AGRISOCIONOMICS
Jurnal Sosial Ekonomi dan Kebijakan Pertanian
ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

FACTORS AFFECTING THE FINANCIAL PERFOMANCE OF AGRICULTURAL COMPANY'S: EVIDENCE FROM THE INDONESIA STOCK EXCHANGE

Dian Retno Intan[1*], Leo Rio Ependi Malau[2], Khoiru Rizqy Rambe[3] and Mario Damanik[4]
[1]Department of Agribusiness, Faculty of Agriculture, Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia
[2,4]Research Center for Behavioral and Circular Economics, BRIN, South Jakarta, Indonesia
[3]Research Centre for Economics of Industry, Services, and Trade, BRIN, South, Indonesia

*Correspondence Email: dianretno@umsu.ac.id

Submitted 13 June 2023; Approved 06 October 2023

ABSTRACT

The Indonesian economy is primarily based on the agriculture sector, even growing when other sectors are down. This role is supported by the existence of agricultural companies that run businesses with profit-oriented goals. The company's ability to generate profits reflects the company's financial performance and is influenced by various factors. Using panel data for the years 2015–2021 from 17 agricultural companies listed on the Indonesia Stock Exchange (IDX), this study aims to determine the influence of internal and external factors on the financial performance of agricultural companies in Indonesia. The results of static panel data regression found that the company's growth and the dummy of the Covid-19 pandemic had a positive and significant effect on the company's financial performance which was proxied through the profitability ratio (ROA). Debt asset ratio (DAR), COGS/sales, and exchange rate have a negative and significant effect on ROA. In general, these results confirm the *pecking-order* theory in the relationship between ROA and DAR, as well as the ability of agricultural companies in Indonesia to survive in the conditions of the Covid-19 pandemic. The implication for improving the performance of agricultural companies in Indonesia is that companies must be able to reduce the percentage of production costs (COGS/sales) and implement an optimal capital structure mix. Companies are also required to carry out good risk management to anticipate exchange rate fluctuations.

Keywords: *agricultural companies, covid-19, panel data, ROA*

BACKGROUND

The agricultural sector has a main role in the Indonesian economy (Bashir et al., 2019; Khairiyakh et al., 2016). The Indonesian economy is still fundamentally dependent on the agriculture sector. This is evidenced by the contribution of the agricultural sector to Indonesia's Gross Domestic Product (GDP) which reached 13.28% or became the second largest contributor after the processing industry sector (BPS, 2022; Hazaroh et al., 2021). The importance of the agricultural sector in the Indonesian economy is also shown by the role of agriculture in providing food, generating foreign exchange, absorbing labor, driving growth in other sectors, to be considered as the savior of the national economy whose growth continues to increase when other sectors show negative growth (Hazaroh et al., 2021; Hidayati et al., 2021; Kusumaningrum, 2019).

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

The role of the agricultural sector in the Indonesian economy is supported by the existence of business actors engaged in it. Based on the dimensions of business actors, the agricultural sector is divided into agricultural businesses run by smallholders and agricultural businesses run by both large and medium companies. The characteristics of these two types of business actors differ in various aspects, such as the area of land cultivated, land status, management mechanisms, cultivation methods, capital, and differences in the types of crops cultivated (Shinta, 2011). Agricultural companies produce certain commodities with a scientific method, and efficient processing techniques with the aim of making a profit. Although Indonesia's agricultural sector is dominated by smallholder, the existence of agricultural companies cannot be ignored because they contribute to economic, social, and environmental improvements through labor absorption, contribute to state revenue through taxes, provide equal welfare, and support the government's strategic programs in the field of food security (Putri et al., 2022).

As a business entity, agricultural companies will strive to maintain their business continuity by optimizing the achievement of company profits (Kamal, 2017). The ability of agricultural companies to get profits can be seen from the company's financial performance and can be measured by several criteria such as Return on Assets (ROA), and Return on Equity (ROE), Gross Profit Margin (GPM), Net Profit Margin (NPM), and Operating Profit Margin (OPM) (Kalsum, 2023; Kamal, 2017; Wibowo et al., 2022; Xu et al., 2022). ROA as one of the company's financial performance indicators has been widely used as a reference for measuring company profitability (Hafizuddin-Syah et al., 2018; Haryo et al., 2017; Kim et al., 2023; Malau & Rambe, 2022). Profitability is considered a determining factor in a company's ability to survive, grow, create value and innovate (Wieczorek-Kosmala et al., 2021).

But in the business process, the profitability of agricultural companies will be influenced by various factors both from internal and external companies. Theoretical models and empirical studies show that the level of profitability of enterprises is determined by various factors (Wieczorek-Kosmala et al., 2021). Several internal factors that can influence a company's profitability such as liabilities, sales growth, liquidity ratio, capital structure, and company size (Haryo et al., 2017; Malau & Rambe, 2022; Olalekan Isiaka et al., 2017; Zaky et al., 2019). External factors can also affect a company's ability to generate profits such as international prices of products, economic growth, inflation rates, and interest rates (Hafizuddin-Syah et al., 2018; Růčková & Škuláňová, 2021). Therefore, companies must pay attention to factors that have the potential to affect their ability to produce profits so that the company's existence can continue to be maintained.

