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Return On Assets Of Plantation Companies Listed On The Indonesian Stock Exchange

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ABSTRACT
Profitability is the company's goal and shows the ability achieved in a certain period by the company. The company's ability to earn profits is one of the clues about the quality of management and operations of the company, which means it reflects the value of the company, where with profits the company can expand its business. There are several factors that influence it, including the influence of cash turnover, accounts receivable circulation and inventory turnover. This study aims to determine and analyse its effect on profitability. The object of this research is 18 plantation companies listed on the Indonesia Stock Exchange in 2018-2021. Analysis with Evies 12 and 72 observations. The results showed that the panel data linear regression method chosen in this study was the Random Effect Model (REM). The independent variables, namely Cash Turnover, Inventory Turnover, Capital Structure (DER) partially have a negative and significant effect on Profitability, while Receivables Turnover partially has a positive and significant effect on the Profitability of plantation companies listed on the Indonesia Stock Exchange in 2018-2021 which is proxied by Return on Asset (ROA).

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INTRODUCTION

The company in realising sustainable growth seeks to increase profits by improving company performance so that the company can run effectively and push towards the company's progress. (Fatmawati, 2017). In general, companies in their business activities such as service companies, trading and manufacturing companies have the same *goal* to make a *profit* and maintain the company's *sustainability* in the long term. The company's ability to earn profits shows the company's profitability during a certain period as a measure of the overall success of the company according to its economic scale. (Cashmere, 2019). Large profits can be generated by maintaining the company's survival through good resource management and implementing the right business development strategy. (Hery, 2016). Sales in plantation companies are different from sales in manufacturing companies which are only based on the amount of raw materials and working hours (Kadim, 2019). (Kadim, 2019). The results of plantation companies such as oil palm plantation production cannot be increased by

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increasing working hours or fruit seeds are very dependent on the time to produce or the time to harvest (Rai, 2018). (Rai, 2018).

The contribution of the export value of plantation commodities during January-August 2021 grew positively by 65.47% both on a *Month to Month* and *Years on Years* basis (BPS, 2021) or contributed 15.6% of total non-oil and gas exports (Coordinating Ministry for Economic Affairs 2021).

No.	Uraian	Januari-Agustus		Pertumb. 2021 Thd 2020 (%)
		2020	2021	
1	**Ekspor**			
	- Volume (Ton)	22.287.450	23.735.303	6,50
	- Nilai (000 USD)	11.534.943	19.087.237	65,47
2	**Impor**			
	- Volume (Ton)	1.653	992	-40,01
	- Nilai (000 USD)	1.629	1.469	-9,83
3	**Neraca Perdagangan**			
	- Volume (Ton)	22.285.797	23.734.311	6,50
	- Nilai (000 USD)	11.533.314	19.085.768	65,48

Sumber : BPS diolah Pusdatin

The Indonesian Palm Oil Producers Association (GAPKI) said that there are four biggest challenges for palm oil plantations in Indonesia, including *sustainability, productivity gap, smallholder management* and *downstream industry* that affect production and sales volume (https://gapki.id/news/2020) and can affect the performance of issuers in the capital market. The following phenomenon is that 3 issuers recorded positive net profit growth and negative net profit growth which tends not to move.

This phenomenon still requires plantation companies to try to make a profit in order to maintain their survival and the phenomenon that occurs is that many plantation companies become public companies and are *listed* on the capital market by selling shares to the public in order to maintain survival in order to continue to grow and develop so that the company's goal of seeking *profit* in its operations is achieved. Data from the Indonesia Stock Exchange shows that companies engaged in the plantation sector listed on the Indonesia Stock Exchange until 2021 are 18 (eighteen) (https://www.sahamok.com).

To determine the condition of profitability in a company there are several measures used including using the ratio of *return on* assets. In this ratio, it is measured by comparing two factors including net income and also with total assets, if the higher the net profit on total assets, this condition will also improve for the company (Sartono, 2017). (Sartono, 2017).

In the company's operational activities, inventory is very important as one of the bases for showing company performance. According to (Riyanto, 2010) that inventory as the main element of working capital always rotates and continuously changes. To measure the number of times funds are invested in inventory in one period, the turnover ratio is used. (Cashmere, 2019).

According to (Sjahrial, 2017)According to *(Sjahrial*, 2017), the balance between the use of loan capital consisting of permanent short-term debt is shown by the capital structure *(Capital Structure).* While the capital structure presented by the *Debt Equity Ratio (DER)* is the amount of debt in the balance sheet which shows the amount of loan capital used in the company's operations. (Syamsuddin, 2016).

The company sets an order of funding decisions where the company will choose to use retained earnings, then debt, and issuance of new equity as the last choice. Companies have

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an order of preference in choosing funding sources. *Profitable* companies generally borrow in small amounts. This is because they require little *external funding*.

