

## **CALCULATING COST OF PRODUCTION USING THE ACTIVITY BASED COSTING (ABC) METHOD**

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### **Abstract**

*Micro, small and medium enterprises (UMKM) are business activities that can expand employment opportunities and provide broad economic services to the community. UMKM can play a role in the process of equalizing and increasing people's income, encouraging economic growth, and playing a role in realizing national stability. In making decisions, UMKM companies must always be precise in calculating the cost of production in order to maintain the company's survival so that it can survive. Determining the selling price is very important for a company to be able to survive in conditions of very rapid business competition. Companies must be careful in calculating selling prices. The research target was developed to find out the results of calculating the cost of production using the Activity Based Costing (ABC) method to achieve a more complete calculation so that it can calculate all the processes carried out in the Talam cake making process. being used before and taking into account a very complete one.*

**Keywords:** *Cost of Goods, Production Costs, Labor Costs and Calculations*

### **INTRODUCTION**

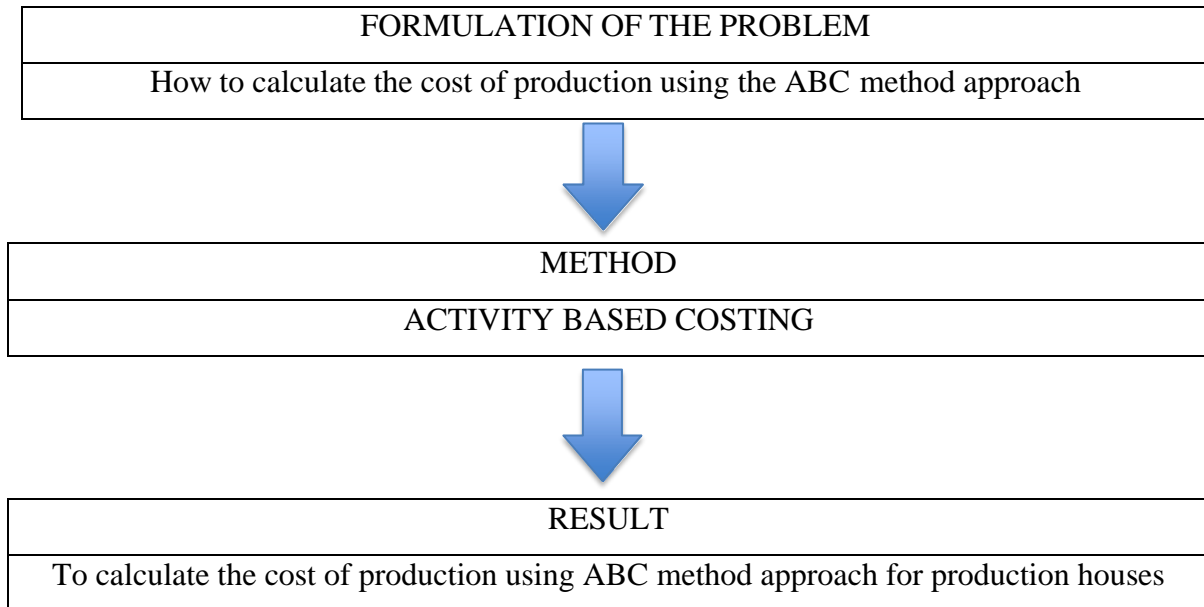
Micro, small and medium enterprises (UMKM) are business activities that can expand employment opportunities and provide broad economic services to the community. UMKM can play a role in the process of equalizing and increasing people's income, encouraging economic growth, and playing a role in realizing national stability. In making decisions, UMKM companies must always be precise in calculating the cost of production in order to maintain the company's survival so that it can survive. Determining the selling price is very important for a company to be able to survive in conditions of very rapid business competition. Companies must be careful in calculating selling prices. The ABC method is an analysis that can be used to achieve a more complete calculation so that it can calculate all the processes carried out in the process of making cake, in the form of activities. This method defines all costs and calculates the costs that will be incurred as a whole to obtain a more complete production price calculation. According to Mulyadi (2015) Production costs are costs incurred in processing into finished products which are ready to be sold. The following are the objectives of production costs: (1) Determine the amount of production costs properly. (2) Help management implement appropriate cost control. (3) Help management to make short-term and long-term decisions.

