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Cost Accounting Optimization: Analyzing the Application of Full Costing Method in Determining Production Costs and Selling Prices

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Abstract

This study aims to analyze the cost calculation as a basis for setting selling prices in the production processes at CV Nakhoda Nusantara Group. This research employs a qualitative case study approach. The data sources utilized in this study include primary data obtained from direct interviews with the owner of CV Nakhoda Nusantara Group and secondary data derived from interviews, supporting documentation, and literature review. Data collection methods include field research and literature review. The data analysis technique involves identifying production costs at CV Nakhoda Nusantara Group and calculating the cost of goods manufactured using the full costing method. This calculation is then compared to the company's existing cost calculation method, and recommendations are provided for appropriate production costs and selling prices based on the findings. The results of this study indicate that the use of the full costing method for calculating production costs and selling prices at CV Nakhoda Nusantara Group is more suitable, as it reflects the true cost of the products more accurately compared to the simpler method initially employed by the company.

Abstrak

Penelitian ini bertujuan untuk menganalisis perhitungan biaya sebagai dasar penetapan harga jual pada proses produksi di CV Nakhoda Nusantara Group. Penelitian ini menggunakan pendekatan studi kasus kualitatif. Sumber data yang digunakan dalam penelitian ini meliputi data primer yang diperoleh dari hasil wawancara langsung dengan pemilik CV Nakhoda Nusantara Group dan data sekunder yang berasal dari hasil wawancara, dokumentasi pendukung, dan studi kepustakaan. Metode pengumpulan data meliputi penelitian lapangan dan studi pustaka. Teknik analisis data dilakukan dengan mengidentifikasi biaya produksi pada CV Nakhoda Nusantara Group dan menghitung harga pokok produksi dengan metode full costing. Perhitungan ini kemudian dibandingkan dengan metode perhitungan biaya yang ada di perusahaan, dan rekomendasi diberikan untuk biaya produksi dan harga jual yang sesuai berdasarkan temuan. Hasil dari penelitian ini menunjukkan bahwa penggunaan metode full costing untuk menghitung biaya produksi dan harga jual pada CV Nakhoda Nusantara Group lebih sesuai, karena mencerminkan biaya produk yang sebenarnya dengan lebih akurat dibandingkan dengan metode yang lebih sederhana yang awalnya digunakan oleh perusahaan.

1. INTRODUCTION

Indonesia, as a developing country, holds significant potential to become a developed nation by enhancing its quality and standards. One of the key pillars of national economic development is the presence of Micro, Small, and Medium Enterprises (MSMEs), which have proven to be a major driver of regional economic growth through job creation and income distribution. The role of MSMEs in poverty alleviation, reducing unemployment, and promoting economic equity has been widely recognized, leading to various government policies and programs focused on supporting the sustainable development of MSMEs (Zahra, 2022).

However, one of the main challenges faced by MSMEs is the increasingly intense business competition. To survive, MSMEs must be able to improve the quality of their products. A crucial aspect of this is setting the correct selling price, which largely depends on accurate and precise cost of production calculations. According to (Luvita, 2021), errors in calculating the cost of production can have serious implications, leading to uncompetitive pricing that could threaten business sustainability.

This research focuses on CV Nakhoda Nusantara Group, a company engaged in printing, particularly in the production of daily work uniforms (PDH). CV Nakhoda Nusantara Group has shown significant growth in sales; however, the company still employs a simple method for calculating the cost of production, without fully accounting for all cost components comprehensively. (Hartatik, 2019), emphasizes the importance of precision in determining the cost of production, as errors in recording and presenting production costs can negatively impact pricing decisions, ultimately harming the company.

The aim of this study is to analyze the application of the full costing method in calculating the cost of production at CV Nakhoda Nusantara Group. The full costing method, which includes all production costs, both fixed and variable, is considered to provide a more accurate picture of production costs and, therefore, support more precise pricing decisions. The research gap addressed by this study is the lack of a comprehensive calculation method in determining the cost of production at CV Nakhoda Nusantara Group, which may result in suboptimal pricing decisions.