(Fahmi, 2016) that the profitability ratio shows that the company has succeeded in making a profit. Potential investors will carefully analyse the smooth running of a company and its ability to earn profits. The better the profitability ratio illustrates the better the company's ability to make a profit. The purpose of this study was to partially determine the effect of cash turnover, accounts receivable and inventory on *Return On Asset of* plantation companies listed on the Indonesia Stock Exchange.

Return on Total Assets (ROA) is a measure of the company's ability to generate profits with the total assets available in the company. *ROA* sees the extent to which the investment invested is able to provide a return on profits as expected. The investment is actually the same as the company's invested assets. *ROA* shows the *return* on the amount of assets used by the company and measures the effectiveness of management in managing its investment.

$$\text{ROA} = \frac{Laba\ Setelah\ Pajak}{Total\ Aktiva}\ x\ 100\% \quad \text{.....(1)}$$

The objectives and benefits of profitability are not only for those within the company (internal), but also for those outside the company (external), especially to parties who have an interest in the company and is the element that most concerns users because profit represents the company's overall performance. According to (Hery, 2016) revealed that the objectives and benefits of the profitability ratio are:

a. To measure the company's ability to generate profits during a certain period.
b. To assess the company's profit position in the previous year with the current year.
c. To assess the development of profit over time.
d. To measure how much net profit will be generated from each rupiah of funds embedded in total equity.
e. To measure gross profit margin on net sales.
f. To measure operating profit margin on net sales.
g. To measure profit margin on net sales.

The comparison between sales and average cash is the cash turnover ratio. The higher the cash turnover the better, which means the higher the efficiency of the use of cash and the greater the profit earned. (Riyanto, 2010). The same thing was conveyed (Kasmir, 2019) that the level of working capital adequacy needed to finance sales is measured by cash turnover. Furthermore, (Cashmere, 2019) conveyed, that the formula for cash turnover in one period with the following formulation:

$$\text{Cash Turnover} = \frac{Penjualan}{Rata{-}Rata\ Kas}\ x\ 100\% \quad \text{.....(2)}$$

According to (Sutrisno, 2017)(Sutrisno, 2017) states that one element of working capital, namely receivables, is always in a state of rotation. The rate of turnover of receivables depends on the payment terms provided by the company. The longer the payment terms, the longer the capital is tied up in receivables, which means the lower the receivable turnover rate. (Cashmere, 2019) conveyed the same thing that the number of times the company collected its receivables in one period or the ability of funds embedded in receivables to rotate in a certain period was indicated by the turnover of receivables.

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$$\text{Receivable Turn Over} = \frac{Penjualan\ Neto\ Kredit}{Rata{-}Rata\ Piutang}\ x\ 100\% \quad \text{.....(3)}$$

(Rudianto, 2012) said that inventory is a number of finished goods, raw materials and goods in process that are owned by the company with the aim of selling or further processing. While (Hermawan, 2012) suggests that inventory is one of the current assets that must be managed properly.

According to (Murhadi, 2019)According to Murhadi, inventory turnover indicates the company's efficiency in processing or managing its inventory. This ratio shows the number of times merchandise inventory is replaced / rotated in one period. Meanwhile, according to (Munawir, 1993)(Munawir, 1993) states that to measure the company in rotating its merchandise and the relationship between the goods needed to support or offset the specified level of sales is indicated by inventory turnover. (Jr. *et al*., 2012) suggests that *inventory turnover* is measuring the number of times the company sells its average level of inventory during one year.

$$\text{Inventory Tunr Over} = \frac{Harga\ Pokok\ Penjualan}{Persediaan}\ x\ 100\% \quad \text{.....(4)}$$

METHODS

This research was conducted on companies engaged in the plantation sub-sector listed on the Indonesia Stock Exchange for the 2018-2021 period by accessing through the site www.idx.co.id. This research starts from September 2022 to October 2022. This study intends to explain the influence between variables through hypothesis *testing* and at the same time explain some of these variables. This research design is explanatory *(Explanatory Research)*, because this study explains the influence between variables through hypothesis *testing* that has been formulated, namely the effect of Cash Turnover (X_1), Accounts Receivable Turnover (X_2), Inventory Turnover (X_3). on Profitability or *Return on Assets* (Y). (Sugiyono, 2019).

The research data source is secondary data obtained from the internet with the site http://www..idx.co.id. The type of data used is in the form of plantation companies that are consistently listed on the Indonesia Stock Exchange and publish their financial statements (balance sheets and income statements). This research data is a *time series*, namely during the period 2018 to 2021 and one time for the phenomenon (*cross section*) of various similar companies that have the same time period. The companies selected as research samples are companies that meet the following criteria:

a. Plantation companies that are consistently listed on the Indonesia Stock Exchange and publish financial statements from 2018 to 2021.
b. Plantation companies that are listed on the Indonesia Stock Exchange and have consecutive profits from 2018 to 2021.

