PROCEEDING OF INTERNATIONAL CONFERENCE ON ACCOUNTING AND FINANCE

Volume 1, 2023, PP: 76-83

The effect of financial ratios on the financial performance in pharmaceutical sector companies

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Abstract

The purpose of this study was to determine the effect of current ratio, cash ratio, debt to asset ratio, debt to equity ratio, receivables turnover ratio, total asset turnover, gross profit margin, and return on assets on the financial performance of pharmaceutical companies listed on the BEI for 2015-2021. This research applied quantitative research. The population of this study was a pharmaceutical company listed on the Indonesia Stock Exchange and sampling using purposive sampling. The data collection technique used secondary data. Data analysis was carried out by classical assumption test and hypothesis testing using multiple linear regression analysis. The results showed that the debt to asset ratio and return on assets had a positive effect on financial performance, while the current ratio, cash ratio, debt to equity ratio, accounts receivable turnover ratio, total asset turnover, and gross profit margin had no effect on financial performance.

Keywords: Financial ratios, financial performance.

DOI: 10.20885/InCAF.vol1.art9

INTRODUCTION

Every company must maximize their resources in the midst of tight competition between companies and uncertain economic conditions so that companies can continue to operate and produce good financial performance. Financial performance is needed by companies to find out and evaluate the level of success of the company based on the financial activities that have been carried out. One of the performance parameters is profit. Companies that are unable to earn profits can cause companies to be eliminated from the economy.

Pharmaceutical companies are one of the profit-oriented business sectors. The net profit growth of pharmaceutical companies listed on the Indonesia Stock Exchange for the 2015-2021 period can be seen in Table 1.

Table 1. Net Profit of Pharmaceutical Companies Listed on IDX (in billion rupiah)

No	Company Name	Net Profit 2015	2016	2017	2018	2019	2020	2021
1	Darya-Varia Laboratoria Tbk	107,89	152,08	162,25	200,65	221,8	162,1	146,7
2	Kimia Farma (Persero) Tbk	265,55	271,60	331,71	401,79	15,89	20,43	289,9
3	Kalbe Farma Tbk	2.058	2.351	2.453	2.497	2.538	2.800	3.232
4	Merck Indonesia Tbk	142,54	153,84	144,68	1.163	78,26	71,90	131,7
5	Phapros Tbk., PT	63,00	87,00	125,27	133,30	102,3	48,66	11,30
6	Pyridam Farma Tbk	3,08	5,15	7,13	8,45	9,34	22,10	5,48
7	Industri Jamu & Farmasi Sido Muncul Tbk	437,5	480,5	533,8	663,8	807,7	934,0	1.261
8	Tempo Scan Pasifik Tbk	529,2	545,5	557,3	540,4	595,1	834,4	877,8

Based on Table 1 it can be seen that pharmaceutical companies experience ups and downs in increasing profits every year. Analysis of the financial reports of pharmaceutical companies is urgently needed, especially since Indonesia has been facing a coronavirus pandemic since the beginning of 2020. This corona virus has affected a large number of businesses including the pharmaceutical sector. One alternative to analyzing financial statements is to do financial ratio analysis. Financial ratio analysis is an activity of comparing the numbers in the financial statements by dividing one number by another (Kasmir, 2016). Based on the description above, the purpose of this study is to analyze the effect of the current ratio, cash ratio, debt to asset ratio, debt to equity ratio, receivables turnover, total asset turnover, gross profit margin, return on assets on financial performance in pharmaceutical sector companies 2015-2021 years.

LITERATURE REVIEW

Signaling Theory

According to Andriyani (2015) a signal is an action taken by company management to provide guidance to investors about how management assesses the prospects of a company in the future. This signal will provide financial information issued by the company, this is important because it will affect investment decisions from outside the company.

Agency Theory

Agency theory explains that agency relationships arise when one or more people (principal) hire another person (agent) to provide a service and then delegate decision-making authority to the agent (Jensen & Meckling, 1976).

Financial Performance

The definition of financial performance according to the Indonesian Institute of Accountants (2007) is the company's ability to manage and control its resources. One of the performance parameters is profit growth. According to Harahap (2015) profit growth is the company's ability to increase net profit compared to the previous year.

Current Ratio

According to Hery (2018) the current ratio is used to measure the company's ability to meet its short-term obligations that will mature using the total current assets.

Cash Ratio

According to Hery (2018), the cash ratio is a comparison of the cash in the company and in the bank with the total current debt.

Debt to Asset Ratio

According to Kasmir (2016) the debt to asset ratio is a debt ratio used to measure how much company assets are financed by debt or how much company debt affects asset management.