Several research developments have examined the method of assigning costs. (Hartati Sukartini Hulu et al., 2022), explains that Full costing calculates all production expenses, ensuring comprehensive coverage of total manufacturing costs for accurate pricing, (Thenu et al., 2021) showed that The full costing method incorporates all cost elements incurred during production, enabling companies to set more competitive and accurate selling prices, (Purwanto & Watini, 2020) consider that The full costing method offers the advantage of aggregating both fixed and variable costs, providing a comprehensive tool for accurately setting selling prices.

Therefore, this study further studies the accuracy of assigning costs to product prices. Analysis of the accuracy of this cost assignment can be used as a guide in determining the price of the company's products, which can impact sales volume and operating profit. this research is expected to contribute to the development of more effective product pricing strategies for MSMEs, particularly in the printing industry in Indonesia. It also aims to serve as a reference for other MSMEs in adopting the full costing method to enhance their competitiveness and business sustainability. The structure of this article will begin with a literature review related to the cost of production calculations and the full costing method, followed by the research methodology, data analysis, and discussion and conclusions drawn from the research findings.

2. RESEARCH METHODOLOGY

This study employs a descriptive qualitative research method. According to (Alexandro et al., 2020) qualitative methods aim to analyze the determination of production costs and selling prices using the full costing method, focusing on the natural conditions of the research object. In qualitative research, the researcher serves as the primary instrument for collecting and analyzing data.

Data collection techniques involve triangulation, which combines observation, interviews, and documentation. This approach allows for a more comprehensive and in-depth collection of qualitative data. The data obtained are then analyzed inductively, meaning that the researcher identifies patterns and themes from the data to develop a broader understanding of the phenomenon under study.

The results of this qualitative research include the interpretation of meanings, uniqueness, and the construction of relevant events, as well as hypothesis development based on the findings. Therefore, this research aims to provide deep insights into how the full costing method is applied in determining production costs and selling prices, and how this can affect the company’s pricing strategies and profitability.

The research was conducted at CV Nakhoda Nusantara Group, a company renowned for its superior products and services. A key strength of the company is its ability to ensure partner satisfaction through products and services that meet their expectations. CV Nakhoda Nusantara Group implements a smart production system that allows partners to review print prototypes of their orders before actual production begins. This system ensures that the final product precisely meets the partner's specifications, thereby guaranteeing customer satisfaction. The implementation of this system is part of the company's strategy to enhance service and product quality, and to ensure that every order meets the desired customer standards.

According to (Ismayani, 2019), data analysis techniques involve methods to transform data into understandable and useful information to address research problems, particularly concerning the research question. In this study, descriptive analysis is used to depict the state of the research subjects or objects. Descriptive analysis is applied to production cost data used by CV Nakhoda Nusantara Group Bandung. This data is then analyzed to find an accurate costing model and interpreted to assess its effectiveness in generating profit.

The first step in this analysis is to identify the components of production costs, including raw materials, direct labor, fixed factory overhead, and variable factory overhead. Following identification, the production cost calculation is performed using the full costing method. The aim is to identify weaknesses in the current production cost calculation method used by the company, by comparing it with calculations based on cost accounting principles.

Subsequently, based on the full costing method results, the study provides recommendations for appropriate selling prices. These recommendations are intended to help the company maximize the desired profit by ensuring that the selling price covers all the actual production costs incurred by the company. Therefore, the application of the full costing method is expected to significantly contribute to improving the accuracy of pricing decisions and the company's profit strategy.

3. DISCUSSION AND EMPIRICAL RESULTS

CV Nakhoda Nusantara Group is a Micro, Small, and Medium Enterprise (MSME) established in January 2019, specializing in the production of uniforms and shirts. The company is managed by a team of young professionals characterized by creativity, innovation, and high enthusiasm. The organizational structure of CV Nakhoda Nusantara Group is led by the owner, who directly oversees the secretary and treasurer, as well as three key divisions: the Design Division, the Production and Packing Division, and the Administration Division.

Each division plays a crucial role in the company's operations. The Design Division is responsible for preparing designs according to customer requirements and creating content for social media platforms. The Production and Packing Division handles all processes from printing to packaging. The Administration Division is tasked with managing customer orders and providing service to clients.

