

**DETERMINING THE COST OF CLEAN MUSHROOM BAGLOG PRODUCTS
WITH COSTING PROCESS METHOD
(Study on Mas Kantak Oyster Mushroom Cultivation UKM)**

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(Submit : 10 November 2018, Revised : 20 November, Accepted : 1 Desember 2018)

Abstract. Calculation of cost of production by using the Process Costing method is the calculation of costs for certain products that are produced from month to month are the same. The purpose of this study is to evaluate the calculation of cost of production from 2015 to 2017 in the business of Oyster Mushroom owned by Mas Kantak. This research uses descriptive quantitative method so that it can find out the calculation of the cost of production from the process of making baglog of oyster mushrooms. The results obtained from this study are that production costs increase every year, so the production costs in 2015 were Rp 5,648,800 with a perunit price of Rp 1,412, in 2016 amounting to Rp 4,741,707 with a perunit price of Rp 1,435, whereas in the year 2017 production costs amounting to Rp 5,941,403 with a perunit price of Rp 1,485.

Keywords : production cost, metode process costing, overhead costs

I. INTRODUCTION

Cost Accounting is an accounting that is not separate from the two types of accounting namely Financial Accounting and Management Accounting. Cost Accounting is the process of recording, classifying, summarizing and presenting costs, making and selling products or services, in certain ways and interpreting them. Cost accounting can be used as a determination of the cost of production. Based on the determination of the cost of production, it is necessary to process raw materials into finished products. One of the most important factors in determining selling prices is costs. Cost is the cost of being sacrificed or used in order to earn income and will be used as a repetition of income. (Supriyono 2011: 16)

Determination of cost of production is very important for industrial companies, because during the input process (raw material) becomes output (finished material) so many costs that occur in the company, for example: raw material costs, direct labor costs, and costs indirect factory. These costs must be calculated to determine the amount of production costs to produce a type of product in a particular unit, or it can be said to determine the cost of production on a product produced

Mushrooms are one of the horticultural commodities that have very potential prospects to be developed. Opportunities for oyster mushroom cultivation in Indonesia are still very wide open, this is inseparable from the high demand in the domestic market which tends to continuously increase from time to

time One of the centers that produce baglogs of white oyster mushrooms in Blitar located at Jln. Sulawesi, Klampok Village, Sananwetan District, Blitar City. The development of this business includes the production of mushroom Baglog, oyster mushroom cultivation, distribution and marketing of products and various other supporting activities. This baglog (white media) white oyster mushroom cultivation business is the main focus in the cultivation of oyster mushrooms owned by Mas Kantak so that the researchers will examine the production costs of baglog production.

This study aims to find out the determination of the cost of production of baglogs of oyster mushrooms in the Mas Kantak Oyster Mushroom Cultivation UKM

Brand Loyalty has significant effect on brand image (Rafhdian, Daengs, Andi, 2016 : 292).

II. LITERATURE REVIEW

Costs

Understanding costs according to Mulyadi (2012: 8) is the sacrifice of economic resources measured in units of money that have occurred or that are likely to occur for certain purposes. Whereas in the narrowest sense the cost is interpreted as an economic source for acquiring assets. Costs contain four main elements, including the following :

1. Cost is a sacrifice of economic resources,
2. Measured in units of money,
3. What has happened or will potentially occur
4. The sacrifice is for certain purposes

Cost of Production

According to Mulyadi (2010: 14) the cost of production in the manufacture of products is divided into two, namely production costs and non-production costs. Production costs are costs incurred in processing raw materials into products, while non-production costs are costs incurred for non-production activities such as marketing activities and general administrative activities.

1. Element of Cost of Production

a. Raw material costs

The cost of raw materials is material that forms a comprehensive part of the finished product and can be charged or calculated directly to the cost of the product (Muchlis, 2013; 69).

b. Direct labor costs

According to Muchlis (2013:83) labor costs are prices paid in the context of the use and utilization of human resources.

c. Factory overhead

Factory overhead costs are indirect costs in a production process and factory overhead costs are generally consumed by more than one department

2. Method of Calculating Cost of Production

a. Full costing

Full costing is the determination of the cost of production which takes into account all elements of production costs into the cost of production which consists of raw material costs, direct labor costs and factory overhead costs both variable and fixed behavior (Mulyadi; 2014).

b. Variable costing

Variable costing is a method that determines the cost of production which only takes into account the elements of production costs that behave variables into the cost of production, which consists of raw material costs, direct labor costs, and variable factory overhead costs (Mulyadi; 2014).

