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Analysis of Calculation Cost Production Using The Full Costing Method at UD. Tahu Sehati

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ABSTRACT

This research aims to analyze the calculation of cost of goods manufactured at UD Tahu Sehati using the full costing method. This method was chosen because it encompasses all elements of production costs, including raw materials, direct labor, and factory overhead, thereby producing more accurate and comprehensive cost calculations. Using a qualitative and descriptive approach, data were obtained through interviews, documentation, and observation at the business location, which were then systematically analyzed and presented descriptively. The research results show that the calculation of cost of goods manufactured based on the full costing method amounts to Rp 820.63 per piece of tofu, which differs from previous calculations that inadequately accounted for all costs. Based on these findings, it is recommended that business owners be more careful in calculating all operational and overhead cost elements so that the business can improve its efficiency and profitability. This research is expected to provide benefits as reference material in production cost management for MSMEs, particularly in the tofu production sector.

ABSTRAK

Penelitian ini bertujuan untuk menganalisis perhitungan harga pokok produksi pada UD Tahu Sehati dengan menggunakan metode full costing. Metode ini dipilih karena mencakup seluruh unsur biaya produksi, termasuk bahan baku, tenaga kerja langsung, dan overhead pabrik, sehingga menghasilkan perhitungan biaya yang lebih akurat dan komprehensif. Dengan pendekatan kualitatif dan deskriptif, data diperoleh melalui wawancara, dokumentasi, dan observasi di lokasi usaha, yang kemudian dianalisis secara sistematis dan disajikan secara deskriptif. Hasil penelitian menunjukkan bahwa perhitungan harga pokok produksi berdasarkan metode full costing sebesar Rp 820,63 per potong tahu, berbeda dengan perhitungan sebelumnya yang kurang memperhitungkan semua biaya. Berdasarkan temuan tersebut, disarankan agar pemilik usaha lebih berhati-hati dalam memperhitungkan semua unsur biaya operasional dan overhead agar usaha dapat meningkatkan efisiensi dan profitabilitasnya. Penelitian ini diharapkan dapat memberikan manfaat sebagai bahan referensi dalam pengelolaan biaya produksi UMKM khususnya di bidang produksi tahu.

Kata Kunci:
cost production; full costing for MSMEs; efficiency; productivity

INTRODUCTION

MSMEs, or micro, small and medium enterprises, are very important for the growth of the Indonesian economy (Mulyani & Kamilah, 2023). MSMEs contribute to

the allocation of development results in addition to economic growth (Wahyudi et al., 2024). Lots of new businesses are emerging nowadays, from small companies to large and large companies. We provide a variety of products and services designed to meet needs at various levels of scale. However, many businesses also went bankrupt in a short time (Mulyani & Kamilah, 2023). MSME development does not always go as expected. In practice, many businesses fail. Business failure is not limited to one industry, but can occur in various business sectors. limitations in technical aspects of production and expertise, lack of managerial skills, and weak abilities in financial management.

Financial management is an activity that is carried out every day. However, it turns out that not many people know how to manage their finances properly. Many people know that financial management is limited to cash in and out (Karima & Sari, 2025). Therefore, financial management, which involves very risky matters, needs to be known (Harefa et al., 2022). Apart from calculating financial management, you also have to calculate the costs of producing, which are all expenses incurred in the process of processing raw materials into goods that are ready to be sold (Andini & Praptono, 2021). COGS only includes costs directly related to the production process, while production costs include all costs incurred in business processes, including non-production costs such as marketing, administration and operational costs. The cost of production includes raw material costs, direct labor costs, and factory overhead costs (Soraya & Septiana, 2018).

UD. Tahu Sehati is a medium-sized business that sells raw tofu and fried tofu, this business has been around for a long time, in 2019 this MSME issued a permit called UD. Know Healthy. In calculating the cost of production starting from raw material costs, labor costs, factory overhead costs, this has not been calculated as a whole. This competition forces economic actors to maintain and increase the competitiveness of the products they create in a rapidly developing business climate. The entire company aims to provide goods with special advantages. In addition to quality, businesses compete on price. Because people are more interested and demand products with the best quality at the lowest prices. A business must first know its production costs before deciding on the selling price of a product.

