

Analysis Of Production Cost Calculation Using The FIFO (First In, First Out) Method And Determining Selling Price Using The Cost Plus Pricing Method To Achieve Optimal Profit (Case Study On Nanda Bakery MSME In Jetis Village, Ponorogo Regency)

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Abstract

This research is motivated by the importance of accurate calculation of production cost and selling price in bakery MSMEs to optimally increase business profits. The study aims to analyze the calculation of Production Cost (COGS) using the FIFO (First In, First Out) method and the determination of selling price using the Cost Plus Pricing method at Nanda Bakery MSMEs in Jetis Village, Ponorogo Regency. The study uses a descriptive quantitative approach with a case study design. The research population includes all production cost activities and selling price determination at Nanda Bakery, while the sample is determined purposively, namely the business owner and production employees. The research instruments are interviews, observations, and documentation. Data analysis techniques are carried out descriptively quantitatively through the calculation of COGS using the FIFO method, determining the selling price using the Cost Plus Pricing method, and comparing business profits. The results show that the COGS of sweet bread using the FIFO method is Rp1,155 per piece and roll bread is Rp15,427 per piece. The selling price using the Cost Plus Pricing method results in a price of Rp1,800 for sweet bread and Rp20,000 for roll bread. The research conclusion shows that the application of the FIFO and Cost Plus Pricing methods is able to produce more accurate cost calculations and selling price determinations, thereby increasing profit optimization, especially for roll bread products.

Keywords: Cost Plus Pricing, FIFO Method, Pricing Strategy, Production Cost, Small And Medium Enterprises

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have long been positioned as a key pillar of the national economy due to their significant contribution to economic growth, employment, and improved public welfare (Karona Cahya Susena et al., 2024; Susanto et al., 2023). Globally, MSMEs in various developing countries continue to receive policy priority due to their ability to reduce poverty and inequality, while strengthening local economic resilience to crises (OECD, 2024; World Bank, 2023). In Indonesia, the MSME sector is known to absorb more than 96 percent of the workforce and contributes around 60 percent to Gross Domestic Product (GDP), making it a key factor in post-pandemic economic recovery and structural adaptation to digital transformation (Ministry of Cooperatives and SMEs, 2023; Riani & Putra, 2024).

On the other hand, increasing competitive pressures, both nationally and globally, require MSMEs—particularly in the food and beverage sector—to improve their professionalism in managing production costs and determining selling prices (Wulandari & Sukandi, 2025; Rahman & Yusuf, 2023). In a dynamic market environment, fluctuations in raw material prices, labor costs, and the intensity of price competition make the accuracy of Cost of Goods Sold (COGS) calculations and pricing strategies crucial for business profitability and sustainability (Ministry of Finance of the Republic of Indonesia, 2023; Septiani et al., 2023). Therefore, strengthening the cost accounting capacity and managerial capabilities of MSMEs is not merely a technical necessity, but a strategic imperative to maintain competitiveness amidst uncertain economic conditions.

At the regional level, East Java Province occupies a central position in the development of national MSMEs, with this sector contributing significantly to Gross Value Added (GVA) and regional economic stability (East Java Cooperatives and MSMEs NVA Report, 2023; East Java Statistics Agency, 2024). In this context, the culinary sector, including micro-bakeries, is a key driver of local economic growth due to relatively stable demand and relatively easy entry of new business actors (East Java Communication and Information Technology, 2023; Putri & Suryani, 2024). In Ponorogo Regency, data from the Central Statistics Agency shows an increase in the number of MSMEs from approximately 31,328 units in 2019 to 39,650 units in 2022, indicating that micro-enterprise dynamics remain strong despite being pressured by the pandemic (BPS Ponorogo, 2023; Nugroho et al., 2024). This phenomenon confirms that the culinary sector, especially bakery, not only plays a role as a source of individual income, but also as a major supporter of the local economy which is sensitive to cost efficiency and successful selling price management.



