e-ISSN 2798-0502

Jurnal Ekonomi, Manajemen, Akuntansi dan Keuangan Vol: 6, No 3, 2025, Page: 1-10

The Effect of Operational Costs and Production Costs on Profitability at PT. Ultrajaya Milk Industry & Trading Company Tbk.

Galuh Puspa Rini*, Thomas Khrisna Sidharta

Politeknik NSC Surabaya

DOI:
https://doi.org/10.53697/emak.v6i3.2790
*Correspondence: Galuh Puspa Rini
Email:galuhpusparini126@gmail.com

Received: 22-05-2025
Accepted: 22-06-2025
Published: 22-07-2025

Abstract: This study aims to analyze the effect of operating costs and production costs on profitability in PT Ultrajaya Milk Industry & Trading Company Tbk during the period 2018 to 2024. The background of this research is based on the phenomenon of fluctuations in profitability that is not in line with the increase in company revenue, which indicates the influence of cost efficiency on financial performance. This study uses a quantitative method with a descriptive approach and multiple linear regression analysis. The independent variables in this study are operational costs and production costs, while the dependent variables are profitability as measured by the ratios of Return on Assets (ROA), Return on Investment (ROI), and Return on Equity (ROE). The results of the study show that partially or simultaneously, operational costs and production costs have a significant effect on the company's profitability. These findings show that cost management efficiency plays a crucial role in improving a company's ability to generate profits. Thus, the company's management needs to focus its strategy on cost control to support sustainable growth.

Keywords: Operational Costs, Production Costs, Profitability.

Introduction

In summary, in the current era of globalization, business competition is increasingly intense at both national and international level, requiring companies to keep adapting. In summary Salvatore (2020) focusing solely on beating competitors can boost tend to be performance but may cause companies to overlook important areas like internal efficiency, innovation, and long – term value creation. PT Ultrajaya Milk Industry & Trading Company Tbk illustrates how managing operational costs and production costs is not just about cutting expenses but is part of a sustainable strategy to maintain profitability and resilience amid on going business challenges

A striking phenomenon in PT Ultrajaya's financial statements during this period was the fluctuation in net profit even though revenue tended to increase**.** In some years, the company's revenue has grown significantly, but profitability has not shown a commensurate trend. This raises the suspicion that operational costs and production costs have an important role in reducing the company's profit margins.

In summary, studies by Kade et al, (2023), Ayu Diah Dwi Astuti (2023), and Gem Sari (2020) Consistently show that effective management and optimization of operational costs and production costs have a positive and significant impact on company profitability. These

findings emphasize that proper cost control is essential for improving financial performance in various sectors.

In summary Hasibuan et al (2023) found that production cost have a significant positive effect on MSMEs profitability in Brebes Regency, with a regression coefficient of 0.325 (32.5%). Widyastuti et al (2024) Also showed that production cost significantly increase profitability, with tcal value was 5.004 > ttable 2.045 and p = 0.007 (< 0.05); together with sales cost, explain 68.6% of profitability variation (R^2 = 0.686). Hidayat et al (2023) likewise confirmend that Production costs have a significant positive impact on net profit, with a value 8.182 (p < 0.05). These Studies consistently emphasize that effective production cost management is essential for improving profit.

In summary Wijaya (2021) In this study, it was found that operational costs No significant effect to profitability (ROA), both partially and simultaneously. In conclusion, the variable operating costs do not affect PT Trisula's profitability statistically. In summary, Amalia et al (2024) found that Operating costs have do not significantly affect PT Adhi Karya's profitability, suggesting other factors are more influential. Meanwhile, Bilqis et al (2025) showed that for food & beverage manufacturing companies (2020–2023), higher Operating expenses have a negative and significant impact on net profit, highlighting the need to control operational cost to protect profitability.

In summary, Widyastuti et al (2024) found that production costs do not significantly affect on net profit when tested partially. R. Reader (2025) also showed that in the IDX food and beverage sector (2020–2022), production costs hada positive impact. Similarly Elma Cahyaning Ratu & Titiek Rachmawati (2022) found that Production costs did not significantly influence net profit (tcount –0.083; p = 0.934). Although all variables together did have an effect. These findings indicate that production cost alone may not determine net profit, pointing to the importance of other factors like sales volume.

In summary, Kade et al (2023), Widiayanti (2024) and Suwarsa & Nursalma (2023) all found that production cost and operating cost together have a significant effect on profitability, as shown by significant F test result. Although their partial effects may differ, these studies highlight that analyzing both cost simultaneously is important for understanding and improving profit performance.

In summary, companies must operate effectively and efficiently to survive tough competition from new, fast – growing businesses. This requires a well – structured work plan and capable management to make decisions that support growth and sustainability. The main goal for any company is to generate profit – profit reflects financial performance and serves as a basis for strategic decisions that ensure long – term success.

Therefore, companies are required to consistently maximize profits through various efficiency and innovation measures. One of the most essential approaches is to manage costs effectively, both operational costs and production costs. If the company earns maximum profits, positive growth will occur. If there is positive growth, the company will experience development. With maximum profits, companies can develop their business and maintain their business sustainability. But in reality, companies often experience a decrease in profits or even suffer losses.

In summary, the profit ratio is used to measure a company's profitability by showing how effectively its total invested in total assets to generate profits for all investors, indicating how well the company manages its resources to maximize returns.

In summary Harahap (2021) states that the profitability ratio is an important tool to assess a company's profits – making ability, using indicators like Return on Asset (ROA), Return on Investment (ROI), and Return on Equity (ROE). These measures show how efficiently assets and investments are used and how well the company generates profit from shareholders capital, helping stakeholders evaluate financial performance and sustainability.

In summary, PT Ultrajaya Milk Industry & Trading Company Tbk as a major player in Indonesia's food and beverage industry, must carefully manage its production cost including raw materials, labor, and overhead to maintain profitability and competitiveness while meeting diverse consumer needs.

In summary, this study is novel because it uses broader profitability indicator (ROA, ROE, ROI) compared to previous studies that focused only on net profit, and it covers a longer and more recent period (2018 – 2024), making it more relevant for capturing financial dynamics, including post – pandemic conditions.

In summary, this study uses a quantitative method with multiple regression analysis, which allows for a more precise and reliable examination of how various cost components affect profitability, offering clearer and more accurate insights than the simpler descriptive methods used in earlier research. Thus, this study makes a new contribution in examining cost efficiency and strategies to increase company profitability comprehensively.

Problem Formulation

1. Does operational costs have a significant effect on the profitability of PT Ultrajaya Milk Industry & Trading Company Tbk?
2. Does production costs have a significant effect on the profitability of PT Ultrajaya Milk Industry & Trading Company Tbk?
3. Do operating costs and production costs have a significant influence on the profitability of PT Ultrajaya Milk Industry & Trading Company Tbk?