THEORETICAL REVIEW

Cost accounting

Cost accounting can be defined as a systematic process that includes recording, classifying, summarizing, and presenting information regarding costs related to the production and sale of goods or services (Mulyadi, 2018),. Apart from that, cost accounting also includes measurement, analysis, calculation and reporting related to costs, profitability and company operational performance. Thus, cost accounting plays an important role in providing relevant data for managerial decision making and operational efficiency evaluation.

Purpose of Accounting

The main objective of cost accounting is to provide cost information needed by management to assist in managing the company. This information is very useful in various ways. among others:

Planning, Controlling and Performance Evaluation

Planning is the process of establishing goals and programs, both long and short term, which will serve as a guide for future activities. To achieve effective cost control, the first step is to determine the estimated costs that should be incurred to make a product. With careful planning, it can be used as an efficient management performance control and evaluation tool, which allows costs that actually occur to be integrated without deviating from what they should be.

RESEARCH METHODS

Research Design

This research uses qualitative techniques and a descriptive approach, namely providing a sentence by sentence explanation regarding the production cost calculations carried out on the targeted research object. To fully understand the problems outlined regarding a particular object from the researcher's point of view, qualitative research is used. The researcher will then explain the facts about phenomena and issues related to business. Hypothesis testing was not used in this study. The aim of the research is to provide a comprehensive, detailed and complete picture of the phenomenon, culminating in a conclusion.

The descriptive method is a type of research methodology that collects and analyzes data, then enters and analyzes the data to produce a clear picture. Interview data, private company documents, and various other documents were used in this research. A qualitative research approach was chosen because it allows researchers to collect and examine data to understand how the full costing method calculates production costs.

Data collection technique

The data collection method used in this research is as follows:

1. Observation

One type of research that goes directly into the field to collect data for researchers is observation. Direct observation at the sugar factory was used to conduct this research. Apart from making observations, procedures for documenting all costs related to sugar production can also be completed.

2. Interview

Asking a number of questions to the resource person (production employee) is one way to conduct an interview. Production workers who determine the cost of production in the financial sector must be asked directly by researchers for this research.

RESEARCH ANALYSIS AND DISCUSSION

Mr. Syamsuri is a resident of Banyuwangi who lives in Genteng sub-district, Banyuwangi regency. UD Tahu Sehati was founded in 1993 until now. This entrepreneur sells tofu to support his entire family. There are two employees who work for each production. One person is responsible for making the tofu and another person works as frying the tofu

UD. Tahu Sehati is a business selling tofu which is said to be in the tofu making section. This business is known for its commitment to producing tofu that is hygienic, nutritious and free of preservatives, with a distinctive taste that is liked by various groups. Prioritizing the quality of raw materials and a clean and environmentally friendly manufacturing process, UD. Tahu Sehati is present as the main choice for consumers who are looking for healthy and affordable processed soybean products.

UD. Tahu Sehati calculates the cost of production, namely IDR 2,000/10 seeds, which follows the usual market price of tofu. The price of IDR 2,000/10 seeds started in 2005. Since its inception in 1993, the selling price has been IDR 500/10 seeds because the raw materials are considered affordable and appropriate for the year.

The equipment used during the production process is known based on the following events from direct observation or observation (Table 1):

Table 1. The equipment used during the production process

NUM.	Informatiion	quantity	Price (IDR)	Total (IDR)	lifetime
1.	Soaking bucket	17	50.000	850.000	2 years
2.	Miling machine	1	3.500.000	3.500.000	10 years
3.	Ginamo	1	1.500.000	1.500.000	10 years
4.	Firewood	1	150.000	150.000	1 day
5.	Combustion furnace	2	150.000	300.000	2 years
6.	Tofu sieve	1	18.000	18.000	5 months
7.	Plastic bag	1	12.000	12.000	2 days
7.	Iron ore	1	60.000	60.000	2 years
7.	Tofu printing	2	150.000	300.000	5 years
8.	Large frying pan	1	1.000.000	1.000.000	5 years
9.	Vehicle	1	20.000.000	20.000.000	10 years
10.	Building	1	15.000.000	15.000.000	15 years

