



Uncovering the Role of Information Technology Investments in Stabilizing Stock Prices: A Case Study on the Financial Performance of Companies in the Financial Sector

Namira Lia Qanitah¹ and Yuli Agustina^{2*} 

^{1,2} Universitas Negeri Malang, Malang, East Java, Indonesia
yuli.agustina.fe@um.ac.id

Abstract. The research study examines the connection between stock prices and financial performance, with information technology (IT) investments as a moderating variable. The sample consists of 41 financial sector companies listed on the Indonesia Stock Exchange between 2019 and 2022. The data analyzed includes stock prices and financial reports, employing the partial least square (PLS) method using SmartPLS 4.0 software. The findings reveal that the current ratio, debt-to-asset ratio, and return on assets do not significantly affect the price of stocks, whereas return on equity has a significant impact. Furthermore, IT investments moderate the effect of the debt-to-asset ratio on stock prices.

Keywords: Financial Performance, Stock Prices, Information Technology Investments.

1 Introduction

The real sector can grow with the support of the financial sector as its driving force. The financial sector provides borrowers with access to a wide range of secure and effective financial products, thereby fostering investment and economic growth. The fluctuations in stock prices in the investment world are commonly referred to as the capital market [1]. Stock prices are one of the key factors considered by investors when making decisions and seeking opportunities to allocate more funds to the most efficient capital markets [2]. The Composite Stock Price Index (IHSG) serves as a measure of stock price changes in the capital market [3]. In 2019, prior to the COVID-19 pandemic, the financial sector stock index was traded at around 1,300. However, when the pandemic struck in March 2020, Indonesia's financial sector stock index plummeted to 900 within a matter of weeks [4]. Furthermore, in early 2020, the COVID-19 pandemic negatively impacted the performance of the financial sector [5]. Nevertheless, the pandemic also accelerated the development of the Financial Technology (fintech) system in Indonesia [6].

The pandemic period promoted the functionality of fintech, which was considered highly beneficial. Fintech has become the fastest-growing and largest segment, offering

new service features and facilitating public access to financial products and literacy [6]. Bank Indonesia stated that the financial industry became more digitalized during the pandemic. Technological innovations in banking from 2019 to 2022 have demonstrated how Indonesia's financial sector has transformed since the onset of COVID-19, with rapid advancements in digitalization (www.infobanknews.com). Digitalization in payment systems, which simplifies transaction activities, is expected to stimulate national economic recovery (bi.go.id). This adjustment is anticipated to enhance the future performance of the financial sector, which in turn may lead to fluctuations in stock prices. Stock prices, whether high or low, reflect a company's financial performance [7].

The degree to which a business applies appropriate and accurate financial standards determines how well its financial performance is assessed. Potential investors examine the company's financial performance reports before deciding whether to invest. Financial reports have the power to influence investor confidence in financial markets. Financial reports are analyzed through financial ratios to evaluate a company's performance [8]. The financial ratios used in this study include the Current Ratio (CR), Debt to Asset Ratio (DAR), Return on Assets (ROA), and Return on Equity (ROE), which are employed to measure financial performance.

The Current Ratio (CR) evaluates the extent to which a company can pay off its short-term debt [9]. Previous studies by [10], [11], and [12] demonstrated that CR positively and significantly influences stock prices. When a corporation shows its ability to pay off debt, investors are more confident about the company's financial stability. Investor confidence causes stock prices to increase correspondingly, which encourages continuous investments in the business. However, other studies by [13], [14], and [15] has proven that CR either has no influence on stock values or has a minor impact. A high CR may indicate inadequate activity and make it more difficult for the business to create cash flow, therefore it is not always a sign of healthy financial health. On the other hand, a low CR may cause stock prices to drop.

A company's debt-to-asset ratio (DAR) shows how much of its assets are funded by debt by calculating the ratio of debt to total assets [16]. Since it implies that the company would find it difficult to pay off its debt, a high DAR is seen negatively and could lead to a decline in stock prices and investor interest. Thus, stock prices can be positively impacted and investor money can be attracted by keeping a low and balanced DAR to reduce risk and guarantee that the company can pay its debts [17]. DAR has little effect on stock prices, per studies by [17]. Nonetheless, [16] discovered that DAR had an impact on stock prices.

A company's net income divided by its total assets for a given year is known as return on assets, or ROA. ROA evaluates how well a business functions, maintains, and generates money off of its assets. A company's performance will suffer if its resources are not allocated efficiently, which will make investors less interested in its stock and drive down prices. A stable and increasing ROA suggests that a company is prioritizing its financial performance, which is a positive indicator of success [17]. According to [17], stock prices are not affected by ROA, while [18] discovered that stock prices are positively impacted by ROA.

