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Calculation of Production Prices Using the Full Costing Method and Cost of Sale Using the Cost Plus Pricing Method on D'atabajo Coffee

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ABSTRACT

This study aims to compare the calculation of the cost of goods produced between the full costing method and the cost of goods sold based on the cost plus pricing method at the D'atabajo Coffee business, and evaluate its impact on sales profit. The research method used is qualitative research with the place and time of research at D'atabajo Coffee, Labuan Bajo, West Manggarai. The data used includes qualitative data in the form of business history and accounting policies, and quantitative data in the form of production costs and selling price calculations. Data collection techniques involved interviews and documents. Data analysis includes data collection, validity test, analysis, and conclusion. From the results of the study, there is a significant difference between the cost of goods produced from the two methods. The difference for the calculation of cost of goods manufactured by D'atabajo Coffee for arabica is Rp 17,909 and for robusta is Rp 8,898. Meanwhile, the difference from the selling price for arabica is IDR 2,711 and for robusta is IDR 4,569. This difference indicates the potential to review the pricing strategy to match the expected margin and increase business profitability.

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1. INTRODUCTION

Business development in Indonesia is expanding, covering a wide range of business scales from micro to large industries, spread across rural and urban areas. This growth is driven by product innovation and uniqueness, allowing local products to compete with foreign products in an increasingly competitive market. The level of competition continues to increase regardless of which companies have been able to survive or are just starting their business [1]. Companies that produce a product in the production process need facts about how much cost is used in issuing these products and at the same time are expected to calculate and determine the right cost of goods sold and the products produced. In addition to satisfying human needs, namely to get reasonable profits and be able to meet consumer needs [2].

In the context of sales, setting the selling price is critical because the price must cover all production costs and provide the desired profit for the company. Determining the right selling price affects the sustainability of the company, and the cost of production is

a key aspect in this process. In addition, in determining the selling price of products, one of the most commonly used approaches is Cost Plus Pricing. Cost plus pricing is a simple method that is most commonly used to determine the selling price of a product by adding the total cost of production to its margin value [3]. The cost plus pricing method is a method of calculating the selling price by using a total cost formula consisting of production and non-production costs plus the desired markup or profit percentage. By using this approach, we have a greater chance of achieving cost efficiency, because the profit we want is directly proportional to the total costs incurred by the company [4].

Before determining the cost of goods sold, the first thing to do is determine the cost of goods produced. The cost of goods manufactured is a list of costs incurred by the company in a certain period, and the correct calculation of the cost of goods can reduce uncertainty in setting the selling price. This study pays attention to cost elements, such as raw material costs, direct labor costs, and factory overhead costs. The process of determining the cost of goods also includes selecting the appropriate method, one of which is the full costing method. Full costing is a production cost method that takes into account the determination of costs such as raw material costs, direct labor costs and factory overhead costs, both fixed and variable behavior [5].

In general, the calculation of cost of goods sold and cost of production in micro businesses is still done manually or still uses simple calculations and is not in accordance with accounting principles [6]. This was also found in the D'atabajo Coffee microbusiness. D'atabajo Coffee is a business that sells various types of coffee, which was established in 2021, located in Gorontalo Village, Labuan Bajo, Komodo District, West Manggarai Regency. During management until now, a problem has occurred, namely that the correct value of the cost of goods produced is not yet known. For 2 (two) years this business has been running, the calculation of the cost of goods produced by coffee still uses simple calculations and is not in accordance with accounting principles [6].

So the problem of calculating the value of the cost of goods produced, which can affect the determination of the selling price and the resulting profit, is the main focus of this research. Price competition in the coffee product market demands accuracy in the calculation of the cost of goods produced and the cost of goods sold. Small errors in these calculations can have a significant impact on the profit earned by the company. Therefore, this study aims to calculate the cost of production using the full costing method and the cost of goods sold using the cost plus pricing method at d'atabajo coffee and evaluate the impact on sales profit.

2. LITERATURE REVIEW

Based on the research title taken about the application of the full costing method in calculating the cost of production to sales profit, the theoretical study is as follows:

2.1 Cost Accounting

Cost accounting consists of two words, namely accounting and cost. Accounting is the art of collecting, identifying, recording transactions, and events related to finance, so as to produce financial information or a financial report that can be used by interested parties, [5]. And cost is a sacrifice of economic resources that can be measured in units of money that has occurred potentially to achieve certain goals [7].

According to [8], cost accounting is a special part of accounting that results in determining and controlling costs, which is the definition of cost accounting. Therefore, cost accounting is a science that emphasizes how an organization or company determines and controls expenses, or costs as they are called in accounting language. Cost accounting is a branch of accounting and a management tool that systematically monitors and records cost transactions and presents cost information in the form of cost reports.