A. Calculation of Produsction Cost using the Company Method

The calculation of Production Cost using the company method involves summing the costs of raw materials, direct labor, and variable factory overheads. However, this method does not include fixed factory overheads (such as depreciation and maintenance costs of production equipment).

Table 3.1. Production Cost using the Company Method

CV Nakhoda Nusantara Group

January - December 2023

Expenses/Costs	Total Cost (IDR)	
Raw Material		1.290.600.000
American Drill Army	1.290.600.000	
Direct Labor Cost		426.000.000
Production Department	336.000.000	
Packing Department	90.000.000	
Variable Factory Overhead		28.220.000
Sewing Thread	22.500.000	
Scissor	200.000	
Cutter	375.000	
Plastic Packing	5.145.000	
Total Production Cost (a year)		1.744.820.000

Total Production (a year)	20.580 pcs
Production Cost (each item)	84.782
Rounding	84.800

After conducting interviews and documentation with the owner of CV Nakhoda Nusantara Group, it was found that the cost of production for shirts/PDH using the company's system is calculated at IDR 84,800 each item. However, there are notable weaknesses in the company's method for calculating production costs.

First, in the area of factory overhead, the company does not account for fixed factory overhead costs, which include depreciation, maintenance expenses, and other fixed costs that the company incurs to produce goods. This omission results in an incomplete cost calculation.

Second, CV Nakhoda Nusantara Group does not include the packing department in the direct labor cost, leading to inaccurate cost allocation. Excluding packing from the direct labor cost components results in a misrepresentation of the actual labor costs involved in production.

B. Calculation of Production Cost using the Full Costing Method

The full costing method is utilized in this study to achieve a more accurate calculation of the cost of goods manufactured (COGM) for CV Nakhoda Nusantara Group, thereby ensuring that the company's pricing decisions are more precise. The cost elements recognized in the COGM using the full costing method are as follows:

1. Direct Material Costs

The total direct material costs incurred by CV Nakhoda Nusantara Group amount to IDR 1,290,600,000, which remains unchanged from the company's original calculations.

2. Direct Labor Costs

Direct labor costs in the production process include both the production and packing departments. In the company's original calculation, the packing department was not included as a direct labor cost. However, under the full costing method, the packing department is included in the direct labor cost calculation, as this department is involved in the production process. Therefore, the total direct labor costs for 2023 amount to IDR 426,000,000.

3. Overhead Costs (Fixed and Variable)

Factory overhead costs calculated using the full costing method are divided into fixed and variable costs. The total variable factory overhead costs amount to IDR 28,220,000, while the total fixed overhead costs incurred by CV Nakhoda Nusantara Group amount to IDR 427,875,000.

The determination of the cost of goods manufactured using the full costing method, based on direct material costs, direct labor costs, and factory overhead costs, is detailed in the following table.

Table 3.2. Production Cost using Full Costing Method
CV Nakhoda Nusantara Group
Januari - Desember 2024

Expenses/Costs	Total Cost (IDR)	
Raw Material		1.290.600.000
American Drill Army	1.290.600.000	
Direct Labor Cost		426.000.000
Production Department	336.000.000	
Packing Department	90.000.000	
Variable Factory Overhead		28.220.000
Sewing Thread	22.500.000	
Scissor	200.000	

Cutter	375.000	
Plastic Packing	5.145.000	
Fixed Factory Overhead		427.875.000
Factory Rental Cost (2 buildings)	84.000.000	
Depreciation Cost	7.875.000	
Electricity Cost	96.000.000	
Indirect Labor Cost	216.000.000	
Maintenance Cost	24.000.000	
Total Production Cost (a year)		2.172.695.000
Total Production (a year)		20.580 pcs
Production Cost (each item)		105.573
Rounding		105.600

C. Comparison of Raw Material Costs: Company Method vs. Full Costing Method
There is no difference in the direct material costs when comparing the company's method with the full costing method. This lack of difference is due to the fact that the company's method has already accurately detailed the usage of direct materials.

D. Comparison of Labor Costs: Company Method vs. Full Costing Method
There are differences in the results because CV Nakhoda Nusantara Group lacks an understanding of the proper allocation of direct labor costs and does not include the packing department in the calculation of direct labor costs. As a result, the direct labor cost calculation used in the company's method does not accurately reflect the actual costs incurred.

