Strengthening Business Competitiveness Through Training and Assistance with Cost of Goods Manufactured Calculations

Yenny Wati 1*, Yusrizal 2, Anton 3
1,2,3Akuntansi, Fakultas Bisnis, Institut Bisnis dan Teknologi Pelita Indonesia, Indonesia
*Corresponding author: yenny.wati@lecturer.pelitaindonesia.ac.id

Abstract

Kata Kunci: harga pokok produksi; harga jual; pertumbuhan omset

Abstract
This service activity was generated by a problem that one of the bread MSME (Micro, Small, and Medium Enterprises) participants was having with the allocation of costs that were not itemized, impacting the bread MSME’s income growth. The goal of the training is to improve bread MSMEs’ understanding and financial planning abilities in efficiently calculating the cost of goods manufactured, hence affecting the determination of competitive product selling prices. Training, practice, mentoring, and empowerment are the methods or approaches employed. Offline activities were carried out on Monday, September 4, 2023, and were attended by bread MSME owners and their seven employees. According to the evaluation statistics, the level of knowledge increased by 71% after training and mentoring. This increase can be attributed to the fact that faults can be discovered directly through training and mentoring, and the service team can offer suggestions or alternative opinions to correct these errors. This activity has the potential to improve income and boost the MSME bread sector. This activity is intended to help MSME bread grow and contribute more to the economy.

Keyword: cost of goods manufactured; selling price; turnover growth

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BACKGROUND

The expansion of Indonesia's MSME sector implies that there is a lot of potential if it is handled and promoted appropriately (Dianita et al., 2022). Because large enterprises are often the result of the expansion of micro, small, and medium-sized businesses, MSMEs perform an integral part in the development of the national economy (Zulfiar et al., 2023). MSMEs play a critical role since they want to grow and develop their enterprises to build a national economy centered on financial democracy (Widiatmoko et al., 2020).

Aside from that, the role of MSMEs in the national economic recovery process, particularly after the monetary crisis, can be viewed as a saving valve in terms of encouraging economic growth and employment (Ardiana & Ulfah, 2023). The expansion of Indonesia's MSME sector shows that there is plenty of opportunity. If appropriately managed and grown, it will almost certainly be able to build strong medium-sized enterprises (Marisya, 2022). MSMEs, on the other hand, continue to face challenges stemming from the administrative procedure (Setiono & Bahril Ilmiddaviq, 2021). Most MSMEs can overcome their challenges by holding entrepreneurship seminars and providing coaching.

The MSME sector must be able to survive and flourish in a competitive business environment to play an active role in national economic progress (Fadli & Ramayanti, 2020). Production costs are the most important component in determining selling prices, especially for industrial enterprises (Waruwu & Gelatan, 2020). As a result, the cost of goods manufactured is critical in MSMEs. Identifying the correct cost of production is crucial because it affects MSME participants' income because it is linked to the MSME's profit (Arumdalu & Priantana, 2022). Evaluating the cost of goods manufactured is necessary for competing with other business units; it is also useful for balancing the cost of goods manufactured and the price of sale to maximize MSME profits (Mutiara et al., 2023).

The cost of manufactured items is crucial since it influences an MSME's profit and loss calculation (Arisudhana et al., 2023). If MSMEs are not diligent and make errors in calculating manufacturing costs, this might result in inaccurate estimates of a product's selling price (Hetika & Sari, 2019). A high selling price reduces the product's market competitiveness, but a low selling price does not provide profits for the entrepreneur (Satriani & Kusuma, 2020). The full costing approach and the variable costing approach are used to determine...
manufacturing costs. The full costing approach calculates a manufacturer's cost by accounting for all costs related to the production process (Ariyani & Mustofa, 2021). Meanwhile, the variable costing approach determines a manufacturer's cost by factoring in variable manufacturing expenses such as raw material costs, direct costs of labor, and variable manufacturing overhead costs (Herawaty & Mansur, 2019).

Based on a survey conducted at one of the bread MSMEs in Pekanbaru, the bread MSMEs experienced problems with detailed cost allocation, resulting in the bread MSMEs now having a monthly turnover of millions, but the net profit they received was less than the targeted turnover, so it was not in line with what was expected. To eliminate errors in estimating the cost of goods manufactured and to generate efficient costs, an accurate and straightforward approach to predicting production costs is required, which the MSME entrepreneurs may then use to carry out production. Given the simplicity of the business setting, the full costing and variable costing approaches are appropriate and simple to use in determining production costs.

Making intelligent and efficient decisions about manufacturing costs has a big impact on deciding selling prices so that products may compete (Andini & Nurhayati, 2022). When it became clear that the incredibly simple approach employed by business owners was not optimum, the service team endeavored to give techniques for determining the cost of goods manufactured by using available data and comparing it to the cost of goods manufactured utilized by MSMEs. The cost of goods manufactured is particularly significant because they can be used to drive business decisions (Millasyifa et al., 2022). Business owners have previously calculated the cost of items manufactured but not the cost of goods manufactured per unit. When generating cost-of-manufactured reports, MSME participants have been unable to present the exact and correct cost of goods manufactured in compliance with the collection of manufactured expenses.