Return on Equity (ROE) measures the net income of a company compared to its net equity [19]. A high ROE signifies effective capital management, which can lead to increased net profits. Profit growth could result in higher stock prices due to higher returns on investment [20]. However, [10] found that ROE negatively impacts stock prices and does not have a significant effect. On the other hand, [21] argue that ROE shows no negative impact on stock prices. The increase in stock prices is not necessarily influenced by rising ROE, suggesting that investors may lack sufficient understanding of the company's ability to turn a profit with its available capital.

Information technology investment is used as a moderating variable because of its role in enhancing a company's competitiveness and boosting profitability through performance efficiency. This moderating variable was added to the study in order to ascertain if investments in information technology might improve or worsen the correlation between stock prices and financial performance. In today's business environment, when reliability, speed, and convenience are critical for staying competitive, especially for international corporations, information technology plays a critical role in corporate operations. The integration of information technology (IT) with business strategy demonstrates the importance of IT in business processes. The ability of the company to obtain value or additional benefits from IT expenditures can be used to gauge this alignment. Advantages of IT investment include gaining market share, improving outcomes, increasing efficiency, enhancing business performance, creating new customer-focused services and products, and improving the integration of internal business processes. Investing in IT refers to expenditures on hardware, software, and shared services such as consulting, training, and education utilized by the company or all its business units [22].

The topic has been the subject of numerous investigations, but inconsistencies in the results of previous research have been observed. This study aims to re-examine the effect of financial performance on stock prices by incorporating information technology investment as a moderating variable. Information technology investment occurs when a company decides to allocate more funds toward actual IT expenditures to achieve projected benefits.

2 Literature Review

2.1 Signalling Theory

Signal theory, according to [23], explains market issues involving asymmetric information. Signal theory posits that asymmetry can be mitigated by providing signals in the form of additional information to the parties who require it. Although this theory initially developed in labor markets, it can also be applied to other markets with information asymmetry, such as the capital market. In the capital market, asymmetric information arises because of the unequal access to company information between insiders and external parties.

2.2 Agency Theory

[24] describe an "agency relationship" as a for of contract in which a principal (owner) appoints another party, or an agent, to perform tasks on their behalf, granting the agent some authority to make decisions. Agency theory helps to clarify the conflicts of interest between principals and agents, which may arise due to information technology investments expected to increase business profitability in the future. Shareholders tend to give management more control to expand the company or improve shareholder welfare [25]. Generally, shareholders assess managers' performance based on key benchmarks that can be achieved within a specified period. An increase in company profits will lead to a rise in stock prices. Stock prices will also increase in response to higher demand for shares [26].

2.3 Financial Performances

Financial performance, at its core, is a measure of how well a company generates profits using specific metrics [27]. To assess financial performance, one of the primary methods is through financial ratio analysis [8]. Key financial ratio indicators include the Current Ratio (CR), Debt to Asset Ratio (DAR), Return on Assets (ROA), and Return on Equity (ROE). The Current Ratio measures a company's ability to settle short-term obligations [9]. The formula for calculating CR is:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Debts}}$$

The debt-to-asset ratio (DAR) determines a company's capacity to pay for all its assets using its debt [17]. The formula to calculate DAR is as follows:

$$\text{Debt to Asset Ratio} = \frac{\text{Total of Debt}}{\text{Total of Asset}}$$

Return on Assets (ROA) is a ratio that calculates a company's annual net income relative to its average total assets over the course of the year [17]. The formula to calculate ROA is:

$$\text{Return on Asset} = \frac{\text{Net Income}}{\text{Total of Assets}}$$

Return on Equity (ROE) calculates the ratio of net income generated by a company using its shareholders' equity [19]. The formula to calculate ROE is:

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Equity of Shareholders}}$$

2.4 Stock Price

One type of security, namely stocks, is issued to the company's owners and other shareholders who wish to receive dividends or other distributions from the company. However, the stock price, or the stock itself, is determined at the opening of the stock exchange and is influenced by supply and demand [28]. The stock price indicator selected for this study is the closing stock price before the close of trading on the Indonesia Stock Exchange. By calculating the difference between today's closing price and the

previous day's closing price, one can gauge how the market reacts to economic shifts, company news, or other variables that may affect stock prices [29].

2.5 The Influence of Current Ratio on Stock Prices

The Current Ratio (CR) evaluates a company's capability to settle short-term liabilities by comparing total current assets to current liabilities. The CR indicates how well a business can meet its working capital needs, which is crucial for maintaining stable revenue growth and positively impacting stock prices. A high CR reduces the risk of liquidation and mitigates shareholder risk, as current assets can effectively cover short-term debts. As a result, stock prices rise due to increased demand for the company's shares when investors purchase them [30].