Research related to factors that affect company profitability has been carried out in various sectors with mutually reinforcing or contradictory results between studies (Hafizuddin-Syah et al., 2018; Haryo et al., 2017; Hidayati et al., 2021; Malau & Rambe, 2022; Olalekan Isiaka et al., 2017; Zaky et al., 2019). Studies on the determinants of company profitability still have high priorities for both academics and practitioners such as managers, shareholders, investors, policy makers and other stakeholders (Wieczorek-Kosmala et al., 2021). Prior research has mostly concentrated on examining the connection between profitability and capital structure and demonstrating the validity of various capital structure ideas (Alipour et al., 2015; Fenyves et al., 2020; Georgakopoulos et al., 2022; Hossain & Hossain, 2015; Sikveland et al., 2022; Stoiljković et al., 2023). However, studies analyzing the determinants of company profitability by linking other factors have also been carried out in various sectors, such as energy (Wieczorek-Kosmala et al., 2021), telecommunications (Habibniya et

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

al., 2022), manufacturing (Dalci, 2018), health, transportation, metal-making and trade (Yazdanfar, 2013), and food and beverage (Blažková & Dvouletý, 2019).

The conditions mentioned above show that the determinants of company profitability still need to be studied to improve performance. Additionally, there is relatively few research on the factors that affect corporate profitability in the agriculture industry, particularly in emerging nations like Indonesia. Some studies link profitability to internal factors such as company-specific characteristics or external factors such as macroeconomic conditions that can improve performance (Dalci, 2018; Habibniya et al., 2022; Haryo et al., 2017; Malau & Rambe, 2022; Xu et al., 2022). Therefore, this study aims to analyze the determinants of profitability for 17 companies in the agricultural sector listed on the Indonesia Stock Exchange (IDX). These companies consist of several sub-sectors, namely plantations, fisheries, and food crops. In general, the products produced by the 17 companies are export-oriented commodities such as palm oil and its derivative processed products, wood and processed products, marine and processed fishery products, as well as agricultural inputs such as seeds, fertilizers, and pesticides. The existence of these companies is expected to continue to be maintained so that they can contribute to the improvement of the Indonesian economy.

The overall objective of this study is to ascertain the impact of internal and external factors on the company's financial performance as shown by profitability. This study also estimates the effect of economic growth and the COVID-19 pandemic which has not been studied much in the case of agricultural companies. The COVID-19 pandemic has seriously affected the business processes of companies and caused an increase in product prices because their distribution was affected by restrictions on community activities during (Sadiyah, 2021; Sarni & Sidayat, 2020). This study will enrich the literature on factors affecting profitability of agricultural enterprises. This research is expected to improve understanding of the influence of various factors studied on company profitability, which can have an important effect on profitability and overall company performance.

RESEARCH METHODS

Theoretical Framework

In general, this study aims to determine the influence of internal and external factors on the financial performance of agricultural sector companies listed on the Indonesia Stock Exchange (IDX). Financial performance is a broad terminology and is often used as a traditional indicator of company performance in general (Dawar, 2014; Malau & Rambe, 2022). Determining the success of different levels of company strategy can be done by decision-makers by analyzing the elements that have an impact on financial performance (Ahmed et al., 2022). Empirical literature uses several different measures of firm performance to examine their relationship with a variety of other variables. Return on Assets (ROA) has been used extensively by various researchers as an indicator of a company's financial performance (Dawar, 2014; Habibniya et al., 2022; Kim et al., 2023; Nguyen et al., 2023; Stoiljković et al., 2023). This study will also use a measure of profitability commonly used in previous studies as a proxy for financial performance, namely ROA. ROA is also often used as a measure of empirical analysis with various company sizes and sectors (Wieczorek-Kosmala et al., 2021).

Theoretically, financial performance is influenced by variables classified into three categories, namely company-specific characteristics, industry-related variables, and market-related variables (Yazdanfar, 2013). In this study, ROA is thought to be influenced by various factors both internal and external. Some studies have analyzed the relationship between ROA and various variables both

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

external and internal, such as short-term debt, long-term debt, company size, company age, tangibility, company growth, current ratio, and advertising and marketing costs (Ahmed & Bhuyan, 2020; Alpi & Gunawan, 2018; Dawar, 2014; Habibniya et al., 2022; Wieczorek-Kosmala et al., 2021; Yazdanfar, 2013). Sun & Li (2021) examined the effect of the covid-19 pandemic and various determinants on a company's ROA. Xu et al. (2022) analyzed the influence of macroeconomic variables such as economic growth on the company's ROA.

Based on theoretical considerations from Yazdanfar (2013) and the results of previous research, this study uses several variables to test its effect on the financial performance of agricultural companies in Indonesia and has been adjusted to the needs of the analysis. The variables of internal factors used in this study are current ratio (CR), debt-to-asset ratio (DAR), COGS/sales, company size, and asset growth. Meanwhile, external factors consist of exchange rates, dummy covid-19, and economic growth. The types of variables used in this study are presented in Table 1.