However, many bakery MSMEs still rely on traditional pricing practices, based on estimates or following market prices without a systematic COGS calculation (Rida Sukma, 2023; Sulistyoningrum et al., 2025). This approach has the potential to create "hidden losses," where high sales volumes do not necessarily translate into healthy profitability, as increased production costs are not proportionally accommodated in the selling price (Karsona & Retnawati, 2023; W Taroreh et al., 2021). Recent studies in various sectors indicate that inaccurate COGS calculations significantly impact margin declines and even long-term liquidity failures, particularly in businesses characterized by perishable raw materials and high price fluctuations (Ministry of Finance of the Republic of Indonesia, 2023; Septiani et al., 2023). This reality underscores the need for a more scientific and measurable cost accounting approach at the food MSME level, yet the implementation of such practices remains limited in most micro-enterprises in Indonesia.

Previous research on inventory calculation and selling price determination has shown that the FIFO (First In, First Out) and Cost Plus Pricing methods can improve the accuracy of cost and profit calculations in various sectors (Wulandari & Sukandi, 2025; Sulistyoningrum et al., 2025). A study at the As'adiyah Clinic by Wulandari & Sukandi (2025) found that implementing FIFO resulted in lower cost of goods sold and helped maintain stock quality, thus driving higher profits compared to using no specific method. Similar findings were obtained by Annisa Rahmawati & Achmad Daengs GS (2021) at a food distributor in East Java, who reported that FIFO reduced cost of goods sold and increased profits compared to the LIFO method, especially for perishable commodities. Furthermore, research by Ningtyas et al. (2023) and Lailatus Sangadah & Nur Sayidatul Muntiah (2021) in Ponorogo emphasized that the use of FIFO results in more relevant inventory valuation, reduces the risk of financial statement manipulation, and supports better managerial decisions.

In terms of pricing, studies by W Taroreh et al. (2021) and Sulistyoningrum et al. (2025) demonstrated that the Cost Plus Pricing method can produce more rational, realistic, and competitive selling prices because prices are determined based on total production costs plus a desired profit markup. This approach provides an objective basis for business owners to set prices, rather than relying solely on intuition or market trends (Sulistyoningrum et al., 2025; W Taroreh et al., 2021b). However, most previous studies tend to examine FIFO or Cost Plus Pricing separately, and many focus on the healthcare, retail, cooperative, or tempeh manufacturing sectors. Therefore, they do not provide a comprehensive overview of the combination of the two methods in the context of bakery MSMEs characterized by fast production, perishable products, and daily sales volume



fluctuations (Ningtyas et al., 2023; Putri & Suryani, 2024). This creates a significant research gap, particularly in the integrated analysis of FIFO-based COGS calculations and Cost Plus Pricing selling price determination to assess optimal profit gains in bakery MSMEs.

This study aims to fill this gap through empirical analysis of the Nanda Bakery MSME in Jetis Village, Ponorogo Regency, with a focus on calculating COGS using the FIFO method and determining selling prices using the Cost Plus Pricing method. Specifically, this study aims to: (1) identify how the calculation of COGS and determining selling prices are applied by Nanda Bakery in the period October–December 2025; (2) recalculate COGS using the FIFO method; (3) determine selling prices based on Cost Plus Pricing; and (4) compare optimal profit gains between the methods used by the business and methods compiled based on FIFO and Cost Plus Pricing. This research is considered urgent because uncertain global and local economic conditions, especially fluctuations in the prices of raw materials such as wheat flour, eggs, and butter, increase the risk of “hidden losses” if COGS is not calculated precisely (Ministry of Finance of the Republic of Indonesia, 2023; Septiani et al., 2023).

The novelty of this research lies in the integration of two key approaches—FIFO and Cost Plus Pricing—in a single case study of a bakery MSME, which has not been comprehensively explained in the current literature (Putri & Suryani, 2024; Sulistyoningrum et al., 2025). From a theoretical perspective, this research contributes to the development of cost accounting and management accounting literature in the MSME sector, particularly the COGS calculation model and relevant selling price determination for food products with perishable characteristics and daily demand fluctuations. Practically, the results of this study are expected to guide the management of Nanda Bakery and other bakery MSMEs in the Ponorogo and East Java regions to improve cost calculation accuracy, strengthen profit reporting transparency, and formulate more objective and sustainable pricing strategies.