Research Objectives

1. To test and analyze operational costs to profitability in PT Ultrajaya Milk Industry & Trading Company Tbk
2. To test and analyze costs to profitability in PT Ultrajaya Milk Industry & Trading Company Tbk
3. To test and analyze operational costs and production costs on profitability in PT Ultrajaya Milk Industry & Trading Company Tbk

Methodology

Research Object

Analysis of the Influence of Operational Costs and Production Costs on Profitability. The author will collect data on operational costs, production costs and profitability indicators to analyze how these factors affect the company's finance performance. Research Object is described as follows:

In summary, ALFREDA & p. 131 Sugiyono, (2020) the research Object is the attribute characteristic, or value of a person, object, or activity that contains specific variables to be studied, forming the main focus for drawing research conclusions.

The research is the specific goal for obtaining data on a chosen topic. In this study, it focuses on examining the relationship between production cost and profitability PT Ultrajaya Milk Industry and Trading Company Tbk provide insights for better cost management and profit strategies.

Research Methods

The research method is the author's approach in analyzing data through clear steps and strategies to answer research questions objectively and reliably. The meaning of the Research Method is as follows:

In summary, Sugiyono, (2020) Research methods are basically a scientific way to obtain data with specific purposes and uses. The research method is a systematic and careful approach to solve research problems, uncover facts, draw conclusions, and understand, explain, predict, or control the situations guiding researchers to explore their main study object is an organized and reliable way.

This study uses descriptive analysis with a quantitative approach to systematically process numerical data, identify relationships between the variables, and draw clear and reliable conclusions about the research object.

In summary, ALFREDA & p. 131 Sugiyono, (2020) Descriptive Analysis Method describes data as it is without generalizing, while according to Sugiyono, (2020) Quantitative methods use structured instruments and statistical analysis based on positivism to study samples and test hypotheses. Combining both helps present objective findings and verify assumptions

The descriptive analysis method with a quantitative approach used to systematically explain facts and relationships between variables by collecting, processing, and analyzing, numerical data to test hypotheses. This method was chosen to clearly describe how quality costs and production costs affect profitability using measurable data.

Research Design

A thorough research design is crucial for ensuring that research runs effectively and systematically. In summary, Nazir, (2020) Research Design includes all steps needed for planning and exe cutting a study, guiding objectives, methods, data collection, analysis, and conclusions to produce valid and reliable results.

Research design is the strategy developed by the researcher to carry out the study effectively and systematically, providing clear steps that ensure focus, consistency, and the achievement research objectives while minimizing errors. Therefore, the creation of a research design is essential to ensure that the research process, from planning to execution, can be completed successfully and on time. In this study, the author utilizes a broader research design, including the following processes:

1. This study aims to examine the profitability phenomenon at PT Ultrajaya Milk Industry and Trading Company Tbk by analyzing financial performance, cost management, revenue, and operational efficiency to understand factors influencing profit and highlight strengths and challenges in the competitive food and beverage industry
2. Assigning a title to the phenomenon in question allows for a clear understanding of what is to be investigated. Then, identifying issues in the research becomes crucial.
3. Formulate research problems including the specification of the scope of the objective, the hypothesis to be tested. The problems studied in this study are the analysis of the influence of the operating costs of the Variable (X_1) and the production costs of the Variable (X_2) as independent variables and the profitability of the Variable (Y) as related variables.
4. Select and define each variable measurement. This study only had three variables, one independent and one dependent.
5. The study uses financial statements from 2018 – 2024 as the primary data source, applying appropriate procedures and techniques to analyze the company's financial performance and cost management over a 7 years period for a comprehensive understanding.
6. This study uses 2 main data collection methods: field research, which gathers firsthand data directly from the research site, and academic articles. Combining these methods ensures comprehensive and reliable data to support a thorough understanding of the research topic
7. Calculating the influence of quality costs and production costs on profitability using path analysis.
8. Reporting of research results includes the process of research and interpretation of data.

The study uses a design framework with a paradigm approach that examines the simultaneous relationship between one independent variable and one dependent variable. It aims to analyze how the independent variable collectively influences the dependent variable with in a single model. The research design can be described as follows:

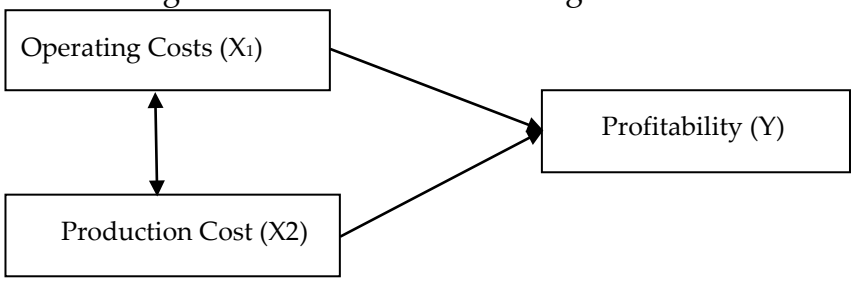


Figure 1. Research Paradigm

Information:
X1 = Operating costs
X2 = Production cost
Y = Profitability

Variable Operationalization

According to ALFREDA & p. 131 Sugiyono, (2020) A variable is an element or factor chosen by the researcher to study, serving as the central focus for data collection and analysis to gain insights and draw conclusions that address the research questions or hypotheses

Based on the explanation above, it can be concluded that the operationalization of variables is essential for clearly defining variable type, indicator, and measurement scales to enable accurate hypothesis testing using statistical. In this study, two variables are used, namely:

Variable Independent (X)

Independent variables are variables that are not related by other factors, but have applications to other variables. These independent variables are Operating Costs and Production Costs.

According to Sugiyono, (2020) Independent variables are variables that affect or cause changes or the emergence of dependent variables. There are two independent variables studied in this study:

a. Operating Costs (X_1)

In summary, God, (2020) Operating expenses include all cost related to a company's daily operations, such as production, sales, administration, and load interest. These costs consist of fixed costs, which remain constant regardless of production levels, and variable cost which change according to sales or production volume. Essentially, operating expenses are the necessary expenditures to keep the company's operations running smoothly

b. Production Cost (X_2)

In summary, Simon, (2020) production cost is the total of all expenses associated with creating a product, including direct raw materials, direct labor cost and factory overhead cost. These components collectively represent the full financial resources needed to manufacture a produc efficiently.

Variable Dependent (Y)

In summary, Sugiyono, (2020) dependent variables are the outcomes affected by independent variables, serving as the results measured to understand how changes in one factor influence another. They are essential for analyzing cause and effect relationship in research

Therefore, the dependent variable or bound variable (Y) in this study is profitability. To accurately measure and analyze this variable, specific indicators are formulated. These indicators represent measurable aspects of profitability, allowing for a thorough evaluation

of the company's financial performance. By defining these indicators clearly, the study can systematically assess profitability and it relationship with other variables. The formulation of these indicators is as follows:

$$\text{LENGTH} = \frac{\text{EBIT}}{\text{Number of Assets}} \times 100\%$$

The scale used in this study is the Ratio, as follows Explanation of the ratio.

