

Implementation of the Full Costing Method Based on Cost-Plus Pricing in Determining Cost of Goods Sold and Selling Price at Sf'barik in Beong Village, Central Siau District

Meini Vanesa Bawonte^{1*}, Jullie Sondakh², I Gede Suwetja³
Sam Ratulangi University

Corresponding Author: Meini Vanesa Bawonte bawontemeiny@gmail.com

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ABSTRACT

This study aims to compare the determination of cost of production and selling price of nutmeg wine at Sf'Barik SME using the company's conventional method and the Full Costing and Cost-Plus Pricing methods. Under the conventional method, the company estimates the production cost at Rp50,000 per bottle and sets a selling price of Rp60,000 without detailed cost calculations. The Full Costing method shows a total production cost of Rp7,911,500 for 200 bottles, resulting in Rp39,557 per bottle. Using Cost-Plus Pricing with a 30% markup produces a selling price of Rp51,424 per bottle. The results indicate that the conventional method yields higher prices, while Full Costing and Cost-Plus Pricing provide more accurate and reliable calculations for managerial decision-making.

INTRODUCTION

In the business environment, determining the cost of production and selling price is a critical aspect that influences a company's sustainability and competitiveness. Errors in calculating the cost of production may lead to inappropriate pricing decisions, potentially reducing profitability and weakening market position. This issue is not only faced by large corporations but is also highly relevant to Small and Medium Enterprises (SMEs), which often encounter limitations in resources, record-keeping systems, and understanding of appropriate costing methods.

In accounting, cost accounting plays a vital role in providing information on production cost calculations to support managerial decision-making. According to Charles T. Horngren, Srikanth M. Datar, and Madhav V. Rajan (2021), cost accounting is a managerial information system that provides both financial and non-financial data to assist management in measuring, analyzing, and controlling costs strategically. Such cost information is not only used to determine production costs and selling prices but also contributes to cost control, efficiency improvement, and managerial decision-making. Accurate and relevant cost information enables firms to formulate appropriate pricing strategies, enhance operational efficiency, and ensure business sustainability in a competitive market.

From a managerial perspective, accurate cost information is essential as a foundation for strategic decision-making. Management accounting provides relevant, measurable, and timely cost data that can be used by management to plan, control, and evaluate business activities. Therefore, the application of appropriate cost accounting methods is not only useful for financial reporting but also serves as a managerial strategy to maintain efficiency, establish competitive pricing, and improve company profitability.

Sf'Barik, formerly known as Sari Fruit, is a Small and Medium Enterprise established in 2018 in Beong Village, Central Siau District, Sitaro Islands Regency, Indonesia, and is officially registered under IKM Number IDM001327694. This enterprise utilizes local resources to produce a variety of nutmeg- and walnut-based products, including nutmeg wine (harnet), nutmeg grape wine, nutmeg syrup, nutmeg juice drinks, nutmeg dodol, nutmeg jam, candied nutmeg, nutmeg coffee, powdered bakasang, herbal liniment, stevia, roasted walnuts, and walnut halua. Among these products, this study specifically focuses on nutmeg grape wine, which is not only a flagship product but also holds cultural and religious value, as it is used in Holy Communion services in several churches. Currently, production reaches approximately 200 bottles per month, with a selling price of IDR 50,000 per bottle. However, the pricing is still determined conventionally, based solely on estimates and market prices without systematic cost calculation. This condition poses risks of inaccurate pricing, unmeasured profits, and potential hidden losses. Therefore, this study focuses on applying the Full Costing method based on Cost-Plus Pricing to determine the cost of production and selling price of nutmeg grape wine, enabling Sf'Barik to establish more rational, competitive, and sustainable pricing.

Several previous studies provide a foundation for analyzing the application of Full Costing and Cost-Plus Pricing methods. Research by Alexander, Stanly W., Artika, Riska, and Latjandu, Lady Diana (2025) on a tofu manufacturing business found that this method produces more accurate selling prices as all production costs are considered. Furthermore, Kalalo, Meily Y. B., Rembet, et al. (2024) demonstrated that the Full Costing method results in higher production costs compared to the Variable Costing method, thus better reflecting actual production costs. Similarly, Kalalo, Meily Y. B., Anggaria, and Gerungai (2024) concluded that Full Costing is more appropriate as it accounts for both fixed and variable costs. Additionally, Toar, Agnes Pascalia, Sondakh, Jullie J., and Kalalo, Meily Y. B. (2023) emphasized the importance of production cost variance analysis as a tool to evaluate efficiency and support managerial decision-making.