METHOD

This research uses a descriptive quantitative approach with a case study design to analyze the calculation of Cost of Goods Sold (COGS) based on the FIFO (First In, First Out) method and the determination of selling prices using the Cost Plus Pricing method at the Nanda Bakery MSME in Jetis Village, Ponorogo Regency. The quantitative approach was chosen because the research focuses on calculating and measuring production costs, COGS, selling prices, and profits that can be systematically replicated

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(Sugiyono, 2023; Emzir, 2022). This type of case study is considered appropriate because the research focuses on one specific business unit, thus allowing for an in-depth explanation of cost management procedures, pricing practices, and the dynamics of perishable raw material stock turnover (Yin, 2022; Putri & Suryani, 2024).

The study population comprised all production cost management and pricing activities at the Nanda Bakery Jetis branch, which serves as the central kitchen and the primary point of contact for determining the cost of goods sold (COGS) for all branches. The sample size was purposive, with the primary subjects consisting of the business owner, Mr. Bayu, and several production employees directly involved in raw material procurement, cost recording, and pricing. Informants were selected based on inclusion criteria: full access to production cost data, sales reports, and pricing policies, and willingness to participate in interviews and observations (Creswell & Poth, 2021; Nugroho et al., 2024). This sampling technique allowed researchers to obtain representative and relevant information relevant to the research focus without the need to thoroughly examine all levels of workers (Sudaryono, 2021).

The research instruments consisted of interviews, observations, and documentation, which served as primary measures of key variables in the study. Semi-structured interviews were designed to elicit information regarding raw material procurement procedures, inventory policies, production cost components, and selling price determination practices, using interview guidelines that referenced COGS calculation indicators and pricing strategies (Sugiyono, 2023; Rahman & Yusuf, 2023). Observations were conducted systematically to observe production flows, raw material usage patterns according to the FIFO principle, and resource utilization that is not always formally recorded. This allowed for the identification of all overhead cost elements that impact COGS (Yin, 2022; Putri & Suryani, 2024). Documentation was used to collect internal company records, such as raw material purchase invoices, production reports, inventory counts, and sales data, which served as the basis for quantitative measurements of COGS and selling prices. This instrument was not tested using statistical reliability techniques because the quantitative approach used was descriptive and did not test hypotheses. However, instrument consistency was strengthened through cross-checking of data between interviews, observations, and official documents (Creswell & Poth, 2021).

The research procedure was carried out chronologically through several main stages. The first stage was preparation, including applying for research permits, preparing instruments (interview guidelines, observation sheets, and documentation checklists),



and classifying research variables related to raw material, labor, and overhead costs. The second stage was data collection, in which the researcher conducted direct observation of the production process at the Nanda Bakery Jetis branch, recording the order of raw material usage according to the FIFO principle, and observing storage and stock recording practices. Next, the researcher conducted in-depth interviews with the owner and employees to obtain explanations about cost components, pricing policies, margin targets, and obstacles in the still-traditional accounting system. In the third stage, the researcher collected secondary data through documentation in the form of raw material purchase records, production reports, sales receipts, and profit data for the October–December 2025 period, which were then systematically compiled to facilitate the calculation of COGS and selling prices.

Data analysis was conducted using a quantitative descriptive approach, focusing on grouping and calculating costs based on raw materials, labor, and overhead, as well as applying the FIFO and Cost Plus Pricing methods to assess optimal profit. The researcher first grouped cost data obtained from observations, interviews, and documentation into COGS components according to cost accounting literature (Mulyadi, 2019; Septiani et al., 2023), then recalculated COGS using the FIFO method to compare it with the method used by Nanda Bakery. Next, the researcher determined the potential selling price using the Cost Plus Pricing method, namely by adding the desired profit markup to the COGS using the FIFO method, then comparing the resulting profit with the current selling price scenario (W Taroreh et al., 2021; Sulistyoningrum et al., 2025). This analysis did not involve inferential statistical testing, but rather numerical calculations, tabulations, and descriptive comparisons to illustrate the differences in margins and profits that could be achieved. The entire calculation process is carried out manually and in a structured manner, so that it can be replicated by paying attention to the operational definitions of the variables and formulas used (Sugiyono, 2023; Putri & Suryani, 2024).