Based on some of these definitions, it can be concluded that cost accounting is an integral part of financial and management accounting. Its main focus is on presenting details about the costs associated with the production of goods or services. Through cost accounting, management can obtain in-depth information about the cost elements involved in a production process. This information is not only the basis for calculating the cost of production, but also an effective tool for controlling the company's operations. By understanding the cost structure in detail, management can make more informed decisions and plan appropriate strategic steps to optimize company performance in the future.

2.2 *Cost Of Goods Manufactured*

According to [9], cost of goods is an allocation of costs that supports certain management objectives. This means that determining the cost of goods depends on certain management goals or desires to be achieved. As well as [8], production costs include production costs using raw materials, direct production costs, direct employee wage costs, and indirect production costs, as well as a collection of all costs used to produce an item. The above costs are directly related to the production process.

This statement indicates that the purpose of a company is to be able to accurately calculate the cost of production, so that the company can evaluate the selling price decisions that have been taken previously. By re-analyzing the selling price that has been decided, the company can assess whether the decision can have the desired result or impact in accordance with the company's financial objectives. This is important to ensure that the selling price not only covers production costs, but also provides the expected profit and avoids negative impacts on the company's financial situation.

The process of determining the cost of goods also includes choosing the appropriate method, one of which is the full costing method. The Full Costing Method is a method of determining the cost of production that calculates all elements of production costs into the cost of production, consisting of raw material costs, direct labor costs, and factory overhead costs, both variable and fixed, [10]. According to [8], it is simple to use the following formula:

Cost of Goods Manufactured= RMC+DLC+FOC

Description:
RMC : Raw Material Costs
DLC : Direct Labor Costs
FOC : Factory Overhead Costs

There are several types of costs based on the definitions of several accounting scholars, as follows:

1) Raw Material Costs, which are costs directly related to the materials used in the production process. For example, raw materials or main materials used to make products.
2) Direct Labor Costs, are direct costs associated with labor directly involved in the production process. For example, the direct wages of factory workers involved in making products.
3) Factory Overhead Costs, are factory overhead costs that include various fixed and variable costs incurred in the production process, such as machinery depreciation costs, factory electricity costs, and factory maintenance costs.

2.3 *Cost Of Goods Sold*

According to [11], states that the meaning of cost of goods sold is actually the price of the principal which means the goods sold. However, the principal suddenly changes its function to become an explanatory price so that the cost price arises. According to [12], argues that cost of goods sold is one of the components of the income statement, which is of concern to company management in controlling

company operations. In terms of its determination, management sets the sales price based on the cost of production obtained and then adds other costs related to sales.

According to researchers, cost of goods sold describes the amount of expenses incurred either directly or indirectly in the process of producing a product or providing services. In general, cost of goods sold includes raw material costs, direct labor, and production overhead costs. Cost of goods sold is a key factor in determining sales profit, because sales profit is obtained by subtracting cost of goods sold from sales revenue. Therefore, the more efficiently a company manages its cost of goods sold, the higher the potential profit that can be achieved. Effective management of the components of cost of goods sold is an important strategy in increasing the profitability and competitiveness of the company in the market.

2.4 Cost Plus Pricing Method

According to [3], Cost Plus Pricing is a simple approach that is most commonly used in setting the selling price of a product by adding the total cost of production to its margin value. Cost Plus Pricing is also a simple and commonly used pricing method, where the selling price of a product is determined by adding the total cost of production to the desired profit margin value. This approach ensures that the entire cost of production, including raw material, labor, and overhead costs, is covered, while the margin provides the desired profit per unit. An additional advantage of this method is its ability to accommodate fluctuations in production costs and provide transparency into the profit margin earned. Although simple, Cost Plus Pricing can provide a stable basis for determining a product's selling price.

3. METHODS

The research method that can be applied in this research is qualitative research. Qualitative research method is a research method that is descriptive, refers to data, utilizes existing theory as supporting material, and produces a theory [13]. Then the place and time of the research to be carried out is at the D'atabajo Coffee business located in Pasar Baru, Gorontalo Village, Labuan Bajo, Komodo District, West Manggarai Regency.

Furthermore, the types of data used in this study are qualitative data and quantitative data. Qualitative data in the form of business history and accounting policies applied in the business as well as information needed to support this research. Meanwhile, quantitative data is in the form of production cost data and selling price calculations [14]. The data source that can be used in this research is primary data. Primary data is data obtained directly from the object of research. The data collection techniques used are: Interview, which is an activity carried out by the author to obtain information directly by asking questions to the source. Also, documents are records of an event, which can be in the form of writings, pictures or monumental works of a person [15]. And the necessary data analysis techniques include data collection, data validity testing, data analysis, and drawing conclusions.