Debt to Equity Ratio

According to Kasmir (2016) the debt to equity ratio is the ratio used to assess debt and equity.

Account Receivable Turnover Ratio

The accounts receivable turnover ratio is the ratio used to measure how long it takes to collect receivables during one period or how many times the funds invested in these receivables rotate in one period (Kasmir, 2016).

Total Asset Turnover

The fixed asset turnover ratio (total assets turnover ratio) is a ratio used to measure the turnover of all assets owned by the company and measure how much sales are obtained from each rupiah of assets (Kasmir, 2016).

Gross Profit Margin

According to Hanafi & Halim (2016) gross profit margin is a ratio that compares gross profit with net sales.

Return on Asset

According to Kasmir (2016) return on assets is used to show the company's ability to generate profits by using the total assets owned.

Research Hyphotesis

A high current ratio shows that the agent has made the right policy regarding the management of its current assets against current liabilities. In signaling theory, a high current ratio is a good signal of a company's financial performance, which means that the company has sufficient current assets to finance its short-term obligations and will potentially increase company profits. The results of research by Oktapiani & Kantari (2021) show that the current ratio has a positive effect on the company's financial performance.
H1: Current Ratio has a positive effect on financial performance

In signaling theory, a high cash ratio is a good signal from the company which shows that the greater the cash ratio, the higher the company's ability to cover its short-term obligations using cash, it is hoped that it will further improve financial performance. The research results of Handayani (2018) show that the cash ratio has a positive effect on the company's financial performance.
H2: Cash ratio has a positive effect on financial performance

A high debt to asset ratio indicates that the proportion of debt is also high compared to total assets. If the proportion of company debt is high, it can be questioned whether there was an error in the decision making by the agent. A high proportion of debt indicates that the company has high obligations or expenses in the future and will be at risk of experiencing financial problems. The results of Chanifah & Budi (2019) show that the debt to asset ratio has a negative effect on financial performance.
H3: Debt to asset ratio has a negative effect on financial performance

A high debt-to-equity ratio gives an unfavorable signal to investors because the higher this ratio indicates that the company's debt is higher than capital, so that the impact on the company's burden on outsiders (creditors) is greater, which can affect the company's performance. The results of Widiana (2021) show that the debt to equity ratio has a negative effect on financial performance.
H4: Debt to equity ratio has a negative effect on financial performance

Effective management of receivables by management (agent) is very important to improve company performance. If the agent cannot manage receivables effectively, it will result in a large number of receivables that are at risk of being uncollectible so that they can harm the company. A low accounts receivable turnover ratio is an unfavorable signal from a company that can influence outsiders' investment decisions. The results of research by Elsa et al. (2019) show that the accounts receivable turnover ratio affects financial performance.
H5: Receivables turnover ratio has a positive effect on financial performance.

In agency theory, the higher the total asset turnover ratio, the more effective the agent is in managing assets so as to increase net sales. A high asset turnover ratio is a good signal for external parties because high net sales will affect profit increases. The results of Fitriani & Alwi (2021) show that the fixed asset turnover ratio affects financial performance.
H6: Asset turnover ratio has a positive effect on financial performance

A high gross profit margin indicates a high gross profit generated on sales. The higher the gross profit, the higher the company's opportunity to increase net profit. High gross profit margins, if supported by good cost management by agents, can increase profit growth. a high gross profit margin gives a good signal for investors because it indicates high company sales. The results of Fitiani & Alwi (2020) show that gross profit margin has a significant effect on financial performance.
H7: Gross profit margin berpengaruh positif on financial performance

A high gross profit margin indicates a high gross profit generated on sales. The higher the gross profit, the higher the company's opportunity to increase net profit. High gross profit margins, if supported by good cost management by agents, can increase profit growth. a high gross profit margin gives a good signal for investors because it indicates high company sales. The results of Fitiani & Alwi (2020) show that gross profit margin has a significant effect on financial performance.
H_8: Return on asset berpengaruh positif on financial performance.

RESEARCH METHODS

This research uses quantitative methods. The research population is all pharmaceutical sub-sector manufacturing companies listed on the Indonesia Stock Exchange (IDX) with an observation period of 2015-2021, totaling 12 companies. Sampling using purposive sampling. This study uses secondary data from sources of annual financial reports obtained through the official website of the Indonesia Stock Exchange, namely www.idx.co.id. Data analysis was in the form of multiple linear regression through stages 1) Descriptive Statistical Test, 2) Classical Assumption Test (Normality Test, Heteroscedasticity Test, Autocorrelation Test and Multicollinearity Test) and 3) Hypothesis Test (t test).

