

## Analysis of the Calculation of Cost of Goods Produced at Raihan Bakery and Cake Shop Medan

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### Abstract

This study uses the full costing method for the calculation of the cost of goods manufactured at Raihan Bakery and Cake Shop Cost of goods manufactured against the selling price and gross profit The purpose of this study is to determine the determination of the cost of goods manufactured at Raihan Bakery and Cake Shop, to determine how much difference in the cost of goods manufactured set by the company with the cost of goods manufactured should be, and to determine the effect of the difference in the cost of goods manufactured against the selling price and gross profit. The benefits of this research are expected to benefit all parties, including for the author, for Raihan Bakery and Cake Shop and Bag! almamater. The type of research used is descriptive research. The data used is primary data. Data collection methods are by interview method observation and documentation Data analysis and analysis techniques used are qualitative analysis and comparative quantitative The results of the study show Determination of the cost of goods manufactured should menun!' general standard is to calculate the elements of the cost of goods manufactured obtained by Raihan Bakery and Cake Shop presents lower results compared to the cost of goods manufactured obtained by the author in accordance with accounting theory. The cost of production obtained by the Raihan Bakery and Cake Shop company for Bika ambon is Rp. 17,744,400, with a cost of goods per pan of Rp. 38,000, and a selling price of Rp. 45,600 while u.

**Keywords:** Cost of Goods Manufactured, Full Costing



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### INTRODUCTION

The company is a form of organisation that carries out certain business activities with the main objective of obtaining maximum profit from the business activities carried out. A company basically also has a desire to develop its business to be bigger and able to compete with other companies. To be able to overcome this, the company must be able to implement good strategies, so that it is able to achieve the success of a product. (Sudirman, 2020) With fierce competition, companies should continuously improve product quality through a good production process, using labour and equipment, by converting raw materials into products that are in accordance with consumer demand. (Ulfidatul et al., 2019)

In connection with the foregoing, it is hoped that the ability of managers or company leaders to work efficiently and be able to calculate production costs consisting of raw material costs, labour costs, and factory overhead costs. The determination of the calculation of the cost of goods manufactured is very important for the company because the cost of goods manufactured affects the selling price offered to consumers. Improper calculation of the cost of goods manufactured will result in the cost of goods manufactured being too high or too low. This will affect the company's financial statements for the period in question (Sari & Hamidy, 2021).

Each manufacturing company has its own policy in determining the method of determining production prices. This is because each manufacturing company has its own characteristics in producing products and the way the production process is carried out. To

calculate the exact cost of production will depend on the nature of production. Broadly speaking, the way of producing products can be divided into two types, namely production on an order basis and mass production. Companies that produce based on orders, collect their cost of goods using the job order cost method. In this method, production costs are collected for a specific order and the cost of production per unit of product produced by the order is calculated by dividing the total production cost for the order by the number of units of product in the order (Lestari et al., 2019).

Companies that produce mass, collect their cost of goods using the process cost method. In this method, production costs are collected for a certain period and the cost of production per unit of product produced in that period is calculated by dividing the total production costs for that period by the number of units of product produced in the period in question (Purwanto & Watini, 2020). By looking at the production method used by the Raihan Bakery company in producing bread with a mass production process with the same production results, it can be determined based on theory that the company has not yet used the full costing method in determining the cost of production (Gersil et al., 2016).

Inaccuracy in the calculation of the cost of goods produced has a detrimental effect on the company, because the cost of goods produced serves as the basis for setting selling prices, as a tool for measuring the efficiency of implementing the production process and as a basis for decision making for company management. Thus the company must be really serious in handling the cost of production. Likewise with the company Raihan Bakery, which is engaged in the production of bread aims to obtain a large profit for Raihan Bakery Jl. Denai No. 118 Sp. Perjuangan Medan is a company engaged in the manufacturing industry engaged in food.

