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The Effects of Company Profit and Loss and Type of Industry on the Profitability of PT. Perkebunan Nusantara IV North Sumatra, Indonesia

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Abstract

This study determines the effects of company profit and loss and the type of industry on the profitability of PT Perkebunan Nusantara IV North Sumatra. This study used a quantitative method with multiple linear regression equation models to answer the research problems. The results show that the Profit and Loss variable has a positive and significant effect, the type of industry variable has a significant effect, and the Profit and Loss variable and Industry Type have a significant effect simultaneously on the Profitability of PT. Perkebunan Nusantara IV. Companies should be able to increase revenue by reducing costs efficiently so that the profits obtained can increase and financial performance can be better. PT. Perkebunan Nusantara IV has a good profitability ratio. To further increase profits in the following year, the company must be able to manage the capital invested in assets and increase net income to obtain a better net profit.

1. Introduction

Indonesia's economic progress has moved in a better direction. The government continues to improve to create a conducive climate to accelerate economic growth, as the Indonesian people know that the economy is the driving force for the progress of a nation. The economy is one of the determining factors for the welfare of its people. Profitability is the target of every profit-oriented company. The greater the profitability generated by the company, the more developed the company's business is concerned. According to Agnes, (2010), profitability is a tool for measuring a company's ability to earn profits. The effectiveness of management in carrying out the company's operations as a whole will be seen in the profitability ratios.

Profitability is one of the financial performance instruments functioning to find out how much the company's ability to generate profits. The amount of profit generated illustrates the company's ability to generate profits for the company's operational activities. The level of profitability describes the company's performance as seen from the company's ability to generate profits. The company's ability to earn this profit shows whether the company has good prospects or not in the future.

PT. Perkebunan Nusantara IV is a plantation company whose business activities include plant cultivation, processing/production, and sales of plantation commodities such as tea, quinine, cocoa, rubber, palm oil, and gutta percha. To run and for the continuity of its business, PT. Perkebunan Nusantara IV generates profit from its business activities, namely by increasing the amount of revenue and minimizing costs incurred. Every company that produces several types of products will see which products cost the least so that later they will get high profits. As is the case with PT. Perkebunan Nusantara IV, which produces plantation products, profit is determined by the amount of revenue subtracted from costs. The following is a presentation of data on the development of company profits for 5 years from the 2018-2022.

Table 1. Profits generated by PT. Perkebunan Nusantara IV (PERSERO) Medan

Year	Net Profit
2018	667,303,862,065
2019	746,994,367,342
2020	896,372,459,810
2021	911,999,643,578
2022	1,229,464,174,674

Source: Financial report of PT. Perkebunan Nusantara IV (Persero) Medan

Table 1 shows the profits generated by PT. Perkebunan Nusantara IV (Persero) in 2013 increased by 667,303,862,065, and net profit continued to increase from 2018, 2019, 2020, 2021, and 2022. This is quite good for the company because the main goal of a company is to make optimum profits. If the company continues to experience an increase in profits every year, it will have a positive impact, i.e., the company will grow, compete, and survive. Planned profit must be followed by control. If it is not planned, profit will be meaningless. Profit control can be done by analyzing financial ratios from well-organized and regular financial reports. Profit control targets are costs, sales levels, and turnover of funds, also known as determinants. Every company always wants changes for the company's growth so that there is little possibility of liquidation.

Retained earnings are one of the most important sources of funds to finance growth. If the profits are retained and not distributed, the company already has a source of funds to finance its expansion. However, if a share of profits must be distributed to shareholders in the form of dividends, the source of these funds is reduced, and the company must look for new sources of funds to cover the shortfall. PT. Perkebunan Nusantara is a state-owned enterprise engaged in plantations. The plantation products produced by the company include palm oil, rubber, etc. PT. Perkebunaan Nusantara IV Medan receives various types of income, including sales. The following is a table of income and profits of PT. Perkebunan Nusantara IV Medan, where the company experienced a profit in the following years:

Table 1. Comparison between Income and Cost of PT. Perkebunan Nusantara IV (PERSERO) Medan

Year	Income	Cost
2018	5,651,161,000,000	2,445,523,000,000
2019	5,620,786,000,000	2,511,095,000,000
2020	5,224,598,000,000	2,206,316,000,000
2021	4,753,412,000,000	1,712,985,000,000
2022	6,349,127,000,000	2,761,686,000,000

Source: Financial report of PT. Perkebunan Nusantara IV (Persero) Medan

According to Idrus et al., (2023), in calculating profit and loss, the number of costs will reduce profits or increase company losses. According to Juki, (2008), high costs will decrease profits, so if the value of costs is low, profits will increase. However, the conditions in the field show an increase in unstable business income, followed by an ever-increasing burden accompanied by operating profit. Companies need to pay attention to the income received and expenses incurred during operations to generate the desired profit. Profit in the financial statements is a benchmark in assessing the performance of a company and reflects the value of the company. Company performance appraisal is carried out to motivate employees to achieve organizational goals and meet predetermined standards of behavior to achieve good company goals. Through financial performance evaluation, the company can determine financial structure and strategy.

