Quantitative Economics and Management Studies (QEMS) *ISSN: 2722-6247 (online)*
Vol. 5 No. 4 (2024)
https://doi.org/10.35877/454RI.qems2753

Banking Share Prices Analysis: The Influence of Financial Ratios Amidst Digital Transformation

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Abstract

This research aims to analyze the influence of financial ratios on share prices in the banking sub-sector listed on the Indonesia Stock Exchange. The approach in this research is to use a quantitative approach and based on its objectives, this type of research is causal, namely research that explains the influence of an independent variable on the dependent variable. The independent variables in this research include Current Ratio (CR), Debt to Equity Ratio (DER), and Return On Assets (ROA) and the dependent variable in this research is Stock Price. The population of this research is banking companies listed on the Indonesia Stock Exchange, totaling 46 banking issuers. The sample determination procedure uses a non-probability sampling method, namely in the form of purposive sampling. Purposive sampling is a sampling technique with certain considerations. Based on the selection results, there were 20 banks that met the criteria. Data analysis was carried out using multiple linear regression analysis. The results of the analysis show that the Current Ratio and Debt to Equity Ratio have a negative effect on stock prices, Return On Assets have a positive effect on share prices.

Keywords: Current Ratio (CR); Debt to Equity Ratio (DER); Return on Asset (ROA); Stock Price (SP).

Received: 4 March 2024 Revised: 29 June 2024 Accepted: 16 July 2024

1. Introduction

The capital market is a financial market used for long-term investment activities of a company which can be bought and sold using its own capital in the form of bonds, securities or shares, (Rahmawati, R., Amila, G., Widjaya, 2023). The stock market price is the selling price from one investor to another investor after the shares are listed on the stock exchange, (Kolhe, 2020) ; (Darmawan & Megawati, 2022). Based on technological advances, Industry 4.0 has had a significant impact on the banking world, slowly the banking world is starting to use the internet and produce new methods of digital banking systems. (Jiang, E. X., Yu, G. Y., & Zhang, 2022) emphasized that only visionary banks will be winners in the competition in this digital era. According to Jiang, there is no guarantee that banks that are currently large will emerge as winners in the future. So what is the fate of conventional banks now? Will they survive or will they be swept away by the digital banking tsunami? Conventional banks today can survive and win or they can lose. In the digital banking competition, the starting line has already begun and no one knows which side will win this battle. Factors of bank competitive advantage before the digital era lay in banking transactions and government programs. Then, the superiority factor shifted to banks with a large number of branch offices and lots of ATM machines. In the digital era, banking's competitive advantage lies in the digital ecosystem. The emergence of new digital banks is a big challenge for conventional banks (Chen, T. C., Kuo, F. H., & Lin, 2021). The Composite Stock Price Index (IHSG) in the second week of February 2023 managed to set a new highest record at level 6805, supported by foreign net buying which has reached IDR 12.5 trillion since the beginning of 2022. Foreign investors are hunting for banking shares, which have posted performance above expectations, bringing the JCI to its highest level, banking sector shares are an option in line with Indonesia's economic recovery which will spur credit growth (Lee, D. K. C., Yan, L., & Wang, 2021).

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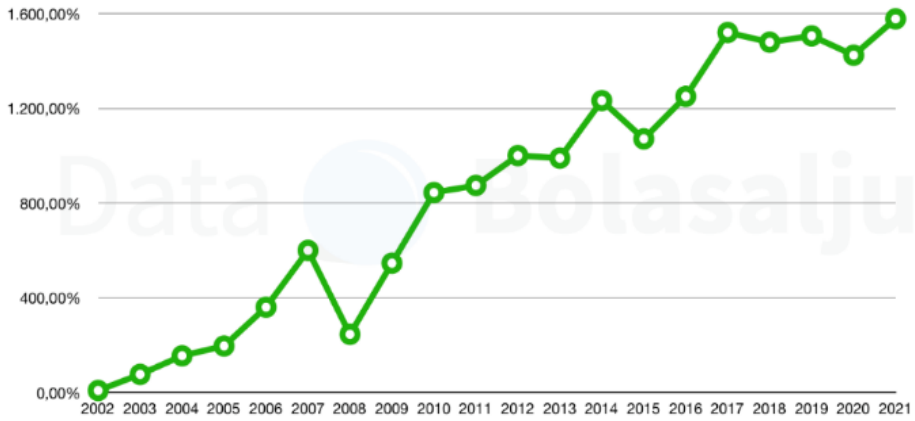