These studies indicate that Full Costing and Cost-Plus Pricing are effective methods for determining production costs and selling prices across various types of businesses. However, research addressing products with cultural and religious value, such as nutmeg grape wine at Sf'Barik, remains limited. This study therefore offers novelty in terms of research object, geographical context, and analytical contribution.

Based on the review of prior studies, although Full Costing and Cost-Plus Pricing have proven effective in various industries such as tofu, cakes, and crackers, a research gap still exists. Most prior studies focus on general consumer products in urban areas with relatively adequate resources and market access. In contrast, limited attention has been given to culturally and religiously significant products, particularly in archipelagic regions such as the Sitaro Islands Regency, which face distinct challenges related to resource constraints and distribution access. Moreover, previous studies tend to emphasize cost and price calculations without integrating them into sustainable managerial strategies for SMEs. Therefore, this study addresses this gap by examining the application of the Full Costing method based on Cost-Plus Pricing for nutmeg grape wine at Sf'Barik, contributing novelty through its focus on a culturally and religiously significant product, its archipelagic context, and the integration of cost accounting with managerial pricing strategies.

LITERATURE REVIEW

Accounting

According to Don R. Hansen and Maryanne M. Mowen (2022), accounting is an information system that identifies, measures, processes, and reports economic information to support rational and timely decision-making. It not only records financial transactions but also provides data for planning, control, and performance evaluation. Accounting information systems consist of two main components:

1. **Financial Accounting** – focuses on preparing financial statements for external users (e.g., investors, creditors, government) in accordance with standards such as IFRS.

2. **Managerial Accounting** – provides flexible and relevant information for internal users (managers) to support decision-making, strategic planning, and operational control.

Management Accounting

According to Don R. Hansen and Maryanne M. Mowen (2021), management accounting is the process of identifying, measuring, collecting, analyzing, and communicating financial and non-financial information for internal use in planning, evaluation, and control. It goes beyond financial reporting by transforming data into useful information for managerial decision-making. In practice, management accounting involves tools such as cost-volume-profit analysis, budgeting, performance measurement, cost control, and cost determination. These tools help managers use resources efficiently, respond to business changes, and develop sustainable strategies.

Cost Accounting

According to Charles T. Horngren, Srikant M. Datar, and Madhav V. Rajan (2021), cost accounting is a managerial information system that provides financial and non-financial data to help management measure, analyze, and control costs strategically. Its role extends beyond cost determination to include cost control, efficiency improvement, decision-making, and value creation. Modern cost accounting emphasizes relevant cost information for both tactical and strategic decisions. It supports analyses such as cost-volume-profit (CVP), variance analysis, and pricing decisions, enabling management to understand how cost and production changes affect profitability.

Cost

According to Don R. Hansen and Maryanne M. Mowen (2022), cost is defined as a sacrifice of economic resources, measured in monetary terms, that has occurred or is expected to occur to achieve a specific objective. Costs may take the form of actual cash outflows or the value of resources used in producing goods and services. Costs can be classified based on managerial purposes, such as product costs and period costs, and based on behavior relative to activity levels, including fixed costs, variable costs, and mixed costs. Additionally, the activity-based perspective emphasizes that each activity consumes resources and generates costs, enabling more accurate cost information for planning and decision-making.

Cost Classification

According to Don R. Hansen and Maryanne M. Mowen (2022), cost classification is the process of grouping costs based on specific characteristics to facilitate analysis, planning, control, and managerial decision-making. It helps management understand cost behavior, its relationship to products and activities, and its relevance in strategic decisions.

Costs are classified into several main categories:

1. **Based on Cost Behavior:** fixed costs, variable costs, and mixed costs— important for budgeting and cost-volume-profit (CVP) analysis.
2. **Based on Relation to Product:** product costs (attached to goods) and period costs (expensed in the current period).
3. **Based on Traceability:** direct costs (easily traced) and indirect costs (allocated), often improved using Activity-Based Costing (ABC).
4. **Based on Decision Relevance:** relevant costs, sunk costs, and opportunity costs.
5. **Based on Function:** manufacturing costs and non-manufacturing costs.
6. **Based on Time and Benefit:** capital expenditures and revenue expenditures.

Proper cost classification enables better cost control, profitability analysis, competitive pricing, and efficient resource allocation.