Cost of Process (Process Costing)

According to Mulyadi (2005) the method of cost of process is a method of collecting cost of goods manufactured by manufacturing companies that produce mass. The system of determining the cost of the process (process costing system) is a system of determining the cost of products used by companies that produce similar products or have a continuous product flow.

Characteristics of the Method of Cost of Process

The method characteristics of the cost of the process according to Mulyadi are divided into three, namely :

1. The products produced are standard products
2. Products produced from the month of the month
3. Production activities begin with the issuance of production orders that contain plans for the production of standard products for a certain period of time.

Product Selling Price

Understanding Price according to Micheal J. Etzal (2007), Price is a value referred to as a currency or other monetary medium as a medium of exchange. In the price economy has a relationship with the notion of value and usability. Selling Prices According to Hansen and Mowen (2005: 226) states that the selling price is the monetary amount charged by a business unit to the buyer or customer for goods or services sold or delivered

Previous Research

- a. Rezky Rashida, Use of Process Costing as the basis for calculating the cost of production which serves to increase the accuracy of cost allocation for Ananda Jaya Industri MSMEs with qualitative and quantitative methods with the result that there are errors in the calculation of raw material costs, labor and factory overhead costs.
- b. Thelbic Lasut, the title of Analysis of Production Costs in Order to Determine Ragey Poppy Food Selling Prices in Tomohon with the results of determining the production price of the restaurant does not make special calculations based solely on profit estimates and costs manually.

III. RESEARCH METHODS

The research method is a scientific way to obtain data with specific objectives (Sugiono, 2016), data obtained from research

can be used to understand, solve and anticipate problems. This research is used to find out or explore more information related to the calculation of the cost of the product with the process costing method. The type of research used in this study is a type of quantitative research. Quantitative research is a research method that uses the process of data in the form of numbers as a tool that analyzes and conducts studies, especially regarding what has been studied.

The type of data used in this study is primary data is data written and collected by researchers by visiting directly to the place to be studied. while secondary data is data that is written and collected by other parties, so that the authors only need to use the existing data according to their needs. (Sanusi, 2014; 104).

Data collection techniques are also very important in conducting research, so that the data taken or obtained is in accordance with what is expected. Data collection techniques used by researchers in this include: (Sanusi, 2014; 111)

Observation Method

Observation is a way of collecting data through recording behavior (subject), objects (objects) or a systematic event without the existence of a question with the individuals studied. In this study, researchers used observations of the data needed by researchers to do directly to the object or related to production costs.

1. Documentation Method

The method of documentation is usually done to collect secondary data from various sources, both personally and institutionally. The data obtained can be in the form of Financial Reports, Organizational Structures, Regulations, production data, wills, curriculum vitae, company history, and so on that are already available at that place. Researchers just need to copy according to their needs.

2. How to interview

Interviews are usually carried out directly at the research site with data collection

techniques through interviews and question and answer directly to interested parties to obtain the object under study.

IV. DISCUSSION

Oyster mushroom cultivation was established by the family of Muchamad Kantak Budi Santoso in 2006. Addressed at Jl. Sulawesi, Ex. Klampok, Kec. Sananwetan Blitar City. This business is engaged in the cultivation of oyster mushrooms through baglog planting media. In calculating the cost of production there is a classification of costs,

namely raw material costs, direct labor costs, factory overhead costs. The company produces Baglog Oyster Mushrooms continuously, the following is the calculation of raw material purchases for 2015, 2016 and 2017.

a. Raw Material Costs

This raw material is a staple in production that will be invented media that is ready to be sold. These raw materials include wood powder, bran, limestone (limestone), and oyster mushroom seeds. What is needed in producing mushrooms can be seen in the table below.

Table 1
Raw Material Costs Fee for Mushroom
Log Raw Materials per Month in 2015

No	Material	Amount	Unit	Price	Value
1	Wood Powder	Tosa	4	Rp 135.000	Rp 540.000
2	Bran	Kg	400	Rp 2.000	Rp 800.000
3	Kapur	Kg	60	Rp 500	Rp 30.000
4	Seedlings	Bottle	40	Rp 7.000	Rp 280.000
Total Raw Material Cost					Rp 1.650.000
Per Unit of Production					4000
Raw Material Costs Per Unit					Rp 413

Source : Primary Data

Table 4.2
Raw Material Costs Fee for Mushroom
Log Raw Materials per Month in 2016

