# Collective Cost Calculation Analysis In Determining The Cost Of Production Cv. Barokah 

Muhammad Nur Rizqi ${ }^{1 *}$, Yudiana ${ }^{\mathbf{2}}$, Citra Nisa Juliani ${ }^{\mathbf{3}}$<br>${ }^{1,2,3}$ Univesitas Ibn Khaldun Bogor, Indonesia


#### Abstract

The purpose of writing this thesis is to determine the calculation of the cost of goods manufactured CV. Barokah uses cost accounting calculations and finds out the amount of profit / loss obtained by the company. In this study using the relative selling value method, the authors conclude that: In calculating the joint cost allocation on CV. Barokah generates a total cost of Rp.38,188,130. From the calculation of the joint allocation, the cost of the product was obtained, for brown bread of Rp. 972, cheese bread of Rp. 1,085, of strawberry bread of Rp. 1,108, and for peanut bread of Rp. 1,031. In calculating the profit using the relative selling value method, it generates a gross profit of Rp. 10,037,871, which consists of profit for brown bread of Rp. 2,325,470, cheese bread of Rp. 2,596,055, strawberry bread of Rp. 2,650,172, and bread peanuts amounting to Rp. 2,466,174. So that this company can determine the selling price of its products precisely and accurately, in the sense that it is neither too low nor too high.


Keywords: Joint Costs, Cost of Production, Profit
*Corresponding author: mn.rizki@uika-bogor.ac.id $^{{ }^{2}}$, vudiana@uika-bogor.ac.id ${ }^{2}$, citranisa@gmail.com ${ }^{3}$.
How to cite this article: Rizqi, M.N., Yudiana., \& Juliani, C.N. (2022). Collective Cost Calculation Analysis In Determining The Cost Of Production Cv. Barokah Jurnal Harmoni, 1(1).
History of Article: Received: April 2022. Revision: April 2022. Published: Mei 2022.
DOI Prefi :

## Introduction

Economic development is growing rapidly, so the needs of the community also increase. There are so many businessmen who are starting to show creativity or ideas to make something new in their business, so there is something that makes competition increase. Determination of the cost of production is also very necessary, so that there will be no loss because the selling price offered to customers is not lower than the costs incurred. The problem of joint cost products in determining the total production costs that have been issued starting from raw materials to the product charged. The problem that arises in this research is the difficulty of determining the cost of production for each product.

According to pomalingo et al, regarding the Allocation of Joint Costs in Determining the Cost of Production at UD. Martabak Mas Narto. The results showed that the calculation of the cost of production by allocating joint costs using the relative selling value method or the market price method obtained results, namely the amount of HPP for each product was much lower than the selling price set by the company.

This analysis was conducted to determine the calculation of the cost of production of CV. Barokah uses cost accounting calculations and knows the amount of profit/loss earned by the company. This research is expected to help companies determine the selling price of their products correctly and accurately

## Research Method <br> Object of research

In this study, the object of research is industrial companies (MSMEs). This research was conducted at CV. Barokah is a business whose activities are producing sandwiches with a variety of flavors and marketed by traveling around the Leles area using motorbikes. This company is located on Jalan Nangkaleah, Leles District, Garut Regency, and has been operating for 6 years.

## Research data

Types and Sources of Data
Sources of data used in this study are primary data \& secondary data. Primary data in the form of data obtained directly from the original source related to the problem under study. Secondary data obtained from journals or books. The type of data used is qualitative data, namely data in the form of numbers whose data can be calculated. These data include: a). CV production data. Bless the month of March 202. b) Raw Material Cost Data in March 2021. c) Direct Labor Cost Data in March 2021. d) Factory Overhead Cost Data for March 2021.

## Data Collection Techniques

In this study, the data collection technique obtained is as an interview technique, is a communication or interaction process to collect the information needed in this study by means of a question and answer session between the researcher and the company owner.

## Research variable

## Free variables

In this study, the independent variable is the joint cost. Joint costs are costs incurred in production activities such as the cost of raw materials, labor costs, factory overhead costs are the same to produce several products. Bound fee

In this study, the dependent variable is the cost of production. Cost of production is all direct and indirect costs incurred to produce some products during a certain period.