Figure 1. IHSG for the Last 20 Years

Source: data processing IDX bolasalju

Based on Figure 1, the performance of the Composite Stock Price Index (IHSG) fluctuates every year but tends to increase. Changes in share prices displayed in the graph above show the company's performance profile as reflected by investors in share trading activities on the capital market (Almira & Wiagustini, 2020). Some investors are interested in investing in shares with a better level of profit and dividends from capital again. Analysis of banking share prices in the midst of digital transformation is an interesting thing to research, what factors dominantly influence share prices (Almira & Wiagustini, 2020). Meta data analysis with bibliometric is a formulation for determining variables related to the research topic. Bibliometric analysis is carried out by mapping a number of articles published in journals on relevant research topics. The number of articles mapped was 200 of the newest articles, then research issues that were still viral in the research world were selected. Based on this, research variables were selected that were related to stock prices as seen in Figure 2 below (Paule-Vianez, J., Gómez-Martínez, 2020).

Figure 2. Bibliometric

Source: Meta data analysis

Figure 2 shows that there are several recent research issues related to share prices, namely Current Ratio (CR), Debt to Equity Ratio DER), Return On Assets (ROA) as independent variables. CR is a ratio used to measure a company's ability to fulfill its short-term obligations. The higher the current ratio, the more liquid the company is (Diyanto, 2020). DER is defined as a ratio to measure the ratio between debt and equity. In the company's funding structure, it is shown as its own capital to fulfill all obligations. The lower the DER value, the smaller the value of assets financed by debt (Lawati, 2021). The ROA variable is a ratio to measure a company's ability to generate net profit based on a certain level of assets. The higher the ROA value indicates that the company is more effective in managing its assets to produce a greater amount of net profit (Almira & Wiagustini, 2020).

2. Literature Review

The theoretical study in this research uses Signaling Theory. Signaling Theory is the information signals needed by investors to consider and determine whether investors will invest their shares or not in the company concerned (Munawar, 2019). The operational definitions of variables in this research include; 1) The share price is the investment value offered by a company (Ikhsani, R. G., & Haryono, 2022), where the indicators are book value, intrinsic value and market value which are related to each other to measure the appropriateness of the price of each share offered ; 2) ROA explains the company's ability to generate profits after tax using the assets it owns (Viorentina, V. V, Rikumahu, 2023). ROA indicator = Net Profit / Total Assets; 3) CR is defined as a measure to calculate a company's ability to pay short-term obligations with available current assets (Rosi, N. A., & Hasanuh, 2020). CR indicator = Current Assets / Current Liabilities x 100%; 4) DER is a measure to compare total debt with shareholder equity, (Lawati, 2021). DER indicator = Liabilities / Equity x 100%.

2.1. Current Ratio (CR)

The current ratio, according to (Nuryani & Sunarsi, 2020), is a ratio that illustrates a company's capacity to settle its short-term debt. Demonstrates a company's capacity to use its present assets to pay down its short-term debt. (Hertina, 2021) assert that a company's capacity to settle debts of different kinds increases with its current ratio. The ability of the business to pay its payments varies with the current ratio; nonetheless, this ratio needs to be larger than the current ratio. Bills, but because it ignores the liquidity of each component, this ratio should be seen as a broad indicator. Consider the liquidity of every element that makes up your current assets (Satria, 2022). Businesses with live assets mainly made up of cash and past-due receivables, will often be seen as more liquid than a business whose current assets are mostly made up of merchandise. (Satria, 2022) states that the following formula can be used to get the current ratio:

Current Ratio = Current Asset / Current liabilities

2.2. Debt to Equity Ratio (DER)

DER is defined as the ratio of total debt to total equity, according to (Desmon & Meirinaldi, 2022). The degree to which own capital insures all debt is demonstrated by this ratio. This ratio can also be used to compare the amount of money invested in the company by its owners versus that which comes from outside sources. The higher the rate of return on shareholders' equity (Hutabarat et al., 2023), the more evidence there is that the business makes a profit on investment that outweighs the cost of debt. Therefore, a firm with a low debt ratio can easily enhance its return to the owner by using more debt; nevertheless, the company's financial risk increases with the amount of debt it uses, increasing the risk to shareholders. According to (Mahayati et al., 2021), the formula for calculating the debt to equity ratio is:

Debt to equity ratio = Total debt / Capital

2.3. Return on Asset (ROA)

Return on Assets is financial metric used to evaluate a company's profitability by measuring how efficiently it generates profits from its assets (Satria, 2022). ROA is calculated by dividing the company's net income by its average total assets. This ratio indicates how well a company is using its assets to generate earnings. A higher ROA suggests better management of assets in generating profit, while a lower ROA may indicate inefficiency or financial challenges (Husin et al., 2022). It's an essential tool for investors and analysts to assess a company's financial health and operational efficiency. Return on Assets (ROA) is a financial ratio that measures a company's ability to generate profit

from its assets. It indicates how efficiently a company is using its assets to generate earnings (Darmawan & Megawati, 2022). ROA is calculated using the following formula:

Debt to equity ratio = Net Income / Average Total Assets

3. Research Method and Materials

The approach in this research is to use quantitative research and based on its objectives, this type of research is causal, namely research that explains the influence of an independent variable on the dependent variable. The measurement scale in this research is a ratio scale, where the ratio scale is used in this research to measure, differentiate, sort and compare data. The population of this research is banking companies listed on the Indonesia Stock Exchange, totaling 20 banking issuers. The sample determination procedure uses a non-probability sampling method in the form of purposive sampling, namely a sampling technique with certain considerations. The samples taken were seventeen banks in Indonesia with certain criteria. The data collection method used is secondary data, obtained by documentation. In analyzing the research data, descriptive statistics, classical assumption testing, multiple linear regression analysis and hypothesis testing were used (Panwar, P., & Agarwal, 2023).

4. Results and Discussion

4.1. Descriptive statistics

Descriptive statistics are used in this research so that the spread or distribution of data from the variables used in this research can be explained.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Stock Price	100	80	9925	2074.92	2371.27
CR	100	14	2349	991.83	632.78
DER	100	167	1608	618.27	269.16
ROA	100	13	422	166.46	101.02
Valid N (listwise)	100				

The data source from table 1 can be interpreted as: (1) The dependent variable Stock Price with N=100 shows a minimum value = 80 maximum value = 9.925 mean value = 2074.92 and standard deviation value = 2371.27, (2) the independent variable CR with N=100 shows a minimum value = 14, maximum value = 2349, mean value = 991.83 and standard deviation value = 632.78, (3) the independent variable DER with N=100 shows a minimum value = 167 maximum value= 1608 mean value = 618.27 and standard deviation value = 269.16, (4) the independent variable ROA with N=100 shows a minimum value = 13, maximum value = 422, mean value = 166.46 and standard deviation value = 101.02.

4.2. Classic Assumption Test Result

There is a provision that must be carried out before testing the regression model, namely carrying out the classical assumption test. The regression model is required to be free from classical assumption, namely as follows:

4.2.1. Normality Test Result

In order for data to be categorized as normally distributed, the significant level in the Kolmogorov-Smirnov test be greater than 0.05.

Based on the results of the analysis in table 2, it shows that the value of Asymp. Sig. (2-tailed) of 0.108 > 0.05. So it can be concluded that the data is normally distributed.

4.2.2. Multicollinearity Test Results

To avoid multicollinearity, the VIF value for each independent variable must be less than 10, and the tolerance value for each independent variable must be more than 0.10.

Table 2. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
	N	100
Normal Parameters[a,b]	Mean	0.0000000
	Std. Deviation	1688.96113001
Most Extreme Differences	Absolute	0.081
	Positive	0.081
	Negative	-0.058
Test Statistic		0.081
Asymp. Sig. (2-tailed)[c]		0.108[d]

Table 3. Multicollinearity Test Results

Model		Tolerance	VIF
1	CR	0.110	9.080
	DER	0.405	2.472
	ROA	0.106	9.466

a. Dependent Variable: Harga Saham

Furthermore, the test results in table 3 state that: 1) Variable CR (X1) 0,110 ⩾ 0,10 and VIF value 9,080 ⩽ 10. 2) Variable DER (X2) 0,405 ⩾ 0,10 and VIF value 2,472 ⩽ 10. 3) ROA variable (X3) 0,106 ⩾ 0,10 and VIF value 9,466 ⩽ 10.

4.2.3. Autocorrelation Test Results

Autocorrelation testing in this study used Durbin-Watson (DW-test). The data is declared to have no autocorrelation if the Durbin-Watson value is between -2 to +2.

Table 4. Auto Correlation and Determination Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,702[a]	,493	,477	1715,15	,715

a. Predictors: (Constant), ROA, CR, DER

b. Dependent Variable: Stock Price

Based on the results of the Auto correlation test in Table 4, it can be seen that the Durbin-Watson value is 0,715. This means that there is no autocorrelation in this regression model. Likewise, the results of the determination test can be seen at R square = 0,493, which means that the influence of CR, DER and ROA together in determining share prices is 49,3%, while 50,7% is influenced by other factors outside this research.