According to data from the Ministry of Cooperatives and SMEs in 2023, MSMEs contribute 60.5% of the national GDP. This demonstrates that Indonesian MSMEs have great development potential, allowing them to contribute considerably more to the economy. Given the significance of the cost of goods manufactured that require precision and accuracy, particularly in light of the industry's current strong competition, it pushes one business to
compete with another. As a result, the service team would want to deliver assistance and training in estimating the cost of goods manufactured to improve the management of Pekanbaru's bread MSME enterprises.

**METHOD OF IMPLEMENTATION**

Offline community service activities for training and assessing manufacturing costs. On September 4, 2023, a service team comprised of bread MSMEs (DD Bakery and Cake) and seven employees in Pekanbaru gave training and support in predicting the cost of goods manufactured. Training, mentoring, and empowerment are the outcomes of the method approach. The three ways that will be used show that the actions are long-term (Mutiara et al., 2023).

The training was delivered by the community service team (Pelita Indonesia Business and Technology Institute), which comprised discussions and presentations by resource individuals. Three accounting academics (Pelita Indonesia Business and Technology Institute) spearheaded this community service program, which was supported by numerous employees from bread MSMEs. Lecturers act as resources for literature on estimating manufacturing costs, while Bread MSME employees organize supplies and equipment to assist this community service activity.

For performing community service tasks, offline processes, lecture and practice methods, and discussion methods are employed. Offline, the lecture method and practical training are used to explain material about the meaning of the cost of goods manufactured, the need to calculate the cost of goods manufactured, the meaning of costs that comprise the cost of goods manufactured, and the materials used to manufacture products based on components in figuring out the cost of goods manufactured. Participants who did not understand the information provided by the resource person employed the discussion approach after the training material presentation, asking numerous questions. Following the training, the mentorship session included real-world practice predicting the cost of goods manufactured using pre-prepared data and input from MSME participants. This service activity is carried out in the following stages:

1. Stage of observation
The service team conducted interviews to establish participant availability and readiness, as well as to gather information on existing papers that could be used to enhance training and help figure out the cost of goods manufactured.

2. Stage of preparation

At this point, training and mentoring procedures, as well as training tools and materials, have been produced, as have training materials for calculating the cost of goods manufactured.

3. Stage of implementation

At this moment, the community service team (Institut Bisnis dan Teknologi Pelita Indonesia) presented information on the cost of goods manufactured. During the practical training stage, the service team, in this case the lecturer, teaches how to figure out the cost of goods manufactured to participants.

4. Stages of implementation and evaluation of training

The assistance team facilitates the implementation of the cost of goods manufactured calculation. To directly identify problems, evaluation occurs concurrently with implementation. At this stage, questionnaires containing questions on PKM (community service activities) were handed out to participants to assess the training’s effectiveness.

The service team contributes to training efforts by offering advice, suggestions, and awards for service performance, as well as assisting with cost of goods manufactured estimates.

RESULTS AND DISCUSSION

This community service activity will help participants understand the meaning of the cost of goods manufactured, explain why it is required to calculate the cost of goods manufactured, explain the meaning of the costs that comprise the cost of goods manufactured, and explain the materials used to make items based on components in calculating the cost of goods manufactured. Every cost involved in commodities produced and sold in a business or industry is included in the cost of goods manufactured (Wijaya et al., 2022).
Net profit is a measure of a company's overall profitability that can be used to judge whether management has received enough compensation for the use of assets under their control (Wati, 2022). Profit is calculated by deducting the amount of revenue from the amount of costs incurred (Wati et al., 2022). Net profit is defined as the difference between direct sales and product or service expenses, as well as the difference before deducting operational or overhead costs (Ariyani & Mustoffa, 2021; Wati et al., 2023).

The cost of goods manufactured and net profit relationship states that lowering the cost of goods manufactured results in a net profit (Millasyifa et al., 2022). To achieve the desired amount of profit, business management must exercise prudence when evaluating the cost of goods manufactured as a predictor of profit size (Zulfijar et al., 2023). Determining the cost of goods manufactured is vital in the company; hence, the cost of goods manufactured can be produced by assessing strong planning and marketing, calculating selling prices, and determining inventory value (Satriani & Kusuma, 2020). The cost of goods manufactured can be calculated, including the cost of raw materials, direct labor, and overhead for the factory, and also the product inventory at the beginning of the process and just a little of product inventory at the end (Wijaya et al., 2022).

This community service activity's goal is to: (1) Educating bread MSMEs and their employees about the need to figure out the cost of goods manufactured for their businesses to increase bread MSMEs' sustainability and success, (2) Train and support in estimating the cost of goods manufactured and the costs that comprise the cost of goods manufactured, both conceptually and practically, (3) Increase bread MSME participants' knowledge and capacity to make financial plans in terms of identifying fundamental cost of goods manufactured.