RESULTS AND DISCUSSION

Cost of Goods Sold (HPP) for Sweet Bread and Roll Bread

Cost of Goods Sold (COGS) for Sweet Bread Using the Company Method

Table 1. HPP of Sweet Bread Company Method October-December 2025

Cost Name	Information	Amount	
Raw material	Flour	Rp. 3,780,000	
	Butter	Rp. 2,100,000	



	Egg	Rp. 2,100,000	
	Sugar	Rp. 2,380,000	
Total Raw Material Cost			Rp. 10,360,000
Cost Labor Direct	3 employeesproduction / day salary of Rp. 70,000	Rp. 5,880,000	
Total Direct Labor Cost			Rp. 5,880,000
Miscellaneous expense	Gas	Rp. 1,848,000	
	Electricity	Rp. 560,000	
	Packaging	Rp. 11,480,000	
	Bread Toppings	Rp. 2,100,000	
Total Other Costs			Rp. 15,988,000
Total production costs per month x 3 months			Rp. 32,228,000 x 3 months
TOTAL PRODUCTION COST			Rp. 96,648,000
Production Volume			84,000 pcs
HPP/Pcs Sweet Bread			Rp. 1,150
Total Sales (Rp 2,000)			Rp. 168,000,000
Profit and loss			Rp. 71,352,000

Source: UMKM Nanda Bakery October-December 2025 Processed.

Based on the production cost analysis, the cost of making each sweet bread is Rp 1,150, calculated from the total production cost for 3 months of Rp 96,648,000 divided by the production volume in 3 months of 84,000 pieces of sweet bread. Profit from sweet bread sales during October - December 2025 reached Rp 71,352,000.

Cost of Goods Sold (COGS) for Roll Bread According to the Company

Table 2. HPP of Sweet Bread Company Method October-December 2025

Cost Name	Information	Amount	
Raw material	Flour	Rp. 1,008,000	
	Butter	Rp. 1,400,000	
	Egg	Rp. 1,400,000	



	Sugar	Rp. 1,904,000	
Total Raw Material Cost			Rp. 5,712,000
Cost Power Direct Work	3 employee production / day salary Rp. 70,000	Rp. 5,880,000	
Total Direct Labor Cost			Rp. 5,880,000
Cost Etc	Gas	Rp. 1,848,000	
	Electricity	Rp. 560,000	
	Packaging	Rp. 11,480,000	
	Bread Toppings	Rp. 2,100,000	
Total Other Costs			Rp. 15,988,000
Total production costs per month x 3 months			Rp. 27,580,000 x 3 months
TOTAL PRODUCTION COST			Rp. 82,740,000
Production Volume			5,376 pcs
HPP/Pcs Sweet Bread			Rp. 15,391
Total Sales (Rp. 16,000)			Rp. 86,016,000
Profit and loss			Rp. 3,276,000

Source: : UMKM Nanda Bakery October-December 2025 Processed.

Based on a production cost analysis, the cost of making each roll of bread reached Rp 15,391. This figure was obtained by dividing the total production cost for three months, amounting to Rp 82,740,000, by the production volume of 5,376 pieces. Net profit from roll sales during October-December 2025 reached Rp 3,276,000.

