ANALYSIS OF MARGIN, ASSET TURNOVER, AND FINANCIAL LEVERAGE ON PROFITABILITY OF AN AGRICULTURE COMPANY (PT. JAPFA COMFEED INDONESIA, Tbk)

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Abstract

The agricultural industry plays a crucial role in Indonesia's economy, contributing to both economic growth and food security. This research determines the effect of margin, asset turnover, and financial leverage on the profitability of PT. Japfa Comfeed Indonesia from 2015 to 2024 period. PT. Japfa Comfeed Indonesia is a leading agri-food company in Indonesia. Profitability in this research is measured using Return on Equity. This research employs explanatory research with a quantitative approach. Data analysis is conducted using the Multiple Linear Regression method, along with F-tests and t-tests, applied through the SPSS version 29 software. The findings indicate that margin, asset turnover, and financial leverage simultaneously have a significant effect on the company's profitability. Margin has a significant positive effect on profitability, asset turnover has a significant positive effect on profitability, while financial leverage has a negative but not significant effect on profitability.

Keywords: ***Profitability, Financial Performance, Return on Equity, Asset Turnover, Financial Leverage, Agriculture***

INTRODUCTION

Agriculture is one of the main industries that contributes to Indonesia's Gross Domestic Product. Food security depends on the nation's agroindustry, which includes a number of sectors, like the poultry industry, which supplies animal protein (Ali,2023). "The 2022 global economy is experiencing a slowdown in economic growth and is covered by uncertainty," as per PEKKI 2022 Edition of the BI Report. Economic development has slowed down, including rising inflation, stricter monetary policy, China's Covid-19 control regulations, and geopolitical tension between Russia and Ukraine. As a consequence of the geopolitical crisis's effect on commodity supply networks throughout the world, prices have risen. Within the agricultural sector, poultry stands out as the fastest-growing subsector, particularly in developing countries.

The global poultry industry is projected to grow further, driven by rising demand for meat and eggs, which is influenced by population growth, rising income, and urbanization (Mottet & Tempio, 2017). In the year 2023, many economies experienced difficulties which had an impact on businesses all across the world, including PT. Japfa Comfeed Indonesia, which was not an exception. According to the company report, because of the challenging operating conditions, PT Japfa Comfeed Indonesia, Tbk (JPFA) profitability was affected. This was due to the fact that rising inflation lowered the purchasing power of consumers across all of their markets, which in turn limited their capacity to compensate for the increased production costs. the net profit of the company has a declining trend from 2021 to 2023. The company has not been able to increase its net profit. Based on the analysis of previous years, they have been unable to achieve a stable net profit, even though the trend in net sales is increasing.

Consequently, it is necessary to perform a comprehensive analysis, such as a fundamental analysis, prior to investing in a company's shares. This analysis entails the examination of financial statements and the calculation of key financial performance ratios to evaluate the company's financial health and overall performance. This process includes evaluating financial reports and computing performance indicators to gain deeper insight into the company's operations. According to the Corporate Finance Institute, profitability measures a business's ability to generate earnings in relation to its expenses and costs. It is considered one of the most critical metrics for evaluating a company's success.

Return on Equity is a widely used accounting ratio to assess a company's profitability, reflecting the percentage of profit generated relative to shareholders' equity. To gain a deeper understanding of the factors affecting a company's Return on Equity, breaking it down into its key components is a valuable method. This approach provides a more detailed perspective on the elements that impact a company's financial performance. The analysis involves three essential components: profit margin, asset turnover, and financial leverage. The breakdown of Return on Equity highlights that a company's profitability is influenced by its profit margin, operational efficiency, and leverage (Robinson, 2022). Therefore, as a prominent player in the agriculture industry with multiple business units and public listing status, PT. Japfa Comfeed Indonesia must consistently evaluate its financial performance to maintain operations, mitigate economic risk, and maximize profitability. This research examines the effect of financial ratios on profitability. The variables margin, turnover, financial leverage and Return on Equity as a profitability ratio. Therefore, the aim of this research is to carry out a broader empirical test, using a quantitative methodology, to determine how these firm-specific factors interact with each other and their combined effect on profitability.