This study uses panel data regression analysis *(pooled data)* which is a *balanced panel* obtained from the *annual reports of* 18 (eighteen) plantation companies listed on the Indonesia Stock Exchange in a period of 4 (four) years from 2018 to 2021. Panel data is a type of data combined between *time series* data and *cross section* data. Therefore, panel data has a combination of the characteristics of both types of data, which consists of several

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objects and covers several time periods. (Winarno, 2017). (Damodar, C and Eudenia, 2015)Panel data is a combination of *time series* data and *cross* section data. (Basuki and Prawoto, 2016). To find out the most efficient method from three equation models, namely the *Common Effect Model (CEM), Fixed Effect Model (FEM)* and *Random Effect Model (REM).*

RESULTS AND DISCUSSION

The Profitability variable as measured by *Return on Asset (ROA)* shows the lowest profitability of -0.300298 obtained by PT Gozco Plantation in 2019 and the highest profitability obtained by PT Provident Agro of 0.49303 in 2020. The *mean* profitability value is 0.00782 with a standard deviation value of 0.099124. In the 2018-2021 time period, the lowest cash turnover of -2.489758 was obtained by PT Gozco Plantation in 2018 and the highest cash turnover was obtained by PT Multi Agro of 6.306275 in 2020. The average value of cash turnover is 2.569608 with a standard deviation value of 1.570777. in the 2018-2021 time period, the lowest receivables turnover of -1.525888 was obtained by PT Bakrie Sumatera Plantation in 2021 and the highest receivables turnover was obtained by PT Andira Agro of 5.58523 in 2021. The *mean* value of accounts receivable turnover is 2.656516 with a standard deviation value of 1.333166. in the 2018-2021 time period, the lowest inventory turnover of 0.724772 was obtained by PT Palma Serasih in 2019 and the highest inventory turnover was obtained by PT Gozco Plantation of 3.83314 in 2019. The *mean* value of inventory turnover is 2.26865 with a standard deviation value of 0.731207.

Panel data is a combination of *time series* data and *cross* section data. (Basuki and Prawoto, 2016). To find out the most efficient method of the three equation models, namely the *Common Effect Model (CEM), Fixed Effect Model (FEM)* and *Random Effect Model (REM),* it is necessary to test each of these models using the panel data regression estimation method as follows: *Common Effect Model* is a model that combines *time series* and *cross section* data as one unit regardless of time and individual (entity) differences. The approach used is the *Ordinary Least Square (OLS)* method as the estimation technique. (Basuki and Prawoto, 2016).

Table 1. Common Effect Regression Model Results

Dependent Variable: Y
Method: Panel Least Squares
Date: 02/13/24 Time: 18:13
Sample: 2018 2021
Periods included: 4
Cross-sections included: 18
Total panel (balanced) observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.02575	0.045371	2.040416	0.0453
X1	-0.013243	0.007586	-1.7745711	0.0854
X2	0.014479	0.009574	1.512378	0.1351
X3	-0.030828	0.017274	-1.784647	0.0788
Root MSE	0.089506	R-squared		0.173154

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Mean dependent var	0.007816	Adjusted R-squared	0.123791
S.D. dependent var	0.099124	S.E. of regression	0.092786
Akaike info criterion	-1.850126	Sum squared resid	0.576820
Schwarz criterion	-1.692024	Log likelihood	71.60452
Hannan-Quinn criter.	-1.787185	F-statistic	3.507713
Durbin-Watson stat	1.083213	Prob(F-statistic)	0.011648

Based on the regression results with the *Common Effect Model (CEM)* shows that there is a constant value of 0.092575 with a *Prob (F-statistic)* of 0.0453. The regression equation on the *Adjusted R* value^2 of 12.38% explains that the variation in Profitability is influenced by Cash Turnover, Receivables Turnover, Inventory Turnover of 12.38% and the remaining 87.62% is influenced by other factors not examined in the study.

Estimating *Fixed Effect Model (FEM)* panel data uses a *dummy* variable technique to capture intercept differences between firms. This estimation model is often referred to as the *Least Squares Dummy* Variable technique. (Basuki and Prawoto, 2016).