Cost of Goods Sold (COGS) for Sweet Bread using the FIFO Method

Table 3. HPP of Sweet Bread FIFO Method

Cost Components	Information	Amount (Rp)
Cost of Raw Materials (FIFO)		3,780,000
Flour		
Butter		2,100,000
Egg		2,220,000



Sugar		2,380,000
Total Raw Materials		10,480,000
Direct Labor	3 employees × Rp. 70,000	5,880,000
Total TKL		5,880,000
Factory Overhead Costs		
Gas		1,848,000
Electricity		560,000
Packaging		11,480,000
Bread Toppings		2,100,000
Total BOP		15,988,000
Total Production Cost / Month		32,228,000
Total Production Cost (3 Month)		97,044,000
Production Volume	84,000 pcs	
Cost of Goods Sold per piece (FIFO)		1,155

Source: : UMKM Nanda Bakery October-December 2025 Processed

Based on the calculation results, the production cost of sweet bread per piece is Rp 1,155. This value is obtained by dividing the total production cost for three months, amounting to Rp 97,044,000, by the production quantity of 84,000 pieces. The calculation uses the FIFO method, so the resulting cost reflects the use of raw materials according to the order of purchase.

Cost of Goods Sold (COGS) for Roll Bread using the FIFO Method

Table 4. HPP of Bread Rolls FIFO Method

Cost Components	Information	Amount (Rp)
Cost of Raw Materials (FIFO)		
Flour		1,008,000

Butter		1,400,000
Egg		1,470,000
Sugar		1,904,000
Total Raw Materials		5,782,000
Direct Labor	3 employees × Rp. 70,000	5,880,000
Total TKL		5,880,000
Factory Overhead Costs		
Gas		1,848,000
Electricity		560,000
Packaging		11,480,000
Bread Toppings		2,100,000
Total BOP		15,988,000
Total Production Cost / Month		27,650,000
Total Production Cost (3 Months)		82,950,000
Production Volume	5,376 pcs	
Cost of Goods Sold per piece (FIFO)		15,427

Source: : UMKM Nanda Bakery October-December 2025 Processed

Based on the calculation results, the production cost per roll is Rp 15,427. This value is obtained by dividing the total production cost for three months, amounting to Rp 82,950,000, by the production quantity of 5,376 rolls. The calculation uses the FIFO method, so the resulting cost reflects the use of raw materials based on the order of purchase.



Selling Price of Sweet Bread and Roll Bread

Sweet Bread Selling Price According to Company

Table 5. Selling Price of Sweet Bread

No	Description	Amount
1	Cost of Goods Sold per piece	Rp. 1,150
2	Selling price per piece	Rp. 2,000
3	Profit per piece	Rp. 850
4	Production quantity	84,000 pcs
5	Total sales	Rp. 168,000,000
6	Total profit	Rp. 71,352,000

Source: : UMKM Nanda Bakery October-December 2025 Processed

Based on the data, it is known that the selling price of sweet bread is IDR 2,000 per piece with a cost of goods sold of IDR 1,150, so the profit obtained per piece is IDR 850. With a production volume of 84,000 pieces, the total sales generated reached IDR 168,000,000 and the total profit was IDR 71,352,000.

Bread Roll Selling Price According to Company

Table 6. Selling Price of Roll Bread

No	Description	Amount
1	Cost of Goods Sold per piece	Rp. 15,391
2	Selling price per piece	Rp. 16,000
3	Profit per piece	Rp. 609
4	Production quantity	5,376 pcs
5	Total sales	Rp. 86,016,000
6	Total profit	Rp. 3,276,000

Source: : UMKM Nanda Bakery October-December 2025 Processed

Based on the data, it is known that the selling price of bread rolls is IDR 16,000 per piece with a cost of goods sold of IDR 15,391, so the profit obtained per piece is IDR 609. With a production volume of 5,376 pieces, the total sales generated reached IDR 86,016,000 and the total profit was IDR 3,276,000.



Selling Price of Sweet Bread Using Cost Plus Pricing Method**Table 7. Selling Price of Sweet Bread Using the Cost Plus Pricing Method**

No	Description	Calculation	Results
1	Cost of Goods Sold per piece		Rp. 1,155
2	Margin (50%)	$50\% \times 1.155$	Rp. 578
3	Selling price per piece	$1,150 + 578$	Rp. 1,733
4	Rounding of selling prices		Rp. 1,800
5	Production volume		84,000 pcs
6	Total sales	$84,000 \times 1,800$	Rp. 151,200,000
7	Total production costs		Rp. 97,044,000
8	Total profit	$151,200,000 - 97,044,000$	Rp. 54,156,000

Source: : UMKM Nanda Bakery October-December 2025 Processed

Based on the table above, the selling price of the sweet bread is Rp 1,800 per piece after rounding. Compared to the company's stated selling price of Rp 2,000, the cost-plus pricing method tends to be lower.