Source: observations at UD. Tahu Sehati

Production process

The process carried out by partners in producing tofu is one of which is changing soybean raw materials into raw tofu. Every day Mr. Syamsuri's business center activities involve the tofu making process. The tofu production process consists of 7 stages (Mutawakkil et al., 2023), including the following:

a. Sorting Soybean Raw Materials
   Impurities such as small stones, wilted or blackened soybeans, and plant leaves and stems transported in soybean piles are all intended to be removed by screening the raw material. Obtaining quality soybean seeds is the goal in order to produce quality tofu.
b. Soaking and Washing Raw Materials
   After the soybeans are obtained, they are sorted and soaked in clean water for approximately six to seven hours. During this time, they should not be exposed to chemicals such as soap or water containing salt, oil or chlorine. After soaking, the soft and fluffy soybeans are cleaned thoroughly. The purpose of washing is to remove mucus and acid compounds. Apart from that, soaking makes it easier to process the soybeans during milling.
c. grind raw soybeans
d. To make white soybean porridge, soaked and washed soybeans are ground using a grinding machine and a little water is added. This soybean porridge needs to be boiled and then placed in a cement bath to continue boiling.
e. Boiling Soybean Raw Material
   Using a boiling stove to boil soybeans. Using firewood as fuel when boiling makes it faster and more efficient than using gas. The boiling process takes approximately half a day.
f. Filtration of Tofu Juice and Vinegar Mixture
   At this stage, the slurry is filtered through a 1.5 meter long white cloth after the boiling process is complete, and the sediment is then collected in a certain cement container. The purpose of pressing is to extract the tofu juice from the remains. After that, sufficient water and vinegar are slowly added to the soybean juice that has been collected while stirring gently. To help coagulate the soybean juice in the next step, the acid has the same function as vinegar.
g. Tofu Printing
   Soybean juice is molded after being coagulated and precipitated.
h. Raw Tofu
i. This procedure involves moving the squeezed raw tofu to the cutting area, then slicing it.

Presentation of data and analysis

1. Practice calculating the cost of production at UD. Know Healthy

Raw material costs

The calculation of raw materials in tofu production is determined by multiplying the amount of raw materials used by the purchase price of the raw materials. The soybeans used for one production process are 50 kg per day with a price per kg of IDR 8,800. Mr. Syamsuri produces 869 pieces of tofu using 50 kilos of soybeans per day. Calculation of raw materials per production: 50 kg x IDR 8,800 = IDR 440.00

Direct labor costs

Direct labor expenditure is spent in each company. Every company uses direct labor, which is an important component in production. Direct labor is theoretically defined as labor that is directly related to production or the products produced and is part of the production process.

The daily direct labor cost calculation that Mr Syamsuri uses:

1 person who makes tofu = IDR 75,000
1 person for frying tofu = IDR 75,000
Total per day IDR 150,000

Factory overhead costs Apart from direct labor costs and raw materials, entrepreneurs also incur factory overhead costs. The following are the results of an interview with Mr. Syamsuri, the owner of a tofu business:

"The calculated cost for electricity costs together with the house for 1 month is IDR 200,000, if calculated per day it is IDR 200,000: 30 days = IDR 6,666, plastic bag costs IDR 20,000 and firewood = IDR 70,000." (Table 2).

Table 2. Overhead Cost

No.	Fee type	Daily needs (IDR)
1.	Electricity cost	6.666
2.	Cost of crakle bags	10.000
3.	Firewood cost	70.000
	Total	86.666

2. Calculate the price of making tofu at UD. Tahu Sehati uses the full costing method

Raw material costs

The main ingredient in producing tofu is soybeans. UD. In one production, Tahu Sehati can produce 869 pieces of tofu which require 50 kg of soybeans at a price of IDR 8,800/kg. Using the following formula, the cost of soybean raw materials per fruit is calculated:

$$= \frac{\text{50 kg x IDR 8,800/kg}}{\text{869 pieces of tofu}}$$

= Rp. 607.3/piece of tofu

So the cost of raw materials per piece is IDR 607.3

Direct labor costs

The two workers in the frying and manufacturing section are Tahu Sehati, according to labor

cost calculations at UD. Mr. Syamsuri is charged a labor wage of IDR 75,000 per person.