Table 1. Types of Variables Used

No	Variable	Definition	Expected signs	Reference
Dependent variable				
1	Return on Asset (ROA)	Net income/total asset		(Habibniya et al., 2022; Kim et al., 2023; Nguyen et al., 2023; Stoiljković et al., 2023; Xu et al., 2022)
Independent variable				
2	Current ratio (CR)	Current assets/current liabilities	-	(Habibniya et al., 2022; Nguyen et al., 2023; Wieczorek-Kosmala et al., 2021; Xu et al., 2022)
3	Debt to asset ratio (DAR)	Total liabilities/total asset	-	(Habibniya et al., 2022; Xu et al., 2022)
4	COGS/sales	COGS/sales	-	(Haryo et al., 2017; Malau & Rambe, 2022)
5	Company size	Natural logarithm of total assets	+	(Ahmed et al., 2022; Habibniya et al., 2022; Nguyen et al., 2023; Stoiljković et al., 2023; Wieczorek-Kosmala et al., 2021; Xu et al., 2022)
6	Asset growth	(Total asset$_t$ - total asset $_{t-1}$) / total asset $_{t-1}$	+	(Hossain & Hossain, 2015; Sikveland et al., 2022)
7	Exchange rate	IDR/USD	-	(Haryo et al., 2017)
8	Covid-19	Dummy (d=1 in case of covid-19 pandemic, d=0 otherwise)	+/-	(Sun & Li, 2021)
9	Economic growth	(GDP_t-GDP_{t-1})/GDP_{t-1}	+	(Rahmatillah & Prasetyo, 2016; Xu et al., 2022)

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

Data Types and Sources

Financial statements from companies served as the study's primary source of secondary data, exchange rates, dummy covid-19, and economic growth. This data is compiled from various sources including the Indonesia Stock Exchange (IDX), company's official website, World Bank, the Central Statistics Agency of Indonesia (BPS), and Bank Indonesia (BI). The data acquisition's findings are presented as panel data, which incorporates time-series data for the years 2015 through 2021 from 17 agricultural sector companies out of a total of 32 listed companies on the IDX. The 17 companies were chosen purposively because, in addition to being listed on the IDX, they also have complete financial statements during the analysis period (2015-2021). This study uses data for the 2015–2021 period, which was chosen deliberately with consideration of the availability of data in the form of company financial statements and is not specifically aimed at comparing company performance before and after the COVID-19 pandemic.

Data Analysis Method

The static panel data regression method was used to answer the research objectives. Mathematically, the econometric models used in the study are as follows:

$$ROA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 DAR_{it} + \beta_3 CGS_{it} + \beta_4 LnSIZE_{it} + \beta_5 GRW_{it} + \beta_6 LnEXC_t + \beta_7 DCVD_t + \beta_8 GDP_t + \varepsilon_{it}$$

Information:

ROA : Return on assets of the company i t-year (times)
CR : Current ratio of the company i year t (times)
DTA : Debt to asset ratio of the company i year t-(times)
CGS : COGS/Company Sales I Year t (%)
SIZE : Company size i year t (Million Rp)
GRW : Asset growth i year t (%)
EXC : Rupiah exchange rate against dollar in the year t (IDR/USD)
CVD : Dummy covid-19 (d=1 covid-19 pandemic and d=0 otherwise)
GDP : Economic growth year t (%)
β_0 : Intercept
$\beta_1 - \beta_8$: Parameters to estimate
t : Year 2015-2021
i : Agricultural sector companies on the IDX
Ln : Natural logarithms; and ε: error term.

In the PLS approach, it is assumed that there are the same intercepts and slopes in each unit, so regression applies to each unit. Unlike PLS, in FEM each unit will have different characteristics because it is used to assume there are differences in intercepts between units. While the assumption the three approaches were then selected with the chow test, Hausman test and LM (Breusch-Pagan) test to determine the best model according to data availability. used in REM is that there is no correlation between the effects of unobserved units and regressors.

The three approaches were then selected with the Chow test, Hausman test, and LM (Breusch-Pagan) test to determine the best model according to data availability. Initial selection can be done

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

with a Chow test to determine the choice of a PLS or FEM and a Hausman test to select a FEM or REM. If both tests result in different model choices, the selection can proceed with the LM test to determine the best model choice between REM or PLS. The results of data analysis with the selected model are followed by a model suitability test consisting of a t-test and an F-test. Classical assumption tests in the form of normality, multicollinearity, heteroskedasticity, and autocorrelation tests are also carried out to produce a BLUE (Best Linear Unbiased Estimator) model.

RESULT AND DISCUSSION

This study aims to analyze the determinants of the financial performance of the agricultural sector in Indonesia using the objects of 17 agricultural companies listed on the IDX. The 17 companies come from the sub-sectors of food crops, fisheries, and plantations, which were selected in consideration of the availability of financial reports. The products produced by the company are diverse, including palm oil and its derivative processed products, wood and processed products, marine and processed fishery products, and agricultural inputs such as seeds, fertilizers, and pesticides. In general, the products produced by the 17 companies are export-oriented products.

The descriptive statistics of the variables are presented in Table 2 with several important points. First, the data used in this study were 119 observations, and the same for each variable or balanced panel. Second, the company's financial performance proclaimed through ROA has an average value of 0.93% with a standard deviation of 11.58. This reflects that the company's financial performance is not good as indicated by the ROA value of several companies marked negative or experiencing losses during the study period. This is due to several factors, such as fluctuating agricultural product prices, exchange rate fluctuations because agricultural products are generally export-oriented, decreased production due to climate change, and competition with commodities from other countries. Therefore, to maintain a positive trend in financial performance, companies must be able to find solutions to these problems.

