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Impact of Financial Profitability Ratio to the Stock Returns of Telecommunication Company during the COVID-19 Pandemic in Indonesia

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ABSTRACT

COVID-19 has become a major pandemic striking the world with shocking effects. These strikes resulted in deaths of a lot of people across the globe and also forced people to adopt a new way of life. Not only lifestyle, this pandemic is also affecting all sectors of people's lives, especially in economic and business sectors. This study focuses on the impact of the COVID-19 pandemic on firms financial performance and stock price in the telecommunication sector in Indonesia. In this case, it focuses on the profitability ratio. The independent variables include on this study are ROA, ROE, ROCE, ROIC, NPM, OPM, and GPM while the stock return becomes the dependent variables. The data is processed towards panel data regression and divided the timeline into 3 periods, pre-pandemic periods (2017-2019) and post-pandemic periods (2020-2022) and overall periods (2017-2022). This study found that in overall period model, pre-pandemic, and post pandemic model, none of the dependent variables significantly affect stock returns partially. Simultaneously, the profitability financial ratios also do not affect stock return significantly.

INTRODUCTION

In recent literature, financial performance analysis has long been considered a great way of assessing a company's financial health and performance (Beaver et al., 2011). Financial performance analysis is sometimes announced as the most significant analysis since it assists users (investors, shareholders, stakeholders, managers, owners, etc.) in determining whether or not the companies is functioning successfully (Alviana & Megawati, 2021). Financial ratio Analysis, is a crucial technique for analyzing a company's financial performance (Ross et al., 2009). Therefore, ratio analysis is used through the financial statements of the firms to learn about how the companies performed financially.

Stock prices fluctuate within seconds and is being influenced by market forces. Market forces are the supply and demand of the market. The price movement of a stock indicates how investors value a company's worth but does not equally define the actual company's value. Profitability financial ratio is also considered as one of the factors that are affecting the stock price. One of the functions of a stock market is to provide information on the number of assets that the institution owns on behalf of each share that will show each share's value after the shareholder invests in the business, which is included on the balance sheet (Uddin et al., 2013). Company's performance can influence stock price movements in the capital market. The share price is considered a function of the firm's value. If the public companies performance increases, the value of the company will be higher (Feng & Wang, 2000; Liang et al., 2016; Amir & Lev, 1996). On the stock exchange term, the market will respond to this case in the form of share price increase. On the contrary, bad company performance affect the share price decrease in the capital market. This statement underlies how changes in share prices can be used as a basis to evaluate companies performance (Ircham et al., 2014).

The COVID-19 epidemic has been damaging developing as well as developed economies and reduced the profitability of several companies. Technological advancement plays a vital role in the

company's performance in this current situation. All activities carry on virtually (Qadri et al.,2023). The COVID-19 pandemic outbreak in Indonesia has been going on since March 2020 through the year 2022 even though there are an improvements as time goes on with the invention of Covid Vaccine which by the middle of 2022, citizens are required to get the 3rd dose of the vaccine so that they can fully function on the society. Due to the social distancing policy's implementation during the Covid pandemic, which restricted people from doing their daily activities like work, school, and business, people are forced to do those activities remotely from home using online technology. Thus, it is logical that internet usage during the implementation of the social distancing policy in Indonesia will increase especially on the period 2020 to 2021 (Jayani, 2021). Indonesia's Badan Pusat Statistik (BPS) report that 78,18% of household in Indonesia have used the internet since 2020. This number increased by 4,43% compared to the previous year which is 73,75%.

Therefore, it is expected that the profitability of the companies that run the business in the telecommunication sector will increase. In Indonesia, there are 10 listed companies that run in the telecommunication sector on the Indonesia Stock Exchange, but on this research we will only use 7 of them because of the data limitation. Nevertheless, it is interesting to see how significantly the Financial performance of that company affected their stock return during the COVID-19 outbreak in Indonesia in the following year 2020-2022 compared to the previous years 2017 to 2019. Research regarding the impact of the outbreak of the COVID-19 pandemic in the world is scattered and broad in different sectors. However, research on the COVID-19 pandemic as a channeling factor to determine the impact of the firm's financial performance to its stock price especially in the telecommunication companies is still limited (Wulansari et al., 2023) and the indicator used is slightly different. Therefore, it is interesting to find out how the COVID-19 Pandemic as a channeling factor will affect the impacts the company's financial profitability to the stock returns, specifically in the telecommunication sector in Indonesia.

Fundamental financial ratio analysis is one of the analytical tools used to assess a company's stock price. The company's financial performance can be assessed by analyzing their financial statements report. Financial ratios are grouped into five categories which are liquidity ratios, solvency ratios, activity ratios, profitability ratios, and market ratios (Ang, 1997).