No	Material	Amount	Unit	Price	Value
1	Wood Powder	Tosa	4	Rp 150.000	Rp 600.000
2	Bran	Kg	400	Rp 2.100	Rp 840.000
3	Kapur	Kg	60	Rp 500	Rp 30.000
4	Seedlings	Bottle	40	Rp 7.000	Rp 280.000
Total Raw Material Cost					Rp 1.750.000
Per Unit of Production					4000
Raw Material Costs Per Unit					Rp 438

Source : Primary Data

Table 4.3
Raw Material Costs
Fee for Mushroom Log Raw Materials per Month in 2017

No	Material	Amount	Unit	Price	Value
1	Wood Powder	Tosa	4	Rp 175.000	Rp 700.000
2	Bran	Kg	400	Rp 2.300	Rp 920.000
3	Kapur	Kg	60	Rp 600	Rp 36.000
4	Seedlings	Bottle	40	Rp 7.000	Rp 280.000
Total Raw Material Cost					Rp 1.936.000
Per Unit of Production					4000
Raw Material Costs Per Unit					Rp 484

Source : Primary Data

- b. Laborcosts
- Labor costs are those who work directly in making baglog mushrooms, these costs must be spent to pay wages or remuneration to employees, these expenses can be seen in Table 4.4

Table 4.4
Direct Labor Costs in Baglog Production
Oyster Mushroom

No	Total	Cost	Unit	Total
1	2	Rp 500	4000	Rp 2.000.000
Total Labor Cost				Rp 2.000.000
Unit of Production				4000
Labor Costs Per Unit				Rp 500

Source : Primary Data

- c. Factory Overhead Cost
- Production costs in addition to raw material costs and labor costs, so that it can be seen in the table below.

Table 4.5
Costs for Mushroom Baglog Production Support Materials
Oysters in 2015

No	Type of Financing	Satuan	Total	Price	Cost
1	Plastic PP	Kg	4	Rp 25.000	Rp 100.000
2	Rubber	Kg	3	Rp 17.000	Rp 51.000
3	Ring	Unit	2000	Rp 75	Rp 150.000
4	Bottle Cap	Unit	4000	Rp 75	Rp 300.000
5	Newsprint	Kg	3	Rp 8.000	Rp 24.000
6	Gas	Unit	40	Rp 15.000	Rp 600.000
7	Alcohol	L	1	Rp 30.000	Rp 30.000
8	Spiritus	L	2	Rp 15.000	Rp 30.000
Total Cost					Rp 1.285.000
Production Unit					4000
Factory Unit Overhead Cost					Rp 321

Source : Primary Data

Table 4.6
Costs for Mushroom Baglog Production Support Materials
Oysters in 2016

No	Type of Financing	Satuan	Total	Price	Cost
1	Plastic PP	kg	4	Rp 27.000	Rp 108.000
2	Rubber	kg	3	Rp 18.500	Rp 55.500
3	Ring	Unit	2000	Rp 75	Rp 150.000
4	Bottle Cap	Unit	4000	Rp 75	Rp 300.000
5	Newsprint	kg	3	Rp 8.000	Rp 24.000
6	Gas	Unit	40	Rp 16.000	Rp 640.000
7	Alcohol	L	1	Rp 30.000	Rp 30.000
8	Spiritus	L	2	Rp 15.000	Rp 30.000
Total Cost					Rp 1.337.500
Production Unit					4000
Factory Unit Overhead Cost					Rp 334

Source : Primary Data

Table 4.7
Costs for Mushroom Baglog Production Support Materials
Oysters in 2017

No	Type of Financing	Satuan	Total	Price	Cost
1	Plastic PP	kg	4	Rp 29.000	Rp 116.000
2	Rubber	kg	3	Rp 19.500	Rp 58.500
3	Ring	Unit	2000	Rp 75	Rp 150.000
4	Bottle Cap	Unit	4000	Rp 75	Rp 300.000
5	Newsprint	kg	3	Rp 8.000	Rp 24.000
6	Gas	Unit	40	Rp 17.000	Rp 680.000
7	Alcohol	L	1	Rp 30.000	Rp 30.000
8	Spiritus	L	2	Rp 15.000	Rp 30.000
Total Cost					Rp 1.388.500
Production Unit					4000
Factory Unit Overhead Cost					Rp 347

Source : Primary Data

- d. Consumption costs are the costs required for two people to work in the amount of Rp. 5000 per day.
- e. In making baglog mushrooms also requires several machines that require electricity including water pumps, press machines and lights, so the costs incurred in a month are Rp. 13,689
- f. Transportation costs are costs for sudden needs for the purchase of manufactured goods.
- g. Depreciation cost is a tool used to produce baglog mushrooms, these tools include Press Machines, Drums, Gas Cylinders, Hoses,

Gas Stoves, Scales, Sekrop, Sorong, Plastics in drums, Tubs, fabrics, Production Buildings, Kumbung Rooms. Depreciation costs that must be spent to produce mushroom baglog in 2015 amounted to Rp. 380.00 in 2016 amounting to Rp. 320.00 and 2017 amounting to Rp. 278.00.