Table 2. Fixed Effect Model Regression Results

Dependent Variable: Y
Method: Panel Least Squares
Date: 02/13/24 Time: 18:13
Sample: 2018 2021
Periods included: 4
Cross-sections included: 18
Total panel (balanced) observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.131099	0.116797	-1.122455	0.2670
X1	-0.005609	0.013109	-0.427861	0.6706
X2	0.032224	0.016025	2.010855	0.0497
X3	0.032087	0.035460	0.904878	0.3699

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.066639	R-squared	0.541671
Mean dependent var	0.007816	Adjusted R-squared	0.349173
S.D. dependent var	0.099124	S.E. of regression	0.079967
Akaike info criterion	-1.967934	Sum squared resid	0.319737
Schwarz criterion	-1.272286	Log likelihood	92.84561
Hannan-Quinn criter.	-1.690994	F-statistic	2.813900
Durbin-Watson stat	1.817645	Prob(F-statistic)	0.001400

Based on the regression results with the *Fixed Effect Model (FEM)* shows that there is a constant value of -0.131099 with a *Prob (F-statistic)* of 0.001400. The regression equation at the *Adjusted R* value^2 of 34.91% explains that the variation in Profitability is influenced by

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Cash Turnover, Receivables Turnover, Inventory Turnover, by 34.91% and the remaining 65.09% is influenced by other factors not examined in the study.

Random Effect Model is a method that will estimate panel data in which the disturbance variables *(residuals)* may be interconnected over time and between individuals (entities). This model assumes that *errors* always exist and may be correlated across *time series* and *cross sections*. The approach used is the *Generalised Least Square (GLS)* method as the estimation technique. (Basuki and Prawoto, 2016).

Table 3. Random Effect Model Regression Results

Dependent Variable: Y
Method: Panel EGLS (Cross-section weights)
Date: 02/13/24 Time: 18:10
Sample: 2018 2021
Periods included: 4
Cross-sections included: 18
Total panel (balanced) observations: 72
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	-0.010670	0.003761	-2.837205	0.0060
X2	0.011225	0.005562	2.018128	0.0476
X3	-0.029263	0.009543	-3.066425	0.0031
C	0.092519	0.018367	5.037370	0.0000
Weighted Statistics				
R-squared	0.365893	Mean dependent var		0.032762
Adjusted R-squared	0.328035	S.D. dependent var		0.120137
S.E. of regression	0.090873	Sum squared resid		0.553278
F-statistic	9.665082	Durbin-Watson stat		1.263932
Prob(F-statistic)	0.000003			

Based on the regression results with the *Random Effect Model (REM)*, it shows that there is a constant value of 0.092519 with a *Prob (F-statistic)* of 0.000003. The regression equation at the *Adjusted R* value^2 of 32.80% explains that the variation in Profitability is influenced by Cash Turnover, Receivables Turnover, Inventory Turnover, by 32.80% and the remaining 67.20% is influenced by other factors not examined in the study.

Table 4. Chow Test Results

Redundant Fixed Effects Tests
Equation: FEM
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.364833	(17,50)	0.0095
Cross-section Chi-square	42.482181	17	0.0006

Prob Cross-section Chi-square obtained a *p-value* of 0.0006 <0.05 significant level so that the decision taken *Fixed Effect Model* is better than the *Common Effect Model*. The

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Hausman test is used to choose which model is better between the *Fixed Effect Model* and the *Random Effect Model* in accordance with the *random cross-section probability* value.

The results of the Hausman Test show that the *cross section random* probability value is 0.4522> 0.05 significant level so that the model chosen in estimating the regression equation is the *Random Effect Model (REM*). The *Random Effect* Model estimation model has *General Least Square* properties. If the estimation model is *General Least Square*, there is no need to test the classical assumptions of Normality, Heteroscedasticity, Multicollinearity, and Autocorrelation. (Damodar, C and Eudenia, 2015).. This is because the nature of the *General Least Square* estimation model has fulfilled the requirements of the classical assumption test.

Table 5. Hausman Test Results

Correlated Random Effects - Hausman Test Equation: FEM Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.671953	4	0.4522

Plantation companies in their business activities have many factors that can affect profitability. This study examines the variables of cash turnover, accounts receivable turnover, inventory turnover and capital structure projected by *Debt Equity Ratio (DER)* on the profitability of plantation companies listed on the Indonesia Stock Exchange (IDX) projected by *Return on Asset (ROA*).

CONCLUSION

Based on the results of research and discussion, the following conclusions can be drawn (a) Cash Turnover has a negative and significant effect on the profitability of plantation companies listed on the Indonesia Stock Exchange in 2018-2021 proxied by *Return on Asset (ROA); (b)* Receivables Turnover has a positive and significant effect on the profitability of plantation companies listed on the Indonesia Stock Exchange in 2018-2021 proxied by *Return on Asset (ROA); (c)* Inventory Turnover has a negative and significant effect on the profitability of plantation companies listed on the Indonesia Stock Exchange in 2018-2021 proxied by *Return on Asset (ROA).*

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