Myšková & Hájek (2017) said that financial analysis is arranged by some appropriate financial ratios and their calculation which is divided into three categories of activities. First is Operating activity which is usually considered to predict and plan future financial performance. Second, Investing Activity which is usually used as an indicator to determine the attractiveness of the firm to the investors. The last one is financing activity and solvency which are used as an indicator to evaluate the firm's structure in terms of the ability of the firm to meet their obligation in the short term (liquidity) and long term (gearing). Myšková & Hájek (2017) also said that the use of different profit modifications could be a problem in assessing the profitability indicator. Earning Before Interest and Taxes are usually used if we want to accentuate the growth of revenue and cost control, while Return on Equity (RoE), Return on Assets (RoA), and Return on Sales is chosen to represent the profitability of the firm. The RoE is widely used in practice even though it is sometimes get criticized for ignoring the problem of risk associated with business activities and the size of the initial capital invested or future income, so it is difficult to correctly assess the effect on shareholder value (Brigham & Houston,2006; Parrino & Kidwell, 2009).

The company's liquidity, solvency, efficiency, profitability, operating efficiency, and financial stability in the short term and long term is the general aspect that is usually used to assess the company's financial performance. Bhunia et al. (2011) stated that ratio analysis provides relative measures of a company's performance and gives hints to the company's underlying financial position such as liquidity ratio, debt-equity ratio (DER), interest coverage ratio, inventory turnover ratio, Return on Investment (RoI), and debt to net worth ratio. Return on Investment (ROI) shows how much money the company made with respect to the investment made by the shareholders and investors.

A study by Aktaş & Seyfettin (2015) used the financial ratios and the stock returns of the insurance companies traded in BIST for the period of 2012/4Q–2015/1Q to determine their relationship. The result indicated that the ratios that have the strongest relationship with the stock returns are profitability ratios. (Cengiz & PÜSKÜL, 2016) studied the relationship between profitability and stock returns by identifying that an increase in profitability of equity (ROE) and gross sales margin lead to an increase in stock returns whereas an increase in operating profit margin result in a decrease in stock

prices. Arkan (2016) examined the significance of financial ratios in order to predict stock price trends in emerging markets. In Kuwait's financial market between the years 2005-2014, the prediction power of 12 financial ratios was analyzed based on a data set of 15 firms that take place in three different sectors. it was found that the most effective ratios are ROA, ROE, and net profit ratio in the industry sector while these are ROA, ROE, price-to-earnings ratio, and earnings per share in service and investment sector. Studies by Wijaya & Yustina (2019) found that the profitability ratio through return on asset ratio has significant correlation with stock return. This result is also consistent with Dadrasmoghadam & Akbari (2015). However, Return on a equity ratio has insignificant correlation with stock price. Sevim (2016) analyze the effect of financial ratios including the sales, asset and equity profitability ratios on stock returns over 32 manufacturing entities. This study revealed that there is no statistically significant relationship between these profitability ratios and stock returns. Study by Anwaar (2016) using A sample size of top 30 firms that has been selected from FTSE-100 index of London Stock Exchange to explore the impact of firms' performance on stock returns in 2005 to 2014. The study concluded that ROA, EPS and NPM have a significant relationship towards stock returns where Quick Ratio and ROE have no significant impact towards stock returns.

The market shares of each respective firm provide information and an indication of its market strength. Moreover, market definition helps to indicate relevant competitors and is useful for evaluating the risk of potential coordinated effects in mergers. Furthermore, identifying the area of competition allows other relevant competition issues to be examined, such as potential barriers to entry (Al Qaisi et al., 2016). A study by Flora and Hutabarat & Flora (2015) explored the factors affecting the stock price of Indonesia. It found that all institutions are seeking to get the most profit in the shortest possible time. Companies can do different things, including funding, to achieve their goals. There are different methods that can be used by the company to earn as much money as possible for the survival of the company. One of the most important ways is to attract investors to invest their capital as a source of corporate finance. The investment of the capital markets is the way to find out those who have a surplus of money and in need of funds (Hutabarat & Flora, 2015).

This research aims to investigate how the firm's financial profitability ratio affects the listed companies' stock return in the telecommunication sector during the COVID-19 pandemic. The primary purpose is to understand how significant is the impact of that profitability ratio to the company's stock return during the pandemic compared to the usual year. This research will contribute to the literature regarding the connection between the company's profitability financial ratio and the company's stock return especially during the event of a pandemic. The novelty of this study is that the company use in this study is the company that is expected to create larger profits during the pandemic instead of decreasing the profits because they operate on the telecommunication sector. As for the practical contribution, this study will provide a real-life performance and relationship comparison of each telecommunication company in Indonesia which could be a source of learning cases for others.

This research's limitations are that it is focused on one sector, which is the telecommunication sector, and only in Indonesia, so it is possible to expand this research by analyzing other industries, other companies outside Indonesia that operate in the same sector, and expanding the time horizons of the research to get different results.