The third important point, the average capital structure proxied through DAR is 47.45%. With the average ratio of debt used to assets relatively large (half of the assets are financed by debt), agricultural company financing is relatively dependent on debt. The combination of debt and current assets that are not optimal will burden the company's finances, so the management of the company must pay attention to an optimal capital structure that minimizes capital costs and maximizes company profits. Fourth, the greatest disparity is indicated by the *current ratio* with a standard deviation of 184.31. It means that the high business dynamics in the agricultural sector so that the growth of agricultural companies to be uneven, which further affects the company's ability to fulfill its debt. The differences in the ability to manage the company and unpredictable economic conditions also affect the company's ability to generate profits used to fulfill obligations. This should be a concern for companies because it can burden financial performance. In addition, the size of agricultural companies in this study is relatively diverse, which is indicated by a standard deviation value of 83.15. The difference in company size proxied through total assets becomes important to observe because companies with larger total assets have easier access to financial markets, can be used as collateral, and become an important factor that describes the company's ability to raise capital (Fauzi et al., 2022).

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

Table 2. Descriptive Statistics

Variable	Obs	Mean	Median	Maximum	Minimum	St.dev
ROA	119	0.934454	2.000000	49.30000	-58.25000	11.58021
Current Ratio	119	170.6494	115.5000	1183.030	6.010000	184.3177
Debt to Asset Ratio	119	47.45084	48.26000	93.74000	0.680000	20.85665
COGS/Sales	119	80.80672	77.59000	165.8600	46.15000	19.03626
Total Asset	119	13.14857	5.680000	871.8000	-71.19000	83.15966
Asset Growth	119	5.224286	5.100000	7.520000	3.520000	1.220468
Exchange rate	119	13907.65	14147.67	14582.20	13308.33	492.9564
Covid-19	119	9.539571	9.557300	9.587600	9.496100	0.035544
Economic Growth	119	0.285714	0.000000	1.000000	0.000000	0.453664

The effect of internal and external factors on the financial performance of agricultural companies was analyzed using regression panel data with three possibility method, namely PLS, FEM, and REM. The probability value of the chi-square Chow test shows a value of 0.0001 or less than the real level of 5%, so from the selection between PLS or FEM selected FEM. The cross-section test variance is invalid or the Hausman test results show a chi-square probability value of 1.000. Based on these two tests, FEM was used in this study.

Table 3. Selection of The Best Model

Test type	Probability	Decision
Chow test	0.0001**	FEM
Hausman test	1.000	FEM

Note: **significant at 5% level

The OLS assumption test is applied to produce a BLUE model. The Jarque-Bera probability value obtained at 0.0000 or less than the 5% significance level indicates that the normality assumption is not met. However, according to Gujarati, (2003), the assumption of normality is not too important given the large amount of data, namely that this study used as many as 119 observations. By examining the correlation value between these variables, the multicollinearity test is tested to make sure there isn't a perfect connection between the independent variables. The correlation between independent variables <0.8 (Spearmen's Rho Correlation), so it is concluded that there is no multicollinearity (Table 4). The problem of heteroskedasticity and autocorrelation can be overcome with a feasible generalized least squares approach so that the value of the estimator is more efficient.

Table 4. Correlation between Independent Variables

	CR	DAR	CGS	SIZE	GRW	EXC	CVD	GDP
CR	1.00000							
DAR	-0.53338	1.00000						
CGS	-0.41418	0.35276	1.00000					
SIZE	-0.03151	0.00137	-0.29912	1.00000				
GRW	0.26163	-0.11114	-0.35073	0.12180	1.00000			
EXC	0.10449	0.03897	0.09509	0.03837	-0.03339	1.00000		

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

CVD	0.12469	0.01628	-0.04498	0.03690	0.03995	0.68846	1.00000	
GDP	-0.03233	-0.03175	-0.04597	-0.02384	-0.07878	-0.61311	-0.77790	1.00000

The feasibility test of the model is checked through the R-Square value, the F-test, and the t-test. The R-square value of 0.8716 shows that the independent variable used in the model can explain the financial performance of agricultural sector companies by 87.16% while the rest is explained by other variables not included in the model. The simulated model feasibility test (F test) shows a probability value (F-Statistic) of 0.00000 or less than the real level of 5% so that it can be concluded that there is at least one independent variable that significantly affects the company's financial performance. The partial model feasibility test (t-test) showed that the significant independent variables were Debt to Asset Ratio, COGS/Sales, Asset Growth, Exchange Rate, and Dummy Covid-19.

Table 5. Factors affecting the ROA of agricultural companies.

Variable	Coefficient	Probability
Current Ratio	5.68E-05	0.9883
Debt to Aset Ratio	-0.148038	0.0001**
COGS/Sales	-0.088365	0.0226**
Total Asset	3.322836	0.2095
Asset Growth	0.201371	0.0000**
Exchange rate	-30.84527	0.0079**
Covid-19	3.117919	0.0023**
Economic Growth	0.216714	0.1573
C	254.2504	0.0081**
R-Square	0.871651	
Adj R-Square	0.838881	
Prob (F-Statistic)	0.000000	

Note: **significant at 5% level

The company's capital structure is one of the factors that affect financial performance and the relationship between the two variables has been widely discussed by previous research. Debt asset ratio (DAR) or commonly called leverage was used to describe the capital structure. DAR has a negative and significant effect on the ROA of agricultural companies. The study concluded that ROA decreased by 0.1480% for every 1% increase in DAR, ceteris paribus. Same with this result, Fenyves et al., (2020) reported that DAR negatively affects the ROA of agricultural companies in V-4 countries. Stekla & Grycova, (2016) also reported a negative relationship between capital structure and ROA of agricultural companies. For other types of industry, Stoiljković et al., (2023) report that DAR negatively affects the ROA of manufacturing companies in Serbia.