Raihan Bakery Cake Shop Jl. Denai No. 118 Sp. Perjuangan Medan produces various types of bread that has its own shops that sell the company's production. In carrying out its activities the company holds production activities to meet market demand. In its operation, Raihan Bakery Cake Shop Jl. Denai No. 118 Sp. Perjuangan Medan is faced with various types of products through various stages in completion so that various costs arise beyond the cost of raw materials and direct labour that support product completion. This requires an accurate allocation of costs to products based on the resources consumed as a result of various activities which will ultimately result in the calculation of the cost of goods sold (Lutitsky & Dragija, 2012).

**Tabel 1. Production Data at Raihan Bakery Medan Year 2022**

Description	Product		
	Bika Ambon	Bolu Sifon Kacang	Bolu Banana
Produktion Valume	7.370	6.973	7.142
Selling Price (Rp)	60.000	52.000	55.000
Main Cost (Rp)	197.700.000	188.700.000	190.900.000
Direkct Labour Hours	32.500.000	32.500.000	32.500.000

Source: Raihan Bakery Medan.

## RESEARCH METHODS

The type of research that I will try to discuss in this article is descriptive qualitative. Qualitative descriptive research is one type of research that is included in the type of qualitative research. The purpose of this research is to reveal events or facts, circumstances, phenomena, variables and circumstances that occur when research takes place by presenting what actually happens. This research interprets and describes data related to the current situation, attitudes and views that occur in a society, conflicts that occur between two or more situations, links between variables that arise, differences between existing facts and their influence on a condition, and so on.

According to (Abdussamad, 2021), the types of research methods are grouped based on the purpose and level of naturalness (natural setting) of the object under study. Descriptive methods are methods used to describe or analyse research results but are not used to make broader conclusions. This research is a qualitative approach. Qualitative research methods are research methods based on the philosophy of post positivism, used to research on natural object conditions, where the researcher is the key instrument, sampling of data sources is done purposively, data collection techniques are combined, data analysis is inductive/qualitative and qualitative research results emphasize meaning rather than generalisation. To obtain data as a support in order to compile this thesis, the case study method is used and data collection through this research, the research methods used are as follows:

1. Library research, namely research conducted by conducting directly on several books as library materials, as well as scientific essays that are closely related to the problems above and can also be added to lecture materials that have to do with the discussion of this research.
2. Field research (Field Research), namely research conducted by conducting direct visits to the office that has been determined. To collect the necessary field data, the following techniques/methods are used:
  - a. Interview. The interview method is a method of collecting data by asking questions freely, both structured and unstructured to obtain information about the object of research. This interview was conducted to the owner of Raihan Bakery and Cake Shop to find out directly what costs are incurred to produce bread and cakes.
  - b. Observation. Observation is a method used by researchers by direct observation of the production process activities carried out at Raihan Bakery and Cake Shop.

Data analysis techniques are methods used in order to solve problems. The data analysis technique used in this study is a qualitative descriptive analysis technique, namely by describing based on observations of the data obtained from Raihan Bakery and Cake Shop Medan. From the data obtained, data analysis can be carried out as follows:

1. Identifying production cost data which includes raw material costs, direct labour costs and factory overhead costs.
2. Evaluate the allocation of cost components based on raw material costs, direct labour costs and factory overhead costs.
3. Preparation and calculation of production costs using the full costing method. The stages in this method include:

Collecting production data in a certain period and collecting raw material costs, direct labour costs and factory overhead costs for a certain period to compile a production report and calculate equivalent production. Production and calculate equivalent production in order to calculate unit cost.