RESEARCH METHODS

This research is going to use a quantitative research methods design, which is a deductive mode. Deductive mode steps of research include an explanation of the theory, the hypotheses and research question formulation, variables operationalization, and then choosing the instrument that will be used to process the data. The research design is as follows:

Table 1 Research Design

Part 1 : Preliminary Study	Part 2 : Data Collection	Part 3 : Data Analysis and Conclusion
1. Research Problem 2. Literature Review	Data Collection and Model Fitting	1. Data Analysis and Result 2. Conclusion

On this research, the stock return will be the dependent variables and the profitability ratio which include Return on asset (ROA), Return on equity (ROE), Return on Capital Employed (ROCE),

Return on Investment Capital (ROIC), Gross profit margin (GPM), Net profit margin (NPM), Operating profit margin (OPM) will be the independent variables. The variables operationalization is as follows:

Table 2 Variable Operationalization

Variables	Definitions	Indicators	Data Scale
Firms' Financial Performance	Firms' ability in generating net income utilizing invested in total assets (Robinson et al., 2015).	$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$	Percentage
Firms' Financial Performance	Return on equity (ROE) measures how well a company generates profits for its owners. (Henricks, 2022)	$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Total Equity}}$	Percentage
Firms' Financial Performance	Return on capital employed is a financial ratio that measures a company's profitability in terms of all of its capital.	$\text{Return on Capital Employed} = \frac{\text{EBIT}}{\text{Total Assets-Total Current Liabilities}}$	Percentage
Firms' Financial Performance	Return on invested capital (ROIC) is a calculation used to determine how well a company allocates its capital to profitable projects or investments.	$\text{Return on Investment Capital} = \frac{\text{EBIT (1- tax rate)}}{\text{interest bearing debt} + \text{Equity}}$	Percentage
Firms' Financial Performance	A company's gross profit margin indicates how much profit it makes after accounting for the direct costs associated with doing business.	$\text{GPM} = \frac{\text{Revenue- COGS}}{\text{Revenue}}$	Percentage
Firms' Financial Performance	A company's operating profit margin indicates how much profit it generates under its core operations by accounting for all operating expenses.	$\text{OPM} = \frac{\text{EBIT}}{\text{Revenue}}$	Percentage
Firms' Financial Performance	Net Profit Margin indicates the amount of profit generated as a percentage of a company's revenue.	$\text{NPM} = \frac{\text{EAT}}{\text{Revenue}}$	Percentage
Stock Returns	Returns that generated from increase in stock price (Bodie et al., 2014).	$\text{Capital Gains} = \frac{\text{Ending price - Beginning price}}{\text{Beginning price}}$	Percentage

The data collected for this research is the Annual financial report of seven different companies listed in the telecommunication sector on IDX and daily stock price of those companies from Yahoo Finance from 2017 to the year 2022. The value of stock price that will be used is the adjusted close price. The companies used are PT. Telkom Indonesia (TLKM), PT. XL Axiata tbk (EXCL), PT. Indosat Tbk (ISAT), PT. SMARTFREN TELECOM Tbk (FREN), PT. Tower Bersama Infrastructure (TBIG), PT. Sarana Menara Nusantara Tbk (TOWR), Pt. Protech Mitra Perkasa Tbk (OASA). The data of stock price will be calculated into stock return and the profitability ratio will be calculated from company's annual financial report to generate the financial ratio that will be used.

The breakpoint will be in 2020, so the pre-period will be from 2017 to 2019, and the post-period will be from 2020-2022. After that, we will compare the company's financial profitability from the pre-

period and post-period to determine how significant the COVID-19 pandemic is channeling the connection of that ratio to its stock return. The model type classification is as follows:

Table 3 Model Type

MODEL 1	MODEL 2	MODEL 3
PRE PANDEMIC (2017-2019)	POST PANDEMIC (2020-2022)	OVERALL YEAR (2017-2022)

A set of tests on model selection is conducted to find the fittest models for the data. For all period models, the fixed effect model is chosen, for the pre-pandemic period, the common effect model is chosen, and for the post-pandemic, the random effect model is chosen. The model estimation result is as follows:

Table 4 Estimation Model Result

Variable	Statistic	Common Effect			Random Effect			Fixed Effect		
		All	Pre	Post	All	Pre	Post	All	Pre	Post
roa	Estimate	-8.35	5.43	-8.45	-8.35	5.43	-8.45	-9.67	-7.31	-16.36
	Std.Error	5.64	9.48	8.76	5.64	9.48	8.76	7.64	19.42	23.41
roce	Estimate	4.40	-1.74	2.61	4.40	-1.74	2.61	5.56	-0.30	0.87
	Std.Error	3.06	4.92	5.45	3.06	4.92	5.45	3.87	15.41	11.51
roe	Estimate	0.25	-0.07	1.46	0.25	-0.07	1.46	0.57	-0.19	2.60
	Std.Error	0.72	0.96	1.55	0.72	0.96	1.55	0.89	3.34	3.59
gpm	Estimate	0.17	0.06	0.20	0.17	0.06	0.20	1.78**	9.44	2.95
	Std.Error	0.37	0.41	0.88	0.37	0.41	0.88	0.75	5.95	3.33
npm	Estimate	0.77	-0.92	-0.43	0.77	-0.92	-0.43	-0.04	1.41	0.06
	Std.Error	1.00	1.57	1.74	1.00	1.57	1.74	1.26	6.74	6.17
opm	Estimate	-0.32	0.45	0.28	-0.32	0.45	0.28	0.12	0.54	-0.17
	Std.Error	0.46	0.98	0.87	0.46	0.98	0.87	0.56	7.63	3.42
roic1	Estimate	-0.66	-1.30	-1.09	-0.66	-1.30	-1.09	-1.05	-3.60	1.00
	Std.Error	1.65	2.27	2.53	1.65	2.27	2.53	4.01	5.83	15.27
_cons	Estimate	-8.79	-1.23	16.28	-8.79	-1.23	16.28	-128.89***	-586.18	-172.76
	Std.Error	24.33	23.18	69.28	24.33	23.18	69.28	45.52	387.83	282.16

