

The Effect Of Sales And Operating Costs On Net Profit At Pt Forisa Nusapersada Tangerang

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ABSTRACT

PT. Forisa Nusapersada is a company engaged in the production and marketing of various beverages and foods, especially in high-quality powdered form. PT. Forisa has quite high sales and also has significant operational costs to support the sales and marketing of the company's products. However, do PT. Forisa Nusapersada's sales and operational costs significantly affect the company's net profit? High sales or revenue with low operational costs will result in a good profit for the company. High sales do not necessarily result in a good net profit when operational costs are also high, low sales do not necessarily result in a loss if accompanied by low operational costs, and high sales if met with high operational expenses that even exceed revenue, what happens to the company is a loss. Operating costs significantly affect a company's profit results, because the higher the costs incurred, the lower the profit obtained by the company. This study aims to delve deeper into the relationship and significance of the influence of these two variables on the company's profitability, thereby providing a clear picture of the strategies that need to be optimized to achieve solid financial performance. The research uses a quantitative approach with a descriptive and associative design, utilizing three years of financial data (2021-2023). Data collection was done through documentation and literature review. The sample size is extremely small $\{N=3\}$ which leads to perfect multicollinearity and invalid statistical inference. The results show sales have a positive effect, while operating costs have a negative effect on net profit. All three variables exhibit a perfect linear relationship due to the small sample size and high multicollinearity $\{VIF\} = 3406.832$, invalidating the regression analysis for generalization.

INTRODUCTION

In a dynamic and competitive business environment, a company's ability to generate optimal net profit is a key measure of financial success. Net profit not only reflects a company's operational efficiency but also serves as a foundation for future growth and expansion.

PT Forisa Nusapersada, as a key player in the Indonesian food and beverage industry, continues to face the challenge of sustainably increasing its profitability. Two fundamental factors that directly impact a company's net profit are sales and operating costs. Sales, as the primary source of revenue, represent a company's success in marketing its products and meeting consumer demand. Increased sales volume is expected to significantly drive revenue growth. On the other hand, operating costs which include all expenses related to core

business activities such as production, marketing, and administration are a direct deduction from earned revenue. Therefore, analyzing how sales fluctuations and the efficiency of operating cost management collectively impact net profit is crucial for PT Forisa Nusapersada.

This study aims to delve deeper into the relationship and significance of the influence of these two variables on the company's profitability, thereby providing a clear picture of the strategies that need to be optimized to achieve solid financial performance.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

1. **Sales Theory** Sales is a company's primary activity in generating revenue by offering goods or services to consumers. According to Kotler and Keller (2016), sales is part of the marketing mix, which focuses on the value exchange process between a company and its customers to satisfy consumer needs and achieve organizational goals. The higher the sales volume, the greater the company's potential for optimal profit.
2. **Operational Cost Theory** Operational costs are all expenses incurred in a company's operational activities to support production, distribution, administration, and sales activities. According to Hansen and Mowen (2017), operational costs consist of selling costs and general administrative costs, which directly and indirectly impact a company's bottom line. Efficient operational cost management is crucial, as higher operational costs without a corresponding increase in revenue can reduce net profit.
3. **Net Profit Theory** Net profit is the difference between total revenue and all expenses incurred by a company during a specific period. According to Harahap (2018), net profit represents the final result of a company's operational activities after accounting for all revenue and expenses, including operating costs, interest, and taxes. Net profit is a key indicator of a company's success in managing resources efficiently.
4. **The Relationship between Sales, Operating Costs, and Net Profit** Theoretically, sales have a positive relationship with net profit, while operating costs have a negative relationship with net profit. When sales increase, company revenue increases, thus tending to increase profits. However, if operating costs also increase disproportionately, net profit can decline (Horne & Wachowicz, 2018). Therefore, companies must be able to balance sales growth strategies with operational cost efficiency to maximize profits.

METHODS

The methods used in completing the study are written in this section.

1. **Type of Research** This research is quantitative with a descriptive and associative approach. The descriptive approach is used to describe the development of sales, operating costs, and net profit at PT. Forisa Nusapersada for the period 2021–2023. The associative approach is used to determine the relationship and influence between sales and operating costs on net profit.
2. **Research Location and Timeline** Research location
PT. Forisa Nusapersada, Tangerang. Research Timeline: Data were collected and analyzed in 2024, covering the data period 2021–2023.
3. **Data Types and Sources** Data Type Quantitative Data.

The company's sales figures, operating costs, and net profit for the period 2021–2023. Secondary Data Source: Data obtained from the company's financial reports, internal publications, and other relevant documentation sources.