According to Hansen and Mowen, translated by Fitriasari, D. (2009) in (Junika Iklina: 2016), conventional cost accounting calculations are, "Product cost calculations are based on the function of assigning costs from direct raw materials and direct labor to products using direct inspection. Overhead costs on the other hand are charged using motion tracking and allocation." In this method, there are three costs for product costs, namely: (a) Raw material costs. According to Mulyadi (2018), these are all materials that are formed in finished products, and can be displayed quickly/directly in the product concerned. (b) Labor costs. According to Agus Purwaji (2016) Labor is physical and mental work power using human resources (employees) to produce certain products or services. (c) Factory Overhead Costs. According to Hansen & Mowen (2017), factory overhead is all production costs other than direct materials or direct labor combined into one grouping. Factory overhead costs are very complicated costs, they cannot be identified directly in the product, so the collection of these costs can only be calculated at the end of the period. Application of conventional cost methods According to Hansen and Mowen translated by Fitriasari, in Junika Iklina (2016) Conventional cost accounting is a calculation in which costs are intended for the cost assignment function. For calculations there are no problems when using conventional cost accounting calculations. According to Ahmad (2015) Activity Based Costing (ABC), is a procedure that collects the costs of objects such as products, services and customers. The ABC method provides information about the activity and the references needed to carry out the activity. Activities where each payment can be found to be a cause (cost driver), a factor that has a cause in the expenditure of costs in the organization. This is an activity that becomes a cost collection point.

Application of the ABC (Activity Based Cost) Method According to Hansen and Mowen in Junika Iklina (2016) Cost Expense procedure with the ABC method is separated into two stages, namely: (a) The first stage. Collecting fees at cost pools has similar activities, consisting of 4 steps, namely: (1) Identify and group costs into the various types of activities available. (2) Exposing cost activities to activities, there are 4 categories, namely: unit level activities, batch level activities, product level activities, and facility level activities. (3) Presenting the cost driver to make it easier to determine the cost per unit cost driver. (4) Determine the rate per unit cost driver. The cost per unit cost driver calculated for an activity. The rate per unit can be calculated using the following formula: Rate per unit cost driver = Total cost (activity) ÷ Total cost driver. (b) The next step. Factory Overhead Costs (FOH) from each activity grouping are searched for

products using the grouping rate consumed by each product.

The research object was carried out at the UMKM. Production House which operates in the culinary sector as the research object. Located at Tiban Koperasi, Batam. The research model in this observation is grouped into one, namely calculating the cost of production correctly to find out each cost using Activity Based Costing in UMKM.



**Figure1.** Illustration of the Research Model

## RESULT AND DISCUSSION

Following are the results of the overall HPP calculation that can be produced using the ABC method. You can see how the calculation of Conventional Cost of Goods Production compares so that it can be used by companies. So, the conclusion is all the results of the research came out. The total cost of production materials for UMKM Talam cakes in one month is IDR 25,260,000 with a production of 6,000 boxes equivalent to 30,000 pcs. The talam cake and the price of raw materials for production per box is IDR 4,210 and if calculated per piece is IDR 842. The total cost of raw materials for Jongkong production in one month is IDR 8,985,000 with production of 3,000 boxes and the price of raw materials for production per box is IDR 2,995. The total cost of raw materials for Brown Talam production in one month is IDR 15,810,000 with the production of 3,000 boxes and the price of raw materials for production per box is IDR 5,270. The total cost of raw materials for producing green bananas in one month is IDR 7,372,500 by producing 1,500 boxes and the

price of raw materials for production per box is IDR 4,915. The labor costs used by UMKM are IDR 80,000 per day, and courier costs IDR 20,000 per day. Talam Cake 1 day 2 times production, Jongkong 1 time production, Brown Talam 1 time production, and Banana Ijo 1 time production. The total labor costs used by UMKM are IDR 420,000 in one day and IDR 12,600,000 in one month for 5 workers and 1 courier.

**Table 1.** Production for one month (30 days)

No	Product	Total Raw Material Costs Per Month	Total Production Results for a Month	Price of Product Raw Materials Per Box / pcs
1	Kue Talam	IDR 25.260.000	6000 / Box 30.000 / pcs	IDR 4.210/Box IDR 842/pcs
2	Jongkong	IDR 8.985.000	3.000 Box	IDR 2.995
3	Brown Talam	IDR 15.810.000	3.000 Box	IDR 5.270
4	Pisang Ijo	IDR 7.372.500	1.500 Box	IDR 4.915

Cost of Goods Production uses the conventional method used by UMKM

**Table 2.** Calculation of HPP of Talam Cake

No	Type of Cost	Talam Cake
1	Cake Raw Material Costs Per Box & Per Pcs	IDR 4,210 & IDR 842
2	Direct Labor Costs	IDR 800
3	Factory Overhead Costs	IDR 2,028 & IDR 405
4	Total Production Costs	IDR 7,038 & IDR 2047

**Table 3.** Calculation of HPP for Jongkong Cake

No	Type of Cost	Jongkong Cake
1	Raw Material Cost Per Box	IDR 2,995
2	Direct Labor Costs	IDR 800
3	Factory Overhead Costs	IDR 2,376
4	Total Production Costs	IDR 6,171

**Table 4.** Calculation of HPP for Pisang Ijo

No	Type of Cost	Pisang Ijo Cake
1	Raw Material Cost Per Box	IDR 4.915
2	Direct Labor Costs	IDR 1.600
3	Factory Overhead Costs	IDR 4.029
4	Total Production Costs	IDR 10.544

