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ANALYSIS OF PROFITABILITY AND LIQUIDITY RATIO IN MEASURING FINANCIAL PERFORMANCE IN PHARMACEUTICAL COMPANIES LISTED ON THE IDX IN 2018-2021

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ABSTRACT

This study aims to analyze the profitability and liquidity ratios in measuring the financial performance of pharmaceutical companies in Indonesia, which are listed on the stock exchange. The approach in this research is quantitative. The data analysis technique in this study was descriptive. That is, the data was obtained and processed in such a way as to provide systematic and accurate data regarding the problems studied. The secondary data sources that the authors use come from pharmaceutical sector companies in the form of financial reports for four years. Based on the results of this study, it can be seen that the profitability ratios of the pharmaceutical sector, as measured using NPM, ROA, and ROE, have fluctuated. That shows the company's ability to profit from managing company assets, equity, and revenues. The results show that the profitability and liquidity ratios significantly affect the financial performance of pharmaceutical companies in Indonesia.

1. INTRODUCTION

Financial performance is an essential factor for the sustainability and success of a company. Financial performance can show how well the company manages its resources and how effectively it achieves its goals. Therefore, companies must measure and evaluate financial performance regularly.

The pharmaceutical industry is crucial in meeting public health needs. Pharmaceutical companies are essential in producing and distributing pharmaceutical products in general conditions. For this reason, pharmaceutical companies need to pay attention to their financial performance to meet market needs and maintain business continuity adequately.

Before the COVID-19 pandemic, the pharmaceutical industry had experienced significant developments. Several new drug discoveries have been successful, especially in treating cancer, heart disease, and HIV/AIDS. In addition, the latest production technologies have been introduced, such as imaging technology and genetic production technology (Sary, 2022).

The discovery of new drugs in cancer treatment has become a significant pharmaceutical industry focus. Several drugs that have been successfully developed include immunotherapy and molecular target therapy. Immunotherapy is a therapy that increases the ability of the immune system to fight cancer cells, while molecular target therapy is a therapy that targets specific molecules in cancer cells (Mustikaningrum & Herawati, 2022).

The COVID-19 pandemic has had a significant impact on the pharmaceutical industry worldwide. Pharmaceutical companies have become the centre of attention in developing vaccines and drugs for COVID-19 and addressing the increasing demand for drugs used to treat COVID-19 patients (BPS, 2019). Several pharmaceutical companies have succeeded in developing a COVID-19 vaccine that has received approval from health regulatory agencies in various countries. In addition, developing new drugs and repurposing existing drugs to treat COVID-19 is also a significant focus in the pharmaceutical industry (KKRS, 2020).

The profitability ratios that are often used to assess BPJS Health's financial performance are Return on Equity (ROE), Gross Profit Margin (GPM), and Net Profit Margin (NPM). ROE shows the profit earned from every rupiah of capital owned by the company, and GPM shows the net profit level after deducting production costs. In contrast, NPM shows the net profit level after deducting all company costs.

Previous research on profitability ratios for company financial performance often found that companies with higher profitability ratios usually have better financial performance, such as research (Damanik & Wahyul, 2022) and (Yanti & Tipa, 2021).

Liquidity ratio analysis is a method used to assess a company's ability to meet its short-term obligations with its current assets. A high liquidity ratio indicates that a company has an excellent ability to meet its short-term obligations. In contrast, a low liquidity ratio indicates a company has problems meeting its short-term obligations.

In 2019 (CNN Indonesia, 2019), the former President Director of PT Kimia Farma (Persero) Tbk was responsible for a drug procurement corruption case by the Ministry of Health. He is suspected of receiving bribes from several pharmaceutical companies in procuring drugs in Indonesia.

In 2020, police officers uncovered a drug counterfeiting network involving several pharmaceutical companies. The counterfeit drugs are sold in several pharmacies in Jakarta and its surroundings. This case raises concerns for the public's health who consume these counterfeit drugs.