This difference indicates that the company has been setting selling prices with a higher profit margin than the cost-based calculation. Nevertheless, this higher price is still acceptable to consumers, resulting in substantial profits.

On the other hand, using the cost-plus pricing method provides a more measurable picture of selling prices because it is based on clear production cost calculations. Therefore, this method can be used as a reference for determining more rational selling prices, especially when companies want to adjust prices to reflect actual costs.



Selling Price of Bread Rolls Using Cost Plus Pricing Method**Table 8. Selling Price of Bread Rolls Using the Cost Plus Pricing Method**

No	Description	Calculation	Results
1	Cost of Goods Sold per piece		Rp. 15,427
2	Margin (20%)	$30\% \times 15,421$	Rp. 4,628
3	Selling price per piece	$15,427 + 4,628$	Rp. 20,055
4	Roundingselling price		Rp. 20,000
5	Production volume		5,376 pcs
6	Total sales	$5,376 \times 20,000$	Rp. 107,520,000
7	Total costproduction		Rp. 82,950,000
8	Total profit	$107,520,000 - 82,950,000$	Rp. 24,570,000

Source: : UMKM Nanda Bakery October-December 2025 Processed

Based on the table above, the selling price of the bread rolls is Rp 20,000 per piece after rounding. Compared to the company's current selling price of Rp 16,000, the cost-plus pricing method appears higher.

This difference indicates that the company's selling price is still below what it should be based on production costs and a certain profit margin. Consequently, the profit earned from selling the rolls is relatively small.

By using the cost-plus pricing method, companies can identify opportunities to increase selling prices to maximize profits. However, its implementation still requires consideration of market conditions and consumer purchasing power to avoid a decline in sales.

DISCUSSION**Cost of Goods Sold (COGS) and selling price determination applied to the Nanda Bakery MSME in Jetis Village for the period October to December 2025**

Calculating the cost of goods manufactured (COGS) and determining the selling price are crucial aspects of any business because they directly impact profit. Research and interviews revealed that the Nanda Bakery MSME still uses simple methods to calculate production costs and determine selling prices.

In calculating COGS, companies add up all production costs, including raw



materials, direct labor, and other costs such as gas, electricity, packaging, and toppings. This calculation isn't detailed and doesn't use a specific method, although in practice, raw material usage follows the order in which they are received.

The summary of the calculation of COGS and selling prices applied by the company can be seen in the following table:

Table 9. Comparison of Bread HPP

No	Product	Total costProduction (Rp)	Volume Production (pcs)	HPP per piece (Rp)	Selling Price (Rp)	Profitper piece (Rp)
1	Sweet Bread	96,648,000	84,000	1,150	2,000	850
2	Bread Roll	82,740,000	5,376	15,391	16,000	609

Source: : UMKM Nanda Bakery October-December 2025 Processed

Based on the table, it appears that the company determines selling prices by directly adding profit without using a structured margin calculation. Pricing is based more on experience and market conditions.

The results of this study align with previous research showing that most MSMEs still use simple methods to calculate COGS and determine selling prices. Research by Oky et al. (2024) stated that MSMEs tend to calculate overall production costs without detailed breakdowns, resulting in selling price determinations based more on estimates. Furthermore, research by Sari et al. (2025) also showed that many MSMEs have not yet systematically used cost-based pricing methods, resulting in suboptimal profits.

Therefore, it can be concluded that the calculation of COGS and selling price determination at the Nanda Bakery MSME is still simple and unstructured. Therefore, a more systematic method is needed to more accurately calculate costs and determine selling prices and support increased business profits.