LITERATURE REVIEW

Financial Performance

"Financial analysis is the process of examining a company's performance in the context of its industry and economic environment in order to arrive at a decision or recommendation" as stated by Robinson (2020). In its most fundamental form, financial analysis is concerned with determining whether a company is capable of generating returns that are equal to or greater to its cost of capital, achieving profitable growth, and maintaining sufficient cash flow to pay financial obligations while seizing business opportunities. According to the Corporate Finance Institute, financial performance is a comprehensive evaluation of a company's overall condition, measured through key indicators such as assets, liabilities, equity, expenses, revenue, profitability. This assessment relies on various financial metrics that offer a clear understanding of a company's operational efficiency and potential for success. Financial analysis tools are instrumental in measuring a company's performance and identifying trends over time. Essentially, analysts transform raw data into financial metrics, generating valuable insights that support informed decision-making.

Ratio Analysis

According to Zutter, C. J., & Smart, S.B. (2021), ratio analysis is a method used to assess a company's financial performance by comparing various financial metrics. Clayman, M.R. (2012) explains that financial ratio analysis involves utilizing financial accounting data and other relevant information to evaluate a company's financial health and overall performance. Profitability According to Robinson (2020), profitability ratios assess a company's ability to generate earnings from its existing resources, such as assets. These ratios indicate the returns a company achieves over a given period and highlight its competitive standing in the market, as well as the efficiency of its management. Based on this definition, profitability serves as a crucial financial analysis tool that enables business to evaluate their capacity to generate profits and gauge managerial effectiveness through earnings performance. Additionally, profitability is essential for a company's long-term sustainability, as it provides insight into future growth potential. Therefore, companies consistently strive to improve profitability, as higher profitability enhances businesses stability and continuity.

Profit Margin

The net profit margin evaluates a company's profitability in relation to its sales, whereas total asset turnover measures how effectively the company utilizes its assets to generate revenue. The profit margin represents the portion of each dollar in sales that contributes to profits on the income statements. This ratio is essential for operations, as noted by Higgins, R., & Koski, J,. (2022). Efficiency, as measured by profit margin, indicates how effectively a company converts sales into profit. Efficiency is closely related to cost and sales.

Asset Turnover

Asset turnover evaluates how efficiently a company utilizes its total assets to generate revenue. It serves as the second key indicator of management performance. The asset turnover quantifies the amount of sales produced per dollar of assets. As stated by Titman, S. Keown, A. J., & Martin, J. D. (2021), "A higher ratio indicates that the firm is using its assets more efficiently to drive sales." Asset effectiveness, measured through asset turnover, reflects the company's capability to maximize asset utilization for revenue generation.

Financial Leverage

According to Higgins, R., & Koski, J. (2022), financial leverage is the third key factor influencing Return on Equity. A company increases its financial leverage by raising the proportion of debt relative to equity in its capital structure. Ross (2024) defines financial leverage as the degree to which a company depends on debt financing.

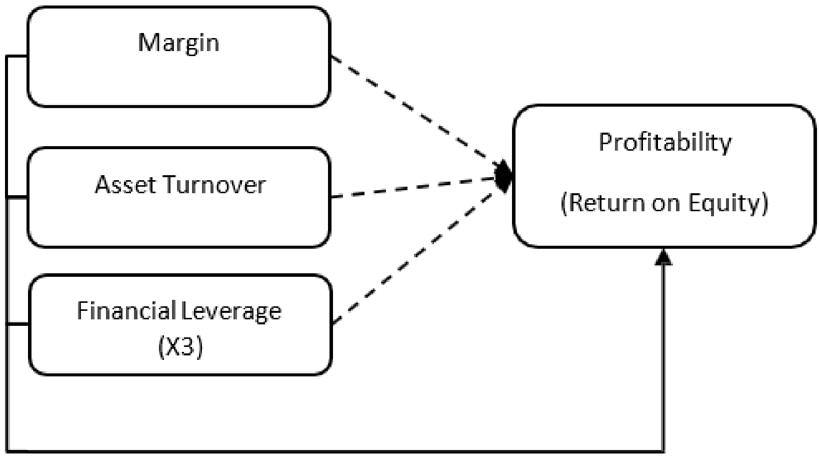

Image. 1: Hypothesis Model
H1: The variables Margin (X1), Asset Turnover (X2), and Financial Leverage (X3) simultaneously influence Return on Equity (Y).
H2: The variable Margin (X1) partially influences Return on Equity (Y).
H3: The variable Asset Turnover (X2) partially influences Return on Equity (Y). H4: The variable Financial Leverage (X3) partially influences Return on Equity (Y).