In summary, Efferin et al., (2020), Ratio Scale is a scale where numbers have a real meaning so that zero in this scale is needed as the basis for calculating and measuring the object of research.

Based on the explanation above, it can be concluded that the ratio scale distingusished by the meaningful value of zero, which acts as a crucial reference point for calculation and measurements in the research. This means that zero represent the true absence of the measured variable, enabling accurate and valid quantitative analysis. The operationalization of variables, along with their measurement scales and indicator, is detailed in the table below as follows:

Table 1. Variable Operationalization

Variabel	Variable Concepts	Indicator	Scale
Operating Costs Variable (X_1)	Operational costs are the total costs - commercial costs incurred to support or support the activities or activities of a company to achieve predetermined goals God, (2020)	Operating Costs = administrative and general costs + sales costs God, (2020)	Ratio
Production Costs Variable (X2)	Production cost is the sum of all costs charged to a product for a specific purpose. Simon, (2020)	Production Cost = direct raw material cost + direct labor cost + overhead cost Simon, (2020)	Ratio
Profitability (Variabel Y)	Profitability is a measure of a Company's financial performance, reflecting ability to generate profit through efficient and effective use of resources in core business operations	$\text{ROA} = \frac{\text{EBIT}}{\text{Number of Assets}} \times 100\%$ Muhammad, (2020)	Ratio

Variabel	Variable Concepts	Indicator	Scale
	Lestari & Hariadi, n.d (2021)		

Data Sources and Techniques

Data Source

The study utilizes secondary data, which is information obtained indirectly from sources that have already processed and presented it. In summary, Sugiyono, N.D. (2021) Secondary data is not collected firsthand by the researcher but accessed through documents, literature, or other individuals. These data sources, such as books, archived reports, and company records, help support research by providing relevant background information and insights related to the study's topic.

Data Determination Techniques

In terms of data collection techniques, two essential components must be considered to ensure accurate and relevant reserch result: population and sample. The population refers to the entire group that fits specific criteria relevant to the study, while the sample is a smaller subset selected to represent the population. These components form the basis of meaningful data collection and are vital for ensuring the validity and generalizability of the research findings.

Research Population

In summary, Sugiyono, N.D. (2021) the population is of objects or subjects, with specific characteristics determined by the researcher for analysis and conclusion. In this study, the population includes the financial statements of PT Ultrajaya Milk Industry and Trading Company Tbk such as the balance sheet, profit and loss statement, operating costs, and quality costs for the years 2018 to 2024. This population form the basis for the research analysis.

Sample

To test a hypothesis, a researcher collect data from selected subjects, as studying the entire populationis often impractical. Therefore, a sample is used a smaller group that represents the population's key characteristics. In summary Sugiyono, (2021) A sample is a part of the population that reflects its overall traits, allowing for efficient research while ensuring valid and reliable results

In summary Sugiyono, (2021) non probability sampling does not give each population member an equal chance of being selected. This methode is used when involving the entire population is impractical due to limitations like time or cost. Therefore, choosing the right sampling technique is crucial to ensure the sample accurately represents the population and produces valid research results.

In summary, Sugiyono, (2021) a sampling technique is a method used to select samples form a population for research. In this study, the author uses non probability sampling,

where not all population members have an equal chance of being selected. This method is often chosen when probability sampling is impractical due limitations like time, cost or lack of a complete population list, making it a practical, though less generalizable research approach

The type of nonprobability sampling used in this research is purposive sampling. In summary, Sugiyono, (2021) purposive sampling is a deliberate technique for selecting samples based on specific consideration. The determination of the sample to be used in this study includes: subjects or data that meet particular characteristics, are relevant to the research focus and provide accurate and complete information to support the analysis.

1. The data in this study are financial report from PT Ultrajaya Milk Industry & Trading Company Tbk including production cost report, operating cost statements, balance sheets and income statements. These documents are used to analyze the company's production expenses, operational efficiency, and profitability
2. The data used is for a period of 7 years, from 2018 to 2024. Because in 2022 there is a phenomenon, namely a decrease in profit before tax even though production costs increase so that profit before tax decreases even though sales have increased, so it is interesting to conduct research.
3. This study uses a 7 years sample period (2018 - 2024) from PT Ultrajaya Milk Industry & Trading Company Tbk including production cost report, operational cost report, balance sheet and profit and loss statement. The sample is considered representative for analyzing trends in financial performance, cost management, and profitability over time.

Result and Discussion

Analysis of Operational Costs at PT Ultrajaya Milk Industry & Trading Company Tbk

Operational costs are essential expenses in manufacturing companies, because they support the core activities of producing andprerparing goods for sale. At PT Ultrajaya Milk Industry & Trading Company Tbk these costs are significant due to the production of beverage and food products like milk, tea, cheese, which require intensive processes such as manufacturing, packaging and distribution. Efficient management of these cost is vital for maintaining profitability. As for calculating operational costs in summary, Size et al., (2024) are as follows:

The information regarding operational costs at PT Ultrajaya Milk Industry & Trading Company Tbk can be seen in the financial statements of operating expenses reported every year.

Operational Costs = Administrative and General Costs + Sales Costs

The operational costs incurred by the company from 2018 to 2024 are detailed in table 2 This table provides a basis for analyzing annual trends and evaluating how PT Ultrajaya Milk Industry & Trading Company Tbk managed its operational spending over the 7 years period. The amount of operational cost of the report from 2018 to 2024 can be seen from the following table 4.1:

Table 2. Operating Costs at PT Ultrajaya Milk Industry & Trading Company Tbk Period 2018 - 2024

Year	Administrative and General Fees	Selling costs	Operating costs	Development
2018	196,900,000	855,358,000	1,052,258,000	0%
2019	202,883,000	908,877,000	1,111,760,000	24,3%
2020	231,175,000	773,759,000	1,004,934,000	-2,4%
2021	209,888,000	748.823.000	958,711,000	3,1%
2022	224,184,000	961,407,000	1,185,591,000	-1,0%
2023	252,663,000	982,835,000	1,235,498,000	10,8%
2024	275,431,000	1,347,339,000	1,622,770,000	14,1%

Source: Financial Statements of PT Ultrajaya Milk Industry & Trading Company Tbk

From the table 2, to make it easier to understand the development or increase / decrease in production costs, the author describes in the form of a graph as follows:

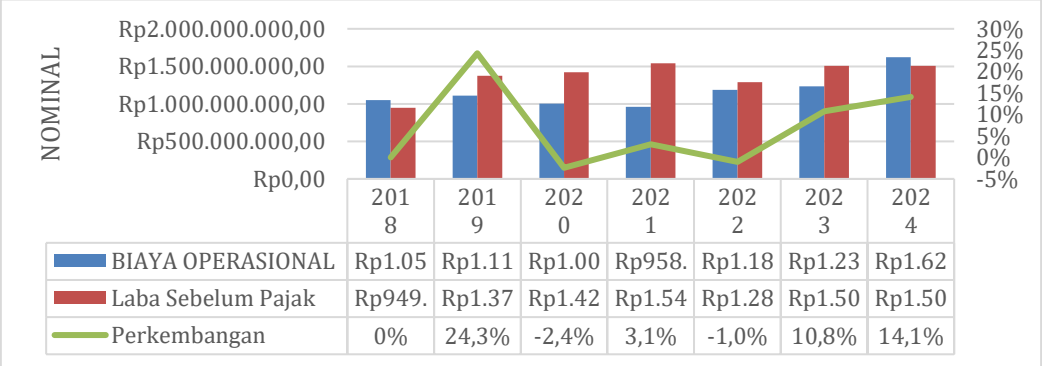


Figure 2. Operating Cost Chart for 2018 – 2024

In the graph above, it can be clearly seen how production costs incurred by companies continue to increase during the period of 2018 - 2024. The average operating costs at PT Ultrajaya Milk Industry & Trading Company Tbk reached IDR 3,300,957,571 annually with an average growth of 8.65% annually. Operational costs cannot be separated from operational processes because operational costs concern operational costs, which are all expenses or all expenses that must be borne by the company to produce a product or service.

This increase in operational costs at PT Ultrajaya Milk Industry & Trading Company Tbk is influenced by several factors: rising product demand, higher raw material prices, and growing operational process expenses. As production scales up to meet increased orders, cost in various areas also escalate. Among all cost components, raw material contribute the

most, followed by labor, administrative and general costs, and finally, sales expenses. The explanation from the graph above is:

1. Between 2028 and 2029 PT Ultrajaya Milk Industry & Trading Company Tbk saw a 24.3% increase in production cost, indicating business growth. This rise suggests higher production volume to meet increasing demand, which likely contributed to improved revenue and profitability. The increase reflects positive financial and operational development during that period.
2. There were fluctuations in total growth, with declines in 2019 to 2020 (-2.4%) and 2021 to 2022 (-1.0%). This indicates that there are challenges faced in the period, possibly due to external or internal factors that affect performance.
3. After the decline, there was a good recovery in 2022 to 2023 (10.8%) and in 2023 to 2024 (14.1%). This suggests that the company may have successfully overcome previous challenges and returned to the growth path.

Production Cost Analysis at PT Ultrajaya Milk Industry & Trading Company Tbk

Production costs are essential in manufacturing companies, especially for PT Ultrajaya Milk Industry & Trading Company Tbk, where they account for a major portion of expenses due to the company's wide range of beverage and food products such as various kinds of milk, tea, cheese. These cost cover raw materials, labor, and machinery, making efficient cost management crucial for profitability and sustainability. As for calculating production costs In summary Simon, (2020) are as follows:

Production Cost = Direct Raw Material Cost + Labor Cost Direct + Biav Overhead

The production costs incurred by PT Ultrajaya Milk Industry & Trading Company Tbk are clearly outlined in the company's annual financial statements, particularly in the section detailing operational expenses. These records serve as key source of information, offering insight into the company's yearly budget allocation for production related activities. This data is crucial for understanding how the company manages its financial resources and maintains operational efficiency in manufacturing various food and beverage product. For a more detailed view of the trends and developments in production cost, the specific data from 2018 to 2024 is presenteds in table 4.2 below:

Table 3. Production Costs at PT Ultrajaya Milk Industry & Trading Company Tbk Period 2018 - 2024

Year	Direct Raw Material Cost	Direct Labor Costs	Factory Overhead Costs	Total Production Cost	Development
2018	470,575,000	81,539,000	566,199,000	1,118,313,000	-
2019	654.707.000	97,493,000	642,403,000	1,394,603,000	24,8%
2020	591,497,000	107,452,000	637,737,000	1,336,686,000	-4,1%
2021	321,025,000	109,299,000	641,136,000	1,071,460,000	-19,9%

Year	Direct Raw Material Cost	Direct Labor Costs	Factory Overhead Costs	Total Production Cost	Development
2022	1,009,722,000	115,918,000	699,290,000	1,824,930,000	70,1%
2023	846,945,000	126,454,000	678,232,000	1,651,631,000	-9,5%
2024	782,305,000	129,124,000	675,999,000	1,587,428,000	-3,9%

Source: Financial Statements of PT Ultrajaya Milk Industry & Trading Company Tbk

From table 3, to make it easier to understand the development or increase / decrease in production costs, the author describes in the form of a graph as follows:

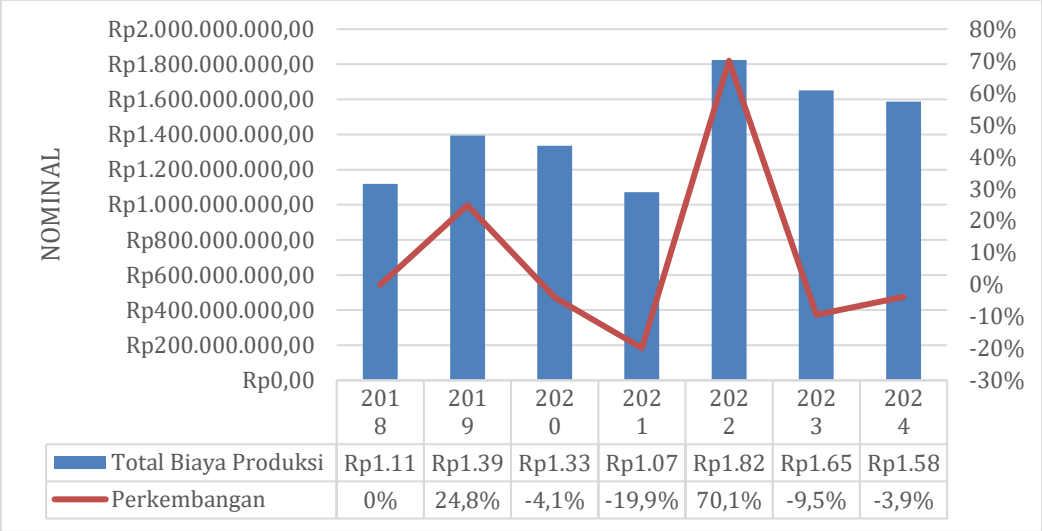


Figure 3. Production Cost Chart for 2018 – 2024

In the graph show production costs at PT Ultrajaya Milk Industry & Trading Company Tbk stedily increased from 2018 to 2024. On average, the company spent around 1,426,293,000 per year on production, with an annually growth rate of 9.75%. this rise reflects higher operational demands driven by the company's food and beverage production. Production cost covering raw materials, labor, machinery and other expenses play a crucial role in the company's operations and are directly tied to the scale and intensity of its manufacturing activities during this period.