## RESEARCH RESULTS AND DISCUSSION

Raw material costs are all costs incurred in purchasing raw materials to produce Bika Ambon, Sifon Kacang sponge and Banana sponge. The cost of raw materials used in making sponge cake at Raihan Bakery And Cake Shop Medan is as follows:

**Table. 2 Raw Material Costs Bika Ambon / day Raihan Bakery and Cake Shop**

No	Type Material	Usage		Price	Quantity
1	Flour	2	kg	12.000	24.000
2	Eggs	216	butir	1.500	324.000

3	Sugar	3	kg	13.000	39.000
4	Yeast	3	bks	7.000	21.000
5	Coconut Milk	18	butir	7.000	126.000
6	Cereals	36	btg	250	9.000
<b>Total</b>					<b>Rp. 543.000</b>

Source: Raihan Bakery and cake Shop Medan 2023

The data described above is data regarding the use of the main raw materials used for one day and to produce 18 pans of bika ambon, so the costs used for one month for raw material costs with a production of 18 x 26 days = 468 pans are as follows: 26 days X Rp. 543,000,0 = Rp. 14,118,000,-

**Table. 3 Raw Material Cost of Sponge Bean Chiffon / day Raihan Bakery And Cake Shop**

No	Type Material	Usage	Price	Quantity
1	Flour	3 kg	12.000	36.000
2	Eggs	85 butir	1.500	127.500
3	Sugar	3 kg	13.000	39.000
4	Milk	17 bks	10.000	170.000
5	Pasta	3 botol	20.000	60.000
6	BP	4 botol	8.000	32.000
7	nuts	1 kg	10.000	10.000
8	Chocolate Powder	10 bks	15.000	150.000
<b>Total</b>				<b>464.500</b>

Source: Raihan Bakery and cake Shop Medan 2023

The data described above is data regarding the use of the main raw material for peanut chiffon sponge cake which is used for one day and to produce 17 pans of peanut chiffon sponge cake, so the costs used for one month for raw material costs with a production of 17 x 26 days = 442 pans are as follows: 26 days X Rp. 464,500, - = Rp. 12,464,500, -

**Table. 4 Raw material cost of banana sponge cake/day Raihan Bakery And Cake Shop**

No	Type Material	Usage	Price	Quantity
1	Flour	4 kg	12.000	48.000
2	Bananas	5 Sisir	7.000	35.000
3	Sugar	4 kg	13.000	52.000
4	Eggs	60 Butir	1.500	90.000
5	SP	3 botol	10.000	30.000
6	Margarine	4 Kg	15.000	60.000
7	Maizena	1 kg	10.000	10.000
8	Milk	20 bks	5.000	100.000
	BP	2 Botol	8.000	16.000
<b>Total</b>				<b>315.000</b>

Source: Raihan Bakery and cake Shop Medan 2023

The data described above is data regarding the use of the main raw material for Banana sponge cake which is used for one day and to produce 17 banana sponge pans, so the costs used for one month for raw material costs with a production of 20 x 26 days = 520 pans are as follows: 26 days X Rp. 315,000, - = Rp. 8,190,000, -

**Table 5. Direct labour costs of Raihan Bakery and Cake Shop Medan**

No	Part Labour	Wage/Month
1	Processing Section - Making and Doughing	Rp. 2.600. 000,-

	- Dough Moulding - Frying/Burning	Rp. 1.300.000,- Rp. 2.600.000,-
2	Packing Section - Wrapping - Packaging	Rp. 650.000,- Rp. 650.000,-
	<b>Total</b>	<b>Rp. 7.800.000,-</b>

Source: Raihan Bakery and cake Shop Medan 2023

**Table 6. Factory Overhead Costs of Raihan Bakery And Cake Shop Medan**

diskription	amount (Rp)
Cost Of Auziliary Material	Rp. 250.000
Electricity Cost	Rp. 625.000
Gas	Rp. 700.000
Machine Depreciation Cost	Rp. 500.000
Mixer Depreciation Cost	Rp. 50.000
Equipment Depreciation Cost	Rp. 62.500
Indirect Labour Cost	Rp. 250.000
Marketing Costs	Rp. 25.000
Administration Cost	Rp. 17.000
Building Depreciation Cost	Rp. 600.000
<b>Total</b>	<b>Rp. 3.079.000</b>