DAR reflects the number of assets financed by debt so that the smaller the DAR value will be better and conversely the higher the DAR, the higher the risk borne by the company will be higher in paying off its obligations and interest expenses from the debt owned by the company. The negative influence of DAR in this study explains that an increase in total debt will decrease the profitability of companies proxied by ROA. This can happen because the cost of using debt is higher than the tax-saving benefits, so the company's financial performance decreased. Therefore, the management of the company is advised to strive for a financing strategy that minimizes additional debt by increasing the equity portion as an alternative source of financing.

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

Based on the negative influence of capital structure (DAR) on financial performance (ROA), this study does not agree with the trade-off theory, which predicts a positive relationship between profitability and debt ratios (Rahmatillah & Prasetyo, 2016; Stoiljković et al., 2023). Based on trade-off theory, the amount of total debt will provide benefits for the company if the costs of using the debt are smaller than the benefits of tax savings. But based on the results of this study, the cost of using debt is higher than the benefits of tax savings, resulting in a decrease in company profitability. Instead, this study agrees with the pecking order theory which estimates the negative relationship between capital structure and financial performance (Rahmatillah & Prasetyo, 2016). Based on the results of this study, the greater the profitability of the company proxied by ROA, the more the company tends to use internal financing sources instead of debt, resulting in a decrease in capital structure.

Production costs are one of the factors that affect the company's performance in creating profits. Production costs in this study use the COGS/sales ratio. COGS/sales have a negative and significant effect on ROA. The study concluded that ROA would decrease by 0.088% for every 1% increase in COGS/sales. In general, the company's COGS components used as the object of this study consist of the cost of purchasing raw materials, transportation and shipping costs, the cost of harvesting and caring for plants, labor costs, factory costs, equipment depreciation costs, and sales promotion costs. In this case, the company's COGS/sales are very diverse with an average of 80.81%, there are even companies that have production costs exceeding sales. Therefore, company management must be able to minimize cost components that are inefficient and do not contribute directly to sales, such as equipment repair and maintenance and official travel. A good understanding of COGS/sales is needed for long-term planning and short-term decision-making, namely decisions taken with the aim of finding profitable production patterns. The results of this study are in line with Malau & Rambe (2022) who reported that COGS negatively affects the ROA of oil palm plantation companies in Indonesia. Haryo et al. (2017) also reported that COGS affects the ROA of animal feed companies in Indonesia.

The company's ability to sustain its financial position is demonstrated by the expansion of the company's assets in this study. The greater the growth, the company is allowed to get loans that can be used for the long term. The company's growth has a positive and significant effect on financial performance. An increase in company growth of 1% will increase ROA by 0.2013%, ceteris paribus. This can be explained by the fact that positive company growth will drive greater company profits. In addition, positive growth will improve the company's image, allowing the company to obtain external financing related to long-term plans. One strategy that can be used to increase company growth is through sales promotion, especially for products with high margins. According to Hamid et al. (2015), company expansion in Malaysia has a favorable impact on both family-owned and non-family-owned businesses' profitability. Fauzi et al. (2022) also reported that the company's expansion has a favorable impact on the ROA of global telecommunications businesses. The study of Malau & Rambe, (2022) also confirmed the positive relationship between the two variables. The company's growth in this study is relatively mixed, with a downward trend in 2015 and 2018. This is because in that year there was an economic crisis that caused exchange rate fluctuations, thus affecting the performance of agricultural sector companies with the main export-oriented commodities.

Most of the commodities produced by agricultural companies in Indonesia are export-oriented commodities, currency rates can have an impact on a business's profitability. Theoretically, the strengthening of the exchange rate marked by the appreciation of the Rupiah against the Dollar is

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

considered to have a negative influence on the level of acceptance of export companies. This study demonstrates that the exchange rate significantly and negatively affects the ROA of the company. ROA will decrease by 30.8452% for every 1% increase in the exchange rate, ceteris paribus. The strengthening of the Rupiah causes the price of Indonesian products to become more expensive for importing countries, so importers can switch to other producers who have cheaper prices. As a result, the profitability of Indonesian companies will decline due to a decrease in demand from the international market. According to Haryo et al. (2017), the ROA of animal feed companies in Indonesia is negatively impacted by the currency rate. The negative influence of exchange rates on company profitability also occurs in other industries such as the mining industry (Gursida, 2019), and manufacturing (Prasitadewi & Putra, 2020; Yeboah & Takacs, 2019).