RESULTS AND DISCUSSION

Descriptive Statistics Test

Table 2. Descriptive Statistical Test Results

No	Variabel	*Min*	*Max*	*Mean*	*Std. Deviation*
1	CR	.90	8.32	2.807	1.544
2	RK	.01	4.34	.654	.779
3	DAR	.02	.81	.377	.231
4	DER	.02	4.23	1.002	1.220
5	RT	1.87	9.75	5.998	2.175
6	TAT	.48	3.27	1.201	.570
7	GPM	.08	1.13	.423	.186
8	ROA	.00	.92	.105	.123
9	PL	-.97	7.04	.230	.984

Classic Assumption Test

Table 3. Classic Assumption Test Results

No	Test	Indikator	Hasil	Keterangan
1	Normality	Asym. Sig (2-tailed)	0.200	Normal Distribution
2	Multicollinearity	VIF/Tolerance	CR: 7.926/0.126 RK: 4.748/0.211 DAR: 8.798/0.114 DER: 5.423/0.184 RT: 1.301/0.769 TAT: 2.370/0.422 GPM: 1.576/0.635 ROA: 1.233/0.811	No Multicollinearity
3	Autocorrelation	Durbin Watson	1.745	No Autocorrelation
4	Heteroscedasticity	Significance Value	CR: 0.768 RK: 0.592 DAR: 0.432 DER: 0.231 RT: 0.710 TAT: 0.291 GPM: 2.43 ROA: 0.104	No Heteroscedasticity

Multiple Linear Regression Analysis & T-Test

Table 4. Multiple Linear Regression Analysis & T-Test Results

No	Variable	B	T	Sig
1	Profit Growth	-1.112	-	-
2	CR	.083	.677	.501
3	RK	-.237	-1.258	.214
4	DAR	2.378	2.751	.008
5	DER	-.165	-1.282	.205
6	RT	.045	1.273	.208
7	TAT	-.184	-1.012	.316
8	GPM	-.612	-1.349	.183
9	ROA	7.059	11.656	<.001

Based on Table 4, the multiple linear regression model is obtained as follows:

$$Y = -1.112 + 0.083X1 + -0.237X2 + 2.378X3 + -0.165X4 + 0.045\ X5 + -0.184X6 + -0.612X7 + 7.059X8 + e$$

Discussion

The Effect of Current Ratio on Financial Performance

The significant results of the current ratio variable show a value of 0.501 or more than 0.05 which indicates that the current ratio has no effect on financial performance. The first hypothesis which states that the current ratio has a positive effect on financial performance is rejected.

The average current ratio of pharmaceutical companies shows a value of 2.8 or 280%. This value is fairly good, because the company's current assets are 2.8 times higher than current liabilities. Even so, a high current ratio has no effect on increasing profits due to the inefficient management of current assets. The high proportion of the company's current assets is due to the high value of the company's inventories and receivables, while these inventories and receivables can increase the risk of loss to the company due to the risk of bad debts and the risk of unsold inventory.

The Effect of Cash Ratio on Financial Performance

The significant result of the cash ratio variable shows a value of 0.214 or more than 0.05 which indicates that the cash ratio has no effect on financial performance. The second hypothesis which states that the cash ratio has a positive effect on financial performance is rejected.

According to Kasmir (2018), the industry average for cash ratio is 100%. The cash ratio of pharmaceutical sector companies that have no effect on profit changes is because the company's average annual cash ratio is too low or below 100%. A cash ratio that is too low indicates that the company's financial condition is not healthy because the company has difficulty paying off its current obligations. High current liabilities can add to the company's expenses or costs such as bank interest fees and penalty fees or penalties. These costs affect the reduction in profit.

The Effect of Debt to Asset Ratio on Financial Performance

The significant results of the debt to asset ratio variable show a value of 0.008 or less than 0.05 and t count shows a value of 2.751 or greater than t table (2.004) which shows that the debt to asset ratio variable has a positive effect on financial performance. The third hypothesis which states that the debt to asset ratio has a negative effect on financial performance is rejected.

The debt to asset ratio that has a positive effect is due to the management of the debt to asset ratio which is still relatively good. According to Kasmir (2018), the industry average for a good debt to asset ratio is 35%. The average debt to asset ratio for pharmaceutical companies during 2015-2021 is 0.37 or 37% which shows that the debt to asset ratio has an average value close to a good industry average.

The Effect of Debt to Equity Ratio on Financial Performance

The result of the significance value of the debt to equity ratio variable is 0.205 or greater than 0.05 which indicates that the debt to equity ratio has no effect on financial performance. So, the fourth hypothesis which states that the debt to equity ratio has a negative effect on financial performance is rejected.