Previous research on financial performance is still interesting to study because empirical results show different results, for example, research conducted by (Damanik & Wahyul, 2022); (Yanti & Tipa, 2021); (Haryoko et al., 2020); (Shabrina, 2019); (Yuniarti et al., 2022); and (Wenda & Ditilebit, 2021). so there is a need for further research on financial performance to determine the consistency of the findings.

Based on the formulation of the problem above, the research objective was to determine pharmaceutical companies' financial performance based on liquidity and profitability ratios.

Financial performance is essential in determining whether a company can survive long term. Good financial performance will show that the company can generate sufficient profits to pay debts and investments and provide reasonable returns for shareholders. In addition, sound financial performance can also increase investor and creditor confidence in the company (Ranti & Ajimat, 2022).

Profitability Ratios

Profitability ratios are closely related to the financial performance of a company. A good ratio value indicates that the company can generate profits efficiently and has good financial performance. However, a lousy ratio value indicates that the company has difficulty generating profits and has poor financial performance. Therefore, profitability ratio analysis is essential to evaluate a company's financial performance.

Research conducted according to (Damanik & Wahyul, 2022) states that profitability affects financial performance, while research by (Yanti & Tipa, 2021) states that profitability does not affect financial performance.

Likuidity

Liquidity is the company's ability to meet its short-term obligations with its current assets. Good liquidity also affects the company's overall financial performance. Companies with good liquidity tend to have stable financial performance and can survive in uncertain economic situations. Conversely, companies with poor liquidity will experience difficulties meeting their short-term obligations and have unstable financial performance.

Research that has been conducted according to (Haryoko et al., 2020) and (Damanik & Wahyul, 2022) states that liquidity affects financial performance, while research (by Yanti & Tipa, 2021) states that liquidity does not affect financial performance.

The hypothesis chosen by the researcher is based on the background research above, namely:
H1: Profitability ratios from net profit margins have a significant positive effect on financial performance.
H2: The profitability ratio of the cash ratio significantly positively affects financial performance.
H3: The liquidity ratio of return on equity has a significant positive effect on financial performance.
H4: The liquidity ratio of the current ratio has a significant positive effect on financial performance.
H5: Profitability and liquidity have a significant positive effect on financial performance.

Based on the hypothesis that has been made, the following is an overview of the conceptual framework:

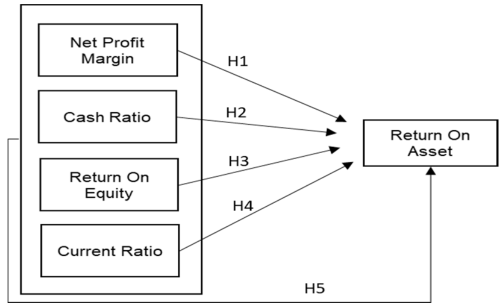

Figure 1. Framework

2. METHOD

The data is obtained from the annual reports and the sustainability of public companies, which are available on the Indonesia Stock Exchange (IDX) website. The sample from the study was selected using a purposive sampling method. The use of a purposive sampling method aims to match the sample used with the aim of the research. The sample selection criteria that must be met include (1) companies listed on the IDX for five consecutive years (2017-2021); (2) the company publishes a sustainability report (SR) using the GRI standard as well as a complete annual report (AR) within five consecutive years (2017-2021). The sample selection criteria 52 companies met the sample criteria resulting in 260 data in Table 1.