Note : * significant 10%, ** significant 5%, ***significant 1%

For the model fitting test, some set of tests is conducted, the first one is the Chow tests. The Chow test let researchers to check whether a multiple regression model varies across groups. The Chow test could also be used to test whether a multiple regression model varies across time (Wooldridge, 2015). The Chow test contains:

H_0: There is no time-fixed effect. Hence, the pooled OLS is fit (Common Effect Model)

H_1: There is a time-fixed effect. Hence, the fixed-effect model is fit.

To calculate the F-statistic, the Chow test used the following calculation(Wooldridge, 2015):

$$F=\frac{[SSR_p-(SSR_1+SSR_2)]}{SSR_1+SSR_2} \qquad (1)$$

Table 5 Chow Test Result

Model	Statistic	Prob.
All Period	1.89	0.1178
Pre Pandemic	1.11	0.4426
Post Pandemic	1.44	0.3206

Source : Processed by Stata 17

Based on table 5, the result show that the statistical results from Chow test on Pre Pandemic, Post Pandemic, and Overall models has a significant value more than the standard degree of significant (α=5% or 0.05), therefore H_0 is accepted. Therefore, based on Chow Test, the panel data regression estimation model used on all models is Common Effect Model.

The random effect model does not allow the unobserved effect to be correlated with the explanatory variables, while the fixed effect models do. The Hausman test is applied to check this assumption (Wooldridge, 2015). The Haussman test is conducted to determine the individual effect on panel data regression estimation models whether the data should be estimated using Fixed Effect (FEM) or Random Effect (REM). The Hausman test states:

H_0: The correlation between unobserved effect and explanatory variables is not found. Hence the random effect model is consistent.

H_1: The correlation between unobserved effect and explanatory variables is found. Hence the fixed effect model is consistent.

The test criteria state that if the statistic with the significant is less than the degree of significant (α=5%) therefore H0 is rejected which means that the effects used on the panel data regression would be Fixed Effect Model. Contrary to that if the statistic with the significant is bigger or equal than the degree of significant (α=5%) then H0 is accepted which means that the effects used on the panel data regression match with the empirical data would Random Effect Model. The result of the Haussman test is as follows :

Table 6 Haussman Test Result

Model	Statistic	Prob.
All Period	9.80	0.1333
Pre Pandemic	6.33	0.3875
Post Pandemic	7.18	0.3047

Source : Processed by Stata 17

As shown on table 6, the result of significant value from the Haussman test is more than the standard degree of, so H_0 is accepted. Therefore, based on the Haussman Test, the best panel data regression models to be used is the Random Effect Model (REM).

Lagrange Multiplier test is used to choose between Common Effect Model (CEM) or Random Effect Model (REM). The Hypothesis tested on this research is as follow:

H_0 : Common Effect Model

H_1 : Random Effect Model

Test criteria states that if the statistical result of Lagrange Multiplier with significant value less than the degree of significant (α=5%) resulted on the rejection of H0 which means that the Random Effect Model will be used on the panel data regression. Contrary to that, if the significant value of the Lagrange Multiplier test is bigger or equal to the degree of significant (α=5%), then H0 is accepted which means that Common Effect Model will be used on panel data regressions. The results of the Lagrange Multiplier Test is as follows :

Table 7 Lagrange Multiplier Test Result

Model	Statistic	Prob.
All Period	0.00	1.0000
Pre Pandemic	0.00	1.0000
Post Pandemic	0.00	1.0000

Source : Processed by Stata 17

As shown on Table 7, the results of the significant value is more than the standard degree of significant (α=5% or 0.05), So H_0 is accepted. Therefore, based on the Lagrange Multiplier test, the best panel data regressions models to be used is Common Effect Model (CEM).

After selecting the Panel Data Regression Model that will be used on this research. The next step is to test the assumption needed for Panel data Regression models. The tests conducted are the heteroskedasticity test, and autocorrelation test.