Report on the Cost of Production of Baglog Oyster Mushrooms

The following is a report on the cost of production of baglogs of oyster mushrooms in the monthly period.

Table 4.7
Annual Production Cost Report

PRODUCTION PRICE OF CURTAIN MUSHROOM BAGLOG PRICE REPORT WITH THE PROCESS COSTING METHOD IN 2015		
Direct Material Costs		
Raw Material Purchases	Rp 1.650.000	
Total Direct Raw Materials		Rp 1.650.000
Direct Labor Costs		Rp 2.000.000
Factory Overhead Cost		
Helper Material	Rp 1.285.000	
Electricity Cost	Rp 13.689	
Consumption Fee	Rp 300.000	
Transportation Costs	Rp 20.000	
Depreciation Costs of THE PRESS MACHINE	Rp 125.000	
Stimulus Depreciation Fee	Rp 52.083	
Cost of Gas Tube Depreciation	Rp 4.167	
Hose Depreciation Costs	Rp 7.500	
Costs for Depreciating Gas Stoves	Rp 12.500	
Cost of Depreciation of Scales	Rp 5.000	
Depreciation Costs	Rp 2.500	
Sorong Depreciation Costs	Rp 6.667	
Cost of Plastic Depreciation	Rp 15.000	
Bak Depreciation Costs	Rp 972	
Fabric Shrinkage Costs	Rp 1.500	
Building Depreciation Costs	Rp 138.889	
Kumbung Depreciation Costs	Rp 8.333	
Total Factory Overhead Cost		Rp 1.998.800
Total Production Costs		Rp 5.648.800
Goods in the Initial Process		0
		Rp 5.648.800
Goods in The Final Process		0
Total Cost of Product		Rp 5.648.800
Production		
Baglog Oyster Mushroom	4000 Unit	
Total Production	4000 Unit	
Cost of Production / Unit		
(Rp.5,548,800 / 4000 units)		Rp 1.412

Table 4.8
Annual Production Cost Report

PRODUCTION PRICE OF CURTAIN MUSHROOM BAGLOG PRICE REPORT WITH THE PROCESS COSTING METHOD IN 2016		
Direct Material Costs		
Raw Material Purchases	Rp 1.750.000	
Total Direct Raw Materials		Rp 1.750.000
Direct Labor Costs		Rp 2.000.000
Factory Overhead Cost		
Helper Material	Rp 1.337.000	
Electricity Cost	Rp 13.689	
Consumption Fee	Rp 300.000	
Transportation Costs	Rp 20.000	
Depreciation Costs of THE PRESS MACHINE	Rp 93.750	
Stimulus Depreciation Fee	Rp 41.667	
Cost of Gas Tube Depreciation	Rp 3.704	
Hose Depreciation Costs	Rp 7.500	
Costs for Depreciating Gas Stoves	Rp 9.375	
Cost of Depreciation of Scales	Rp 5.000	
Depreciation Costs	Rp 1.875	
Sorong Depreciation Costs	Rp 5.556	
Cost of Plastic Depreciation	Rp 15.000	
Bak Depreciation Costs	Rp 729	
Fabric Shrinkage Costs	Rp 1.250	
Building Depreciation Costs	Rp 128.205	
Kumbung Depreciation Costs	Rp 7.407	
Total Factory Overhead Cost	Rp 1.991.707	Rp 1.991.707
Total Production Costs		Rp 5.741.707
Goods in the Initial Process		0
Goods in The Final Process		Rp 5.741.707
Total Cost of Product		0
Production		Rp 5.741.707
Baglog Oyster Mushroom	4000 Unit	
Total Production	4000 Unit	
Cost of Production / Unit		
(Rp.5,548,800 / 4000 units)		Rp 1.435