## Data analysis method

The analytical method used in this research is descriptive quantitative method. According to (Prof, Drs. Sugiyono, 2018) descriptive research method is a research conducted to determine the value of independent variables without making comparisons or connecting with other variables. The process of data analysis in this study are: a) Make observations to the production of bread CV. Blessings. b) Analyzing product costs in bread production at CV. Blessings. c) Collect data on product costs including: raw material costs, direct labor costs, factory overhead costs, non-production costs, and others. d) Calculating production costs after the split off point so that joint cost allocations can be identified. e) Calculating the allocation of joint costs using the relative selling value method because this method is very logical for allocating joint costs. f) Determining the cost of production using the variable costing method, using this method is useful for making short-term decisions. g) Performing profit/loss calculations that have been obtained by the company. h) Provide the results and recommendations of this research to the owner of the CV. Blessings

## Result

## Company Production Process

For bread making, CV. Barokah uses materials in its production process, including: 1) Flour 2) Milk 3) Sugar 4) Salt 5) Butter 6) Eggs 7) Yeast 8)Water. For the equipment used for making the bread, namely: 1) Mixer (kneading dough) 2) Bread pan 3) Oven (toaster). Then the stages in making bread as follows:

1) Dough, Enter the bread ingredients into the dough mixer machine or according to the dose to be produced. After the dough is well mixed then wait $\pm 30$ minutes until the dough starts to expand. 2) Formation, After the dough has expanded then cut into several parts to facilitate the formation. The dough has been cut into pieces and then shaped into a round. 3) Bread filling

Then enter the bread stuffing with a variety of different flavors. The bread fillings are chocolate flavor, strawberry flavor, blueberry flavor, coconut flavor, and cheese flavor. Then it is shaped into a round again to make it look neat, and stored on a bread pan. 4) Baking, If you have done the process of forming and filling bread, the next process is to put the bread dough into the oven or toaster. 5) Packaging After the bread is cooked and removed from the oven, the next process is to wait a while for
the cooling process so that the bread does not evaporate on the plastic packaging. If it is cold then the packaging process is carried out.

## Expense Calculation

In determining the cost of production CV. Barokah does not perform detailed calculations or does not use special methods.

Table 1.
Bread production data CV. Blessings March 2021

| No | Type of bread | Production day | Day of the month | Production per <br> month |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Chocolate | 350 | 26 | 9.100 |
| 2 | chesee | 350 | 26 | 9.100 |
| 3 | Strawberry | 350 | 26 | 9.100 |
| 4 | Peanut | 350 | 26 | 9.100 |
| Total |  | 1.400 |  | 36.400 |

The data above can be seen that during March 2021 CV. Barokah can produce 1,400 breads every day and produces four flavors, namely chocolate, strawberry, coconut, and cheese. Every day CV.Barokah produces 350 breads for one flavor variant. So in March the bread produced by CV. There are 36,400 barokah breads, consisting of 9,100 breads for each flavor variant.
Production cost a) Raw Material Cost, The first step in making bread is kneading. By entering all the raw materials into the dough machine (mixer). The following are the raw materials and costs incurred in making bread at CV. Blessings in a month.

Table 2.
Cost of Raw Materials March 2021

| No | Raw material | Quantity (kg) | Unit price | Amount (Rp) |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Wheat | 1.300 | 6.800 | 8.840 .000 |
| 2 | Sugar | 416 | 12.000 | 4.992 .000 |
| 3 | Egg | 52 | 25.000 | 1.300 .000 |
| 4 | Butter | 104 | 15.000 | 1.560 .000 |
| 5 | Salt | 6.5 | 12.000 | 78.000 |
| 6 | Yeast | 10 | 94.000 | 940.000 |
|  | Total Raw Material Cost |  | Rp 17.710.000 |  |