The first assumption is used to test whether heteroskedasticity is present on the data. The tests conducted on this are Breusch-Pagan and Wald test. The hypothesis for the heteroskedasticity test is as follows :

H0: Residual is Homogenous

H1: Residual is not Homogeneous (Heterogeneous)

Test criteria states that if the probability resulted from Wald test ≥ level of significance (α=5%) then the residual is homogeneous. The result of the heteroskedasticity test from Wald is as follows :

Table 7 Wald Test Result

Model	Statistic	Prob.
All Period	0.56	0.4525
Pre Pandemic	0.11	0.7368
Post Pandemic	0.01	0.9345

Source : Processed by STATA 14

Heteroskedasticity test on all models shows the value less than the level of significant (α=5% or 0.05). This means that the residuals on all models is not homogeneous. Therefore, the heteroskedasticity assumption on all models is not fulfilled.

After the heteroskedasticity test, the autocorrelation test is conducted. The autocorrelation test is required to know whether the autocorrelation in data is present. The Hypotheses are as follows :

H0: Residual have autocorrelations

H1: Residual have no autocorrelations

The Wooldridge test is used for the autocorrelation test. The result of the Woolridge test is as follows:

Table 8 Woolridge Test Result

Model	Statistic	Prob.
All Period	0.068	0.8026
Pre Pandemic	4.466	0.0790
Post Pandemic	1.545	0.2603

Source : Processed by STATA 14

Tables 8 shows the result on Woolridge test, we got the Woolridge test results on all models is more than the degree of alpha significant 5 % or 0.05. Therefore, the H0 is rejected which mean the residual results from all models don't have autocorrelations.

Set of tests are conducted to choose the regression which match with the research, and common effect model is chosen. The test on standard assumption on heteroskedasticity and autocorrelation shows that models is statistically significant, not having problem on heteroskedasticity and autocorrelation. Therefore, the Common Effect Model analysis can be conducted.

RESULTS AND DISCUSSION

Descriptive analysis in this research is used to see the common characteristic from the data whether it's dependent or the independent variables. The dependent variables used on this research is Stock return, where the independent variables used are ROA, ROE, ROCE, NPM, GPM, OPM, and ROIC. The descriptive result from all that variables are listed as follows :

Table 9 Descriptive Statistics All Periods Models

Variable	Obs	Mean	Std. dev.	Min	Max
Stock Returns (SR)	42	15.83976	41.62983	-64.1	134.72

Variable	Obs	Mean	Std. dev.	Min	Max
Return on Assets (ROA)	42	2.887857	6.746528	-14.09	16.48
Return on Equity (ROE)	42	10.8369	20.8378	-32.7	73.44
Return on Capital Employed (ROCE)	42	8.879524	11.41345	-14.41	29.81
Net Profit Margin (NPM)	42	8.869762	25.93576	-64.75	58.14
Gross Profit Margin (GPM)	42	69.48	25.73473	9.07	94.8
Operating Profit Margin (OPM)	42	20.07667	42.23474	-144.26	74.87
Return on Invested Capital (ROIC)	42	8.095714	10.79947	-11.65	27.73

Table 10 Descriptive Statistics Pre-Pandemic Models

Variable	Obs	Mean	Std. dev.	Min	Max
Stock Returns (SR)	21	-3.7681	29.64674	-64.1	56.61
Return on Assets (ROA)	21	1.946667	8.389766	-14.09	16.48
Return on Equity (ROE)	21	8.20381	24.41914	-32.7	73.44
Return on Capital Employed (ROCE)	21	7.295238	13.31596	-14.41	28.69
Net Profit Margin (NPM)	21	4.094286	31.02369	-64.75	58.14
Gross Profit Margin (GPM)	21	64.33286	29.94396	9.07	94.8
Operating Profit Margin (OPM)	21	18.21	39.46215	-50.14	74.87
Return on Invested Capital (ROIC)	21	6.352857	12.20837	-11.65	27.73

Table 11 Descriptive Statistics Post-Pandemic Models

Variable	Obs	Mean	Std. dev.	Min	Max
Stock Returns (SR)	21	35.44762	43.20214	-48.53	134.72
Return on Assets (ROA)	21	3.829048	4.588968	-3.94	12.25
Return on Equity (ROE)	21	13.47	16.71182	-12.32	66.59
Return on Capital Employed (ROCE)	21	10.46381	9.190271	-3.74	29.81
Net Profit Margin (NPM)	21	13.64524	19.19896	-38.63	39.93
Gross Profit Margin (GPM)	21	74.62714	20.13431	31.22	94.49
Operating Profit Margin (OPM)	21	21.94333	45.74009	-144.26	71.63
Return on Invested Capital (ROIC)	21	9.838571	9.146876	-3.77	27.09

Hypothesis test is used to find out whether there are any influence of independent variables partially or simultaneously to the dependent variables.The test criteria said if the probability value is less than the < sig. Alpha 5% or 0.05, therefore there are a significant influence. The result is presented on the tables as follows :