4. RESULTS AND DISCUSSION

4.1 D'atabajo Coffee Profile

D'atabajo Coffee was established in 2021 at the eLBajo Commodus Polytechnic Campus, Gang Ame Nompos, Wae Kelambu Village-Labuan Bajo West Manggarai by Mr. Afrianus Jebaut and his colleagues. The name "D'atabajo" comes from the word "d'ata" which means belonging or ownership, and "bajo" which stands for Labuan Bajo. As a micro business in the field of coffee sales, D'atabajo Coffee focuses on promoting authentic coffee from Manggarai, a region in East Nusa Tenggara. Coffee grown in Manggarai nature has unique and diverse characteristics, creating coffee beans with a distinctive flavor. D'atabajo Coffee persistently strives to improve the quality of authentic Manggarai coffee, especially

focusing on robusta coffee. Although in 2023 the participation of the partners in this venture declined, Mr. Afrianus Jebaut maintained his passion and determination to continue this venture even without the full support of his previous business partners.

In the face of changing business dynamics and seeing opportunities for expansion, Mr. Afrianus Jebaut decided to give his business a new twist. With inspiration, he developed D'atabajo Coffee by establishing a coffee shop business on April 23, 2023 located in Pasar Baru, Gorontalo-Labuan Bajo Village, West Manggarai. With a vision to not only belong to the people of Labuan Bajo but also become a tourism icon in the region. D'atabajo Coffee not only maintains a focus on robusta anggarai coffee, but also expands its reach by including arabica coffee in its offerings. The ultimate goal is to create a coffee product that not only delights the palate of the local community, but also attracts the attention of tourists coming to Labuan Bajo. With coffee quality remaining the main focus, D'atabajo Coffee is a brand that represents dedication to local coffee while delivering a unique experience to its consumers.

4.2 Calculation of Cost of Goods Produced

This research focuses on the D'atabajo Coffee business. The calculation of production prices is carried out on 2 (two) types of coffee, namely arabica coffee and robusta coffee, as set out in the following table:

Table 1. Calculation of Cost of Goods Produced for Arabica

Description	Company Simple Method			Full Costing Method		
	Price (Rp)	Quantity	Amount (Rp)	Price (Rp)	Quantity	Amount (Rp)
1. Raw Material Cost						
Arabica Coffee Beans	125.000	5 Kg	625.000	125.000	5 Kg	625.000
Total			**625.000**			**625.000**
2. Direct Labor Costs						
Roasting Section	-	-	-	100.000	1 day	100.000
Total			-			**100.000**
3. Variable Factory Overhead Costs						
200gr arabica packaging	6.000	20 Pcs	120.000	6.000	20 Pcs	120.000
Transportation	50.000	-	50.000	50.000	-	50.000
Milling	-	-	-	5.000	4 Kg	20.000
Tupperware	-	-	-	40.000	1 Pcs	40.000
Spoon	-	-	-	5.000	2 Pcs	10.000
Cups	-	-	-	7.000	1 Pcs	7.000
Tampah	-	-	-	20.000	1 Pcs	20.000
Electricity Usage For Arabica	-	-	-	1.352	1 Hours	1.352
Gas Utilization for Arabica	-	-	-	290.000	100 Minutes	7.830
Total			**62.000**			276.182
4. Fixed Factory Overhead Costs						
Depreciation of Roasting Equipment	-	-	-	41.096	1	41.096
Depreciation of Presses	-	-	-	1.541	1	1.541
Depreciation of Digital Scales	-	-	-	1.370	1	1.370
Total			-			**44.007**
5. Total Production Cost (1+2+3+4)			**687.000**	-	-	**1.045.189**
6. Number of Production Units			20 Pcs	-	-	20 Pcs
COST OF GOODS MANUFACTURED PER UNIT (5/6)			**34.350**			**52.259**

Source: Researcher (2024)