Cost of Production

According to Don R. Hansen and Maryanne M. Mowen (2022), the cost of production refers to the total cost incurred to transform raw materials into finished goods within a specific accounting period. It reflects the overall economic resources used in manufacturing and serves as a basis for pricing decisions and production efficiency evaluation. The cost of production consists of three main components: direct materials, direct labor, and manufacturing overhead. Beyond financial reporting, it supports managerial functions such as setting selling prices, controlling production efficiency, evaluating performance, and guiding strategic decisions (e.g., make-or-buy and budgeting). Modern approaches like Activity-Based Costing (ABC) improve accuracy by allocating costs based on actual activities. Additionally, two main methods are used: Full Costing, which includes all production costs, and Variable Costing, which includes only variable costs. Accurate cost information is essential to ensure realistic pricing, profitability, and efficient resource utilization.

Methods of Determining Cost of Production

According to Don R. Hansen and Maryanne M. Mowen (2022), there are two main methods for determining the cost of production: Full Costing and Variable Costing. These methods differ in how they treat fixed and variable costs.

1. Full Costing Method

This method includes all production costs, both fixed and variable, in the cost of the product. Therefore, it reflects the total cost incurred to produce goods. The components include direct materials, direct labor, variable manufacturing overhead, and fixed manufacturing overhead.

2. *Variable Costing Method*

This method includes only variable production costs in the cost of the product, while fixed manufacturing overhead is treated as a period expense. The components include direct materials, direct labor, and variable manufacturing overhead.

Both methods serve different purposes: Full Costing is mainly used for external reporting, while Variable Costing is useful for internal managerial analysis and decision-making.

Determination of Selling Price

According to Sudarsono (2020), selling price determination involves evaluating all aspects of production activities, including raw material costs, production costs, marketing expenses, government regulations, and competitors' prices, which ultimately influence sales volume and company revenue. The objectives of pricing include achieving target returns or sales levels, maximizing profit, competing with similar businesses, and maintaining price stability.

Several pricing methods are commonly used:

1. Cost-Plus Pricing
2. Cost-Type Contract Pricing
3. Time and Material Pricing
4. Break-Even Point (BEP) Pricing
5. Competitor-Based Pricing

These methods provide different approaches for setting appropriate and competitive selling prices.

Methods of Determining Selling Price

According to Mulyadi (2021), there are four main methods for determining selling prices:

1. Normal Pricing (Cost-Plus Pricing)

This is the basic pricing approach where the selling price is determined by adding a certain markup percentage to the estimated total cost. It ensures that all costs are covered while generating the desired profit.

2. Cost-Type Contract Pricing

Under this method, the buyer agrees to pay based on the actual costs incurred by the producer plus a profit margin. This approach reduces the risk of losses due to cost fluctuations.

3. Special Order Pricing

This method applies to non-routine or custom orders, often at lower prices than normal. Management must carefully analyze costs and potential profits to maintain profitability.

4. Government-Regulated Pricing

For essential goods and services (e.g., utilities and transportation), prices are determined by the government based on estimated costs and reasonable profit to ensure affordability and consumer protection.

Among these methods, Cost-Plus Pricing is widely used because it ensures cost recovery, provides measurable profit, and helps small businesses like Sf'Barik set fair and competitive prices.

METHODOLOGY

Types of Research

This study employs a qualitative research method with a case study approach. The case study approach is selected because the research focuses on a single object, namely Sf'Barik SME, to be examined in depth regarding the application of the Full Costing method based on Cost-Plus Pricing in determining the cost of production and selling price of nutmeg wine.

This approach allows the researcher to gain a comprehensive understanding of the phenomenon by collecting data through observation, interviews, and document analysis. Through this method, the study provides an in-depth description of pricing practices at Sf'Barik while evaluating the relevance of cost accounting methods to the company's managerial strategies.

Place and Time of Research

This research was conducted at Sf'Barik SME, located in Beong Village, Central Siau District, Siau Tagulandang Biaro (SITARO) Islands Regency, Indonesia. The study was carried out over a period starting from February until completion.

Types, Sources, and Data Collection Methods

This study uses both qualitative and quantitative data. Qualitative data were obtained through interviews to gather information on the business profile and pricing practices. Quantitative data were collected from documentation, including production cost records, sales reports, and other financial data relevant to cost of production and pricing calculations.

Data sources are divided into:

1. **Primary Data** – obtained directly from the original source through interaction with respondents. In this study, primary data were collected through interviews with the owner/manager of Sf'Barik SME and observations of production processes and cost recording practices. These data are original and unpublished, providing an accurate representation of actual conditions.