Table 12 Hypothesis Result

Variabel	Statistic	All Periode	Pre Pandemic	Post Pandemic
Return on Assets (ROA)	Estimate	-8.35	5.43	-8.45
	St.Error	(5.64)	(9.48)	(8.76)
Return on Capital Employed (ROCE)	Estimate	4.40	-1.74	2.61
	St.Error	(3.06)	(4.92)	(5.45)
Return on Equity (ROE)	Estimate	0.25	-0.07	1.46
	St.Error	(0.72)	(0.96)	(1.55)
Gross Profit Margin (GPM)	Estimate	0.17	0.06	0.20
	St.Error	(0.37)	(0.41)	(0.88)
Net Profit Margin (NPM)	Estimate	0.77	-0.92	-0.43
	St.Error	(1.00)	(1.57)	(1.74)
Operating Profit Margin (OPM)	Estimate	-0.32	0.45	0.28
	St.Error	(0.46)	(0.98)	(0.87)
Return on Invested Capital (ROIC)	Estimate	-0.66	-1.30	-1.09
	St.Error	(1.65)	(2.27)	(2.53)
_cons	Estimate	-8.79	-1.23	16.28
	St.Error	(24.33)	(23.18)	(69.28)
F statistic		0.51	0.14	0.72

Variabel	Statistic	All Periode	Pre Pandemic	Post Pandemic
Prob. F		0.8193	0.9921	0.6591

Note : * significant 10%, ** significant 5%, ***significant 1%

The model equations is present as follows:

$$SP_{i,t} = \alpha + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \beta_5\chi_5 + \beta_6\chi_6 + \varepsilon_{i,t} \quad (2)$$

$SP_{i,t}$ = Dependent Variable, Stock Return
α = constant
β = Coefficient
χ_1 = Return on Asset
χ_2 = Return on Equity
χ_3 = Return on Capital Employed
χ_4 = Net Profit Margin
χ_5 = Gross Profit Margin
χ_6 = Operating Profit Margin
$\varepsilon_{i,t}$ = Error

All Periods models

$SP_{i,t} = -8.79 - 8.35X_1 + 0.25X_2 + 4.4X_3 + 0.77X_4 - 0.17X_5 - 0.32X_6 - 0.66X_7$

Pre Pandemics models

$SP_{i,t} = -1.23 + 5.43X_1 - 0.07X_2 - 1.74X_3 - 0.92X_4 + 0.06X_5 - 0.45X_6 - 1.30X_7$

Post Pandemics models

$SP_{i,t} = 0.72 - 8.45X_1 + 1.46X_2 + 2.61X_3 - 0.43X_4 - 0.20X_5 + 0.28X_6 - 1.09X_7$

The simultaneous significant influence on all models full period models result in value of Wald Chi Square of 0.51 and probability of 0.8193. The result shows that the probability value larger than < level of significance (α=5% or 0,05). It means that there is no significant influence of the profitability ratio (ROA, ROCE, ROE, GPM, NPM, OPM, ROIC) simultaneously to the stock returns on the full period model.

On the pre pandemic models, the Wald Chi Square of 0.14 and probability of 0.9921 is generated from the calculations. The result shows that the probability value larger than < level of significance (α=5% or 0,05). It means that there is no significant influence of the profitability ratio (ROA, ROCE, ROE, GPM, NPM, OPM, ROIC) simultaneously to the stock returns on the pre pandemic model.

On the post pandemic model, the Wald Chi Square of 0.72 and probability of 0.6591 is generated from the calculations. The result shows that the probability value larger than < level of significance (α=5% or 0,05). It means that there is no significant influence of the profitability ratio (ROA, ROCE, ROE, GPM, NPM, OPM, ROIC) simultaneously to the stock returns on the pre pandemic model.

The impact of ROA on Stock Returns based on the significance test on all period, pre-pandemic periods and post-pandemic periods doesn't result in *. It shows that there is no significant influence on the ROA to the Stock Returns of the Telecommunication company on all models. The test of significance on the influence of Return on Capital Employed (ROCE) to Stock Returns on all models doesn't have any * of significance. It shows that there is no significant impact on RoCE to Stock Returns on all models.

The test of significance on the influence of Return on Equity (ROE) to Stock Returns on all models doesn't have any * of significance. It shows that there are no significant impact on Return on Equity (ROE) to Stock Returns on all models. The test of significance on the influence of Gross Profit Margin (GPM) to Stock Returns on all models is not resulted in any * that shows the level of significance. It shows that there is no significant influence of Gross Profit Margin (GPM) on Stock Returns on all models (all periods, pre- and post-pandemic).

The test of significance on the influence of Net Profit Margin (NPM) to Stock Returns on all models does not resulted on any * significant. It shows that there are no significant influence on NPM to Stock Returns on all models. The test of significance on the influence of Operating Profit Margin

(OPM) to Stock Returns on all models doesn't have any * of significance. It shows that there is no significant impact on Return on Equity (ROE) to Stock Returns on all models. The test of significance on the influence of Return on Invested Capital (ROIC) to Stock Returns on all models does not result on any significant. It shows that there is no significant impact of RoIC to the stock price on all models.