Tabel 1. Sampel dan Data Penelitian

Keterangan	**Jumlah perusahaan data)**
Companies that have been listed on the IDX as of December 31, 2021	767
Companies that are not listed on the IDX in 5 consecutive years (2017-2021)	(219)
Companies that do not issue SRs with GRI standards and do not published total AR in 5 consecutive years (2017-2021)	(496)
The sample companies meet the criteria.	52
Total data in research (52 x 5)	260

Of the 767 companies listed on the IDX at the end of 2021, only 52 companies met the sample criteria. The number of samples begins with elimination of 219 companies that were not listed from 2017 to 2021. Furthermore, the researchers also eliminated 496 companies that did not issue SRs with GRI and AR from 2017 to 2021. This is based on measuring CSR based on the GRI standard on SR in this study. The GRI standard is a CSR measurement standard that can reduce information asymmetry problems and improve CSR practices accompanied by increased transparency (Ordóñez-Castaño et al., 2021). In addition, SR is also a report that aims to provide information about the company's contribution to CSR practices (Cantele et al., 2018). In addition to SR, which supports CSR measurement, AR is a report containing data and information used in measuring variables other than CSR.

Using balanced data, company data is observed over five years, namely from 2017 to 2021. Balanced data research for five years to 2021 aims to compare the latest data from companies that have committed to disclose CSR for five years consistently. This is because consistently implemented CSR is a form of the company's commitment to building sustainability (Breliastiti et al., 2020). Therefore obtained, 260 data can be examined. Then, removing outlier data in the study was as much as 60. Elimination of outlier data is the second step which is carried out after the descriptive statistical analysis is carried out.

Researchers use secondary data as a basis for research data information. The type of research used by the author is quantitative research. (Jannah, 2019), quantitative research looks at the relationship between the independent and dependent variables. It is more causal, which aims to find the magnitude of the influence of the independent variables on the dependent variable.

The object of this research comes from the financial statements of pharmaceutical companies listed on the Indonesia Stock Exchange (IDX) for 2018-2021. As many as 11 companies and research were selected during four years of research, so there were 44 data, along with the formula in the form of indicator tables used in this study.

Tabel 1. Operasional Variabel

Variabel	Pengukuran	Skala
Net Profit Margin	NPM = (Laba setelah pajak/penjualan bersih) X 100%	Rasio
Cash Ratio	CR = kas dan setara kas / Hutang lancar	Rasio
Return On Equity	ROE = (Laba setelah pajak/Total Ekuitas) X 100%	Rasio
Current Ratio	CR = Current Asset / Current Liabilities	Rasio
Return On Asset	ROA = (Laba Bersih / Total Asset) X 100%	Rasio

Data analysis method

The analytical method used in this study is the descriptive analysis method with multiple linear regression, which analyzes profitability and liquidity ratios on financial performance. In testing the quality of the data, researchers conducted descriptive statistical tests, normality tests, correlation tests, multiple linear regression tests, t-tests, and determination tests.

3. RESULT AND DISCUSSION

Based on statistical data processing using SPSS version 25 windows, we can find out the effect of sales and corporate social responsibility on tax planning as follows;

3.1 Descriptive statistics

Tabel 2. Statistik Deskriptif

	N	Min.	Max.	Mean	Std. Deviation
NPM	44	-0,02	1,90	0,1234	0,2853
Cash Ratio	44	0,05	2,19	0,6503	0,6469
ROE	44	-0,07	2,24	0,1786	0,3398
Current Ratio	44	0,90	5,94	2,4600	1,3033
ROA	44	-0,02	0,92	0,0964	0,1458
Valid N (listwise)	44				

The minimum net profit margin (NPM) value shown is -0.02 while the maximum value is 1.90, with an average net profit margin (NPM) value in this study of 0.123 (12.3%) and a standard deviation of positive with a value of 0.28527. The minimum cash ratio shown is 0.05, while the maximum value is 2.19, with an average cash ratio in this study of 0.650 (65%) and a positive standard deviation with a value of 0.64691. The minimum value of return on equity (ROE) shown is -0.07 while the maximum value is 2.24, with an average return on equity (ROE) in this study of 0.178 (17.8%) and a standard deviation of positive with a value of 0.33977. The minimum current ratio shown is 0.90, while the maximum value is 5.94, with an average current ratio in this study of 2.46 (246%) and a positive standard deviation with a value of 1.30325. The minimum value of return on assets (ROA) shown is -0.02 while the maximum value is 0.92, with an average value of return on assets (ROA) in this study of 0.964 (96.4%) and a standard deviation of positive with a value of 0.14584.