4. Data Collection Techniques Data collection methods were carried out through Documentation (collecting historical data in the form of sales reports, operating costs, and the company's net profit) , and Literature Review (studying literature and theories supporting this research).

5. Population and Sample Population

All annual financial reports of PT. Forisa Nusapersada. Sample: Financial report data for 3 years (2021, 2022, 2023). Sampling Technique: Saturated sampling, as the entire population data was used as the research sample.

Table 1 Operational Definition of Variables

Variable	Type	Indicator	Denomination
Sales (X_1)	Independen	Total annual sales	Rupiah
Operating Costs (X_2)	Independen	Total annual operating costs	Rupiah
Net Profit (Y)	Dependen	Difference between sales and operating costs	Rupiah

RESULTS

This study uses financial data from PT. Forisa Nusapersada for the past three years, 2021–2023. The variables analyzed include sales (X_1), operating costs (X_2), and net profit (Y).

Table 2 PT Forisa Nusapersada Product Sales Data (2021-2023)

PRODUCT	2021 (Rp)	2022 (Rp)	2023 (Rp)
Pop Ice Regular	620.000.000	700.000.000	785.000.000
Nutrijell Regular	540.000.000	580.000.000	640.000.000
Nutrijell Ekonomi	310.000.000	330.000.000	355.000.000
Nutricake Brownies	410.000.000	450.000.000	510.000.000
Teh Sisri Regular	380.000.000	420.000.000	450.000.000
Happy Pudding	265.000.000	300.000.000	330.000.000
Silky Pudding	295.000.000	315.000.000	345.000.000
Jelly Shake Fruity	225.000.000	260.000.000	290.000.000
My VLA Pudding	260.000.000	280.000.000	305.000.000
Agarasa Regular	245.000.000	270.000.000	300.000.000
Nutrijell Yoghurt	285.000.000	310.000.000	340.000.000
Pudding Santan	225.000.000	245.000.000	260.000.000
Pudding Susu	245.000.000	270.000.000	295.000.000
Pudding Lapis	240.000.000	260.000.000	285.000.000
Produk Lain-lain	215.000.000	240.000.000	275.000.000
Total Sales	5.250.000.000	5.780.000.000	6.250.000.000

Table 3 Annual Financial Recapitulation

Years	Total Sales (Rp)	Operating Costs (Rp)	Net Profit (Rp)	Profit Percentage (%)
2021	5.250.000.000	1.150.000.000	4.100.000.000	78%
2022	5.780.000.000	1.320.000.000	4.460.000.000	77%
2023	6.250.000.000	1.480.000.000	4.770.000.000	76%

Table 4 Descriptive Statistics

	Mean	Std. Deviation	N
Total_Sales	5760000000,00	500299910,054	3
Operating_Costs	1316666666,67	165025250,593	3
Net_Profit	4443333333,33	335310801,099	3

The average total sales is Rp5.760.000.000,00, and the average net profit is Rp.443.333.333,33. The standard deviation for Total Sales Rp.500 million indicates some variation in sales data around the mean.

Table 5 Correlations

		Total_Sales	Operating_Costs	Net_Profit
Total_Sales	Pearson Correlation	1	1,000*	1,000**
	Sig. (2-tailed)		,011	,005
	N	3	3	3
Operating_Costs	Pearson Correlation	1,000*	1	1,000*
	Sig. (2-tailed)	,011		,016
	N	3	3	3
Net_Profit	Pearson Correlation	1,000**	1,000*	1
	Sig. (2-tailed)	,005	,016	
	N	3	3	3

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation value between all pairs of variables is 1.000, indicating a perfect positive linear relationship. The relationship between Total Sales and Operating Expenses $0.011 < 0.05$, Total Sales and Net Profit $0.005 < 0.01$, and Operating Expenses and Net Profit $0.016 < 0.05$ are all statistically significant. However, this conclusion is very weak with an $N = 3$.

Table 6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	1,000 ^a	1,000	.	.	1,000	.	2	0	.	2,000

a. Predictors: (Constant), Operating_Costs, Total_Sales

b. Dependent Variable: Net_Profit

R Square (R^2) of 1,000 means that 100\% of the variation in Net Profit can be explained by Total Sales and Operating Expenses¹. This is a sign of overfitting or perfect multicollinearity, especially with $N = 3$. The {Std. Error of the Estimate} is zero, which in practice means 0. This is the clearest evidence that the model is "perfect" with no prediction errors at all on the sample data, effectively invalidating all significance tests.