Discussion

Empirical research related to the impact of financial performance on stock returns still gives a mixed result. Research by Petcharabul & Romprasert (2014) using OLS showed that RoE & PE have a significant relationship with stock returns. Research by Al-Lozi & Obeidat (2016) showed that GPM, RoA, RoE and EPS have a significant relationship with stock returns while NPM and DER have no significant effects on stock returns. A study of Dita & Murtaqi (2014) showed that NPM and DER had a significant positive effect on stock returns while PBV had a significant negative effect on stock returns.

Based on panel data results on overall periods, pre-pandemic periods, and post-pandemic periods all value of RoA has no significant impact towards stock returns. This result is aligned with the results by Dini & Indarti (2012), Hertina et al. (2019), Tumonggor et al. (2017), and Firmansyah (2017) which says that RoA have no significant impact towards stock returns. However, this result is contrary to the results of research by Dadrasmoghadam & Akbari (2015), Anwaar (2016), Dita & Murtaqi (2014), Basalama et al. (2017) which says that ROA has a positive significant impact to stock returns.

In this research, RoE has no significant effects towards stock returns on overall periods, pre-pandemic periods, and post-pandemic periods. GPM shows no significant impact towards the stock returns on all period, pre-pandemic, and post-pandemic. The ROE results is aligned with the research by Wijaya & Yustina (2019) which says that ROE, PER, BVPS, and PTBV has no significant impact towards stock returns, research by Aisah & Mandala (2016), and Anwaar (2016) which says that RoE has no significant impact towards stock returns. Contrast with research by Al-Lozi & Obeidat (2016) which says that GPM, ROA, ROE, and EPS have a significant relationship towards stock returns. Research by (Sorongan, 2016), De Kai & Rahman (2018), also state that ROE has no significant impact towards stock returns.

Next results shows that NPM has no significant impact towards the stock returns. It is align with the research by Al-Lozi & Obeidat (2016) which says that NPM and DER have no significant relationship towards stock returns but contrary to the research by Anwaar (2016) which says that ROA, EPS and NPM have a significant impact towards stock returns and also with research by Öztürk & Karabulut (2018), Dita & Murtaqi (2014) which says that NPM have a significant effects on stock returns.

The results shows that ROIC (return on investment capital) has no significant relationship towards stock return on all periods, pre pandemic and post pandemic models. OPM (Operating profit margin) has no significant impact towards stock returns on all period, pre-pandemic, and post-pandemic models. ROCE (return on capital employed) has no significant relationship towards stock return on all periods, pre pandemic and post pandemic models. It is aligned with the research by (Har & Ghafar, 2015) which state that after the recession period (2007-2008), ROCE shows no significant impact towards stock returns.

CONCLUSION

Based on the results and discussion in this study, it can be concluded that in the overall period model, which is the all periods, pre-pandemic periods, and post-pandemic periods shows that Profitability Financial Ratio do not simultaneously affects stock price significantly. On the partially significant test, it also shows that none of the independent variable significantly affect stock return. The results show that all the variables tested are insignificant towards stock returns.

REFERENCES

Aisah, A. N., & Mandala, K. (2016). *Pengaruh return on equity, earning per share, firm size dan operating cash flow terhadap return saham*. Udayana University.

Aktaş, R., & Seyfettin, Ü. (2015). The relationship between financial efficiency ratios and stock prices: an empirical investigation on insurance companies listed in Borsa Istanbul. *Finansal Araştırmalar*

ve Çalışmalar Dergisi, *7*(12), 1–16.

Al-Lozi, N. M., & Obeidat, G. S. (2016). The relationship between the stock return and financial indicators (profitability, leverage): An empirical study on manufacturing companies listed in Amman Stock Exchange. *Journal of Social Sciences (Coes&Rj-Jss)*, *5*(3), 408–424.

Al Qaisi, F., Tahtamouni, A., & Al-Qudah, M. (2016). Factors affecting the market stock price-The case of the insurance companies listed in Amman Stock Exchange. *International Journal of Business and Social Science*, *7*(10), 81–90.

Alviana, T., & Megawati, M. (2021). Comparative analysis of company financial performance before and during the COVID-19 pandemic on LQ45 index. *Financial Management Studies*, *1*(4), 60–73.

Ang, R. (1997). Buku Pintar Pasar Modal Indonesia: Mediasoft Indonesia. *Juli, Jakarta*.

Anwaar, M. (2016). Impact of firms' performance on stock returns (evidence from listed companies of FTSE-100 Index London, UK). *Global Journal of Management and Business Research*, *16*(1), 31–39.

Arkan, T. (2016). The importance of financial ratios in predicting stock price trends: A case study in emerging markets. *Finanse, Rynki Finansowe, Ubezpieczenia*, *79*, 13–26.

Basalama, I., Murni, S., & Sumarauw, J. S. B. (2017). Pengaruh Current Ratio, Der Dan Roa Terhadap Return Saham Pada Perusahaan Automotif Dan Komponen Periode 2013-2015. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *5*(2).