This study also aims to show how the covid-19 pandemic has affected agricultural enterprises' profitability considering the covid-19 outbreak in Indonesia that began in early 2020. The results of the analysis show that the incidence of the covid-19 pandemic has a positive effect on the profitabilit of agricultural companies in Indonesia. This result implies that the covid-19 pandemic did not disrupt the financial perfomance of agriultural sector companies, as happened in other sectors. The covid-19 pandemic is known to have limited the mobility of residents' daily activities in travelling domestically and internationally, visit to tourist areas, to the closure of factories and educational institutions (Eroğlu, 2021). Although this condition greatly affects the company's business processes because it causes an increase in product prices (Sadiyah, 2021; Sarni & Sidayat, 2020). The agricultural sector has always been able to help the Indonesian economy survive in times of crisis (Malahayati et al., 2021). Azis et al. (2020) added that investment in the agricultural sector even remains an attraction because the output of primary agriculture is not directly affected by the covid-19 pandemic.

The positive effect of the Covid-19 pandemic on the profitability of agricultural companies is possible because the commodities produced by agricultural companies are the basic needs of the community so that despite the price increase during the pandemic, agricultural products are still purchased by the community to meet their needs and provide increased profits for the company. Increased public concern for health has also encouraged the increased purchase of agricultural products that are considered to be able to maintain health amid the outbreak of the covid-19 virus. In accordance with this study's findings, Nugroho, (2021) confirmed that the transportation restriction policy carried out by the Indonesian government caused the increasing in shallots price at the consumer level. The price increase is transmitted to farmers and business actors so that it affects the increase in profits. Kustinah (2021) also corroborated the results of this study with findings that there was indeed an increase in profitability in agricultural companies during the pandemic.

CONCLUSION AND SUGGESTION

Based on research conducted with the object of agricultural companies, several conclusions can be drawn. Factors that have a positive and significant effect on the financial performance of agricultural companies are company growth and the dummy of the Covid-19 pandemic, while debt to asset ratio (DAR), COGS/sales, and exchange rates have a negative effect. This study confirms the existence of the pecking-order theory in relation to ROA and DAR, as well as the survivability of agricultural companies in the conditions of the COVID-19 pandemic. Based on these findings, agricultural companies in Indonesia must consider internal factors, namely company growth, DAR, and COGS/sales in company operations, so that company profitability can be maximized. On the

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

other hand, the government must maintain the stability of the Rupiah exchange rate because it has proven to be an external factor that affects the performance and existence of agricultural companies in Indonesia.

Empirically, this research contributes to enriching the literature on factors affecting the financial performance of agricultural companies in developing countries, namely Indonesia. This study also considers the influence of the COVID-19 pandemic so that it can add information on the influence of the pandemic on business actors, especially in the agricultural sector. The sample used for this study is restricted to businesses that are listed on the Indonesia Stock Exchange (IDX), which presents constraints.

REFERENCES

Ahmed, R., & Bhuyan, R. 2020. Capital structure and firm performance in Australian service sector firms: A panel data analysis. Journal of Risk and Financial Management, 13(214): 1–16. https://doi.org/10.3390/jrfm13090214

Ahmed, Z., Hussin, M. R. A., & Pirzada, K. 2022. The impact of intellectual capital and ownership structure on firm performance. Journal of Risk and Financial Management, 15(553): 1–15. https://doi.org/10.4018/ijcfa.2016010103

Alipour, M., Mohammadi, M. F. S., & Derakhshan, H. 2015. Determinants of capital structure: An empirical study of firms in Iran. International Journal of Law and Management, 57(1): 53–83. https://doi.org/10.1108/IJLMA-01-2013-0004

Alpi, M. F., & Gunawan, A. 2018. Pengaruh Current Ratio Dan Total Assets Turnover Terhadap Return on Assets Pada Perusahaan Plastik Dan Kemasan. 17(2): 1–36. https://doi.org/https://doi.org/10.29303/aksioma.v17i2.43

Azis, M., Dermoredjo, S. K., & Susilowati, G. 2020. Dampak pandemi covid-19 terhadap investasi sektor pertanian. In A. Suryana, I. W. Rusastra, T. Sudaryanto, & S. M. Pasaribu (Eds.), Dampak Pandemi Covid-19: Perspektif adaptasi dan resiliensi sosial ekonomi pertanian. IAARD Press.

Bashir, A., Suhel, S., Azwardi, A., Atiyatna, D. P., Hamidi, I., & Adnan, N. 2019. The causality between agriculture, industry, and economic growth: Evidence from Indonesia. Etikonomi, 18(2): 155–168. https://doi.org/10.15408/etk.v18i2.9428

Blažková, I., & Dvouletý, O. 2019. Sectoral and firm-level determinants of profitability: A multilevel approach. International Journal of Entrepreneurial Knowledge, 6(2): 32–44. https://doi.org/10.2478/ijek-2018-0012

BPS. 2022. Statistik Karet Indonesia 2021.

Dalci, I. 2018. Impact of financial leverage on profitability of listed manufacturing firms in China. Pacific Accounting Review, 30(4): 410–432. https://doi.org/10.1108/PAR-01-2018-0008

Dawar, V. 2014. Agency theory, capital structure and firm performance: some Indian evidence. Managerial Finance, 40(12): 1190–1206. https://doi.org/10.1108/MF-10-2013-0275

Eroğlu, H. 2021. Effects of Covid-19 outbreak on environment and renewable energy sector. Environment, Development and Sustainability, 23(4): 4782–4790. https://doi.org/10.1007/s10668-020-00837-4

Fauzi, R. A., Achsani, N. A., Andati, T., & Anggraeni, L. 2022. Pengaruh struktur modal terhadap kinerja perusahaan telekomunikasi dunia. Jurnal Aplikasi Manajemen Dan Bisnis, 8(2): 470–480.