PT Ultrajaya Milk Industry & Trading Company Tbk experienced a steady increase in production costs over the analyzed period, driven by several key factors. The primary reason for this rise in the growing number of product orders, which required the company to ramp up its production opertions to meet rising market demand. In line with this, raw material costs such as those formilk, tea leave, and other ingredients also climbed significantly, forming the largest portion of the company's total production expenses. Additionally, labor cost increased to support the expanding workforce needed for higher production volume. Overhead cost, including equipment maintenance and utilities, further contributed to the overall expenditure. These combined elements highlight the upward trend in production cost as reflected in the graph provided earlier:

1. 2018 to 2019: Product cost increased by 24.8%. primarily due to rising raw material cost used in the manufacturing process.
2. 2019 to 2020: Product cost decreased by 4.1%. caused by a reduction in raw material

usage due to lower production volume.

3. 2020 to 2021: A further decline of 19.9% in production cost occurred, again due to decreased consumption of materials.
4. 2021 and 2022: Product cost rose sharply by 70.1% driven by increased use of raw materials and higher direct labor expenses.
5. 2022 to 2023: Cost dropped by 9.5% mainly as aresult of lower material cost.
6. 2023 to 2024: A slight decrease of 3.9% was observed, also due to reduced raw material expenses

Profitability Analysis at PT Ultrajaya Milk Industry & Trading Company Tbk

Profitability in this study is evaluated using a key financial performance indicator: Return on Assets (ROA). ROA is a ratio that measures a company's ability to generate profit relative to its total assets. It highlights how effectively the company utilizes its assets to earn income. A higher ROA indicates better efficiency and profitability in asset usage. ROA is calculated by dividing annualized earnings before tax by total assets. In summary, Banking, (2020) the Return on Assets (ROA) can be calculated using the following formula:

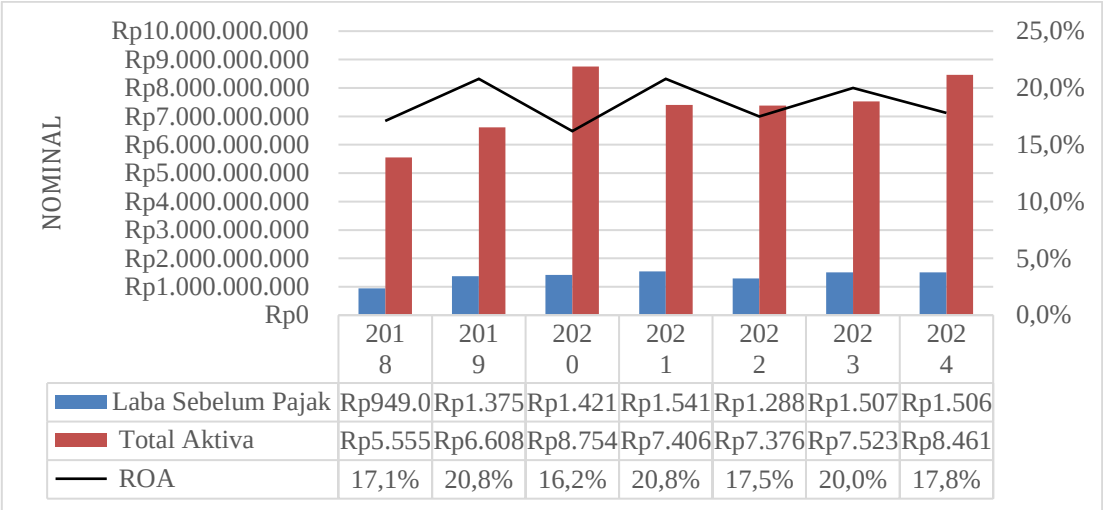
$$\text{ROA} = \frac{\text{Profit Before Tax}}{\text{Total Assets}} \text{ X } 100\%$$

Table 4. Profitability at PT Ultrajaya Milk Industry & Trading Company Tbk Period 2018 – 2024

Year	Profit Before Tax	Total Assets	ROA
2018	949,018,000	5,555,871,000	17.1%
2019	1,375,359,000	6,608,422,000	20.8%
2020	1,421,571,000	8,754,116,000	16.2%
2021	1,541,932,000	7,406,856,000	20.8%
2022	1,288,998,000	7,376,375,000	17.5%
2023	1,507,285,000	7,523,956,000	20.0%
2024	1,506,963,000	8,461,365,000	17.8%

Source: Financial Statements of PT Ultrajaya Milk Industry & Trading Company Tbk

From table 4, to make it easier to understand the development or increase / decrease in profitability, the author describes in the form of a graph as follows:



	2018	2019	2020	2021	2022	2023	2024
Laba Sebelum Pajak	Rp949.0	Rp1.375	Rp1.421	Rp1.541	Rp1.288	Rp1.507	Rp1.506
Total Aktiva	Rp5.555	Rp6.608	Rp8.754	Rp7.406	Rp7.376	Rp7.523	Rp8.461
ROA	17,1%	20,8%	16,2%	20,8%	17,5%	20,0%	17,8%

Figure 4. Profitability Chart for 2018 – 2024

PT Ultrajaya Milk Industry & Trading Company Tbk experienced fluctuating pre-tax profits between 2018 and 2024, with gains in 2019, 2021, and 2023, but losses in 2020, 2022, and 2024. Despite these inconsistencies in profitability, the company's total assets showed steady annual growth, indicating ongoing investment and expansion efforts that may support future financial stability.

The average Return on Assets (ROA) of PT Ultrajaya Milk Industry & Trading Company Tbk between 2018 and 2024 was 14.24%, reflecting the company's ability to generate profits from its assets. However, ROA showed a downward trend in 2019, 2021, and 2023 due to rising total assets not being matched by profit before tax, which declined in those years. This imbalance led to reduced efficiency in asset utilization. The explanation from the graph above is

1. 2018 to 2019: Profitability increased from 17.1% to 20.8%, reflecting improved asset utilization in generating pre-tax profits.
2. 2019 to 2020: Profitability declined to 16.2% due to a faster increase in total assets compared to profit, indicating reduced efficiency.
3. 2020 to 2021: Profitability rose again to 20.8%, suggesting better cost management or increased revenue.
4. 2021 to 2022: Profitability dropped to 17.5%, likely caused by a decrease in pre-tax earnings while asset growth remained stable.
5. 2022 to 2023: Profitability improved to 20.0% as the company managed to raise pre-tax profit despite an increase in total assets.
6. 2023 to 2024: Profitability slightly decreased to 17.8%, with high pre-tax earnings offset by continued growth in asset investment.