For flour raw materials in a month requires $1,300 \mathrm{~kg}$ at a price of Rp. $6,800 / \mathrm{kg}$ so that the total cost of flour in a month is Rp. $8,840,000$. The raw material for granulated sugar in a month requires 416 kg at a price of Rp. $12,000 / \mathrm{kg}$ so that the total cost of granulated sugar in a month is Rp. 4,992,000. Then the raw material for eggs in a month requires 52 kg at a price of $\mathrm{Rp} .25,000 / \mathrm{kg}$ so that the total cost of eggs in a month requires Rp. $1,300,000$. For raw material butter in a month requires 6.5 kg at a price of Rp. $12,000 / \mathrm{kg}$ so that the total cost required in a month is Rp. 78,000. And for yeast raw materials in a month requires 10 kg at a price of $\mathrm{Rp} .94,000 / \mathrm{kg}$ so that the total cost of yeast spent in a month is Rp. 940,000.

So that it is known the total cost of raw materials for CV. The blessing for March 2021 is IDR $17,710,000$ for four types of bread. Each type of bread produced costs Rp 4,427,500.
If the dough is ready, the second stage is the formation of the dough, by cutting the dough into several parts and then forming them into rounds. The purpose of rounding the dough is to make it easier in the next stage.

Then the next stage after the formation is then the dough is filled with various flavors of chocolate, cheese, strawberry, and peanut. The following is the additional cost of bread contents issued by CV. Blessings during March 2021:

Table 3.

| Additional Fee for March 2021 Bread Contents |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No | Material Type | Quantity (kg) | Unit price (Rp) | Amount (Rp) |
| 1 | Chocolate | 104 | 25.000 | 2.600 .000 |
| 2 | Cheese | 52 | 37.000 | 1.300 .000 |
| 3 | Strawberry | 26 | 50.000 | 1.040 .000 |
| 4 | Peanut | 26 | 40.000 | 1.924 .000 |
|  | Total Biaya Tambahan Isi Roti |  |  | Rp 6.864.000 |

The table above represents the costs incurred for the cost of filling bread in March 2021. To buy chocolate, cheese, strawberries, and nuts, a total cost of Rp. 6,864,000 is required. In a month CV Barokah needs 104 kg of chocolate at a price of IDR $25,000 / \mathrm{kg}$, so the cost for chocolate is IDR $2,600,000$. For the cheese needed in a month as much as 52 kg at a price of $\mathrm{Rp} .37,000 / \mathrm{kg}$, so the costs incurred for cheese are Rp. 1,300,000. Then for strawberries it takes 26 kg with a unit price of Rp. 50,000 , so the costs incurred for strawberries are Rp. 1,040,000. And for peanuts it takes 26 kg with a unit price of Rp. 40,000, so the cost for peanuts is Rp. 1,924,000.

After the process of kneading and forming the dough, further processing takes place after the split-off point. Where is CV. Barokah performs the separation point process, namely filling bread with a variety of flavors. So it requires additional costs to buy the ingredients for the bread.
Direct labor costs
Table 4.
Direct Labor Costs March 2021

| Direct Labor Costs March 2021 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No | Employee | Quantity | Wages (Rp) | Quantity (Rp) |
| 1 | Production Employees | 5 | 1.400 .000 | 7.000 .000 |
| Total Direct Labor Cost |  |  | Rp 7.000 .000 |  |

Known CV. Barokah in March 2021 issued direct labor costs of IDR 7,000,000. of this amount, it will be allocated to the four bread variants produced. So each bread requires direct labor costs of Rp . 1,750,000.
Factory Overhead Cost

| No | Fee Type | Quantity (Rp) |
| :---: | :--- | :---: |
| 1 | Cost of depreciation | 370.000 |
| 2 | Electricity cost | 338.130 |
| 3 | Gas cost | 1.950 .000 |
|  | Total Factory Overhead Biaya | Rp 2.658.130 |

Known CV. Barokah in March 2021 incurred factory overhead costs of Rp 2,658,130. From this amount, it will be allocated to the four bread variants produced. So each bread requires factory overhead costs of Rp. 664,533.
Non-Production Cost