Fenyves, V., Pető, K., Szenderák, J., & Harangi-Rákos, M. 2020. The capital structure of agricultural enterprises in the Visegrad countries. Agricultural Economics (Czech Republic), 66(4): 160–167. https://doi.org/10.17221/285/2019-AGRICECON

Georgakopoulos, G., Toudas, K., Poutos, E. I., Kounadeas, T., & Tsavalias, S. 2022. Capital structure,

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

corporate governance, equity ownership and their impact on firms' profitability and effectiveness in the energy sector. Energies, 15(10): 1–10. https://doi.org/10.3390/en15103625

Gujarati, D. N. 2003. Basic Econometrics. Mc Graw-Hill.

Gursida, H. 2019. The influence of liquidity, solvency, and exchange rate to company profitability and it's implication to stock price at mining sector company. Jurnal Terapan Manajemen Dan Bisnis, 3(2): 205–221. https://doi.org/10.26737/jtmb.v3i2.323

Habibniya, H., Dsouza, S., Rabbani, M. R., Nawaz, N., & Demiraj, R. 2022. Impact of capital structure on profitability: Panel data evidence of the telecom industry in the United States. Risks, 10(8): 1–19. https://doi.org/10.3390/risks10080157

Hafizuddin-Syah, B. A. M., Shahida, S., & Fuad, S. H. 2018. Sustainability certifications and financial profitability: An analysis on palm oil companies in Malaysia. Jurnal Pengurusan, 54(2018): 143–154. https://doi.org/10.17576/pengurusan-2018-54-12

Haryo, M., Rifin, A., & Sanim, B. 2017. Factors affecting profitability on animal feed companies in Indonesia. Agro Ekonomi, 28(2): 289–308. https://doi.org/10.22146/jae.26034

Hazaroh, R. S., Tristiarto, Y., & Fadila, A. 2021. Analisis determinan nilai perusahaan pada sektor pertanian di Bursa Efek Indonesia. INOBIS: Jurnal Inovasi Bisnis Dan Manajemen Indonesia, 4(2): 205–220. https://doi.org/10.31842/jurnalinobis.v4i2.178

Hidayati, K., Agus, K., & Wahyudi, W. 2021. Analisis kinerja perusahaan sektor pertanian. Konferensi Riset Nasional Ekonomi, Manajemen, Dan Akuntansi, 2(1): 1484–1498. https://conference.upnvj.ac.id/index.php/korelasi/article/view/1106

Hossain, M. I., & Hossain, M. A. 2015. Determinants of capital structure and testing of theories: A study on the listed manufacturing companies in Bangladesh. International Journal of Economics and Finance, 7(4): 176–190. https://doi.org/10.5539/ijef.v7n4p176

Kalsum, U. 2023. Factors Affecting Profit Growth. Proceeding Medan International Conference Economics and Business "Entrepreneurship on Global Economics Development in the Era of Society 5.0," 1(January): 2565–2575.

Kamal, M. B. 2017. Pengaruh receivable turn over dan debt to asset ratio (DAR) terhadap return on asset (ROA) pada perusahaan pertanian yang terdaftar di Bursa Efek Indonesia (BEI). Jurnal Ilmiah Manajemen Dan Bisnis, 17(2): 68–81. https://doi.org/10.30596/jimb.v17i2.996

Khairiyakh, R., Irham, I., & Mulyo, J. H. 2016. Contribution of agricultural sector and sub sectors on Indonesian economy. Ilmu Pertanian (Agricultural Science), 18(3): 150–159. https://doi.org/10.22146/ipas.10616

Kim, Y., Jung, S., & Kim, C. 2023. The impact of capital structure on the profitability performance of ICT firms. Processes, 11(635): 1–14. https://doi.org/10.3390/pr11020635

Kustinah, S. 2021. Kinerja keuangan perusahaan di Bursa Efek Indonesia selama masa pandemi covid-19. Komitmen: Jurnal Ilmiah Manajemen, 2(2): 83–101. https://doi.org/10.15575/jim.v2i2.16880

Kusumaningrum, S. I. 2019. Pemanfaatan sektor pertanian sebagai penunjang pertumbuhan perekonomian Indonesia. Transaksi, 11(1): 80–89.

Malahayati, M., Masui, T., & Anggraeni, L. 2021. An assessment of the short-term impact of COVID-19 on economics and the environment: A case study of Indonesia. EconomiA, 22(3): 291–313. https://doi.org/10.1016/j.econ.2021.12.003

Malau, L. R. E., & Rambe, K. R. 2022. Efek sertifikasi RSPO dan determinan lainnya terhadap kinerja keuangan perusahaan perkebunan kelapa sawit di Indonesia. Jurnal Ekonomi Modernisasi, 18(2): 184–198. https://doi.org/10.21067/jem.v18i2.7270

Nguyen, S. La, Pham, C. D., Truong, T. Van, Phi, T. Van, Le, L. T., & Vu, T. T. T. 2023. Relationship between capital structure and firm profitability: Evidence from Vietnamese listed companies. International Journal of Financial Studies, 11(45): 1–13. https://doi.org/10.3390/ijfs11010045

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

Nugroho, A. D. 2021. Does covid-19 have effects on the indonesian horticultural subsector? Bulgarian Journal of Agricultural Science, 27(5): 865–874.