Calculation of direct labor per day:

= 2 employees x IDR 75.000

= Rp. 150.000: one production

= IDR 150.000 : 869 = Rp. 172

Labor costs for tofu are reduced by IDR 172

Production process

The process carried out by partners in producing tofu is one of which is changing soybean rawmaterials into raw tofu. Every day Mr. Syamsuri's business center activities involve the tofu making process. The tofu production process consists of 7 stages, including the following:

Factory overhead costs

1) Fixed overhead costs

Fixed overhead costs are costs that affect the production process indirectly. The three classes of overhead are mixed overhead, variable overhead, and fixed overhead. On the other hand, even though the number of business operations varies, fixed overhead costs are costs whose total amount (within a certain range) is constant. Pak Syamsuri uses the following fixed overhead costs.

Electricity prices

The company knows UD. Tahu Sehati According to UD's daily calculations, Tofu Making Sehati starts every day at 06.00 and ends at 14.00 WIB. Tahu Sehati is open eight hours a day. In one month you spend IDR 200,000 if calculated per day, namely IDR 200,000: 30 = IDR 6,666/day. So IDR 6,666 : 869 = IDR 7.6

b) Depreciation charges

Mr Syamsuri's company assets are used to cover depreciation costs; The asset is believed to have a useful life of at least one year.

Table 3. Depreciation expense

No.	Information	Price (IDR)	Useful (years)	Depreciation
1.	Miling machine	3.500.000	10	972,2
2.	Ginamo	1.500.000	10	416,6

3.	Combustion furnace	150.000	2	208,3
4.	Tofu printing	150.000	5	83,3
5.	Large frying pan	1.000.000	5	555,5
5.	Large frying pan	1.000.000	5	555,5
6.	Wehicle	18.000.000	10	5.000
7.	Bulding	15.000.000	15	3.472
Sum				10.707
Total depreciation				12,3

From the data above (Table 3), it can be seen that the daily depreciation expense is: IDR 10,707 so the total depreciation costs charged to per piece of tofu Rp. 10,707: 869 pieces of tofu = Rp. 12.3

Equipment

Mr. Syansuri also uses various tools and equipment to make tofu. The calculations are as follows, in particular:

1) tofu filter cloth

Because this filter cloth is needed in the pressing process and If you find out, Mr Syansuri needs a filter cloth 1.5 meters long costs IDR 18,000 to produce tofu. Following the calculation

= purchase price of cloth
Change of filter cloth

= IDR 18,000
5

= IDR 3,600
30 days

= IDR 120/day

869 vats of tofu

= Rp. 0.13 fabric cost per piece of tofu

Machine maintenance costs

1) Oil costs

Mr Syamsuri, owner of UD. Tahu Sehati, always check the milling machine because you need to change the oil no later than 3 months so that the machine remains durable and the milling results are maintained. However, oil changes are carried out in approximately two months, and

Mr Syamsuri does not charge this fee to HPP, but usually takes it from his personal money
when the engine requires maintenance.
The calculation = IDR 55,000 : 3 months
= IDR 18,333 per month.
The burden on HPP for tofu per piece is IDR 21.09

2) Diesel costs

On average, 2 liters of diesel are used once a day, and the price per 1 liter is IDR 7,000.
Calculation of diesel fuel per day
= 2 liters x IDR 7,000
= IDR 14,000
= IDR 16.1 diesel costs/cutting tofu
so the total cost to maintain the milling machine is IDR 37.1 per year

Cost for delivering tofu

The transportation used this year uses 1 motorbike use it to market tofu production on the market. Based on interview that the cost of 1 liter of fuel costs IDR 12,000 40% used in this production is IDR 4,800. following for calculate namely:

$$\text{Fuel costs} = \frac{\text{fuel costs per day}}{\text{Total tofu production per day}}$$

$$= \frac{\text{IDR } 4{,}800}{869}$$

$$= \text{IDR } 5.5$$

So the cost for Mr. Syamsuri's delivery of the tofu is IDR 5.5 per one know.