Table 7 Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations	Collinearity Statistics					
	B	Std. Error	Beta				Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	,000	,000		.	.					
	Total_Sales	1,000	,000	1,492	.	.	1,000	1,000	,026	,000	3406,832
	Operating_Costs	-1,000	,000	-,492	.	.	1,000	-,000	-,008	,000	3406,832

a. Dependent Variable: Net Profit

The Unstandardized Coefficients (B) give the regression equation: Net Profit = 0 + (1,000 x Total Sales) - (1,000 x Operating Cost). However, the t and Sig. values are empty, meaning t-

tests for each coefficient cannot be calculated because there is no error variance (df residual = 0). The VIF value is very large (3406.832), indicating extreme multicollinearity

DISCUSSION

Interpretation of Results

The correlation analysis showed a perfect positive linear relationship (Pearson Correlation = 1.000) between all pairs of variables: Total Sales, Operating Costs, and Net Profit. This result suggests that as sales increase, both operating costs and net profit increase proportionally in the small sample studied.

The regression analysis resulted in an $R^2 = 1.000$, which superficially suggests that 100% of the variance in Net Profit is explained by the independent variables. However, this result is statistically invalid and completely unreliable. The reasons for this invalidity are:

- Extremely Small Sample Size ($N = 3$): No strong statistical conclusions can be drawn from only three data points.
- Perfect Multicollinearity: The VIF value of 3406.832 indicates extreme multicollinearity, meaning the model cannot distinguish the individual effects of the independent variables.
- Invalid Significance Tests: With df residual = 0, the F-test and t-tests could not be performed, making the regression coefficients, standard errors, and all significance tests meaningless.
- Overfitting: The model "memorizes" the three data points perfectly (Residuals = 0), but this perfection is a flaw, not a sign of good model performance, and it will almost certainly fail to predict new data.

Practical Implication (Despite Statistical Invalidity)

Based on the descriptive data and the simple mathematical model (Net Profit = Total Sales – Operating Cost), the practical conclusions are:

1. Sales have a positive effect on net profit. The increase in total sales from 2021 to 2023 was accompanied by an increase in net profit.
2. Operating costs have a negative effect on net profit. Although the company experiences annual sales increases, the net profit tends not to increase proportionally due to rising operating costs, indicating that cost efficiency is a critical factor.

In general, the company's success in increasing net profit is highly dependent on increased sales and efficient operational cost control.

CONCLUSION

Based on the research findings regarding the impact of sales and operating costs on net profit at PT. Forisa Nusapersada Tangerang during the 2021–2023 period, the following conclusions can be drawn:

- Sales have a positive effect on net profit, meaning higher sales result in higher net profit for PT. Forisa Nusapersada.
- Operating costs have a negative effect on net profit. The non-proportional increase in net profit relative to sales suggests that rising operating costs necessitate better cost efficiency.

- The relationship between sales, operating costs, and net profit is very strong, with the correlation analysis showing a perfect linear relationship.
- Limitation/Suggestion: This finding is unreliable and statistically invalid due to the extremely small sample size ($N = 3$) and the presence of high multicollinearity ($VIF = 3406.832$), making the regression results unusable as a basis for valid statistical inferences or generalization.
- Suggestion for Future Research: Future researchers are advised to use a longer time period and a larger sample size, and add other variables such as cost of goods sold, marketing costs, or production volume, to obtain more comprehensive and statistically valid results.
- Implication: For PT. Forisa Nusapersada, the company needs to improve the efficiency of its operational cost management, particularly in production and distribution, to maximize the impact of increased sales on net profit.

REFERENCES

Harahap, S. S. (2018). Analisis Kritis atas Laporan Keuangan (12th ed.). Jakarta: Rajawali Pers.

Hansen, D. R., & Mowen, M. M. (2017). Cost Management: Accounting and Control (7th ed.). Cengage Learning.

Horne, J. C. V., & Wachowicz, J. M. (2018). Fundamentals of Financial Management (14th ed.). Pearson Education.

Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2018). Intermediate Accounting (16th ed.). Wiley.

Kotler, P., & Keller, K. L. (2016). Marketing Management (15th ed.). Pearson Education.

Mulyadi. (2016). Akuntansi Biaya (5th ed.). Yogyakarta: UPP STIM YKPN.

Tjiptono, F. (2017). Strategi Pemasaran (4th ed.). Yogyakarta: Andi.

Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.

Sekaran, U., & Bougie, R. (2016). Research Methods for Business: A Skill-Building Approach (7th ed.). Wiley.

Ghozali, I. (2018). Aplikasi Analisis Multivariate dengan Program IBM SPSS 25. Semarang: Badan Penerbit Universitas Diponegoro.