Data Collection Methods :

1. **Interviews** – conducted with the business owner, Hanris Barik, and several employees. Semi-structured interviews were used to explore production costing practices, cost calculation methods, and cost-plus pricing strategies.
2. **Documentation** – involved collecting financial records, production reports, sales data, and other operational documents. These data serve as the primary basis for analyzing the application of Full Costing and Cost- Plus Pricing methods.

Methods and Data Analysis Process

This study employs a descriptive analysis method with a case study approach. The analysis involves describing and interpreting data obtained from interviews and documentation, and then linking them to relevant theories. The collected data are analyzed to explain the application of the Full Costing method in calculating the cost of production and the Cost-Plus Pricing method in determining the selling price at the research object.

The data analysis process is conducted through the following steps:

1. Identifying all production costs, including direct materials, direct labor, and manufacturing overhead.
2. Classifying costs into fixed and variable costs based on the concepts proposed by Don R. Hansen and Maryanne M. Mowen (2022).
3. Calculating the cost of production using the Full Costing method, which includes all production cost components.
4. Determining the selling price by applying the Cost-Plus Pricing approach:

$$\text{Selling Price} = \text{Production Cost} + (\text{Mark-up \%} \times \text{Production Cost}).$$

5. Comparing the calculated selling price with the conventional price applied by Sf'Barik to evaluate the effectiveness of the method.

RESEARCH RESULTS

Cost of Production of Nutmeg Wine

1. Raw Material Cost

The main raw materials used in the production of nutmeg wine consist of several essential components, namely fresh nutmeg, granulated sugar, mineral water, and fermentation yeast. These materials are the core of the production process as they directly influence the taste, aroma, and fermentation that produces the final product. Fresh nutmeg is selected as the primary ingredient because it provides the distinctive flavor, while sugar serves as a nutrient source for yeast to ensure optimal fermentation. Mineral water functions as a solvent and helps balance the liquid volume, whereas fermentation yeast converts sugar into alcohol, creating the unique characteristics of nutmeg wine.

In addition, supporting materials are required for the packaging process, including 600 ml glass bottles, bottle caps, and product labels. Glass bottles are used as the final storage container because they preserve product quality, do not react with the liquid, and provide a more hygienic and appealing appearance. Bottle caps are necessary to ensure safety and prevent contamination, while labels serve as product identification, including brand, composition, production date, and sales legality. The details of raw material costs are presented in the following table :

Table 1, Raw Material Cost Breakdown for Nutmeg Wine Production

No	Raw Material	Quantity	Unit	Price per Unit (Rp)	Total (Rp)
1	Fresh nutmeg	30	kg	25,000	750,000
2	Granulated sugar	20	kg	14,000	280,000
3	Mineral water	40	liter	6,000	240,000

4	Fermentation yeast	0.5	kg	180,000	90,000
5	600 ml glass bottles	200	pcs	3,000	600,000
6	Bottle caps	200	pcs	500	100,000
7	Label and packaging	200	set	1,000	200,000
	Total Raw Material Cost				Rp 2,260,000

Source: Company Data, 2025

Based on the data in the table, the total cost of raw and supporting materials required to produce approximately 200 bottles of nutmeg wine amounts to IDR 2,260,000. This cost covers all stages of production, from initial processing to final packaging. Material costs are a crucial component in calculating the cost of production and determining the selling price to ensure the business remains profitable.

Direct Labor Cost

In the production of nutmeg wine, labor is a crucial cost component that significantly affects the success of the process. Production activities are not purely mechanical but require skill and precision to maintain product quality, from sorting, washing, fermentation, filtering, to final packaging. In this business, the production process is carried out by three direct workers who handle all stages either individually or collaboratively to ensure efficiency and timeliness. Each worker is paid a daily wage of IDR 75,000. Assuming one production cycle requires 20 working days, the wage per worker per cycle is calculated as follows:

Wage per worker per production cycle: $\text{IDR } 75,000 \times 20 \text{ days} = \text{IDR } 1,500,000$

Number of workers: 3 people

Total direct labor cost per production cycle: $\text{IDR } 1,500,000 \times 3 = \text{IDR } 4,500,000$

Table 2, Direct Labor Cost

Description	Amount
Number of workers	3 people
Wage per person/per day	Rp 75,000
Working days per production	20 days
Total labor cost per production	Rp 4,500,000

Source: Company Data, 2025

The total direct labor cost incurred for one production cycle of nutmeg wine is **IDR 4,500,000**. This amount represents a component of total production costs that must be considered in determining the cost of production (COGS) and setting the selling price. Greater labor efficiency in completing the production process will lead to more optimal cost utilization relative to the production output achieved.