Table 2. Calculation of Robusta Cost of Goods Produced

Description	Company Simple Method			Full Costing Method		
	Price (Rp)	Quantity	Amount (Rp)	Price (Rp)	Quantity	Amount (Rp)
1. Raw Material Cost						
Robusta Coffee Beans	60.000	15 Kg	900.000	60.000	15 Kg	900.000
Total			**900.000**			**900.000**
2. Direct Labor Costs						
Roasting Section	-	-	-	100.000	1 day	100.000
Total			**-**			**100.000**
3. Variable Factory Overhead Costs						
200gr robusta packaging	6.000	60 Pcs	360.000	6.000	60 Pcs	360.000
Transportation	50.000	-	50.000	50.000	-	50.000
Milling	-	-	-	5.000	12 Kg	60.000
Tupperware	-	-	-	40.000	5 Pcs	200.000
Spoon	-	-	-	5.000	6 Pcs	30.000
Cups	-	-	-	20.000	3 Pcs	60.000
Tampah	-	-	-	7.000	3 Pcs	21.000
Electricity Usage For Robusta	-	-	-	1.352	2,5 Hours	3.380
Gas usage for Robusta	-	-	-	290.000	300 Minutes	15.467
Total			**410.000**			**799.847**
4. Fixed Factory Overhead Costs						
Depreciation of Roasting Equipment	-	-	-	41.096	1	41.096
Depreciation of Presses	-	-	-	1.541	1	1.541
Depreciation of Digital Scales	-	-	-	1.370	1	1.370
Total			**-**			**44.007**
5. Total Production Cost (1+2+3+4)			**1.310.000**	-	-	**1.863.854**
6. Number of Production Units			60 Pcs	-	-	60 Pcs
COST OF GOODS MANUFACTURED PER UNIT (5/6)			**21.833**			**30.731**

Source: Researcher (2024)

4.3 Calculation of Cost of Goods Sold

After obtaining the cost of production, D'atabajo Coffee does not calculate the cost of goods sold because they assume that the cost of production can determine the selling price of the product. D'atabajo Coffee sets the selling price for arabica coffee at IDR 60,000 and robusta coffee at IDR 40,000. From the results of this study, researchers tried to compile the cost of goods sold using the cost plus pricing method, with the calculation results as follows:

Table 3. Calculation of Cost of Goods Sold for Arabica Coffee

Total Cost of Production	52.259
Margin	20%
Amount	52.259 + (20% X 52.259)
Selling Price	**62.711**

Source: Researcher (2024)

Table 4. Calculation of Cost of Goods Sold for Robusta Coffee

Total Cost of Production	30.731
Margin	15%
Amount	30.731 + (15% X 30.731)
Selling Price	**62.711**

Source: Researcher (2024)

4.4 Discussion

Based on table 1 and table 2 in making 1 pcs of coffee, D'atabajo Coffee will spend raw material costs of Rp 1,525,000 this is intended to buy coffee beans in making D'atabajo Coffee business. Then in determining direct labor costs, D'atabajo Coffee does not calculate direct labor costs because the owner of D'atabajo Coffee works directly, but in the full costing method it is necessary to calculate direct labor costs. This is because

making ground coffee can take approximately 2 days. The next cost component is factory overhead costs, where the weaver only calculates packaging costs and transportation costs for arabica of IDR 120,000 and IDR 50,000, while for robustanya it is IDR 360,000 and IDR 50,000. However, in the full costing method, in addition to packaging costs and transportation costs, researchers also calculate the cost of tampah used to store coffee after roasting, the cost of tupperaware used to store coffee after it is cold and ready to be ground, the cost of spoons and cups, electricity costs, gas costs, and machine depreciation costs. So that overhead costs if using the full costing method for arabica amount to IDR 320,189 and for robusta amounting to IDR 843,854. From the total calculation of the cost of production per unit in table 2 and table 3, when viewed from the calculation side of D'atabajo Coffee for arabica, it is IDR 39,750 and for robusta it is IDR 21,833, while if the calculation uses the full costing method for arabica it is IDR 52,259 and for robusta it is IDR 30,731. So the calculation of the cost of production has a difference, namely for arabica of Rp 12,509 and for robusta of Rp 8,898. Based on table 3 and table 4, it can be seen that with the expected margin for arabica of 20% and for robusta of 15% of the cost of production using the full costing method, the selling price for arabica can be obtained at Rp. 62,711 and for robusta at Rp. 35,341. D'atabajo Coffee determines the selling price of coffee for arabica at IDR 60,000 and robusta at IDR 40,000, so from the set price it can be seen that the selling price for arabica has a difference of IDR 2,711 and for robusta of IDR 4,659.

The impact of different cost of production calculations between the traditional method and the full costing method on D'atabajo Coffee directly affects the sales profit per unit of their product. It can be seen that by using the full costing method, the selling price of arabica coffee increased by IDR 2,711 per unit, while for robusta coffee it increased by IDR 4,659 per unit, compared to the previously set price. This indicates that the use of the full costing method can help increase the profit margin per unit of product, which in turn can increase the total sales profit per specific period.

Suggestions from this study are that it is important for D'atabajo Coffee to consider the full costing method in setting their selling prices in order to maximise sales profit and future research can expand the scope of analysis by identifying other factors that may affect cost of production and sales profit, as well as considering appropriate marketing strategies to increase market share and profits.

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