E. Comparison of Overhead Costs: Company Method vs. Full Costing Method
The differences in results arise because the company does not include fixed factory overhead costs, such as depreciation, maintenance, and other recurring expenses incurred to produce goods. When the allocation of factory overhead costs is inaccurate, the calculation of the cost of goods manufactured and the subsequent pricing of products will also be incorrect. This omission can lead to significant discrepancies in determining the true production costs and the appropriate selling price, potentially affecting the company's profitability and pricing strategy.

F. Comparison of Production Costs: Company Method vs. Full Costing Method
The difference in the Cost of Goods Manufactured (COGM) for shirts/PDH produced by CV Nakhoda Nusantara Group between the company's method and the full costing method shows a variance of IDR 20,800. The COGM using the company's method is calculated at IDR 84,800 per unit, whereas the COGM using the full costing method amounts to IDR 105,600 per unit. This discrepancy highlights the impact of different costing approaches on determining the true cost per unit, emphasizing the importance of including all relevant cost components in production cost calculations. The full costing method, by accounting for both variable and fixed overheads, provides a more comprehensive and accurate representation of the production costs, which is crucial for setting appropriate selling prices and ensuring profitability.

G. Comparison of Selling Prices : Company Method vs. Full Costing Method
After calculating the Cost of Goods Manufactured and comparing the methods, the following outlines the selling price determination for each approach.

Table 3.3. Comparison of Selling Prices: Company Method vs. Full Costing Method
CV Nakhoda Nusantara Group

Notes	Company Method	Full Costing Method

Cost of Goods Manufactured (for a year)	IDR	1.654.820.000,00	IDR	2.172.695.000,00
Expected Profit Margin			20%	
	IDR	330.964.000,00	IDR	434.539.000,00
Total Selling Price	IDR	1.985.784.000,00	IDR	2.607.234.000,00
Total Production			20580	
Selling Price (per unit)	IDR	96.491	IDR	126.688
Rounding	IDR	96.500,00	IDR	126.700,00
Price Difference		IDR		30.200

In 2023, the MSME established a selling price based on the above calculations at IDR 96,500 per unit. Although the full costing method employs a similar formula to that of the company's method, the key difference lies in the Cost of Goods Manufactured (COGM) used to determine the selling price. Consequently, under the full costing method, the selling price for 2023 is IDR 126,700. This results in a discrepancy of IDR 30,200 per unit between the two methods. The lower selling price set by CV Nakhoda Nusantara Group has led to inaccuracies in cost allocation. This discrepancy poses a risk of financial losses, as the selling price established by the company is significantly lower than the price that should be applied according to the full costing method, potentially leading to under-recovery of costs and reduced profitability.

H. Recommendations for Cost of Goods Manufactured to Determine Selling Price

Based on the research findings, it is evident that CV Nakhoda Nusantara Group has not yet implemented the full costing method for calculating its cost of goods manufactured. The company has been using its own in-house system for cost calculation. This study highlights two distinct methods for calculating the cost of goods manufactured: the company's method and the full costing method. The discrepancy between these methods results in a difference of IDR 30,200 per unit in the product selling price. The primary causes of this discrepancy are that the company does not account for fixed factory overheads, which include depreciation, maintenance cost, and other consistent costs associated with production. Additionally, CV Nakhoda Nusantara Group does not include packing department in direct labor costs, leading to inaccuracies in cost allocation when packing is not considered as part of direct labor.

The difference in selling price between the two methods can potentially lead to financial losses for the company. On the other hand, there is no discrepancy in the cost of raw materials between the company's method and the full costing method. This is because the company's method already provides a detailed breakdown of raw material usage accurately.

4. CONCLUSION AND RECOMMENDATION

4.1 Conclusion

1. Summary of Findings: Based on the research conducted on production cost calculations and selling prices at CV Nakhoda Nusantara Group, it can be concluded that the method used for calculating the cost of goods manufactured and selling price significantly affects the accuracy of the results. The study found that the simple method and the full costing method both include the costs of raw materials, direct labor, fixed factory overhead, and variable factory overhead. However, the full costing method provides a more detailed and accurate calculation by accounting for all relevant costs comprehensively.