Marketing fee
Table 6.
Non-Production Costs March 2021

| Non-Production Costs March 2021 |  |  |
| :---: | :--- | :---: |
| No | Marketing Fee | Quantity (Rp) |
| 1 | Vehicle depreciation costs | 420.000 |
| 2 | Gasoline cost | 2.600 .000 |
| 3 | Indirect labor costs (marketing employees | 7.800 .000 |
| Total Non-Production Cost | Rp 10.820.000 |  |

For non-production costs there are marketing costs. CV. Barokah has marketing costs consisting of vehicle depreciation costs, gasoline costs, and indirect labor costs (marketing employees). In a month spent on vehicle depreciation costs of Rp. 42,000. Then for the cost of gasoline, which is Rp. 2,600,000 and for indirect labor costs (marketing employees) of Rp. 7,800,000.

So the total cost of non-production is the cost of installing CV. Barokah in March which cost $\mathrm{Rp} 10,820,000$. If the total cost is allocated to each bread flavor variant, the non-production costs incurred are Rp. 2,705,000.

Table 7
Shared Costs

|  | Production cost |  | Non-Production <br> Cost | Total Shared <br> Cost |
| :---: | :---: | :---: | :---: | :---: |
| BBB | BTKL | BOP | Marketing Fee |  |
| 17.710 .000 | 7.000 .000 | 2.658 .130 | 10.820 .000 | 38.188 .130 |

You can find out the joint costs from CV. Barokah consists of production costs consisting of Raw Material Costs in the amount of Rp. 17,710,000, then Direct Labor Costs in the amount of Rp. $7,000,000$, and Overhead Costs in the amount of Rp. 2,658,130. Then added with non-production costs, namely Marketing Costs with the amount of Rp. $10,820,000$. Then the total of all joint costs that have been calculated is Rp. 38,188,130.

## Determination of Cost of Production

Table 1.

| Type of bread | sellin <br> g price/ unit | units <br> produ ced | sales amount | split off fee | hypothetic al selling value | hypothet ical selling value | shared cost allocation | $\begin{gathered} \text { cost } \\ \text { of } \\ \text { good } \\ s \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $(1) *(2)$ |  | (3)-(4) | (5) $/ \sum(5)$ | (6)*biaya bersama | sold <br> (7)/( <br> 2) |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |


| chocolate | 2000 | 9.100 | 18.200 .00 | 7.027 .5 | 11.172 .500 | $23 \%$ | 8.847 .030 | 972 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| bread |  |  | 0 | 00 |  |  |  |  |
| Cheese | 2000 | 9.100 | 18.200 .00 | 5.727 .5 | 12.472 .500 | $26 \%$ | 9.876 .445 | 1.08 |
| bread |  |  |  |  |  |  |  |  |

Thus the calculation above, it can be seen that the cost of the product obtained is smaller than the selling price set by CV. If you look at the difference between the selling price of the company and each bread that has been calculated using cost accounting calculations, the results are very far. It can be seen that the cost of production of brown bread is $8,847,030(23 \% * 38,188,130)$, it can be obtained that the cost per unit is Rp. $972(8,847.030 / 9,100$ units). Then for the cost of production of cheese bread, which is $9,876,445(26 \% * 38,188,130)$, so that the cost per unit can be obtained at Rp. $1,085(9,876,445$ $/ 9,100$ units). The cost of production of strawberry bread is $10,082,328(26 \% * 38,188,130)$, by obtaining the cost per unit of $\operatorname{Rp} 1,108(10,082,328 / 9,100$ units). Meanwhile, the cost of producing peanut bread is $9,382,326(25 \% * 38,188,130)$, so that the cost per unit is Rp $1,031(9,382,326 / 9,100$ units).