Source: Raihan Bakery and cake Shop Medan 2023

Total factory overhead costs incurred during the month amounted to Rp. 3,079,000, - the cost consists of the cost of auxiliary materials, electricity costs, gas costs, machine depreciation costs, mixer depreciation costs, equipment depreciation costs, building depreciation costs, marketing costs and administrative costs. In calculating the cost of production, Raihan Bakery and Cake Shop calculates it by adding the total costs for one month divided by the number of products produced. For the calculation of the price of production, the company does not include the cost of depreciation of ovens and mixers.

**Table 7. Calculation of Cost of Goods Produced per Month Raihan Bakery And Cake Shop Medan December 2022**

Discription	Bika Ambon	Bolu Sifon Kacang	Bolu Pisang
Raw Material Cost	Rp. 14.118.000	Rp. 12.464.500	Rp. 8.190.000
Labour Cost	Rp. 2.600.000	Rp. 2.600.000	Rp. 2.600.000
Factory Overhead Costs	Rp. 1.026.400	Rp. 1.026.400	Rp. 1.026.400
<b>COGS</b>	<b>Rp. 17.744.400</b>	<b>Rp. 16.090.900</b>	<b>Rp. 11.816.400</b>
Product Unit	468	442	520
<b>COGS Per Unit</b>	<b>Rp. 38.000,-</b>	<b>Rp. 36.500,-</b>	<b>Rp. 23.000,-</b>

Source: Raihan Bakery and cake Shop Medan 2023

## Discussion

Cost of Goods Produced with Full Costing Method at Raihan Bakery and Cake Shop Medan. Raihan Bakery and Cake Shop Medan has been using the Full Costing Method in determining the Cost of Goods Produced. In determining these rates, Raihan Bakery and Cake Shop Medan has several considerations, namely market segment or consumer purchasing power. The calculation of the cost of goods produced by Raihan Bakery and Cake Shop Medan is by summing up all fixed costs and variable costs. The Full Costing method uses the number of units produced as the basis for calculating the Cost of Goods Manufactured. With the

Traditional System, the results of the calculation of the Cost of Goods Produced per unit in 2022 obtained the results of the Cost of Goods Produced for Bika Ambon is Rp.38,000 for Bolu Sifon Kacang of Rp. 36,500, and for Banana Bolu of Rp. 23,000.

This is also evidenced by the results of research from (Maghfirah et al., 2016) with the title Analysis of Cost of Goods Sold at CV HS PIA bakery company in Palopo is a manufacturing company engaged in the bread making industry. The company in producing pia bakery bread is carried out continuously to fulfil the inventory of goods in the warehouse. Based on the production process carried out continuously, the company uses the full costing method, although it has not been fully used to calculate the cost of production to determine the selling price. so in determining the cost of goods produced, the company has not applied the commonly used accounting theory. Determination of Cost of Goods Manufactured based on the Full Costing Method consists of two stages, namely the first stage procedure and the second stage procedure. The Full Costing Method uses more cost drivers, therefore the Full Costing Method is able to determine more accurate results and does not cause cost distortion. In addition, the Full Costing Method can improve the quality of decision making so that it can help management improve its strategic planning.