Manufacturing Overhead Cost

Manufacturing overhead is an essential component in nutmeg wine production, covering all supporting facilities and operational resources beyond direct materials and labor. It includes equipment and tools used throughout the process, such as cooking pots, stoves, grinders, filters, trays, hoses, and mixers, which support activities from processing to packaging. Most of these items are long-term assets used repeatedly over time, so their costs are not charged directly to a single production cycle. Instead, they are allocated as depreciation costs, which are classified as fixed manufacturing overhead. Details of production facilities and infrastructure can be seen in the following table:

Table 3, List of Production Facilities and Infrastructure

No	Production Equipment	Quantity	Total Price (Rp)
1	30-wick HOK stove	1 unit	550,000
2	Large steamer pot	1 unit	1,500,000
3	Medium steamer pot	1 unit	1,000,000
4	Small steamer pot	2 units	500,000
5	Large tray	2 units	100,000
6	Small tray	3 units	150,000
7	Grinding machine	1 unit	4,500,000
8	Stirrer	1 unit	5,000
9	Filter cloth	1 unit	35,000
10	Gallon jug	50 units	3,000,000
11	Gallon caps	1 set	200,000
12	Silicone hose	1 unit	90,000
	Total Equipment Value		Rp 11,630,000

Source: Company Data, 2025

The total value of production equipment amounts to **IDR 11,630,000**. Since these assets are used over a long period, their costs are not directly charged to a single production cycle. Instead, they are allocated as **depreciation costs (fixed overhead)** in the calculation of the cost of production (COGS). Depreciation is calculated based on the useful life of the equipment, typically using the straight-line method or other methods depending on the analysis requirements.

Total Production Cost

Based on the classification of cost components, the total production cost of nutmeg wine consists of three main elements: raw materials, direct labor, and manufacturing overhead. These components form the basis for determining the cost of production (COGS) and assessing business feasibility.

The general formula is: Total Production Cost = Raw Materials + Direct Labor + Overhead

The total raw material cost is IDR 2,260,000, and direct labor cost is IDR 4,500,000. The overhead cost (including depreciation and operational expenses) will be calculated further in the Full Costing analysis section. Thus temporarily, before overhead is calculated, the basic production cost is:

Table 4, Breakdown of Basic Nutmeg Wine Production Cost Before Overhead is Calculated

Type of Cost	Total (Rp)
Raw materials & auxiliary materials	2,260,000
Direct labor	4,500,000
Initial production cost subtotal	6,760,000

Source: Company Data, 2025

Calculation of Cost of Production (COGS) Using the Full Costing Method

1. Raw and Supporting Material Costs

Raw material cost is the largest component in the production process. In nutmeg wine production, the main materials include fresh nutmeg, granulated sugar, mineral water, and fermentation yeast. Meanwhile, supporting materials such as glass bottles, bottle caps, and labels/packaging are used to complete the final product and make it ready for market distribution. The following table shows the total cost of raw materials in one production cycle:

Table 5, Raw Material Cost Details

No	Raw Materials	Total (IDR)
1	Fresh nutmeg	750,000
2	Granulated sugar	280,000
3	Mineral water	240,000
4	Fermentation yeast	90,000
5	600 ml glass bottles	600,000
6	Bottle caps	100,000
7	Labels & packaging	200,000
	Total Raw Material Cost	2,260,000

Source: Company Data, 2025

With a total cost of IDR 2,260,000, raw materials represent a primary cost component in the calculation of the cost of production (COGS), as they are entirely variable and increase proportionally with production volume.

2. Direct Labor Cost

Direct labor cost includes wages paid to workers directly involved in material selection, processing, fermentation, and product packaging. Sf'Barik SME employs three workers, each earning a daily wage of IDR 75,000 and working an average of 20 days per production cycle.

Direct Labor Cost = 3 workers × IDR 75,000 × 20 days = IDR 4,500,000

Table 6, Direct Labor Cost

Description	Amount (Rp)
3 workers × Rp 75,000 × 20 days	Rp 4,500,000

Source: Company Data, 2025

3. Manufacturing Overhead Cost (MOH)

Manufacturing overhead refers to all production costs that are not directly traceable to a single unit of output but are essential for the production process. Under the Full Costing method, overhead must be included in the calculation of the cost of production (COGS) as it supports overall operational activities.