Beaver, W. H., Correia, M., & McNichols, M. F. (2011). Financial statement analysis and the prediction of financial distress. *Foundations and Trends® in Accounting*, *5*(2), 99–173.

Cengiz, H., & PÜSKÜL, A. S. Ö. (2016). Hisse Senedi Getirileri ve Kârlılık Arasındaki İlişki: Borsa İstanbul Endeksinde İşlem Gören İşletmelerin Analizi. *Yalova Sosyal Bilimler Dergisi*, *6*(12), 295–306. https://doi.org/10.17828/yalovasosbil.289021

Dadrasmoghadam, A., & Akbari, S. M. R. (2015). Relationship between financial ratios in the stock prices of agriculture-related companies accepted on the stock exchange for Iran. *Research Journal of Fisheries and Hydrobiology*, *10*(9), 586–591.

De Kai, K., & Rahman, I. B. A. (2018). The Impact of Financial Indicators towards Stock Returns of Finance Companies Listed on Bursa Malaysia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *8*(3), 128–140.

Dini, A. W., & Indarti, I. (2012). Pengaruh net profit margin (NPM), return on assets (ROA) dan return on equity (ROE) terhadap harga saham yang terdaftar dalam indeks emiten LQ45 Tahun 2008–2010. *Jurnal Kajian Akuntansi Dan Bisnis*, *1*(1), 102654.

Dita, A. H., & Murtaqi, I. (2014). The effect of net profit margin, price to book value and debt to equity ratio to stock return in the Indonesian consumer goods industry. *Journal of Business and Management*, *3*(3), 305–315.

Har, W. P., & Ghafar, M. A. A. (2015). The impact of accounting earnings on stock returns: the case of Malaysia's plantation industry. *International Journal of Business and Management*, *10*(4), 155.

Hertina, D., Hidayat, M. B. H., & Mustika, D. (2019). Ukuran perusahaan, kebijakan hutang dan profitabilitas pengaruhnya terhadap nilai perusahaan. *Jurnal Ecodemica: Jurnal Ekonomi Manajemen Dan Bisnis*, *3*(1), 1–10.

Hutabarat, F. M., & Flora, J. (2015). Exploring factors affecting stock price of Indonesia state owned bank listed at Indonesia stock exchange. *Academic Research International*, *6*(5), 42–52.

Jayani, D. . (2021). *Penetrasi Internet Indonesia Meningkat saat Pandemi Covid-19*. Katadata Media Network.

Myšková, R., & Hájek, P. (2017). Comprehensive assessment of firm financial performance using

financial ratios and linguistic analysis of annual reports. *Journal of International Studies, Volume 10, Issue: 4.* https://doi.org/10.14254/2071-8330.2017/10-4/7

Öztürk, H., & Karabulut, T. A. (2018). The relationship between earnings-to-price, current ratio, profit margin and return: an empirical analysis on Istanbul stock exchange. *Accounting and Finance Research*, *7*(1), 109–115.

Petcharabul, P., & Romprasert, S. (2014). Technology industry on financial ratios and stock returns. *Journal of Business and Economics*, *5*(5), 739–746.

Ross, S. A., Westerfield, R. W., Jordan, B. D., Lim, J., & Tan, R. (2009). Pengantar keuangan perusahaan. *Jakarta: Salemba Empat*.

Sevim, U. (2016). İşletme Finansal Oranlarının Hisse Senedi Getirileri Üzerine Etkisi: BİST 100 İmalat İşletmeleri Örneği. *Eskişehir Osmangazi Üniversitesi İktisadi ve İdari Bilimler Dergisi*, *11*(2), 221–236.

Sorongan, F. A. (2016). *Factors affecting the return stock company in Indonesia Stock Exchange (IDX) LQ45 in years 2012-2015*.

Tumonggor, M., Murni, S., & Van Rate, P. (2017). Analisis pengaruh current ratio, return on equity, debt to equity ratio dan growth terhadap return saham pada cosmetics and household industry yang terdaftar di BEI Periode 2010-2016. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *5*(2).

Uddin, R., Rahman, Z., & Hossain, R. (2013). Determinants of stock prices in financial sector companies in Bangladesh-A study on Dhaka Stock Exchange (DSE). *Interdisciplinary Journal of Contemporary Research in Business*, *5*(3), 471–480.

Wijaya, M., & Yustina, A. I. (2019). The impact of financial ratio toward stock price: evidence from banking companies. *JAAF (Journal of Applied Accounting and Finance)*, *1*(1), 27–44.

Wooldridge, J. M. (2015). Introductory econometrics: A modern approach: Nelson Education. *Scarborough, ON, Canada*.

Wulansari, T., Sulastri, S., Widiyanti, M., & Adam, M. (2023). The effect of financial ratio on stock price in telecommunications sector companies listed on the Indonesia stock exchange. *International Journal of Business, Economics & Management*, *6*(1), 1–9. https://doi.org/10.21744/ijbem.v6n1.2058