2. Recommendations: This study recommends adopting the full costing method for calculating the cost of goods manufactured. The full costing method offers a thorough assessment of actual costs incurred by the company, as it involves a complete and detailed classification of costs, including both fixed and variable factory overheads. The use of full costing results in a higher selling price compared to the simple method, reflecting a more accurate representation of all production costs. Implementing this method will enable the company to set a selling price that covers all costs and helps maximize the desired profit.

3. Comparative Analysis: The comparison between the simple method and the full costing method reveals a significant difference in results. The simple method tends to understate costs compared to the full costing method. For instance, the selling price calculated using the simple method is IDR 96,500 per unit, whereas the full costing method results in a selling price of IDR 126,700 per unit, indicating a difference of IDR 30,200 per unit.

The conclusions drawn from this study address the issues explored and align with the research objectives. The conclusions are based on the analysis and comparisons made and do not introduce new discussions or comments from the authors.

4.2 Recommendation

Recommendations for Future Research: Future researchers examining similar issues should delve deeper into the theoretical frameworks related to cost of goods manufactured that were not covered in this study. It is advisable to explore advanced and comprehensive theories and methodologies for cost calculation to enhance the accuracy and effectiveness of pricing strategies. This additional exploration could provide more nuanced insights and lead to more refined and effective methods for determining product selling prices, ultimately improving the quality of cost management and pricing decisions. This recommendation suggests further investigation into advanced theories to improve future research outcomes and provides practical guidance for enhancing cost and pricing strategies.

REFERENCES

Alexandro, R., Uda, T., & Pane, L. L. (2020). Analisis Pengembangan Ekonomi Kreatif Kuliner Khas Suku Dayak Kalimantan Tengah. Jurnal Ilmiah Ilmu Sosial, 6(1), 11. Https://Doi.Org/10.23887/Jiis.V6i1.24749

Harahap, S. M., Siregar, F. A., & Harahap, D. (2023). Tracing the dynamic spectrum of religious moderation in the local custom of North Sumatera. *Qudus International Journal of Islamic Studies*, *11*(1), 65-102.

Harahap, D., Lubis, R. H., Simbolon, S. E. A., & Alfadri, F. (2023). Comparative Analysis Of Islamic Bank Performance Based On Rgec And Islamicity Performance Index. *Imara: Jurnal Riset Ekonomi Islam*, *6*(2), 169-178.

Harahap, D., Lubis, R. H., Simbolon, S. E. A., & Alfadri, F. (2023). Comparative Analysis Of Islamic Bank Performance Based On Rgec And Islamicity Performance Index. *Imara: Jurnal Riset Ekonomi Islam*, *6*(2), 169-178.

Harahap, N. S., Matondang, Z., & Lubis, D. S. (2021). Literasi Zakat Hasil Perkebunan Kelapa Sawit. *Journal of Islamic Social Finance Management*, *2*(2), 176-189.

Harahap, D., Alfadri, F., & Damayanti, A. (2020). Small and Medium Enterprises Business Strategy in Pandemic COVID-19. *Jurnal Iqtisaduna*, 95-109.

Hardana, A., & Hasibuan, A. N. (2023). The Impact of Probability, Transfer Pricing, and Capital Intensity on Tax Avoidance When Listed Companies in the Property and Real Estate Sub Sectors on the Indonesia Stock Exchange. *International Journal of Islamic Economics*, *5*(01), 67-78.

Hardana, A., Hasibuan, L., Nasution, J., Damisa, A., Zein, A. S., & Lestari, S. (2023). Factors Affecting Muzakki's Interest In Distributing Trade Zakat Through Baznas. *Indonesian Scientific Journal of Islamic Finance*, *2*(1), 1-10.

Hardana, A., Royani, I., Situmorang, I. S., & Ariyanda, B. (2022). Financial Performance Analysis at PT. Bank Syariah Mandiri With Method Economic Value Adde (Eva). *Journal of Islamic Financial Technology*, *1*(1).

Hasibuan, A. N. (2018). Strategi Pemasaran Produk Funding DI PT. Bank Pembiayaan Rakyat Syariah Padangsidimpuan. *Imara: Jurnal Riset Ekonomi Islam*, *2*(1).