At Sf'Barik SME, overhead costs are classified into:

1. Fixed Overhead – costs that remain constant regardless of production volume, such as depreciation of production equipment and facilities.
2. Variable Overhead – costs that vary with production volume, such as gas, electricity, and water. However, in this study, variable overhead data are not recorded numerically; therefore, only depreciation costs are included in the COGS calculation.

Since the production equipment is long-term in nature and not consumed in a single cycle, its cost is allocated through depreciation rather than being fully charged at once. The following table shows a list of production facilities along with their acquisition value:

Table 7, List of Production Facilities for IKM Sf Barik

No	Production Equipment	Quantity	Total Value (Rp)
1	30-wick HOK stove	1 unit	550,000
2	Large steamer pot	1 unit	1,500,000
3	Medium steamer pot	1 unit	1,000,000
4	Small steamer pot	2 units	500,000
5	Large tray	2 units	100,000
6	Small tray	3 units	150,000
7	Grinding machine	1 unit	4,500,000
8	Stirrer	1 unit	5,000
9	Filter cloth	1 unit	35,000
10	Gallon jug (fermentation container)	50 units	3,000,000
11	Gallon caps	1 set	200,000
12	Silicone hose	1 unit	90,000
	Total Value of Production Facilities		Rp 11,630,000

Source: Company Data, 2025

Based on the table, the total acquisition value of production assets is Rp 11,630,000. Because the production facilities are used for more than one year, these costs must be categorized as fixed overhead costs through the depreciation method. In this research, the estimated average useful life of production assets is 5 years or 20 productions. The calculation of monthly depreciation is done using the formula:

Depreciation per production = Total Value of Production Facilities / Useful Life (production)

Depreciation per production = Rp 11,630,000 / 20 = Rp 581,500

Thus, the depreciation value charged as a fixed overhead cost per production is Rp 581,500. For clarity, the depreciation allocation table is presented below:

Table 8, Calculation of Production Facility Depreciation per Month

Calculation Component	Value (Rp)
Total value of production facilities	11,630,000
Useful life	20 productions
Depreciation per month	581,500

Source: Company Data, 2025

The calculation of Cost of Goods Sold (COGS) is a crucial step in determining the real cost of a product. In the case of nutmeg wine production, the COGS is calculated by summing all related cost components, which include raw material costs, direct labor costs, and factory overhead. The formula used to calculate the total production cost is as follows:

$$\text{Total Production Cost} = \text{RMC} + \text{DLC} + \text{FOH}$$

Description:

RMC : Raw material cost

DLC : Direct labor cost

FOH : Factory overhead

After the total production cost is known, the next step is to calculate the COGS per unit by dividing the total production cost by the number of products produced. The formula is:

$$\text{COGS per Bottle} = \text{Total Production Cost} / \text{Production Quantity}$$

To calculate the total production cost of nutmeg wine per production, the following is a breakdown of the cost components involved:

Table 9 Breakdown of Nutmeg Wine Production Cost Components per Production

Cost Component	Amount (Rp)
Raw material cost	2,260,000
Direct labor cost	5,070,000
Fixed overhead (depreciation)	581,500
Total Production Cost	Rp 7,911,500

Source: Company Data, 2025

With the total production cost calculated at Rp 7,911,500 and the number of products produced at 200 bottles per batch, the COGS per bottle can be calculated as follows:

With a total production of 200 bottles per batch, then:

$$\text{COGS per bottle} = \text{Rp } 7,911,500 / 200 = \text{Rp } 39,557$$

Thus, the cost of goods manufactured per bottle of nutmeg wine based on the *Full Costing* method is Rp 39,557 per bottle. This calculation shows that the cost of goods manufactured per unit reflects all actual costs incurred, as well as accommodating the equipment depreciation factor which has so far not been taken into account by the producer. Thus, the results of this

calculation can be used as a basis for evaluation for IKM Sf Barik in determining prices.

Determination of Selling Price Using Cost-Plus Pricing

Selling price determination is a strategic process in marketing and production management, as it directly affects business sustainability and profitability. Previously, Sf'Barik SME set the selling price of nutmeg wine based on local market practices without considering comprehensive production cost calculations. This approach risks setting prices below the actual cost, thereby reducing the company's profit margin.