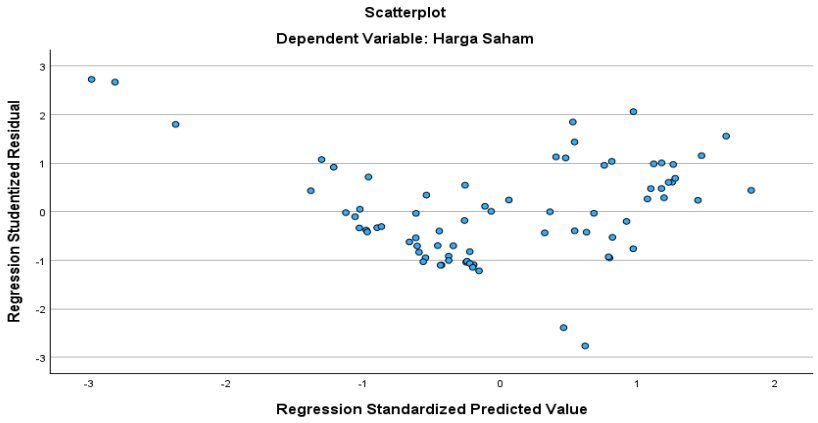

Figure 3. Heteroscedasticity Test

4.2.4. Heteroscedasticity Test Results

In this research, to find out whether there are symptoms of heteroscedasticity in the regression model, the heteroscedasticity test is used. To find out, you need to look at the distribution of points on the scatter plot graph.

Based on Figure 3, the scatter plot graph can be seen that the dots are spread above and below the number 0 on the Y axis, and the dots also do not form a clear pattern. Therefore it can be concluded that the regression model does not experience heteroscedasticity or also called homoscedasticity.

4.2.5. Results of Multiple Linear Regression Analysis

This research uses multiple linear regression analysis as a tool to measure how much influence or cause and effect the independent variable has on the dependent variable.

Meanwhile, in table 5, the results of the multiple linear regression analysis calculations obtained are:

$$HS = -853.24 + 0.330\ CR + 0.229\ DER + 14.772\ ROA.$$

Table 5. Multiple Linear Regression Analysis

	B	Std. Error	Beta	t	Sig.
Constant	-853.24	756.17		-1.128	<0.001
CR	0.330	0.821	0.088	0.402	<0.001
DER	0.229	1.007	0.026	0.228	<0.820
ROA	14.772	5.25	0.629	2.814	<0.006

4.2.6. Partial Hypothesis Test Results (t Test)

Based on the test results presented in table 5, it can be seen that: (1) For the Current Ratio variable, the significance value obtained from calculations using SPSS 26 is 0.001 with a negative t count of -1.128, which means that the CR variable has a significant effect on stock prices. So H1 which states that the CR has a significant effect on share prices is accepted. (2) For the DER variable, the significance value obtained is 0.820 with a positive t count of 0.228, which means that the DER variable has a not significant effect on share prices. So H2 which states that the DER is rejected. This shows that funding decisions made by banks are not a direct factor for investors to buy shares. Investors are more concerned about how management uses capital effectively and efficiently to generate company profits. (3) For the ROA variable, the significance value obtained is 0.006 with a positive t count of 2.814 which means that the ROA variable has a significant effect on share prices. So hypothesis H3 is declared accepted. Meanwhile, the results of the simultaneity test (F Test) explains whether the regression model of the independent variables simultaneously influences the dependent variable.

Table 6. F Test

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	441427097,626	3	147142365,875	50,500	<,001[b]
Residual	206872418,454	71	2913696,035		
Total	648299516,080	74			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), ROA, CR, DER

Furthermore, from Table 6 the F test explains that, a probability value of 0,001 means that CR, DER and ROA simultaneously have a positive effect on share prices

5. Conclusion

Based on the comprehensive analysis conducted on the influence of financial ratios on banking share prices amidst digital transformation, several key conclusions can be drawn: Firstly, the study employed a quantitative causal research approach to investigate the impact of financial ratios—Current Ratio (CR), Debt to Equity Ratio (DER), and Return On Assets (ROA)—on stock prices of banking companies listed on the Indonesia Stock Exchange. The findings revealed that ROA positively influences stock prices, indicating that investors value profitability and efficient

asset management. Conversely, both CR and DER showed a negative or non-significant impact on share prices, suggesting that liquidity and debt levels do not significantly sway investor decisions compared to profitability metrics.

Secondly, the research utilized robust statistical techniques including multiple linear regression and classic assumption tests to validate the relationships between variables. Results confirmed the absence of multicollinearity, autocorrelation, and heteroscedasticity issues in the regression model, ensuring the reliability of the findings. Overall, these findings underscore the evolving landscape of banking amidst digital transformation, where traditional metrics like liquidity and debt structure are less influential compared to profitability in driving investor confidence and share prices. This study contributes valuable insights for banking executives, investors, and policymakers navigating the complexities of financial markets in an increasingly digital era

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