Companies with growing profits can strengthen the relationship between the size of the company and the level of profit earned. In this case, companies with growing profits will have many assets to provide greater opportunities in generating profitability. The biggest effect of Profitability is an indicator to measure how much other companies can return on borrowed assets. Usually, the company's financial performance is a profitability ratio used to measure the company's effectiveness in generating profits utilizing total assets owned. The greater the profit, the better the company's performance. Effectiveness and efficiency in carrying out company activities depend on the company's financial performance results. Good financial performance will be very helpful in carrying out the company's operational activities and can maintain the company's position in competition from similar companies. Financial performance can measure and determine growth, prospects, and opportunities for the company to develop by making the most of existing resources. Every company expects profits to continue to increase in every certain period, so it is necessary to have measurements to predict profit growth. Profit measurement can be done by analyzing financial statements using financial ratio analysis.

2. Literature Review

2.1. Profitability

According to Sirait (2016), profitability is the ability of the company to obtain comprehensive profits and convert sales into profits and cash flow. According to Fahmi, (2014), profitability is used to measure the effectiveness of management as a whole which is indicated by the size of the profit level obtained in relation to sales and investment. Furthermore, (Hanafi & Halim, 2016) defined profitability as a ratio to assess a company's ability to make a profit. This profitability provides an overview of how effectively the company operates to provide benefits for the company to generate profit.

2.2. Profit and loss

The income statement is a report that presents the company's operating results as outlined in the value of

income and expenses (Sasongko et al., 2016). The income statement is a report that shows the ability of a company or business entity to generate profits for a certain period. The income statement contains elements of nominal accounts, namely income and expense accounts (Samryn, 2015). Net profit or loss provides users of financial statements with a summary measure of the company's overall performance during the current period (which includes both primary and secondary activities) and after considering the amount of income tax (Hery, 2018).

2.3. Type of industry

According to Sandi, (2010), industry is an attempt to produce finished goods with raw materials or raw materials through the production process of cultivating in large quantities so that these goods can be obtained at the lowest possible price but with the highest quality. According to Winardi, (2015), industry is a productive business, especially in the field of production or certain companies that provide services such as transportation and communication that use a large amount of labor capital.

3. Materials and Methods

This study uses a quantitative research method with multiple linear regression equation models that produce estimates to answer research problems. This study uses the theoretical basis and previous research as a guideline to collect data from official publications, process data with EVIEWS and Excel tools, test hypotheses, analyze data in tables and diagrams, and draw conclusions at the study's end.

4. Results and Discussions

A model selection technique is needed to see how to get a good model in panel data regression analysis. This study uses the panel data regression analysis technique, a combination of time-series and cross-section data. Panel data regression consists of 3 models, the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The results of testing the three models in this research are as follows:

Table 2. Results of testing 3 (three) panel data models

Variable(s)	Common Effect Model (CEM)		Fixed Effect Model (FEM)		Random Effect Model (REM)	
	Coefficient	Sig.	Coefficient	Sig.	Coefficient	Sig.
C	25.129	0.000	22.634	0.124	24.624	0.000
Profit and Loss	0.827	0.323	0.642	0.673	0.754	0.307
Type of Industry	4.920	0.029	3.005	0.323	3.235	0.204

Table 4.1 shows that all the coefficient and significance values for the panel data regression model are based on the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM).

4.1. Chow test

The Chow test selects the best model between the Common Effect Model (CEM) and the Fixed effect model (FEM). If the chow test results are significant (probability <0.05), then the selected model is FEM; and if the chow test results are significant (probability > 0.05), then the selected model is CEM.

Table 3. Results of Chow test

Effects	Statistic	d.f.	Prob.
Cross-section F	6.026	(45.235)	0.000
Cross-section Chi-square	155.343	39	0.000

Table 4 shows that the probability value on the chow test is 0.000. This value is below the standard error tolerance value, which is 0.05. Therefore, the best model in this study is the Fixed Effect Model (FEM).

4.2. Hausman test

The Hausman test compares the Fixed Effect Model (FEM) and the Random Effect Model (REM). If the

probability value is below the error level value of 0.05, then the best model is the fixed effect model (FEM); whereas if the probability value is above the error level value of 0.05, then the best model is the Random Effect Model.

Table 4. Results of Hausman test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.263449	3	0.8960

Table 5 shows that the probability value on the Hausman test is 0.8960. This value is above the standard error tolerance value in this study, which is 0.05. Therefore, this study's best panel data regression model is the Random Effect Model (REM).