Olalekan Isiaka, L., Dikki, C. A., & Okpanachi, J. 2017. Empirical determinant of firm's profitability: Evidence from listed agricultural companies in Nigeria. JSahel Analyst: Journal of Management Sciences, 15(8): 67–88. https://www.researchgate.net/publication/323726070

Prasitadewi, M. S., & Putra, I. N. W. A. 2020. Pengaruh faktor internal dan faktor eksternal terhadap nilai perusahaan. E-Jurnal Akuntansi, 30(6): 1397–1413. https://doi.org/10.24843/eja.2020.v30.i06.p05

Putri, B. G. R., Raharjo, S. T., & Resnawaty, R. 2022. Analisis Program Pemberdayaan Masyarakat Petani Maju 4.0 Pt Pertamina Hulu Mahakam Bsp Berbasis Creating Shared Value (Csv). Jurnal Ilmiah Perlindungan Dan Pemberdayaan Sosial (Lindayasos), 4(1): 1–14. https://doi.org/10.31595/lindayasos.v4i1.549

Rahmatillah, I., & Prasetyo, A. D. 2016. Determinants of capital structure analysis: Empirical study of telecommunication industry in Indonesia 2008-2015. Journal of Business and Management, 5(3): 414–435.

Růčková, P., & Škuláňová, N. 2021. The determination of financial structure in agriculture, forestry and fishing industry in selected countries of central and eastern europe. E&M Economics and Management, 24(3): 58–78. https://doi.org/10.15240/TUL/001/2021-03-004

Sadiyah, F. N. 2021. Dampak pandemi Covid-19 terhadap pertumbuhan ekonomi dan perdagangan komoditas pertanian di Indonesia. Jurnal Ekonomi Pertanian Dan Agribisnis (JEPA), 5(3): 950–961. https://doi.org/10.21776/ub.jepa.2021.005.03.30

Sarni, S., & Sidayat, M. 2020. Dampak pandemi covid 19 terhadap pendapatan petani sayuran di kota Ternate. Prosiding Seminar Nasional Agribisnis 2020 Fakultas Pertanian Universitas Khairun, 21: 144–148. https://ejournal.unkhair.ac.id/index.php/semnasagribisnis/article/view/2460

Shinta, A. 2011. Ilmu Usaha Tani. Malang: UB Press.

Sikveland, M., Xie, J., & Zhang, D. 2022. Determinants of capital structure in the hospitality industry: Impact of clustering and seasonality on debt and liquidity. International Journal of Hospitality Management, 102(2022): 1–14. https://doi.org/10.1016/j.ijhm.2022.103172

Stekla, J., & Grycova, M. 2016. The relationship between profitability and capital structure of the agricultural holdings in the Czech Republic. Agricultural Economics (Czech Republic), 62(9): 421–428. https://doi.org/10.17221/232/2015-AGRICECON

Stoiljković, A., Tomić, S., Leković, B., & Matić, M. 2023. Determinants of capital structure: Empirical evidence of manufacturing companies in the Republic of Serbia. Sustainability (Switzerland), 15(778): 1–19. https://doi.org/10.3390/su15010778

Sun, Y., & Li, Y. 2021. COVID-19 outbreak and financial performance of Chinese listed firms: Evidence from corporate culture and corporate social responsibility. Frontiers in Public Health, 9: 1–11. https://doi.org/10.3389/fpubh.2021.710743

Wibowo, D. R. P., Relawati, R., & Shodiq, W. M. 2022. Pengaruh kinerja keuangan terhadap nilai perusahaan-perusahaan pertanian di BEI tahun 2018. Surplus: Jurnal Riset Mahasiswa Ekonomi, Manajemen, Dan Akuntansi, 1(2): 106–117. https://doi.org/10.35449/surplus.v1i2.390

Wieczorek-Kosmala, M., Błach, J., & Gorzeń-Mitka, I. 2021. Does capital structure drive profitability in the energy sector? Energies, 14(16): 1–15. https://doi.org/10.3390/en14164803

Xu, J., Akhtar, M., Haris, M., Muhammad, S., Abban, O. J., & Taghizadeh-Hesary, F. 2022. Energy crisis, firm profitability, and productivity: An emerging economy perspective. Energy Strategy Reviews, 41(2022): 1–14. https://doi.org/10.1016/j.esr.2022.100849

Yazdanfar, D. 2013. Profitability determinants among micro firms: Evidence from Swedish data. International Journal of Managerial Finance, 9(2): 151–160. https://doi.org/10.1108/17439131311307565

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 457-470, June 2024

Yeboah, M., & Takacs, A. 2019. Does exchange rate matter in profitability of listed companies in South Africa? An empirical approach. International Journal of Energy Economics and Policy, 9(6): 171–178. https://doi.org/10.32479/ijeep.8208

Zaky, M. I., Hartoyo, S., & Maulana, T. N. A. 2019. The Effects of the World CPO Prices, Macroeconomy, and Capital Structures on the Profitability of Palm Oil Companies. Russian Journal of Agricultural and Socio-Economic Sciences, 85(1): 369–374. https://doi.org/10.18551/rjoas.2019-01.45