Analysis of Cost of Goods Sold (COGS) of the Company Using the FIFO Method at the Nanda Bakery MSME in Jetis Village

Cost of goods manufactured (COGS) analysis using the FIFO (First In First Out) method is performed to determine the accuracy of production cost calculations, which better reflect actual conditions. The FIFO method emphasizes that the first raw materials

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received are used first in the production process, so calculated costs follow the order in which raw materials are purchased.

Based on the results of the calculations that have been carried out, the COGS using the FIFO method can be seen in the following table:

Table 10. Selling Price Cost plus pricing method

No	Product	Total Production Cost (Rp)	Production Volume (pcs)	Cost of Goods Sold per piece (Rp)
1	Sweet Bread	97,044,000	84,000	1,155
2	Bread Roll	82,950,000	5,376	15,427

Source: : UMKM Nanda Bakery Processed

Based on the table, it is known that the COGS for sweet bread using the FIFO method is Rp 1,155 per piece, while for rolls it is Rp 15,427 per piece. This value is obtained by calculating the cost of raw materials adjusted for the order of purchase, then adding direct labor costs and factory overhead costs.

The application of the FIFO method in this study demonstrated more detailed production costs because it accounted for differences in raw material prices. This was evident in certain raw material components, such as eggs, which experienced price fluctuations, thus affecting total production costs. With the FIFO method, any price changes can be reflected in the COGS calculation.

(Ulva et al., 2025) stated that “the FIFO method assumes that the first materials or goods received will be used first, so that the resulting cost value better reflects the actual flow of use.” In addition, (Muhammad et al., 2025) stated that “a systematic costing method will produce more accurate cost information and can be used in managerial decision making.”

Based on this opinion, the FIFO method provides a clearer and more structured cost calculation. Although the resulting differences are not significant, this method still offers advantages because it can depict the flow of raw material usage more systematically and aligns with actual conditions in the field.

Thus, the FIFO method is considered more appropriate for use in calculating the cost of production at the Nanda Bakery MSME because it is able to increase the accuracy of cost calculations and support the determination of more appropriate selling prices.



Determining the Company's Selling Price Using the Cost Plus Pricing Method

Determining the selling price is a crucial aspect of any business because it directly impacts the level of profit earned. At the Nanda Bakery SME, selling prices have been determined simply, based on estimates and adjusted to market prices. Therefore, this study calculated the selling price using the cost-plus pricing method to provide a more structured picture.

The cost-plus pricing method determines the selling price by adding up all production costs and then adding a specific profit margin. Using this method, the resulting selling price is clearer because it's based on the company's actual costs.

The calculation of the selling price using the cost plus pricing method can be seen in the following table:

Table 11. Selling Price Using Cost Plus Pricing Method

No	Description	Sweet Bread	Bread Roll
1	Cost of Goods Sold per piece	Rp. 1,155	Rp. 15,427
2	Margin (%)	50 %	30%
3	Margin (Rp)	Rp. 577	Rp. 4,628
4	Selling Price (before rounding)	Rp. 1,732	Rp. 20,055
5	Selling price (rounding)	Rp. 1,800	Rp. 20,000

Source: : UMKM Nanda Bakery October-December 2025 Processed

Based on the table, the selling price for sweet bread is Rp 1,800 per piece. This value is lower than the selling price set by the company of Rp 2,000 per piece. This indicates that the company is taking a higher profit margin compared to the cost-plus pricing method. Meanwhile, the selling price for bread rolls is Rp 20,000 per piece, which is higher than the company's selling price of Rp 16,000 per piece. This condition indicates that the company has not maximized profits from bread rolls.

The results of this study are supported by previous research showing that the cost-plus pricing method can produce more targeted selling prices. Research by Linda & Z (2025) states that determining selling prices using the cost-plus



pricing method provides more accurate results because it clearly considers all production costs and profit margins. Furthermore, research by Tamara & Anita (2025) also shows that implementing the cost-plus pricing method can help MSMEs determine more rational selling prices and increase business profits.

Overall, the cost-plus pricing method provides a clearer basis for determining selling prices than the methods currently used by companies. Therefore, this method can be used as a reference for setting selling prices for greater consistency and optimal profit generation.