METHOD

This research applied explanatory research using a quantitative approach. According to Sugiyono (2016). "Explanatory research is research that explains the causal relationship between variables that influence the hypothesis". This research utilized primary and secondary data to support its objectives. Secondary data, according to Saunders, M. N, (2022), is data that was originally collected for some other purpose. In this research, primary data was gathered through interviews with a strategic business unit-corporate finance of PT. Japfa Comfeed Indonesia. The insights gathered through this discussion directly inform specific factors that influence profitability and form a foundation for potential improvements. Secondary data includes PT Japfa Comfeed Indonesia (JPFA) financial report from 2015 to 2024.

Table 1. Variable Description

Variable	Description	Formula
Margin	Margin is calculated as net income divided by sales	Net income/ Sales
Asset Turnover	Asset Turnover is calculated as sales divided by assets	Sales/ Assets
Financial Leverage	Financial Leverage is calculated as asset divided by equity	Asset/Equity
Return on Equity	Return on Equity is calculated as net income divided by equity	Net Income/ Equity

RESULTS AND DISCUSSION

Multiple Linear Regression Analysis

In this research, the multiple linear regression model includes the following independent variables: Margin (X1), Asset Turnover (X2), and Financial Leverage (X3). The dependent variable in this research is profitability, which is measured using Return on Equity. The regression equation used in this research is as follows, according to Hasan, (2008):

***Y*=□ □ b1x1+b2x2+b3x3+e**
***Y*=□ □ b1x1+b2x2+b3x3**
Y=-0,037+ 1,601x1+0,089x2-0,009x3

Table 2. Multiple Linear Regression Result

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-.037	.041		-.898	.375
Margin 1.601	1.601	.167	.682	9.604	<.001
Asset Turnover	.089	.009	.540	9.492	<.001
Financial Leverage	-.009	.015	-.045	-.636	.529
a. Dependent Variable: Return on Equity					

The regression coefficient for the independent variable X1 (margin) is 1,601, indicating a positive effect on profitability. This means that for every 1 unit increase in margin, Return on Equity will increase by 1,601. The regression coefficient for the independent variable X2 (asset turnover) is 0,089, indicating a positive effect on profitability. This means that for every 1 unit increase in asset turnover, Return on Equity will increase by 0,089. The regression coefficient for the independent variable X3 (financial leverage) is - 0,009, indicating a negative effect on profitability. This means that for every 1 unit increase in financial leverage, Return on Equity will decrease by 0,009.

Coefficient Determination(R^2)

Table 3. Coefficient Determination Result

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.943	.889	.897	.02377605
a. Predictors: (Constant), Financial Leverage, Asset Turnover, Margin				
b. Dependent Variable: Return on Equity				

The adjusted R2 value is 0,879, indicating that 87,9% of the variation in Return on Equity is explained by the independent variables: Margin, Asset Turnover, and Financial Leverage. The remaining 12,1% of Return on Equity variation is attributed to other factors not covered in this research.

F-Test Result

Table 4. F-Test Result

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.158	3	.053	93.236	<.001
Residual	.020	35	.001		
Total	.178	38			
a. Dependent Variable: Return on Equity					
b. Predictors: (Constant), Financial Leverage, Asset Turnover, Margin					

The significance value is .001, with a calculated F-value od 93,236 and the significance (Sig. F) value of 0,000. The F critical value at (α= 0,05; df regression= 3, df residual= 35) is 2,87. Since the calculated F- value 93,236 is greater than F critical value 2,87, and the significance value 0,000 is less than α 0,05, the null hypothesis (H0) is rejected. This indicates that Margin (X1), Asset Turnover (X2), and Financial Leverage (X3) simultaneously have a significant effect on profitability.

t-Test Result

Table 5. t-Test Result

Coefficients					
Model	Unstandardized Coefficients		Standardized	Coefficients	
	B	Std. Error	Beta	t	Sig.
(Constant)	-.037	.041		-.898	.375
Margin 1.601	1.601	.167	.682	9.604	<.001
Asset Turnover	.089	.009	.540	9.492	<.001
Financial Leverage	-.009	.015	-.045	-.636	.529
a. Dependent Variable: Return on Equity					

the t-table value (α = 0,05, df = n- k-1 (39 - 3 - 1) = 35) is 2,030.