The debt to equity ratio which has no effect on profit growth is caused by the value of the ratio which is considered safe so that it is not at risk of reducing company profits. It is known that the average debt to equity ratio of pharmaceutical companies is 1 or 100% which indicates that the proportion of the company's debt and equity is the same. This shows that the company can still cover its debts using equity. However, this equity has no effect on increasing profits because the value of equity is mediocre and can only be used to cover liabilities.

The Effect of Accounts Receivable Turnover Ratio on Financial Performance

The significant value of the receivables turnover ratio variable is 0.208 or greater than 0.05 which indicates that the receivables turnover ratio has no effect on financial performance. The fifth hypothesis which states that the accounts receivable turnover ratio has a positive effect on financial performance is rejected.

The receivables turnover ratio, which has no effect, is caused by the company's average receivables which continue to increase every year. An increased accounts receivable turnover ratio indicates that the company's receivables are increasing compared to the sales themselves or a decrease in the proportion of net sales compared to the company's receivables. High receivables are at high risk of experiencing losses on receivables so that they can reduce profits.

The Effect of Total Asset Turnover on Financial Performance

The significance value of the total asset turnover variable is 0.316 or greater than 0.05 which indicates that total asset turnover has no effect on financial performance. The sixth hypothesis which states that total asset turnover has a positive effect on financial performance is rejected.

The total asset turnover that has no effect is due to the low average total asset turnover. According to Kasmir (2018), the industry average for total asset turnover is 2 times or 200%. However, the average total asset turnover in this study is 1.20 or below 2, which means that the net sales of pharmaceutical companies are not too large when compared to the company's assets, so these sales have no effect on increasing profits because the company's net sales still have to be deducted by expenses other.

The Effect of Gross Profit Margin on Financial Performance

The significance value of the gross profit margin shows a value of 0.183 or greater than 0.05, which means that the gross profit margin has no effect on financial performance. The seventh hypothesis which states that gross profit margin has a positive effect on financial performance is rejected.

The gross profit margin results do not affect financial performance because the gross profit margin ratio does not include operational costs and others. The company's high gross profit does not necessarily increase the company's net profit because the gross profit still has to be deducted by the company's costs. Thus, the company's management needs to carry out good cost control in order to increase the company's net profit.

The Effect of Return on Assets on Financial Performance

The significance results of the return on assets variable show a value of <0.001 or less than 0.05 and the calculated t value shows a value of 11,656 or greater than t table (2.00488) which shows that the variable return on assets has a positive effect on financial performance. The eighth hypothesis which states that return on assets has a positive effect on financial performance is accepted.

Return on assets shows the extent to which the company manages assets effectively. The higher the ROA, the better for the company, because it shows that the company's assets are utilized effectively in generating profits. High return on assets is a good signal from the company for investors. Investors will be interested in investing based on the results of the company's return on assets. As a result, the company has sufficient capital to finance the company so as to increase profits.

The Effect of Simultaneous Financial Ratios on Profit Growth

Based on the results of the F test in table 5, it can be seen that the calculated F is greater than the F table (19.62 > 2.16) and the significant value is less than 0.05, so it can be concluded that CR, RK, DAR, DER, RT, TAT, GPM, ROA are significantly simultaneous effect on profit growth.

Test Results for the Coefficient of Determination R^2

Based on the test results of the coefficient of determination R^2 in Table 6, the R Square value shows a value of 0.744. The R value obtained is in the good category because the R Square value is between 0-1. The results of the adjusted R square show a value of 0.704 or 70% which means that CR, RK, DAR, DER, RT, TAT, GPM and ROA affect profit growth by 70% while the remaining 30% is influenced by other variables.

CONCLUSION

Based on the discussion above, it can be concluded that the debt to asset ratio and return on assets partially have a positive effect on financial performance. Variable current ratio, cash ratio, debt to equity ratio, accounts receivable turnover ratio, total asset turnover and gross profit margin partially have no effect on financial performance. current ratio, cash ratio, debt to asset ratio, debt to equity ratio, accounts receivable turnover ratio, total asset turnover, gross profit margin and return on assets simultaneously affect financial performance.

This research is expected to help the management to make the right policies to improve the company's financial performance. Based on the research results, the management should maintain a good management of debt to asset ratio and return on assets. The management is also expected to pay more attention to the reasons for the non-effect of other financial ratios and to increase the efficiency of each cause of the non-effect of these financial ratios in order to improve financial performance.

The limitation in this study is that the research only uses the pharmaceutical sector for the 2015-2021 period so that it only produces 63 research data. This study does not use all of the financial ratios that can be used to measure financial performance but only uses 8 financial ratios. Therefore, future research should expand the object of research or not only be limited to pharmaceutical sector companies. In addition, future research should add financial ratios that are not used in this study.

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