3.2 Data Normality Test

Tabel 3. One-Sample K-S Test

		Unstandardized Residual
N		44
Normal Parameters[a,b]	Mean	0,0000000
	Std. Deviation	0,02079317
Most Extreme Differences	Absolute	0,163
	Positive	0,163
	Negative	-0,119
Test Statistic		0,163
Asymp. Sig. (2-tailed)		,105[c]

Table 3 shows the result of 0.105, which indicates that the data in this study are typically distributed because the average value of this test is above 0.05.

3.3 Autocorrelation Test

Tabel 4. Koefisien Korelasi

		NPM	Cash Ratio	ROE	Current Ratio	ROA
NPM	Pearson Correlation	1	0,196	,970**	0,036	,964**
	Sig. (2-tailed)		0,203	0,000	0,817	0,000
	N	44	44	44	44	44
Cash Ratio	Pearson Correlation	0,196	1	0,147	,694**	,378*
	Sig. (2-tailed)	0,203		0,340	0,000	0,012
	N	44	44	44	44	44
ROE	Pearson Correlation	,970**	0,147	1	0,052	,951**
	Sig. (2-tailed)	0,000	0,340		0,736	0,000
	N	44	44	44	44	44
Current Ratio	Pearson Correlation	0,036	,694**	0,052	1	0,224
	Sig. (2-tailed)	0,817	0,000	0,736		0,014
	N	44	44	44	44	44
ROA	Pearson Correlation	,964**	,378*	,951**	0,224	1
	Sig. (2-tailed)	0,000	0,012	0,000	0,143	
	N	44	44	44	44	44

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The correlation test aims to determine the degree of closeness of the relationship between variables expressed by the correlation coefficient. The data is said to correlate if the significance value is <0.05. The table above shows that the variable net profit margin (NPM) = 0.000; variable cash ratio = 0.12; variable return on equity (ROE) = 0.000; variable current ratio = 0.014 so that the profitability variables and liquidity are stated to have a reasonable correlation.

3.4 Multiple Linear Regression Test

Tabel 5. Uji F

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	0,896	4	0,224	4,874	,036[b]
Residual	0,019	39	0,000		
Total	0,915	43			

Based on the simultaneous test (F) obtained = 4.874 with significance = 0.0360 <0.05 so that the fifth hypothesis is accepted; because there is an influence between the independent variables, namely profitability and liquidity, simultaneously for the dependent variable, namely financial performance.

3.5 t-test

Tabel 6. Uji T

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0,012	0,007		-1,555	0,128
NPM	0,302	0,051	0,59	5,890	0,023
Cash Ratio	0,036	0,008	0,158	4,597	0,047
ROE	0,151	0,042	0,351	3,558	0,001
Current Ratio	0,008	0,004	0,075	2,241	0,031

a. Dependent Variable: ROA

The significance value of the t-test is <0.05. From the table above, we can see that the variable net profit margin (NPM) = 0.023 affects financial performance, so (H1) is accepted; the profitability ratio of the net profit margin significantly positively affects financial performance. The cash ratio variable = 0.47 affects financial performance, so (H2) is accepted; the profitability ratio of the cash ratio has a significant positive effect on financial performance. Variable return on equity (ROE) = 0.001 affects financial performance, so (H3) is accepted; the liquidity ratio of return on equity significantly positively affects financial performance. Variable current ratio = 0.031 affects financial performance, so (H4) is accepted; the liquidity ratio of the current ratio has a significant positive effect on financial performance.

3.6 Coefficient of Determination

Tabel 7. Uji Koefisien Determinasi

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	,990[a]	0,980	0,978	0,02183
Predictors: (Constant), Current Ratio, NPM, Cash Ratio, ROE				

It is known that the R square value of this study = 0.980, indicating that the independent variable only has an effect of 98% for the dependent variable. In comparison, the remaining 0.02 (2%) is explained by other variables that do not participate in this study.