Full Costing Method at Raihan Bakery and Cake Shop Medan in 2019. Based on theoretical studies and data analysis that has been done, it can be seen that overall the Full Costing Method provides smaller results. The difference in calculations between traditional cost accounting and using the Full Costing Method obtained the results of Bika Ambon Products experiencing overcosting or overcharging of Rp. 38,000, for the selling price of the calculation of Rp. 45,600, - with a profit of 20% while the kenytaan at Raihan Bakery and Cake Shop for bika ambon is sold at a price of Rp. 57,000, - Rp. 65,000, - so there is a profit of 50%-60% per loyangnya. Bolu Sifon Kacang experiences overcosting or overcharging of Rp. 36,500, - for the selling price of the calculation of Rp. 44,000, with a profit of 20% while the reality at Raihan Bakery and Cake Shop for sponge bean chiffon is sold at Rp. 55,000, - Rp. 60,000, - depending on consumer demand for toppings so that there is a profit of 50%-60% per piece. while Banana Sponge has overcosting or overcharging costs of Rp. 23,500. for the selling price from the calculation of Rp. 28,000, - with a profit of 20% while the kenytaan at Raihan Bakery and Cake Shop for banana sponge is sold at Rp. 45,000, - Rp. 50,000, - so there is a profit of 90%-100% per piece because at Raihan Bakery and Cake Shop there are many orders / requests from consumers for banana sponge so that the price goes up.

Raihan Bakery and Cake Shop Medan. a bakery operating in Medan still uses the Full Costing Method in determining the Cost of Goods Manufactured. With the traditional cost system, the company cannot show how much cost is actually consumed in each product done by the company. Cost allocation with the traditional system results in deviations because each product does not consume overhead costs proportionally to the units produced. This condition results in errors in the calculation of the cost of goods manufactured, which impacts on selling pricing strategies, inappropriate managerial decisions, ineffective resource allocation, and even loss of competitive advantage. Raihan Bakery and Cake Shop Medan is expected to replace the traditional cost accounting method with the Activity Based Costing System method in determining the cost of goods produced because the Activity Based Costing System calculation is more accurate than the traditional cost accounting method and can help management in making decisions. This is in accordance with the results of previous research conducted (Restu Anugerah Harefa et al., 2022) where the results showed an overcosting condition for adult hijab products and an overcost condition for children's hijab products. Meanwhile, the difference with previous research (Komara et al., 2016) shows that the traditional system provides a higher COGS calculation compared to the ABC method at Roti Lidya company.

## CONCLUSION

Raihan Bakery and Cake Shop is a manufacturing company engaged in the bread making industry. The company in producing bakery pia bread is carried out continuously to fulfil the inventory of goods in the warehouse. Based on the production process carried out continuously, the company uses the full costing method, although it has not been fully used to calculate the cost of production to determine the selling price. So in determining the cost of goods produced, the company has not applied the commonly used accounting theory.

Raihan Bakery and Cake Shop business has collected and calculated the elements of production costs used in calculating the cost of goods produced in each period. In calculating raw material costs and direct labour costs have been done appropriately. However, in calculating factory overhead costs, it is still inaccurate because it has not included some elements of factory overhead costs in the calculation, such as elements of oven and mixer depreciation costs into factory overhead costs. As a result, the total cost of products presented by the author in accordance with accounting theory is greater than the total cost of products calculated by the company. And this resulted in the overall factory overhead costs being presented too small.

The cost of goods obtained by Raihan Bakery and Cake Shop presents lower results compared to the cost of goods obtained by the author in accordance with accounting theory. The cost of production obtained by the Raihan Bakery and Cake Shop company for Bika ambon is Rp. . 17,744,400, with a cost of goods per pan of Rp. 38,000, and a selling price of Rp. 45,600 while for bika ambon sold at Raihan Bakery and Cake Shop Medan for Rp. 57,000 - 65,000 per pan, for sponge chiffon nuts is Rp. . 16,090,900, with a cost of goods per pan of Rp. 36,500, and a selling price of Rp. 44,000 while for peanut chiffon sponge sold at Raihan Bakery and Cake Shop Medan for Rp. 55,000 - Rp. 60,000 per pan and for banana sponge cake the acquisition of the cost of production obtained is Rp. . 11,816,400, with a cost of goods per pan of Rp. 23,500, and a selling price of Rp. 28,000 while for banana sponge cake sold at Raihan Bakery and Cake Shop Medan for Rp. 45,000 -50,000 per pan.

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