4.3. Normality test

The normality test tests whether the regression model has a normal distribution. The assumption of normality is a very important requirement in the significance test; the significance used is $\alpha = 5\%$. The normality test conducted in this study is the Jarque-Bera test. The results of the Jarque-Bera test in this study are as follows:
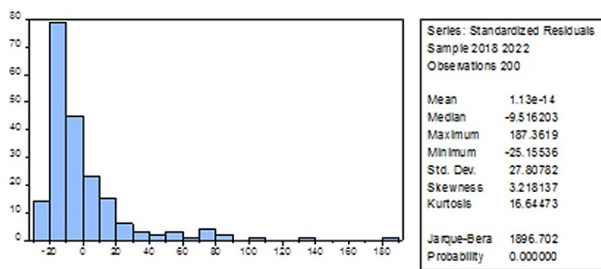
Figure 1. Result of normality

Figure 1 shows that the Jarque-Bera test value is 1,896,702, and the Probability value is 0.000000, where this value is below the standard error tolerance value (5%). Therefore, it can be concluded that normally distributed residuals can be rejected; in other words, the assumption of normally distributed residuals is not met.

4.4. Heteroscedasticity test

The heteroscedasticity test aims to test whether there is an inequality of variance and residuals of one other observation in the regression model. If the variance of the residuals of one other observation remains constant, it is called homoscedasticity; if it is different, it is called heteroscedasticity (Ghozali, 2012). A good regression model has homoscedasticity or does not have heteroscedasticity.

Table 5. Results of the heteroscedasticity test

Variable(s)	Coeffs.	Std. Error	t-Statistic	Prob.
C	22.579	5.336	4.232	0.000
Profit and Loss	0.325	0.325	0.998	0.320
Type of Industry	-7.459	2.955	-2.524	0.112
Effects Specification				
			S.D.	Rho
Cross-section random			11.094	0.268
Idiosyncratic random			18.324	0.732

Table 6 shows that all independent variables in the Glajser test are above 0.05.

4.5. Multicollinearity test

The multicollinearity test aims to test whether a correlation between the independent variables was found in the regression. If the correlation matrix between the independent variables is below 0.8, then multicollinearity does not occur; if the correlation between the independent variables is above 0.8, then multicollinearity occurs. The following is a matrix table of multicollinearity test results in this study.

Table 6. Result of multicollinearity test

	Variable(s)	1	2	3
1	Profit and Loss	1.000	-0.102	-0.120
2	Type of Industry	-0.084	1.000	0.400
3	Profitability	-0.293	0.463	1.000

Table 7 shows that this model does not have multicollinearity symptoms by looking at the output between the independent variables in the regression, and no output exceeds 0.8.

4.6. Autocorrelation test

The autocorrelation test aims to test in a model whether or not there is a correlation between confounding errors in period t and errors in period t-1. (Ghozali, 2012) states that a good regression model is a model that does not have autocorrelation.

Table 7. Result of the autocorrelation test

Test	Stats
R-squared	0.011
Adjusted R-squared	-0.093
S.E. of regression	19.328
F-statistic	0.873
Mean dependent var	8.093
S.D. dependent var	20.643
Sum squared resid	847272.200
Durbin-Watson stat	1.721

Table 8 displays the autocorrelation test. It can be identified from the Durbin-Watson value. The Durbin-Watson value in this study was 1.720921, and the number of samples was 40 (n), the number of independent variables was 2 (k = 2), so the Durbin-Watson value, DW 1.720921, was greater than the upper limit (du) 1.6000 and less (dl) 1.3908, with a table value at a significance level of 5%. It can be concluded that there is no autocorrelation in this regression model, or the calculation can be concluded that the DW value lies in the test area with an upper limit value (du) 1.6000 and a lower limit (dl) 1.3908.

4.7. Multiple Linear Regression

The multiple linear regression model is a statistical test model that aims to analyze the effect of the independent variables on the dependent variable. Based on the selection of the above models, the best model is the Random Effect Model (REM). The results of panel data regression with the Random Effect Model (REM) are as follows:

Table 8. Result of multiple linear regression

Variable(s)	Coeffs.	Std. Error	t-Statistic	Prob.
C	21.932	7.220	3.376	0.001
Profit and Loss	1.019	0.414	3.009	0.000
Type of Industry	3.283	4.085	2.847	0.004

Table 9 shows the regression equation model that can be compiled in this study: Profitability = 21,931 Profitability + 1,019 Profit and Loss + 3,282 Type of Industry + e. The result indicates that t-stat of profit and loss is 3.009 with a significance of 0.000. The t-table in this study is calculated by df = 40-k (38) is 2.024 with a significance at 0.05. So, we concluded that profit and loss variable

has a positive and significant effect on profitability in PT. Perkebunan Nusantara IV, Indonesia. Also, t-stat of the type of industry is -2.847 with a significant at 0.004. The t-table in this study is calculated by df = 40-k (38), which is 2.024 with a significance of 0.05. So, we concluded that the type of industry has a positive and significant effect on profitability in PT. Perkebunan Nusantara IV, Indonesia.

5. Conclusions

This study concludes that the profit and loss variable has a positive and significant effect on profitability. The type of industry variable has a significant effect on profitability. The profit and loss variable and type of industry have a significant effect simultaneously on profitability in PT. Perkebunan Nusantara IV. Thus, the company should be able to increase revenue by reducing costs efficiently so that the profits obtained can increase and financial performance can be better. PT. Perkebunan Nusantara IV has a good profitability ratio. To further increase profits in the following year, the company must be able to manage the capital invested in assets and increase net income to obtain a better net profit.

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