Therefore, this study applies the Cost-Plus Pricing method, where the selling price is determined by adding a certain markup percentage to the total cost of production (COGS). This approach ensures that each unit sold covers all production costs and generates a reasonable profit for the business.

a) Determination of Mark-Up Percentage

Determining the mark-up is a key step in the Cost-Plus Pricing method, as it defines the expected profit. For Sf'Barik SME, the mark-up is based on several considerations:

- Target Profit Margin – the business aims for a 20–30% profit to ensure capital turnover and sustainability.
- Production and Storage Risk – risks such as product spoilage and strict storage needs require sufficient pricing to cover potential losses.
- Market Conditions – local prices range from IDR 45,000–65,000 per bottle, requiring competitive yet cost-reflective pricing.
- Distribution Costs – including transportation, packaging, and basic promotion.

Based on these factors, a 30% mark-up is applied as it is considered realistic, competitive, and profitable.

b) Cost-Plus Pricing Method in Determining Selling Price

The Cost-Plus Pricing method determines the selling price by adding a markup to the cost of production (COGS), ensuring that all costs are covered while generating profit. The formula is:

$$\text{Selling Price} = \text{COGS} + (\text{COGS} \times \text{Mark-Up})$$

In this study, the cost of production per bottle is IDR 39,557, with a 30% markup applied. The calculation is:

$$\text{Selling Price} = 39,557 + (39,557 \times 0.30) = 51,424$$

Thus, the ideal selling price based on Cost-Plus Pricing is IDR 51,424 per bottle. However, Sf'Barik currently sells the product at around IDR 60,000 per bottle, indicating that the actual price is higher than the calculated ideal price.

DISCUSSION

Cost of Production of Nutmeg Wine

Based on the findings in Section 4.2.1, the production cost of nutmeg wine at Sf'Barik SME consists of three main components: raw materials, direct labor, and manufacturing overhead. These costs represent all expenses

incurred from the production process until the product is ready for sale. Raw material cost, including fresh nutmeg, sugar, water, yeast, bottles, caps, and packaging, amounts to IDR 2,260,000 per production cycle and is the largest cost component due to its direct impact on product quality.

Direct labor cost totals IDR 4,500,000, covering all production activities performed by three workers over 20 days. Manufacturing overhead is calculated through depreciation of production equipment valued at IDR 11,630,000, with an estimated useful life of 20 production cycles, resulting in IDR 581,500 per cycle. These components together form the total production cost. To clarify the production cost components incurred by IKM Sf Barik in a single production process, it can be seen in the following table :

Table 10 Production Cost Components

Production Cost	Total (Rp)
Raw material cost	2,260,000
Direct labor cost	4,500,000
Factory overhead cost	581,500
Total Production Cost	7,911,500

Source: Processed Data, 2025

Based on the table, it can be seen that direct labor cost is the largest cost component in the nutmeg wine production process, followed by raw material cost and factory overhead cost. This indicates that the nutmeg wine production process is still highly dependent on human labor, so work efficiency greatly affects the amount of production costs incurred by the company.

Calculation of Cost of Production Using the Full Costing Method

Based on the findings, the cost of production at Sf'Barik SME is calculated using the Full Costing method. This method includes all production costs—both direct and indirect—such as raw materials, direct labor, and manufacturing overhead. The total production cost is obtained by summing all these components and then dividing it by the number of units produced to determine the cost per unit. The results show that the total production cost for nutmeg wine is IDR 7,911,500 per production cycle, with a total output of 200 bottles.

Table 11. Calculation of Cost of Goods Manufactured using Full Costing Method

Cost Component	Total (Rp)
Raw material cost	2,260,000
Direct labor cost	4,500,000
Factory overhead cost	581,500
Total Production Cost	7,911,500
Production quantity	200 Bottles
Cost of goods manufactured per bottle	39,557

Source: Processed Data, 2025

The calculation results in the table above show that the actual cost incurred by the company to produce one bottle of nutmeg wine is Rp39,557. This value reflects all costs incurred during the production process, including the depreciation cost of production equipment that was previously not taken into account by the company. By using the *Full Costing* method, the company can find out more accurately what the actual cost needed to produce one unit of product is. This information is very important for the company because it can be used as a basis in determining the appropriate selling price and avoiding the risk of loss due to errors in calculating production costs.

Determination of Selling Price Using the Cost-Plus Pricing Method

Based on the findings, Sf'Barik SME previously determined its selling price using a conventional approach based on estimates and market prices, which may not reflect the actual production cost. Therefore, this study applies the Cost-Plus Pricing method, where the selling price is determined by adding a markup to the cost of production calculated using the Full Costing method.