3.7 Ratio of Profitability to financial performance

The profitability variable from net profit margin (NPM) in this study affects the financial performance of pharmaceutical sector companies for the 2018-2021 period. As can be proven in Table 6, the significant results obtained from the comparison between the profitability of the net profit margin on financial performance is 0.023 <0.05, and the profitability of the cash ratio on financial performance is 0.047 <0.05. the researcher's hypothesis for this variable is accepted and in line with the study's results.

Good profitability can improve the company's ability to pay debts. When the company can generate a sizable profit, it can pay its debt obligations promptly. Conversely, if the company suffers losses or has poor profitability, then the company's ability to pay debts can be disrupted. The results are research by (Damanik & Wahyul, 2022) and (Haryoko et al., 2020), which state that profitability affects financial performance.

3.8 The Ratio Of Liquidity to Financial Performance

The liquidity variable from return on equity (ROE) in this study affects the financial performance of pharmaceutical sector companies for the 2018-2021 period. As can be proven in Table 6, the significant results from the comparison between liquidity from return on equity (ROE) to financial performance are 0.001 <0.05, and liquidity from the current ratio to financial performance is 0.031 <0.05. the researcher's hypothesis for this variable is accepted and in line with the study's results.

High liquidity can help companies avoid financial problems and maintain smooth operations in the short term. Low liquidity can cause a company difficulty meeting obligations and even trigger bankruptcy. Therefore, companies must maintain a healthy level of liquidity and balance with their long-term investment needs. The research results are research (Yuniarti et al., 2022); (Shabrina, 2019) and (Yanti & Tipa, 2021), which stated that liquidity affects financial performance.

3.9 Profitability And Liquidity Ratios to Financial Performance

The profitability and liquidity variables in this study affect the financial performance of pharmaceutical sector companies for 2018-2021. it can be proven in Table 5 that the significant results of the profitability and liquidity variables on financial performance are 0.036 <0.05. the researcher's hypothesis for this variable is accepted and in line with the study's results.

Profitability and liquidity can have a significant influence on the financial performance of a company. Profitability and liquidity are both interrelated and essential in measuring a company's financial performance. First, high profitability can increase a company's ability to finance its business growth, but companies also need to pay attention to sufficient levels of liquidity to meet their financial obligations. So, the company must find a balance between the level of profitability and the level of sufficient liquidity.

Second, high liquidity can help companies avoid financial problems and maintain smooth operations, but companies also need to pay attention to an adequate level of profitability to obtain adequate profits. So, the company must find a balance between sufficient levels of liquidity and profitability. The right balance between profitability and liquidity can provide a company with long-term benefits, such as the ability to finance long-term growth and investments, pay dividends to shareholders, increase company value, and avoid financial problems and bankruptcy. The results are research (Wenda & Ditilebit, 2021) and (Shabrina, 2019), which state that profitability and liquidity affect financial performance.

4. CONCLUSION

Profitability from the net profit margin, as the first hypothesis, has a positive effect on financial performance because the partial test results show more significant results, namely 0.023 <0.05, so the first hypothesis is accepted. The Profitability of the cash ratio as the second hypothesis has a positive effect on financial performance because the partial test results show more significant results, namely 0.047 <0.05, so the second hypothesis is accepted.

Liquidity of return on equity as the third hypothesis has a positive effect on financial performance because the partial test results show more significant results, namely 0.001 <0.05, so the third hypothesis is accepted. The Liquidity of the current ratio, as the fourth hypothesis, has a positive effect on financial performance because the results of the partial test show more significant results, namely 0.031 <0.05, so the fourth hypothesis is accepted.

Simultaneous test shows that Profitability and Liquidity positively affect financial performance = 0.036 <0.05, so the fifth hypothesis is accepted.

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