Hasibuan, A. N. (2022). The Role of Company Characteristics in the Quality of Financial

Reporting in Indonesian. *Jurnal Ilmiah Peuradeun*, *10*(1), 1-12.

Hasibuan, A. N. (2023). Financial performance analysis using value for money concept. *Journal of Management Science (JMAS)*, *6*(1), 25-29.

Hartati Sukartini Hulu, T., Harefa, I., & Artatina Bu, N. (2022). Analisis Biaya Produksi Dalam Menentukan Harga Jual Dengan Menggunakan Metode Full Costing Dan Variable Costing (Study Kasus Pabrik Tahu Nias). 1(2), 358–362. Https://Doi.Org/10.56248/Jamane.V1i2.54

Hartatik Abstrak, S. (2019). Analisis Penentuan Harga Pokok Produksi Menggunakan Metode Full Costing Sebagai Dasar Penetapan Harga Jual Pada Ud. Mutia Meubel. 2(2).

Ismayani, A. (2019). Metodologi Penelitian.

Lubis, D. S. (2016). Pemberdayaan UMKM Melalui Lembaga Keuangan Syariah Sebagai Upaya Pengentasan Kemiskinan Kota Padangsidimpuan. *At-Tijaroh: Jurnal Ilmu Manajemen Dan Bisnis Islam*, *2*(2), 130-145.

Lubis, D. S. (2017). Analisis Pengaruh Inflasi dan Pertumbuhan Ekonomi Terhadap Pengangguran. *At-Tijaroh: Jurnal Ilmu Manajemen Dan Bisnis Islam*, *3*(2), 180-206.

Luvita, S. C. (2021). Analisis Perhitungan Harga Pokok Produksi Menggunakan Metode Full Costing Sebagai Dasar Dalam Menentukan Harga Jual Dengan Metode Cost Plus Pricing (Di Pt Tapani Makmur Abadi). Universitas Pakuan.

Nasution, A. A., Harahap, D., & Uula, M. M. (2022). Environmental, social, governance (ESG) and Islamic finance: A review. *Management and Sustainability*, *1*(1).

Nasution, K. A., Hasibuan, S. S., Utami, A., Hasibuan, F., Ardiansyah, F., & Hardana, A. (2022). Strategi LPTQ Dalam Meningkatkan Kualitas SDM Yang Unggul dan Qur'ani. *Jurnal Indragiri Penelitian Multidisiplin*, *2*(3), 187-197.

Nasution, Y. (2020). Evaluasi Kesesuaian Lahan Pada Tanaman Kakao Theobroma Cacao L) Di Kecamatan Tano Tombangan Angkola Kabupaten Tapanuli Selatan. *Grahatani*, *6*(1), 881-889.

Purwanto, E., & Watini, S. S. (2020). Analisis Harga Pokok Produksi Menggunakan Metode Full Costing Dalam Penetapan Harga Jual (Studi Kasus Unit Usaha Regar Fruit). In Journal Of Applied Managerial Accounting (Vol. 4, Issue 2).

Sovia, A. K., Lubis, D. S., & Zein, A. S. (2020). Digitalisasi Pemberdayaan Ekonomi Mustahiq Berbasis Zakat Produktif. *Journal of Islamic Social Finance Management*, *1*(1), 62-75.

Thenu, G., Manossoh, H., Runtu, T., Akuntansi, J., & Ekonomi Dan Bisnis, F. (2021). Analisis Harga Pokok Produksi Dengan Metode Full Costing Dalam Penetapan Harga Jual Pada Usaha Kerupuk Rambak Ayu Analysis Of Cost Of Production Using The Full Costing Method In Determining The Selling Price Of The Rambak Ayu Crackers Business. 9(2), 305–314.

Zahra, S. (2022, June 24). Definisi, Kriteria Dan Konsep Umkm. Https://Doi.Org/10.31219/Osf.Io/8qg5z

Zein, A. S., Lubis, D. S., & Sovia, A. K. (2020, December). Digitalization of mustahiq economic empowerment model based on productive zakah fund. In *Indonesian Conference of Zakat-Proceedings* (pp. 419-428).