The results show that the cost of production is IDR 39,557 per bottle, with a 30% markup applied. The selling price is calculated as follows:

$$\text{Selling Price} = 39,557 + (39,557 \times 0.30)$$

This calculation forms the basis for determining a more accurate and profitable selling price.

Table 12. Calculation of Selling Price using Cost Plus Pricing Method

Description	Total (Rp)
Cost of goods manufactured per bottle	39,557
Mark-Up (30%)	11,867
Selling price	51,424

Source: Processed Data, 2025

The calculated selling price using Cost-Plus Pricing is **IDR 51,424 per bottle**, lower than the company's current price of **IDR 60,000**. This gap exists because previous pricing was not based on detailed cost calculations. By applying Full Costing and Cost-Plus Pricing, Sf'Barik can better understand its cost structure and set more accurate, rational prices, ensuring optimal profit while remaining competitive.

Comparison of Selling Price Determination

Based on the results in Sections 4.2.2 and 4.2.3, there is a clear difference between the selling price set by Sf'Barik SME and the price calculated using the Full Costing and Cost-Plus Pricing methods. Previously, the company determined prices based on estimates and market trends without detailed cost calculations. Using the Full Costing method, the cost of production is IDR 39,557 per bottle. With a 30% markup under Cost-Plus Pricing, the calculated selling price is IDR 51,424 per bottle. In contrast, the actual selling price applied by the company is IDR 60,000 per bottle, which is higher than

the calculated price. This difference highlights the impact of using systematic cost-based methods in determining more accurate and rational pricing.

Table 13, Comparison of Ideal Selling Price and Actual Selling Price

Calculation Component	Actual Price	Ideal Price
COGS per bottle	50,000	39,557
Mark-up	30%	30%
Selling Price Per Bottle	60,000	51,424
Profit difference per bottle		8,576

Source: Processed Data, 2025

The results show a price difference of IDR 8,576 per bottle between the calculated selling price (IDR 51,424) and the actual price (IDR 60,000). With an average production of 200 bottles, this generates an additional profit of IDR 1,715,200 per production cycle beyond the standard 30% markup. This indicates that Sf'Barik sets prices above cost-based calculations by considering market conditions, consumer demand, and product value. The price remains within the typical market range (IDR 45,000–75,000) and is accepted by consumers due to product quality, natural fermentation, and its unique local identity.

Thus, Sf'Barik implicitly applies a market-based pricing strategy, allowing higher profitability while maintaining competitiveness. The additional profit provides opportunities for business expansion, including increasing production capacity, improving equipment, expanding distribution, and enhancing digital marketing. Overall, while Full Costing and Cost-Plus Pricing produce a more accurate base price, the company's higher actual price reflects strong market value and brand positioning, indicating good competitiveness and growth potential.

CONCLUSIONS AND RECOMMENDATIONS

This study highlights the importance of accurate cost calculation using the Full Costing and Cost-Plus Pricing methods for business sustainability at Sf'Barik SME :

1. Using the Full Costing method, all cost components were included, resulting in a production cost of IDR 39,557 per bottle, providing an accurate basis for pricing decisions.
2. Applying Cost-Plus Pricing with a 30% markup produced an ideal selling price of IDR 51,424, while the actual price is IDR 60,000 per bottle. This difference generates additional profit and supports business development and competitiveness.

To enhance performance and sustainability at Sf'Barik SME, the following recommendations are proposed:

1. For Sf'Barik SME – Continue applying Full Costing and Cost-Plus Pricing to ensure accurate and competitive pricing. Regularly evaluate cost structures and pricing strategies in line with market changes, and adopt information technology to improve operational efficiency.
2. For Consumers – Increase awareness and support for local products

by recognizing their value and quality. Providing feedback on products and pricing can help businesses better meet consumer needs.

3. For Future Researchers – Expand studies on Full Costing and Cost-Plus Pricing in different industries or regions, and explore external factors such as market conditions and government policies that influence pricing decisions.

ADVANCED RESEARCH

Future research is recommended to expand the analysis by integrating more advanced costing methods such as Activity-Based Costing (ABC) and combining cost-based approaches with market-based pricing to better capture consumer behavior, perceived value, and price elasticity. Longitudinal studies are also suggested to examine changes in cost structures and pricing decisions over time. Additionally, the use of digital accounting systems and data analytics should be explored to improve accuracy and efficiency in cost management. Further research may also incorporate sustainability and value chain analysis, as well as comparative studies across different regions and industries, to enhance the generalizability and depth of findings.

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