Data Analysis Results

Operating costs as independent variables (variables) and production costs as independent variables (variables) affect profitability as dependent variables (variable Y). This can be seen in the table below:

Table 5. Operational Costs, Production Costs and Profitability at PT Ultrajaya Milk Industry & Trading Company Tbk Period 2018 – 2024

Year	Profitability	Production Costs	Operating costs
2018	701,607,000	1,118,313,000	1,052,258,000
2019	1,035,865,000	1,394,603,000	1,111,760,000
2020	1,109,666,000	1,336,686,000	1,004,934,000
2021	1,276,793,000	1,071,460,000	958,711,000
2022	965,486,000	1,824,930,000	1,185,591,000
2023	1,186,161,000	1,651,631,000	1,235,498,000
2024	1,153,916,000	1,587,428,000	1,622,770,000

Source: Financial Statements of PT Ultrajaya Milk Industry & Trading Company Tbk

Production cost evaluation involves three main components: direct raw materials, labor costs, and factory overhead. A decline in total production costs is considered favorable, as it enhances efficiency while maintaining product quality. Meanwhile, Return on Assets (ROA) measures the company's ability to generate profits from its assets. A rising ROA indicates effective asset utilization and signals strong profitability. Together, efficient cost control and increasing ROA are key indicators of a company's financial health and long-term sustainability.

To find out more clearly, the author will carry out the effect of production costs on profitability by using statistical analysis, namely: Correlation Analysis, Simple Linear Regression, Acceptance Coefficient, T-Test, and F Test which are used to find out whether or not there is an influence on production costs on profitability and how much influence it has. The data analysis that will be used in this study uses the SPSS 31 program as a tool in analyzing data, while the data analysis that will be carried out in this study includes To better understand the effect of production costs on profitability, the author will apply several statistical analysis methods: Correlation Analysis to assess the strength and direction of the relationship between variables, Simple Linear Regression to evaluate the direct impact of production costs on profitability, the Coefficient of Determination (Acceptance Coefficient) to determine the proportion of variability in profitability explained by production costs, and both the T-Test and F-Test to test the statistical significance of the relationship. These analyses aim to clarify whether production costs significantly influence profitability and, if so, to what extent. Data processing and interpretation in this study will be conducted using SPSS version 31. The statistical methods used in this research are as follows:

1. Correlation Analysis

Table 6. Correlation Test Results

Correlations				
		Operating Costs	Production Costs	Profitability
Operating Costs	Pearson Correlation	1	.875**	.989**
	Sig. (2-tailed)		.010	<.001
	N	7	7	7
Production Costs	Pearson Correlation	.875**	1	.937**
	Sig. (2-tailed)	.010		.002
	N	7	7	7
Profitability	Pearson Correlation	.989**	.937**	1
	Sig. (2-tailed)	<.001	.002	
	N	7	7	7
**. Correlation is significant at the 0.01 level (2-tailed).				

Source: IBM SPSS 31 output

The Pearson correlation test results indicate a very strong and statistically significant relationship between operating expenses, production costs, and profit. Operating expenses showed an exceptionally strong positive correlation with profit (coefficient: 0.989, significance < 0.001), while production costs also had a strong correlation with profit (coefficient: 0.937, significance: 0.002). Additionally, operating costs and production costs were strongly correlated (coefficient: 0.875, significance: 0.010). These findings suggest that increases in operating and production costs are closely associated with rising profits, indicating that greater spending in these areas may contribute to improved profitability.

2. Analysis of the Regresi Linier Berganda

Table 7. Multiple Linear Regression Test Results

Coefficientsa													
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model	B		Std. Error	Beta	t	Itself.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	BRIGHT
1	(Constant)	569851.401	4179.937		136.330	<.001	558246.034	581456.767					
	Operating Costs	.338	.006	.720	53.906	<.001	.321	.355	.989	.999	.349	.235	4.264

	Production Costs	.109	.005	.307	22.965	<.001	.096	.123	.937	.996	.149	.235	4.264
a. Dependent Variable: Profitabilitas													

Source: IBM SPSS 31 output

The multiple linear regression equations obtained are as follows:

$$Y=569,851.401+0.338\ X_1+0.109\ X_2$$

The regression analysis reveals that both operating costs and production costs have a positive effect on the company's profits. An increase in operating costs is associated with a 0.338 rise in profit, while an increase in production costs leads to a 0.109 profit increase assuming other variables remain constant. These findings highlight that both variables positively contribute to profitability, indicating that well-managed spending on operations and production can support better financial performance.

3. Coefficient Determination Analysis

Table 8. Determination Coefficient Test Results

Model Summary[b]										
					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	1.000a	1.000	1.000	1530.623	1.000	11937.725	2	4	<.001	1.284
a. Predictors: (Constant), Production Cost, Operational Cost										
b. Dependent Variable: Profitabilitas										

Source: IBM SPSS 31 output

The R Square (R2) value of 1.000 indicates that 100% of the variation in profit can be explained by the combination of Operating Costs and Production Costs, showing that the regression model is highly effective in predicting profit based on these variables. However, this perfect R^2 result must be interpreted with caution, as it may be influenced by the small sample size used (N-7). With such a limited dataset, there is a high risk of overfitting, meaning the model fits the current data too well but may not perform accurately on larger or different datasets. Thus, while the model seems ideal, its validity should be tested further using a broader sample for more reliable conclusions.

4. Operational Cost Analysis t-Tests

Table 9. Operational Cost T Test Results

Coefficientsa													
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Itself.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	BRIGHT
1	(Constant)	562718.390	42972.489		13.095	<.001	452254.091	673182.689					
	Operating Costs	.464	.031	.989	14.822	<.001	.384	.545	.989	.989	.989	1.000	1.000
a. Dependent Variable: Profitabilitas													

Source: IBM SPSS 31 output

Operational Costs Value t = 14.822**,** and sig. = < 0.001. Operating costs have **a** significant partial effect on profits.

5. Production Cost T Test Analysis

Table 10. Production Cost T Test Results

Coefficientsa													
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Itself.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	BRIGHT
1	(Constant)	692266.312	84658.221		8.177	<.001	474645.427	909887.196					
	Production Costs	.334	.056	.937	6.003	.002	.191	.477	.937	.937	.937	1.000	1.000
a. Dependent Variable: Profitabilitas													

Source: IBM SPSS 31 output

Production cost Value t = 6.003, and sig. = 0.002**.** Production costs also have a significant partial effect on profits.

6. Analysis of the F Test

Table 11. F Test Results

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Itself.
1	Regression	55935593313.825	2	27967796656.913	11937.725	<.001b
	Residual	9371231.589	4	2342807.897		
	Total	55944964545.415	6			
a. Dependent Variable: Profitabilitas						
b. Predictors: (Constant), Production Cost, Operational Cost						

Source: IBM SPSS 31 output

The value of F calculated = 11,937,725 with a significance value of < 0.001 shows that the regression model involving Operating Costs and Production Costs together (simultaneously) has a significant effect on Profit**.**

7. Normality Test Analysis

Table 12. Normality Test Results

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Itself.	Statistic	Df	Itself.
Operating Costs	.185	7	.200*	.929	7	.544
Production Costs	.215	7	.200*	.902	7	.344
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Source: IBM SPSS 31 output

The normality test in this study used the Shapiro-Wilk method, which is suitable for small sample sizes (less than 50). The test results showed significance values of 0.544 for operating costs and 0.344 for production costs, both of which are greater than 0.05. This indicates that the data for both variables are normally distributed and meet the classical assumptions required for regression analysis, ensuring the reliability of further statistical testing.