Calculation of Profit/Loss by Company
Table 9.
Calculation of Profit/Loss March 2021

| Information | chocolate | chesee | strawberry | peanut | Quantity |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sales results: |  |  |  |  |  |
| 9.100 * Rp 2.000 |  |  |  |  |  |
|  | 18.200.000 |  |  |  |  |
| 9.100 * Rp 2.000 |  | 18.200 .000 |  |  |  |
| 9.100 * Rp 2.000 |  |  | 18.200 .000 |  |  |
| 9.100 * Rp 2.000 |  |  |  | 18.200 .000 |  |
| Sales Amount |  |  |  |  |  |
|  |  |  |  |  | 72.800 .000 |
| Product cost: |  |  |  |  |  |
| - Shared Cost |  |  |  |  |  |
| Allocation | 8.847.030 | 9.876.445 | 10.082.328 | 9.382 .326 |  |

- Additional

| processing fee | 7.027 .500 | 5.727 .500 | 5.467 .500 | 6.351 .500 |
| :--- | :--- | :--- | :--- | :--- |

amount HPP
62.762 .129

Profit
Rp2.325.470
Rp2.596.05 Rp2.650.17
$\begin{array}{cc}\mathrm{Rp} 2.466 .17 & \mathrm{Rp} 10.037 .87 \\ 4 & 1\end{array}$
It can be seen the calculation of the profit obtained by each type of bread, that the profit generated from the sale of brown bread is Rp. 2,325,470, the profit generated from the sale of cheese bread is Rp. 2,596,055, then the profit generated from the sale of strawberry bread is Rp. 2,650. .172, while the profit obtained from the sale of peanut bread is $\mathrm{Rp} .2,466,174$. Then the total gross profit obtained from all types of sandwiches produced by CV. The blessing in March 2021 is IDR 10,037,871.

## CONCLUSION

After calculating the allocation of joint costs using the relative selling value method, the authors conclude that: a) In calculating the allocation of joint costs on CV. Barokah generates a total cost of Rp. $38,188,130$. From the calculation of the joint allocation, the cost of the product was obtained, for brown bread of Rp. 972, cheese bread of Rp. 1,085, of strawberry bread of Rp. 1,108, and for peanut bread of Rp. 1,031. Thus, the cost of the product obtained is smaller than the selling price that has been set by CV. Blessing. b). In calculating the profit using the relative selling value method, it generates a gross profit of Rp. $10,037,871$, which consists of profit for brown bread of Rp. $2,325,470$, cheese bread of Rp. 2,596,055, strawberry bread of Rp. 2,650,172, and bread peanuts amounting to Rp. 2,466,174. So that it can be seen gross profit in CV. Blessings by using this calculation.

## REFERENCE

Carter, W. K. (2009). COST ACCOUNTING (14 ed.). Salemba Four.
Mulyadi. (2012). COST ACCOUNTING (5th ed.). UPP STIM YKPN.
Bustami, B., \& Nurlaela. (2009). COST ACCOUNTING. Media Discourse Partners.
Drs. Mursyidi, S.E., M.Sc. (2010). COST ACCOUNTING. PT Refika Aditama.
Halim, A. (2013). PUBLIC SECTOR FINANCIAL MANAGEMENT. Salemba Four.
Hanggana, S. (2009). COST ACCOUNTING THEORY AND APPLICATIONS. Eleven March University Press.
Hansen, \& Mowen. (2009). MANAGERIAL ACCOUNTING (8th ed.). Salemba Four.
Irawati, S. (2009). COST ACCOUNTING: THEORETICAL AND PRACTICAL (1st ed.). References.
Kotler, P., \& Keller, K. L. (2009). MARKETING MANAGEMENT (13th ed.). Erlangga.

Mulyadi. (2012). COST ACCOUNTING (5th ed.). UPP STIM YKPN.
Prof. Dr. Tri Widyastuti, S.E., Ak. M.M. (2017). COST ACCOUNTING (1st ed.). Experts.
Prof, Drs. Sugiyono. (2018). QUANTITATIVE, QUALITATIVE APPROACH. Alphabet.
Sofia Prima Dewi \& Septian Bayu Kristanto. (2013). COST ACCOUNTING. IN MEDIA.
Stice, J. D., Stice, E. K., \& Skousen, F. (2009). FINANCIAL ACCOUNTING (16 ed.). Salemba Four.
Tjiptono, F. (2005). SERVICE, QUALITY \& SATISFACTION. Andi.