The hypothesis test examining the effect of margin on Return on Equity reveals that: t calculated >t table (9.604>2,030). Significance value = 0.001< 0.05. Since both conditions are met, the second hypothesis is accepted, meaning that the margin has a significant positive effect on Return on Equity in PT. Japfa Comfeed Indonesia (JPFA) during the period 2015 – 2024. The hypothesis test examining the effect of asset turnover on Return on Equity reveals that:t calculated > t table (9.492< 2,030.) Significance value = 0,001< 0.05. Since both conditions are met, the third hypothesis is accepted, meaning that asset turnover has a significant effect on Return on Equity in PT. Japfa Comfeed Indonesia (JPFA) during the period 2015 – 2024. The hypothesis test examining the effect of financial leverage on Return on Equity reveals that: -t calculated >-t table (-0.636> -2.030). Significance value = 0.529 >0.05. Since both conditions are met, the fourth hypothesis is rejected, meaning that the financial leverage has negative effect but not significant on Return on Equity in PT. Japfa Comfeed Indonesia (JPFA) during the period 2015 – 2024.

Interpretation

The Effect of Margin, Asset Turnover and Financial Leverage on Profitability Simultaneously

The test results demonstrate that margin, asset turnover, and financial leverage simultaneously have a significant effect on the profitability of PT. Japfa Comfeed Indonesia. This indicates that when these variables change simultaneously, the play a crucial role in influencing the company’s profitability. Margin, asset turnover, and financial leverage are essential factors that companies must manage effectively. To maintain operational efficiency, the company should optimize asset utilization before acquiring new assets to supports business operations. Additionally, maintaining an appropriate level of financial leverage and ensuring healthy capital ratios are essential for sustaining the business and maximizing shareholder value. A higher margin, asset turnover, and financial leverage, the higher the company’s ability to generate profits. The research findings reveal that margin, asset turnover, and financial leverage contributing 87,91% of profitability, confirming that an increase in these factors enhance company profitability. This research aligns with previous research conducted by Ashok Panigrahi, Kushal Vachhan (2021) that found a significant simultaneous effect of margin, asset turnover, and financial leverage on profitability.

The Effect of Margin on Profitability (Return on Equity)

The test results indicate that margin has a significant positive partial effect on profitability. Profit margin represents the ratio of net profit to total revenue or sales. It can be enhanced by reducing costs or increasing product prices, both of which can have a large impact on Return on Equity. This implies that as the company increases its margin, its profitability increases. This finding aligns with the research by Khresat, O. M., & Abu Jassar, M. (2025) which conclude that profit margin positively affects profitability. To enhance profitability, several initiatives could be implemented, such as focusing on cost efficiency, market expansion, digitalization, and product innovation. PT. Japfa Comfeed Indonesia should optimize production efficiency by defining sales and hatchery areas to enable better utilization of production capacity at each factory, reducing operational and logistical costs. Since the largest component of the cost of goods sold is the cost of corn used in the preparation of feed and the requirement of soybean meal, the second largest component of feed production is fulfilled by imports, exploring alternative raw materials like would ensure a consistent supply without compromising quality. Digitalization could play a crucial role in cost reduction by implementing IoT-based initiatives to improve operational efficiency and streamline production processes. Market expansion and diversification efforts could include entering new export markets for poultry and aquaculture and strengthening the focus on shifting from whole chicken sales to high-margin processed products. For value added strategies, the company exclusively use the Indian River breeds, which are specially tailored for tropical climate conditions, in relation to tolerance of heat, humidity and resistance to disease. Therefore, their farmers benefited from lower cost resulting from lower mortality and better growth rates. The company should strengthen marketing and promotional strategies through multiple media platforms would also help drive sales and improve profitability.