Table 4.8
Annual Production Cost Report

PRODUCTION PRICE OF CURTAIN MUSHROOM BAGLOG PRICE REPORT WITH THE PROCESS COSTING METHOD IN 2017		
Direct Material Costs		
Raw Material Purchases	Rp 1.936.000	
Total Direct Raw Materials		Rp 1.936.000
Direct Labor Costs		Rp 2.000.000
Factory Overhead Cost		
Helper Material	Rp 1.388.500	
Electricity Cost	Rp 13.689	
Consumption Fee	Rp 300.000	
Transportation Costs	Rp 25.000	
Depreciation Costs of THE PRESS MACHINE	Rp 75.000	
Stimulus Depreciation Fee	Rp 31.250	
Cost of Gas Tube Depreciation	Rp 3.333	
Hose Depreciation Costs	Rp 7.500	
Costs for Depreciating Gas Stoves	Rp 7.500	
Cost of Depreciation of Scales	Rp 5.000	
Depreciation Costs	Rp 1.500	
Sorong Depreciation Costs	Rp 4.762	
Cost of Plastic Depreciation	Rp 15.000	
Bak Depreciation Costs	Rp 583	
Fabric Shrinkage Costs	Rp 1.071	
Building Depreciation Costs	Rp 119.048	
Kumbung Depreciation Costs	Rp 6.667	
Total Factory Overhead Cost		Rp 2.005.403
Total Production Costs		Rp 5.941.403
Goods in the Initial Process		0
		Rp 5.941.403
Goods in The Final Process		0
Total Cost of Product		Rp 5.941.403
Production		
Baglog Oyster Mushroom	4000 Unit	
Total Production	4000 Unit	
Cost of Production / Unit		
(Rp.5,548,800 / 4000 units)		Rp 1.485

Calculation of Comparison of Cost of Goods of Mushroom Baglog Products per year

After calculating the cost of production for baglog mushrooms using the Process Costing method, then the results can be

compared with the calculations in the previous year. The cost of production affects the selling price and net income obtained. The following is a comparison of the cost of production according to the Costing Process method.

Table 4.15
Comparison of Cost of Production with Process Costing Method

Explanation	Year		
	2015	2016	2017
Raw Material Cost	Rp 1.650.000	Rp 1.750.000	Rp 1.936.000
Direct Labor Costs	Rp 2.000.000	Rp 2.000.000	Rp 2.000.000
Cost	Rp 1.998.800	Rp 1.991.707	Rp 2.005.403
Total	Rp 5.648.800	Rp 5.741.707	Rp 5.941.403
Price Unit	Rp 1.412	Rp 1.435	Rp 1.485

V. CONCLUSION

1. Baglog mushroom UKM is an industry that makes baglogs of oyster mushrooms, production is carried out continuously and the same products. Production activities are carried out 8 times in one month, in one production produces 500 units so that in one month can produce 4000 units of baglog. So that in one year the baglog mushroom business can produce 48,000 units.
2. From the calculations done by the author using the Process Costing method, the production costs obtained in 2015 were Rp 5,648,800 with a perunit price of Rp 1,412, in 2016 amounting to Rp 4,741,707 with a perunit price of Rp 1,435, whereas in 2017 the cost production of Rp 5,941,403 with a perunit price of Rp 1,485.

VI. REFERENCES

- [1] Cahya YES, Muchrodji, M Bakrun, 2005. Oyster Mushroom, cet 9. Jakarta: Penebar Swadaya.
- [2] Carter, William K in Krista. 2009. Cost Accounting. Jakarta: Salemba Empat
- [3] Daljono. 2011. Cost Accounting - Determination of Cost & Control. 3rd edition. 2nd print. Semarang: Diponegoro University Publishing Agency
- [4] The World, Firdaus Ahmad and Wasilah Abdulah. 2012. Cost Accounting. Jakarta: Salemba Empat
- [5] Horngen, Charles T. Foster & Datar. 2006. Cost Accounting and Managerial Emphasis. Jakarta. Index.
- [6] Kasiram, Moh. 2008. Research Methodology. Malang : UIN-Malang Press.
- [7] Mulyadi. 2005. Cost Accounting, 5th Edition. Yogyakarta: UPP STIM YKPN.
- [8] Mulyadi. 2009. Cost Accounting, Issue 5. Yogyakarta: UPP STIM YKPN.
- [9] Mulyadi. 2012. Cost Accounting, 5th Edition. Yogyakarta: UPP STIM YKPN.
- [10] Rafhdian, MA, Daengs GS, Achmad, Farouq Hasan, Andi, 2016. Brand Equity On Brand Image Of Tourism Object In Surabaya. IMC 2016 Proceedings Universitas Muhammadiyah Jakarta, Vol. 1 No. 1. 287-293.
- [11] Sanusi, Anwar. 2014. Fifth Printing. Business Research Methods. Jakarta: Salemba Empat
- [12] Supriyono.2011. Accounting for Cost Collection and Principal Pricing, book 1 edition 2. Yogyakarta:BPFE