Comparison of optimal profit gains between the methods used by Nanda Bakery in the period October to December 2025 and after applying the Method FIFO (First In, First Out) and Cost plus pricing method Implementation of FIFO and Cost plus pricing method for UMKM Nanda Bakery

Profit is a key indicator of a business's success. Profitability is heavily influenced by the accuracy of production cost calculations and selling price determination. Therefore, a comparison was made between the methods used by the Nanda Bakery MSME and FIFO and cost-plus pricing.

Based on the processed data, for sweet bread products, the company's method generated a profit of Rp 71,352,000 with a selling price of Rp 2,000 per piece. Meanwhile, if using the FIFO method and cost-plus pricing with a selling price of Rp 1,800 per piece, the profit obtained was Rp 54,180,000. This shows that for sweet bread, the company's method still provides a greater profit.

For the bread roll product, the company's method generated a profit of Rp 3,276,000 with a selling price of Rp 16,000 per piece. Meanwhile, using the FIFO and cost-plus pricing methods, the selling price was Rp 16,000.

20,000 per piece. With a cost of goods sold of Rp 15,427 per piece, the profit per piece is Rp 4,573. With a production volume of 5,376 pieces, the total profit obtained is Rp 24,588,448.

Comparison of profit gains can be seen in the following table:



Table 12. Comparison of Profit Using the Company Method and the FIFO + Cost plus pricing Method

No	Product	Method Company (Rp)	FIFO & Cost plus method Pricing (Rp)
1	Sweet Bread	71,352,000	54,180,000
2	Bread Roll	3,276,000	24,588,448

Source: : UMKM Nanda Bakery October-December 2025 Processed

The table shows that the results differ for each product. For sweet bread, the company's method yields higher profits because the selling price is set above the cost-plus pricing calculation. Meanwhile, for rolls, the FIFO and cost-plus pricing methods yield significant profit increases because the selling price is more in line with production costs.

(Sodiah et al., 2020) stated that "optimal profits can be achieved if the company is able to set selling prices based on accurate costs and considering the expected profit level." Furthermore, (Ananta et al., 2025) stated that "determining selling prices based on clear costs and margins will result in more rational decisions in increasing company profitability."

Based on this opinion, the use of the FIFO and cost-plus pricing methods provides a clearer basis for calculating profit because they more accurately account for production costs and measurable profit margins. This is evident in the increase in profits for bread rolls after using these methods.

Thus, the use of the FIFO method in calculating COGS and the cost plus pricing method in determining selling prices can be a better alternative in increasing business profits, especially for products that currently still have less than maximum profit potential.

CONCLUSION

This study found that the application of the FIFO (First In, First Out) method in calculating the Cost of Goods Sold (COGS) and the Cost Plus Pricing method in determining selling prices provide a more systematic, measurable, and relevant basis for calculating costs to actual conditions at the Nanda Bakery MSME. For sweet bread products, the company's current method still generates higher profits due to higher selling prices, but for roll bread products, the combination of the FIFO and Cost Plus Pricing methods actually provides a significant increase in profits with selling prices that better

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reflect production costs and structured profit margins. These findings indicate that the FIFO method is able to capture the flow of raw material usage more accurately, while Cost Plus Pricing provides an objective basis for determining selling prices and assessing rational profit margins.

However, this study has limitations, including the data coverage only covering the period of October–December 2025 and the focus on one bakery MSME, so the results cannot be broadly generalized to other sectors and locations without retesting. Furthermore, the analysis was conducted quantitatively descriptively without inferential statistical tests, so the ability to test the influence of macro variables such as raw material price fluctuations or changes in consumer purchasing power is still limited. Future research can develop a mixed-approach study, expanding the sample to several bakery MSMEs in the East Java region, and examining long-term profit changes after the implementation of FIFO-based cost accounting systems and Cost Plus Pricing. The practical implication that can be drawn is the need for bakery MSMEs to introduce a structured cost accounting system as a basis for pricing, so that it does not only rely on estimates and market prices, but can also increase cost transparency and achieve more optimal and sustainable profits.

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