp 300.000	Rp 6.976
Total Fixed Factory Overhead Costs	Rp 300.000	Rp 6.976

Cost Fixed Factory Overhead Machine depreciation per month experiences depreciation with a total acquisition of Rp 300.000 and for depreciation costs for 43 pcs amounting to Rp 6.976.

Cost of Production Cost Calculation

Table 5. Calculation of Production Cost of UMKM Sogi Studio

Element	Information	Amount	Price For 43 Pcs	Price Per Piece
Raw material	T-shirts	1 Kg	Rp 2.005.200	Rp 46.633
	Plastisol Ink	43	Rp 430.000	Rp 10.000
Direct Labor Cost	Screen Printer Assistant	1 Person	Rp 301.000	Rp 7.000
Factory Overhead Costs	Design Services	1 Person	Rp 30.000	Rp 698
	Sticker	43 Pcs	Rp 129.000	Rp 3.000
	Packaging	43 Pcs	Rp 15.050	Rp 350
	Electricity cost		Rp 21.500	Rp 500
	Accommodation Fee (Gasoline)		Rp 129.000	Rp 3.000
Total Cost of Goods Sold			Rp 3.060.750	Rp 71.181

The total cost of goods manufactured (HPP) in UMKM Sogi Studio for 43 Nobashi Shrimp Factory T-shirts was Rp 3.060.750, and the price for 1 T-shirt was Rp 71.181.

Table 6. Calculation of Production Cost of UMKM Sogi Studio Using Full Cost Method Costing

Type of Fee	Total Cost (Rp)
Raw Material Cost	Rp 2.435.200
Direct Labor Cost	Rp 301.000
Variable Factory Overhead Costs:	
Design Services	Rp 30.000
Sticker	Rp 129.000
Packaging	Rp 15.050
Electricity cost	Rp 21.500
Accommodation Fee (Gasoline)	Rp 129.000
Fixed Factory Overhead Costs:	
Machine Depreciation	Rp 6.976
Total Factory Overhead Costs	Rp 331.526
Total Production Cost	Rp 3.067.726
Amount Generated	43 Pcs
Cost of Goods Sold Per Unit	Rp 71.342

The cost of production using the full costing method in UMKM Sogi Studio for 43 Nobashi Shrimp Factory T-shirts obtained amounted to Rp 3.067.726 and 1 T-shirt amounting to Rp 71.342.

Determination of Selling Prices For Baba Screen Printing T-Shirts/Pcs

		ANAK-ANAK	S	M	L	XL	XXL	3XL	4XL	5XL				
pabrik udang nobashi	T-shirt	43									46.633	2.005.200		
MASUK	Design	43									698	30.000		
15 DESEMBER 2023	plastisol ink	43									10.000	430.000		
DEADLINE	Electricity	43									500	21.500		
23 desember 2023	Worker	43									7.000	301.000		
	Entertaint	43									3.000	129.000		
	packaging	43									350	15.050		
	Akomodasi	43									3.000	129.000		
TOTAL											71.180	3.060.750	3.420.000	359.250

Figure 1. Determination of Selling Price Based on Calculations of Sogi Studio Screen Printing UMKM

The selling price of Sogi Studio UMKM is determined using the Normal Pricing or Cost Pricing method. In this method, the selling price is determined by increasing the percentage of profit obtained, which is around 11.7%, according to the seller. In this way, the total selling price obtained is:

$$\begin{aligned}
 &\text{Total selling price} = \text{total cost} + \text{profit} \\
 &= \text{Rp. } 3,060,750 + (\text{Rp. } 3,060,750 \times 11.7\%) \\
 &= \text{Rp. } 3,060,750 + \text{Rp. } 359,250 \\
 &= \text{Rp. } 3,420,000
 \end{aligned}$$

Thus, 1 piece of t-shirt worth Rp 79.534 is seen in the calculation (Rp 3.420.000 / 43 Pcs) by getting a profit of Rp 8.354 obtained from the calculation (Rp 359.250 / 43). The selling price of the t-shirt, if rounded up, becomes Rp 80.000 per 1 piece.