**Table 5.** Calculation of HPP for Brown Talam

No	Type of Cost	Brown Talam
1	Raw Material Cost Per Box	IDR 5.270
2	Direct Labor Costs	IDR 800
3	Factory Overhead Costs	IDR 2.401
4	Total Production Costs	IDR 8.921

The cost of production uses the Activity Based Costing (ABC) method

**Table 6.** HPP of Talam Cake

No	Type of Cost	Kue Talam/box	Kue Talam/pcs
1	Raw Material Cost	IDR 4.290	IDR 842
2	Direct Labor Costs	IDR 800	IDR 160
3	Factory Overhead Costs	IDR 1.690	IDR 337
4	Total Production Costs	IDR 6.700	IDR 1.339

**Table 7.** HPP off Jongkong Cake

No	Type of Cost	Jongkong Cake
1	Raw Material Cost	IDR 2.995
2	Direct Labor Costs	IDR 800
3	Factory Overhead Costs	IDR 1.764
4	Total Production Costs	IDR 5.559

**Table 8.** HPP off Pisang Ijo Cake

No	Type of Cost	Pisang Ijo
1	Raw Material Cost	IDR 4.915
2	Direct Labor Costs	IDR 1.600
3	Factory Overhead Costs	IDR 2.105
4	Total Production Costs	IDR 8.620

**Table 9.** HPP off Brown Talam Cake

No	Type of Cost	Brown Talam
1	Raw Material Cost	IDR 5.270
2	Direct Labor Costs	IDR 800
3	Factory Overhead Costs	IDR 1.764
4	Total Production Costs	IDR 7.834

Calculation of the Cost of Production for UMKM Talam Cake, from the total calculation using the conventional method, the sum of which is done in the general way by adding various prices. And from the results of the data processing carried out in other

Chapter, that's it. There were several significant differences between HPP costs. The comparison can be seen in the following table:

**Table 10.** Comparison of HPP of Nona Manis Melted Talam Cake between Conventional Method and ABC Method

No	Type of Cost	Conventional Method	ABC Method	Difference
1	Raw Material Cost	IDR 4.210	IDR 4.210	0
2	Direct Labor Costs	IDR 800	IDR 800	0
3	Factory Overhead Costs	IDR 2.028	IDR 1.690	338
4	Production Costs Per Box	IDR 7.038	IDR 6.700	338
5	Cost Per pc	IDR 2.047	IDR 1.339	708

**Table 11.** Comparison of HPP of Jongkong Cake between Conventional Method and ABC Method

No	Type of Cost	Conventional Method	ABC Method	Difference
1	Raw Material Cost	IDR 2.995	IDR 2.995	0
2	Direct Labor Costs	IDR 800	IDR 800	0
3	Factory Overhead Costs	IDR 2.376	IDR 1.764	612
4	Production Costs Per Box	IDR 6.171	IDR 5.559	612

**Table 12.** Comparison of HPP of Pisang Ijo Cake between Conventional Method and ABC Method

No	Type of Cost	Conventional Method	ABC Method	Difference
1	Raw Material Cost	IDR 4.915	IDR 4.915	0
2	Direct Labor Costs	IDR 1.600	IDR 1.600	0
3	Factory Overhead Costs	IDR 4.029	IDR 2.105	1.924
4	Production Costs Per Box	IDR 10.544	IDR 8.620	1.924

**Table 13.** Comparison of HPP of Brown Talam Cake between Conventional Method and ABC Method

No	Type of Cost	Conventional Method	ABC Method	Difference
1	Raw Material Cost	IDR 5.270	IDR 5.270	0
2	Direct Labor Costs	IDR 800	IDR 800	0
3	Factory Overhead Costs	IDR 2.401	IDR 1.764	637
4	Production Costs Per Box	IDR 8.471	IDR 7.834	637

Based on the results and processing of research data, it was found that finding the cost of production using the ABC method is different from the conventional method used by the UMKM.

## CONCLUSION AND SUGGESTION

From all the research results, the explanation presented by the author can be concluded. The calculation of the cost of production using the Conventional and ABC methods has differences which show that the value of the ABC method is lower than using the Conventional method, so that it can provide an advantage to UMKM in determining selling prices and can be more flexible if you want to add activities that can provide other added value. If we use the ABC method we can see more detail in each costs incurred by Talam Cake UMKM in each product manufacturing activity. This shows that using ABC, UMKM can make decisions because they have details of the costs incurred in each production activity that is being carried out. With the calculation of the ABC method and Conventional methods, it shows an important difference, namely the Talam Cake using the ABC Method with a difference of IDR 708 with the conventional method calculation, for Jongkong Cake with a difference of IDR 612, while for Green Banana the difference is IDR 1,924 and for Brown Talam Cake with a difference Rp. 637. This difference shows that calculations using the ABC method can be more profitable than conventional ones. Based on the conclusions above, the suggestions that can be given are: (1) Future cost calculations for residential homes and UMKM will be calculated separately. (2) It is best to use large capacity production equipment so that the work process can run simultaneously and not be repeated.

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