**Figure 1. The Distinction Between Full Costing and Variable Costing**
The first session focused on the relevance of establishing the cost of goods manufactured for business participants. Then, using the lecture method, present material in the form of the concept of determining the cost of goods manufactured, followed by questions and responses. Following that, the mentorship session included real-world practice predicting the cost of goods manufactured using pre-prepared data and input from MSME participants. Full costing and variable costing are two approaches for calculating the cost of goods manufactured, according to the training material. If there are issues in classifying expenses and estimating the cost of goods manufactured in bread MSMEs, the service team allows training participants to ask questions and hold discussions. The participants took this training and mentorship activity seriously. They were also eager to inquire about the cost of goods manufactured associated with building bread MSMEs.

<table>
<thead>
<tr>
<th>Raw material costs</th>
<th>Rp54,740,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct labor costs</td>
<td>Rp6,000,000</td>
</tr>
<tr>
<td>Variable manufacturing overheads</td>
<td>Rp4,510,000</td>
</tr>
<tr>
<td>Fixed manufacturing overheads</td>
<td>Rp1,388,000</td>
</tr>
<tr>
<td><strong>Total production</strong></td>
<td><strong>Rp66,618,000</strong></td>
</tr>
</tbody>
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\[
\text{Cost per unit (Rp)} = \frac{\text{Cost of Goods Manufactured}}{\text{Number of units}}
\]

\[
\text{Selling price (Rp)} = \text{Cost of Goods Manufactured} + (\% \text{ profit} \times \text{Cost of Goods Manufactured})
\]

\[
\text{Selling price per unit (pieces)} = \frac{\text{Selling price}}{\text{Number of units (pieces)}}
\]

![Figure 2. The Full Costing Method is used to Compute the Selling Price Per Unit](image-url)
Figure 3. The Variable Costing Method is used to Compute the Selling Price Per Unit

Figure 4. Creating Profit and Loss Statements Using the Full Costing and Variable Costing Methods

Figure 5. Calculations Comparing the Full Costing Method with the Variable Costing Method
This activity's evaluation is aimed at determining the level of success of this service activity. This form of evaluation is carried out by observing how participants classify costs and calculate the cost of goods manufactured. According to the total assessment results, the participants absorbed more than 82% of the training material offered. The evaluation outcomes of the team of lecturers collected through observations, queries and responses, questionnaires, and finalization of estimated the cost of goods manufactured by the participants were used by the activity implementers to make conclusions, as shown in Graph 1 below.

Graph 1. Preceding and Following the Assistance on Changes in the Ability of Small and Medium Enterprise Bakeries Participants

Source: Analyzed Data

As shown in the graph, some participants were unable to comprehend the calculation of the cost of goods manufactured before the training, and only 14% of participants were exceptionally capable of comprehending cost classification and calculating the right cost of goods manufactured. As seen in the graph, participants' ability to understand the correct computation of goods manufactured cost increased by 71% after completing this training. Following that, the evaluation is finished by comparing production cost data and information with the cost of goods manufactured report prepared by bread MSME participants. The average participant in this service activity was able to prepare a report on the cost of goods manufactured based on the assessment outcomes.
Picture 1 depicts the service team providing material presentations, conversations, and support in figuring out the cost of goods manufactured to bread MSME participants. Following the completion of the mentoring process, the service team gave the bread MSME participants the findings of the support in calculating the cost of goods manufactured, as indicated in Figure 2. There have been no obstructions since the start of the training and assistance in estimating the cost of goods manufactured, therefore this program provides maximum benefits to bread MSME participants in Pekanbaru.

Picture 1. The service team provided material presentations, talks, and assistance in evaluating the cost of goods manufactured to bread MSME participants.

Picture 2. The results of goods manufactured cost assistance were presented to the bread MSME participants by the service team.

Based on the responses of participants to written questions in the version of a questionnaire distributed at the finish of the training phase, the following community service
activity was evaluated: (1) Participants commented that the information was relevant (up to 100%) to the needs of bread MSMEs to improve their business. Participants responded positively to this service activity since increasing company turnover is critical for bread MSMEs; (2) Participants said that they highly agreed (up to 90%) or agreed (up to 10%) with the provision of simple instruction in determining the cost of goods manufactured created; (3) Participants believed that the ultimate purpose of community service activities such as training and assistance in estimating cost of goods manufactured was fulfilling and incredibly beneficial.

CONCLUSIONS AND SUGGESTIONS

Founded on the prior description, it would be feasible to assume that, in general, the execution of training activities and assistance in calculating the cost of goods manufactured can run smoothly, and that nearly all participants are enthusiastic about the training and appreciate its benefits. After receiving this training from a team of lecturers (Institut Bisnis dan Teknologi Pelita Indonesia), participants were able to accurately allocate specific production costs to a product, avoiding errors in calculating the cost of manufacturing. The precision with which the cost of goods manufactured is determined has implications for calculating market-competitive selling prices. They can advance the bread MSME business by increasing turnover with the assistance of the service team in determining the cost of goods manufactured for bread MSME performers.

The evaluation results show that participants' knowledge and abilities improved by 71%. Participants in the Bread MSME welcomed this training program and hoped that it would be repeated in the future. Following participation in training and mentoring activities, bread MSME owners and employees should continuously implement it in their business so that they can determine whether their business is efficient or not and take corrective action so that their business develops and progresses.
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