8. Heteroscedasticity Test Analysis

Table 13. Heteroscedasticity Test Results

Coefficientsa						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Itself.
1	(Constant)	-2749.127	1244.663		-2.209	.092
	Operating Costs	.005	.002	1.350	2.443	.071
	Production Costs	-.002	.001	-.646	-1.170	.307

a. Dependent Variable: Abs_RES

Source: IBM SPSS 31 output

The heteroscedasticity test in this study aimed to identify whether there was variance inequality in the regression residuals. The results showed that the significance values for operating costs (0.071) and production costs (0.307) were both greater than 0.05. This indicates that there are no signs of heteroscedasticity, meaning the residuals have a constant variance. Therefore, the regression model meets the assumption of homoskedasticity, supporting the reliability and validity of the analysis.

Discussion

1. The Influence of Operating Costs on Profitability

The results of the study show that operating costs have a very strong and significant relationship with the profitability of PT Ultrajaya Milk Industry & Trading Company Tbk. Pearson's correlation coefficient of 0.989 indicates an almost perfect positive correlation between the two variables. This means that the greater the operational costs incurred, the company's profitability also tends to increase. This indicates that the company's operational expenses are not wasteful or inefficient, but rather support the company's core business activities which ultimately generate higher revenue.

Operating costs include components such as sales costs, administrative costs, and general expenses. In the context of PT Ultrajaya, these costs are mostly allocated for product distribution, promotion, and internal administrative activities. The effectiveness of the use of these costs can increase efficiency and drive sales, thus having a positive impact on profits. This research is in line with the findings of Astuti (2023) and Kade et al. (2023), which state that optimizing operational costs can be an important strategy in increasing Return on Equity (ROE) and other profitability indicators.

Nevertheless, it is important for management to keep operational expenses under control so as not to exceed efficiency limits. An increase in operational costs that is not in line with an increase in revenue can actually reduce profit margins. Therefore, efficiency and effectiveness are the main keys in managing operational costs.

2. The Influence of Production Costs on Profitability

In addition to operational costs, production costs were also found to have a positive and significant effect on profitability, with a correlation coefficient of 0.937. Although the effect is not as large as operational costs, the results of the t-test show that this variable still makes an important contribution in influencing the company's profit. Production costs at PT Ultrajaya consist of direct raw material costs, direct labor, and factory overhead costs. The increase in production costs is generally caused by a surge in the price of raw materials or an increase in production volume due to high market demand.

An increase in well-managed production costs can result in more and higher quality product output, which in turn has the potential to increase sales and profits. This is in accordance with the results of research by Hasibuan et al. (2023) and Widyastuti et al. (2024)

which stated that production costs have a positive relationship with profitability, especially if supported by efficient production management.

However, there are other findings that state that an increase in production costs does not necessarily guarantee an increase in net profit, as conveyed by Elma Ratu and Lestari (2025). This shows that the influence of production costs on profitability is highly dependent on the efficiency of the process and the product price policy set by the company. If costs increase without being balanced with good price control and sales volume, then profitability can actually decrease.

3. Multiple Linear Regression Analysis and Its Implications

The multiple linear regression model in this study yielded the equation:

$$\mathbf{Y = 569{,}851{,}401 + 0.338X_1 + 0.109X_2}$$

The regression coefficient of operating costs (0.338) is greater than that of production costs (0.109), which indicates that changes in operating costs have a greater impact on profits than changes in production costs. The significance value of < 0.001 for both reinforces the conclusion that this influence is statistically significant.

From a managerial perspective, this means that increasing or efficient operational costs has more impact on the company's profit achievement. Efficiency strategies in this area should be a priority in the company's financial policy, such as through the digitization of administrative systems, logistics efficiency or optimization of marketing budgets.

4. Coefficient of Determination (R^2) and Model Validity

An R-Square value of 1,000 (or 100%) indicates that all variations in profitability can be explained by operating costs and production costs. Although this shows that the model has very high predictive power, it should be noted that over-perfect values usually occur due to a very limited amount of observational data, in this case only 7 years.

Technically, this can lead to overfitting, which is when the model is too well matched with the available data, but is unable to explain the data outside of the research sample. Therefore, although this model is very good in terms of statistics, its generalization needs to be done carefully and not directly applied to other contexts without additional verification.

5. Classical Assumption Test: Normality and Heteroscedasticity

The results of the normality test using the Shapiro-Wilk method showed that the data was normally distributed because the significance value of all variables was above 0.05. This means that the data is valid for use in regression analysis. Furthermore, the heteroscedasticity test using the Glejser method showed that there were no symptoms of heteroscedasticity, because the significance value was greater than 0.05. These two results confirm that the regression model meets classical assumptions and the results of the analysis are reliable.

6. F Test (Simultaneous) and t-Test (Partial)

The F test showed that operating costs and production costs simultaneously had a significant influence on profitability (F calculated = 11,937,725; Sig. < 0.001). This proves that the regression model is valid as a whole. Meanwhile, the results of the t-test show that the

two variables are also partially significant. Operating costs have a t-value of 14.822, while production costs are 6.003, both with a significance level below 0.05.

These results support the research hypothesis (H_1, H2, H3) that operational costs and production costs, both partially and simultaneously, have a significant effect on profitability.

Conclusions

Based on the results of data analysis, it can be concluded that operating costs and production costs have a significant influence on the profitability of PT Ultrajaya Milk Industry & Trading Company Tbk, both partially and simultaneously, with operating costs showing a more dominant influence. The regression model used proved to be statistically feasible, supported by the results of the classical assumption test that qualified the analysis. Therefore, companies are advised to focus on the efficiency of operational cost management and optimal production cost control to increase profits sustainably. In addition, to obtain more accurate and generalizable results, subsequent research should use a larger sample count and consider the addition of other variables relevant to the company's profitability.

From the results of the discussion, it can be concluded that the cost control strategy is not only about reducing expenses, but about optimizing efficiency without sacrificing product quality or value**.** Therefore, the company's management needs to:

a. Improve efficiency in the production and distribution process.
b. Conducting regular evaluations of operational cost effectiveness.
c. Develop an accurate and real-time cost reporting system.
d. Adopt technology to speed up processes and reduce waste.

This strategy will help companies maintain competitiveness while increasing profitability in a sustainable manner.

References

Alfreda. & Sugiyono. (2020). Statistics for Research. Angewandte Chemie International Edition, 6(11), 951–952., 2013–2015.