The Effect of Asset Turnover on Profitability (Return on Equity)

The test results indicate that asset turnover has a significant positive partial effect on profitability. The asset turnover ratio measures efficiency by showing how much revenue a company generates per unit of assets. It reflects how effectively various asset components such as account receivable, inventory, and fixed assets are managed. Since average assets include inventory, fluctuations in this ratio can signal that sales are slowing down or speeding up earlier than they would show up in other financial measures. This suggests that as the company improves its asset turnover, its profitability also increases. This finding contradicts the research by Milleniaa (2022), which concluded that asset effectiveness has a negative but insignificant effect on Return on Equity. However, this research aligns with Mehmet Apan (2018), who found that total asset turnover has a significant positive effect on profitability.

To improve asset turnover, several initiatives could be implemented, including digital transformation and supply chain optimization. PT. Japfa should optimizing factory capacity by mapping factory areas to ensure that each production facility operates at optimal capacity, reducing overhead and production costs. Additionally, supply chain optimization through supplier diversification and sourcing alternative raw materials would help address supply shortages while maintaining quality. PT. Japfa Comfeed Indonesia could also enhance the transportation of raw materials and distribution of finished goods, ensuring more efficient delivery processes. Furthermore, entering new export markets would contribute to improved asset turnover. Digitalizing production and operations would also enhance production scheduling, optimize feeding processes, and improve asset management efficiency.

The Effect of Financial Leverage on Profitability (Return on Equity)

The test results indicate that financial leverage has a negative but not significant partial effect on profitability. This suggests that as the company reduces its financial leverage, its profitability increases. Financial leverage is calculated as the ratio of total assets divided by shareholders' equity. If a company has no liabilities, its leverage ratio equals to 1,0. As liabilities increase, leverage rises. As long as a company is able to borrow at a rate lower than the marginal rate it can earn by investing the borrowed money in its business, leverage is effectively utilized, leading to an increase in Return on Equity. However, in this case, a reduction in leverage results in a higher Return on Equity, thereby enhancing financial performance. Suggest that relying on internal financing leads to lower debt levels, resulting in a negative effect between leverage and profitability.

The research findings indicate that while financial leverage negatively affects profitability, the effect is not statistically significant. This is likely due to moderate dependence on debt financing and stronger effect of the other profitability drivers (margin and asset turnover). This finding aligns with the pecking-order theory, which states that firms prefer internal financing over external sources (Myers & Majluf, 1984) suggests internal financing, leading to relatively lower debt levels and a negative relationship between leverage and profitability. This research contradicts the findings of Umer Iqbal and Muhammad Usman (2018), who found a negative and significant effect of financial leverage on Return on Equity, as well as Matthijs C. T. Kant (2018), who found that financial leverage positively affects profitability. However, it supports the pecking- order theory, which argues that excessive debt increases financial risk and interest expense, ultimately reducing profitability. Additionally, this research aligns with Khresat, O. M., & Abu Jassar, M. (2025), who found no positive effect of financial leverage on profitability, and Mehmet Apan (2018), who concluded that financial leverage does not have a significant effect.

To optimize financial leverage, several initiatives could be implemented, including a combination of debt portfolio management, capital structure policies, and risk mitigation strategies.PT. Japfa Comfeed Indonesia should maintain a balanced capital structure by effectively managing its mix of debt and equity while reviewing the debt-to-equity ratio against strategic goals and risk appetite. Additionally, structured financial risk management should be adopted, focusing on securing low-cost financing options to balance risks. A combination of fixed and floating-rate loans should be used to maintain financial stability and minimize interest rate exposure.

CONCLUSION

Margin, Asset Turnover, and Financial Leverage simultaneously have a significant effect on the profitability of PT. Japfa Comfeed Indonesia for the period 2015-2024. This indicates that higher margin, asset turnover, and the use of financial leverage leads to higher profitability, and vice versa. Margin has a significant positive effect on the profitability of PT. Japfa Comfeed Indonesia for the period 2015-2024. This indicates that a higher margin leads to higher profitability, and vice versa. Asset turnover has a significant positive effect on the profitability of PT. Japfa Comfeed Indonesia for the period 2015-2024. This indicates that a higher asset turnover leads to higher profitability, and vice versa. Financial leverage has a negative but not significant effect on the profitability of PT. Japfa Comfeed Indonesia. This indicates that when a company lowers its financial leverage, it leads to higher profitability, and vice versa.

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