Variable overhead costs

Factory overhead costs whose total value fluctuates in response to changes in the volume of activity are known as variable overhead costs. Variable These overhead costs include:

a) Cost of wood for burning

After the soybeans are ground, the wood is used to make soybean juice. Firewood costs IDR 70,000 per day. An interview with Pak Syamsuri provides this information.
Calculation of the cost of wood for burning

$$= \frac{\text{cost of firewood per day}}{\text{I know a lot every day}}$$

$$= \frac{\text{IDR } 70{,}000}{869}$$

$$= \text{IDR } 80.5 \text{ per year}$$

So the cost of firewood per year for one production is IDR 80.5

b) Cradle costs

Mr Syamsuri knows that buyers still need plastic bags when selling their tofu. carry out the calculations used for plastic bags.

= price of plastic bag x 1 pack
= IDR 10,000 x 1
= IDR 10,000
= IDR 10,000 : 869
= Rp. 11.5 one piece of tofu

Table of calculation of overhead costs for Mr. Syamsuri's tofu production factory (Table 4) :

Table 4. Factory overhead costs

No.	Information	Nominal	Total
1.	BOP fixed		
2.	Electricity costs	7,6	
3.	Depreciation costs	12,3	
4.	Equipment costs	0,13	
5.	Engine maintenance costs	37,1	
6.	Transportation costs	5,5	
Jumlah			62,63
1.	BOP Variable		
2.	Firewood costs	80,5	
3.	Plastic bag costs	11,5	
	Sum		92
	Total tofu mill overhead costs		154,63

3. Calculate the cost of making tofu (Table 5)

Table 5. Calculation of Cost of Goods Production uses the full costing method

Counting tofu per piece		
Raw material costs		506,3
Labor costs		172
Factory overhead costs		
Fixed BOP		
Electricity costs	7,6	
Depreciation costa	12,3	
Equipment costs	0,13	
Engine maintence costs	37,1	
Transportation costs	5,5	

BOP Variable		
Firewood costs	80,5	
Plastic bag costs	11,5	
Cost of production of crop		820,63
Total tofu making for 1 time		869

Researchers can collect data from observations, interviews, documentation, and all analysis, and based on these findings, people will provide various field findings. obtain data when conducting research, most importantly from Mr. Syamsuri's companion in Glenmore sub-district, Banyuwangi district, which will be discussed using the theories carried out by the researcher in his work. Specifically, relating to the following discussion topics Practice of Calculating Cost of Goods Production at UD.Tahu Sehati determining production costs using the partner knowledge calculation approach is considered wrong because the company does not determine factory overhead costs and fixed costs. variable. Research findings show that partners are aware of production costs. price from IDR 200 for each piece of tofu.

If it is assumed that the calculation of the Cost of Goods Production is accurate, it usually consists of three components: labor costs, factory overhead costs, and raw material costs. Find the Cost of Goods Production in Service companies and manufacturing companies is slightly different. Where the owner's calculations show that the two partners mentioned previously are still there, it is not correct because the owner realizes that his partner is not responsible for factory overhead costs, then the owner will gain the profit. realizing that partners continue to be categorized as inferior manufacturing companies Making your own product requires a name. raw materials. These raw materials function as the main source of funding.

Utilizing the Full Costing Method to Determine the Cost of Goods Production at UD. Know Sehati Researchers recalculated production costs. Researchers provide clarification based on the overall cost calculation method. every cost of merchandise is paid during the process of making goods, especially the costs of raw materials, workers or employees, PLN costs, and other prices, equipment costs, depreciation, etc. know the findings of this research. that the cost of making one piece of tofu is calculated at IDR 820.63 according to the overall costing approach.

CONCLUSION

The following conclusions can be drawn based on the discussion explained:

This is clearly visible from UD. Tahu Sehati whose production costs can be calculated by adding up the costs of labor, raw materials and other expenses. The cost of plastic bags is another expense. This effort failed to calculate fixed factory overhead costs

and variable factory overhead costs, so the assessment of the cost of goods manufactured using the tofu partner's calculation method was considered wrong. The costs of raw materials, direct labor, electricity, depreciation and equipment, as well as additional costs, are all stated by researchers in the tofu production process. Based on research findings at Tofu Partners, the total costing view estimates the production cost per piece of tofu is IDR 820.63.

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