Table 7. Determination of Selling Price Based on Calculation of UMKM Sablon Sogi Studio Full Costing Method

Information	Price
Total Cost of Goods Sold	Rp 3.067.726
Profit Earned (11,7%)	Rp 358.923
Total Selling Price	Rp 3.426.649
Production Volume	43 Pcs
Selling Price Per Unit (Rp.3,420,000 / 43 Pcs)	Rp 79.689
Unit Selling Price (rounded)	Rp 80.000

The selling price for 43 shirts is Rp. 3,426,649, while the selling price per shirt is Rp. 79,689, which is then rounded up to Rp. 80,000. The Normal Pricing or Cost Pricing method can be used to determine the selling price of a product. In this method, the selling price is determined by increasing the percentage of profit obtained, around 11.7%. In this way, the total selling price obtained is:

$$\text{Total selling price} = \text{total cost} + \text{profit}$$

$$\begin{aligned} &= \text{Rp. } 3,067,726 + (\text{Rp. } 3,067,726 \times 11.7\%) \\ &= \text{Rp. } 3,067,726 + \text{Rp. } 358,923 \\ &= \text{Rp. } 3,426,649 \end{aligned}$$

Thus, 1 piece of t-shirt for Rp. 79,689 can be seen in the calculation (Rp. 3,426,649 / 43 Pcs) with a profit of Rp. 8,347 obtained from the calculation (Rp. 358,923 / 43). The selling price of the t-shirt, if rounded up, becomes Rp. 80,000 per 1 piece

Comparison of The Calculation of Production Costs of Sogi Studio Umkm Sablon and The Full Costing Method

Based on the total calculation results obtained, the compiler made a comparison between the cost of production according to the calculations of UMKM Sogi Studio and the full costing method as follows:

Table 8. Comparison of the Calculation of Production Cost of UMKM Sablon Sogi Studio and the Full Costing Method

Information	Nobashi Shrimp Factory T-Shirt Calculation UMKM Sogi Studio	Full Costing Method Calculation
Price for 1 pcs T-shirt	Rp 71.181	Rp 71.342
Total price 43 pcs T-shirts	Rp 3.060.750	Rp 3.067.726

So, the difference between the comparison of the cost of goods manufactured (HPP) of UMKM Sablon Sogi Studio and the total cost is 1 t-shirt for Rp 161 and 43 t-shirts for Rp 6.976.

Table 9. Comparison of the Calculation of the Selling Price of Sogi Studio Screen Printing UMKM and the Full Costing Method

Information	Nobashi Shrimp Factory T-Shirt Calculation UMKM Sogi Studio	Full Costing Method Calculation
Price for 1 pcs T-shirt	Rp 79.534	Rp 79.689
Total price 43 pcs T-shirts	Rp 3.420.000	Rp 3.426.649

So, the difference between the comparison of the selling price of UMKM Sablon Sogi Studio and the full cost is 1 t-shirt for Rp 155 and 43 t-shirts for Rp 6.649.

CONCLUSION

The calculations carried out by UMKM Sogi Studio have been very accurate because the owner has estimated the cost of raw materials, direct labor, and factory overhead. However,

something more appropriate is adding the full costing method to the calculation. From this calculation, 1 piece of t-shirt in the Production of Nobashi Shrimp Factory T-shirts is Rp 71.342. Raw materials are the highest component, reaching Rp 2.005.200 for 43 pieces and Rp 46.633 per piece.

The author uses the plus pricing method approach to determine the selling price of the Nobashi Shrimp Factory T-shirt product by UMKM Sogi Studio. This approach ensures that Sogi Studio products can compete and achieve the desired profit target. The percentage of profit obtained is 11,7%. Based on the calculations that have been done, it can be concluded that the comparison between the selling price for 1 t-shirt is Rp 79.534 and rounded up to Rp 80.000. While the selling price for 1 t-shirt using the full costing method is Rp 79.689 and rounded up to Rp 80.000. The difference between the comparison of the production costs of UMKM Sablon Sogi Studio and the total cost is 1 t-shirt for Rp 161 and 43 t-shirts for Rp 6.976. The difference between the comparison of the selling price of UMKM Sablon Sogi Studio and the total cost is 1 t-shirt for Rp 155 and 43 t-shirts for Rp 6.649.

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