Ali, H. R. C., Mahsina, M., & Fauziah, D. A. (2024). Production Costs, Operating Costs, Sales Volume and Net Profit of Food and Beverage Companies Listed on the IDX. Equity: Journal of Accounting, 4(2), 57–68. https://doi.org/10.46821/equity.v4i2.492

Amalia, D., Ria, E., & Praningtyas, V. (2024). The 7 th International Seminar on Business , Economics, Social Science, and The Effect Of Working Capital And Operating Cost On The Profitability Of Pt Adhi Karya In 2021 – 2023 The 7 th International Seminar on Business , Economics , Social Science , a. 4.

Astuti, A. D. D. (2023). The Effect of Optimizing Operational Costs as a Financial Strategy in Increasing Profitability at PT MSAL. Journal of Innovation Research Management, 2(1), 119–126. https://doi.org/10.55606/mri.v2i1.2180

Bilqis, N. M., Bina, U., Bekasi, I., West, J., Operational, B., Sales, V., & Bersih, L. (2025). Unsurya Business and Accounting Journal, The Effect Of Production Costs, Operational Costs And Volume Unsurya Business and Accounting Journal. 10(2). https://doi.org/10.35968/jbau

Casmadi, Y., & Azis, I. (2024). The Effect of Production Costs and Operating Costs on Net Profit at PT. Ultrajaya Milk Industry & Trading Company Tbk Poltekpos Bandung ISSN 1979-8334. Journal of Accounting of the Bandung Polytechnic, XI(No.1). https://ejurnal.poltekpos.ac.id/index.php/akuntansi/article/view/489

Efferin, S., Darmadji, S. H., & Tan, Y. (2020). Accounting Research Method: Uncovering Phenomena with Quantitative and Qualitative Approaches. In Graha Ilmu (Vol. 53, Issue 9, pp. 1689–1699).

Fitriasari, D., Biya, R. S., Nuraeni, D. & Santoso, R. A. (2024). The Effect of Operating Costs on Net Profit. Accounting and Tax Economics: A Global Perspective, 1(2), 54–65. https://doi.org/10.61132/aeppg.v1i2.128

Harahap, S. S. (2021). Critical Analysis of Financial Statements.

Hasibuan, Y. & Samri, J. Y. (2023). Analysis of the Influence of Costs (Yusrina Hasibuan, et al) Madani. Multidisciplinary Scientific Journal, 1(8), 201–216. https://doi.org/10.5281/zenodo.8360194

Hidayat, M. K., Maftukhin, M., & Rahmawati, T. (2023). The Effect of Production Costs, Promotion Costs and Sales Volume on Profitability Levels (Empirical Study on MSMEs in Brebes Regency). JETISH: Journal of Education Technology Information Social Sciences and Health, 1(1), 24–33. https://doi.org/10.57235/jetish.v1i1.29

Horngren, C., Sundem, G. L., & Schatzberg, J. O. (2021). Management Seventeenth Edition Management Accounting.

Kade, N., Ardiningsih, S., & Musmini, L. S. (2023). By Kade Suci Ardiningsih & Lucy Sri Musmini, 2023. 14, 546–561.

Lestari, I., & Hariadi, A. K. n.d (2021). Modern management & business.

Lestari, R. (2025). Submitted to Meet any of the Requirements for Obtaining a Bachelor of Education Degree. 87, 49–53.

Muhammad. (2020). Sharia Bank Management. April 2020.

Mulyadi. (2021). Accounting-Cost-.intro (1).pdf.

Nazarite. (2020). Research Methods. Jakarta: Gahala Indonesia.

Noviyanti, H., Samanto, H., & Hasan, M. (2025). On The Net Profit Of Manufacturing Companies In Various Industrial Sectors Listed On The Indonesia Stock Exchange In 2021-2024. 2(4), 111–119.

Perloff, J. M., & Brander, J. A. (2020). Managerial Economics and Strategy. Pearson, 8–39.

Permata, S. A. (2020). The Effect of Production Costs and Operating Costs on Net Profit in Pharmaceutical Sub-Sector Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2014-2018 Period. 7(2), 1–9. https://openlibrary.telkomuniversity.ac.id/home/catalog/id/160876/slug/pengaruh-biaya-produksi-dan-biaya-operasional-terhadap-laba-bersih-pada-perusahaan-

manufaktur-sub-sektor-farmasi-yang-terdaftar-di-bursa-efek-indonesia-periode-2014-2018.html

Ratu E. C. & Rachmawati, T. (2022). The Effect of Production Costs, Promotion Costs, and Sales Volume on the Net Profit of Manufacturing Companies in the Food and Beverage Sub-Sector Listed on the Indonesia Stock Exchange for the 2019-2021 Period. Journal of Business Economics and Accounting, 2(1). https://doi.org/10.55606/jebaku.v2i3.890

Sasongko, T., Iriani, N. I., & Ernawati, E. (2022). The effect of production costs and operational costs on the company's profit. Reference: Journal of Management and Accounting Sciences, 9(2), 213–218. https://doi.org/10.33366/ref.v9i2.3215

Simon, D. S. (2020). Management and Cost Accounting. The British Accounting Review, 21(1), 93–95. https://doi.org/10.1016/0890-8389(89)90074-7

Sugiyono. (2020). 709919745-Education-Research-Methods-Sugiyono-2021.Pdf.

Sugiyono. (2020). Quantitative, Qualitative and R&D Research Methods in Alvabeta. CV.

Suwarsa, T., & Nursalma, N. (2023). The Effect of Production Costs on Net Profit in Pharmaceutical Sub-Sector Manufacturing Companies Listed on the Indonesia Stock Exchange (IDX) for the 2017-2020 Period. Journal of Accounting, 15(1), 14–27. https://doi.org/10.58457/akuntansi.v15i1.2323

Widi. (2020). The Effect of Operational Costs on the Profitability of Pt Industri Telekomunikasi Indonesia. Journal of Ecodemica: Journal of Economics, Management, and Business, 2 (Ecodemica September 2020), 258–271. http://ejournal.bsi.ac.id/ejurnal/index.php/ecodemica/article/view/101

Widiayanti, F. (2024). The Effect of Production Costs and Operating Costs on Profit Growth (Case Study of Manufacturing Companies in the Textile and Garment Sub-Sector Listed on the Indonesia Stock Exchange) for the 2019-2023 Period. 1192, 304–317.

Widyastuti, I., Maharani, M., Haryadi, E., & Wijayanti, D. (2024). The Effect of Production Costs and Operating Costs on Net Profit. UBS Journal of Economics and Business, 13(2), 642–661. https://doi.org/10.52644/joeb.v13i2.1578

Wijaya, D. Y. (2021). The Influence of Capital and Operating Costs on Profitability at Pt. Trisula Internasional Tbk. JOURNAL OF IMPERATIVE SYNTAX : Journal of Social Sciences and Education, 2(4), 215. https://doi.org/10.36418/syntax-imperatif.v2i4.98