H1: Current ratio influences the Stock Prices of Financial Companies from 2019 to 2022

2.6 The Influence Debt to Asset Ratio on Stock Prices

The Debt to Asset Ratio (DAR) measures the extent to which a company's liabilities are covered by its total assets or the proportion of assets financed by debt. A high DAR indicates that the company is taking on more risk, as borrowing becomes more expensive, making it difficult for the company to repay its debts. Therefore, maintaining a lower and more balanced DAR helps reduce risk and ensures that the company can meet its debt obligations, which in turn can attract investors to purchase the company's shares [17]. Consequently, stock prices may be influenced by investor interest.

H2: Debt to asset ratio influences the Stock Prices of Financial Companies from 2019 to 2022

2.7 The Influence Return on Asset on Stock Prices

Return on Assets (ROA) is a metric used to assess how effectively a business utilizes and manages its assets to generate income. A stable and increasing ROA indicates that the company is prioritizing its financial performance [17]. Every company strives to keep ROA high, as it reflects the company's ability to manage its assets efficiently to generate profits. As the company's ROA improves, so does its profitability, which subsequently contributes to rising stock prices [31].

H3: Return on asset influences the Stock Prices of Financial Companies from 2019 to 2022

2.8 The Influence of Return on Equity on Stock Prices

Return on Equity (ROE) reflects a company's performance in generating returns for common shareholders and equity holders. A high ROE signals the company's ability to generate profits from its own investments [32]. Typically, an increase in ROE leads to a rise in the company's stock price. A high ROE indicates that the company is utilizing its capital optimally to generate profits for its owners, suggesting better overall performance [33].

H4: Return on equity influences the Stock Prices of Financial Companies from 2019 to 2022

2.9 The Influence of Current Ratio on Stock Prices with Information Technology Investment as Moderating Variabel

A high Current Ratio (CR) can indicate that a business is not managing its investments efficiently. When investors perceive this inefficiency, they may lose interest in purchasing the company's shares, leading to a decline in stock prices [34]. Companies can invest in information technology (IT) to better manage their investments and excess funds, gain a competitive advantage, and generate fast, accurate, and comprehensive information for both internal and external use. According to [35], investing in IT enables companies to solve specific, complex problems and enhance productivity. Therefore, effective profit management activities can demonstrate a company's capacity to generate profits. The CR reflects the company's ability to manage its current assets to meet its debt obligations. Shareholders who trust companies with a high CR will expect them to be able to pay dividends, thus increasing demand and stock prices.

H5: Information Technology Investment strengthen current ratio in influencing the stock process of financial companies from 2019 to 2022

2.10 The Influence of Debt to Asset Ratio on Stock Prices with Information Technology Investment as Moderating Variabel

The Debt to Asset Ratio (DAR) reflects the extent of debt financing [17]. Managing and utilizing debt can help companies acquire more assets, including intangible ones like IT, such as software. Companies may decide to enhance their resources by investing in the necessary IT to achieve the desired value [36]. Asset growth, facilitated by effective debt management, can lead to increased profitability. Effective management can boost revenue and demonstrate the company's ability to fulfill its commitments, thereby increasing stock prices [37].

H6: Information Technology Investment strengthen debt to asset ratio in influencing the stock process of financial companies from 2019 to 2022

2.11 The Influence Return on Asset on Stock Prices with Information Technology Investment as Moderating Variabel

The use of technology in business impacts all areas, including human resources. Research by [38] found that IT investment has a positive effect on financial performance, particularly Return on Assets (ROA). Given that investment is treated as part of the company's assets, ROA often serves as a key metric for evaluating how well investments are generating expected returns. According to agency theory, principals can ensure the avoidance of conflicts of interest by investing in IT to monitor and oversee the actions of agents. Additionally, leveraging resources and practicing effective asset management, particularly through IT, can enhance revenues. This increase in profit will drive demand for the company's shares, leading to an eventual rise in stock prices [26].

H7: Information Technology Investment strengthen return on asset in influencing the stock process of financial companies from 2019 to 2022

2.12 The Influence of Return on Equity on Stock Prices with Information Technology Investment as Moderating Variabel

Information technology can gradually reduce business costs. By utilizing IT, companies can provide high-quality services with minimal effort, thus improving revenue [39]. Return on Equity (ROE) reflects how efficiently a business uses its own capital. Lower-level agents can also use IT as a decision-making tool under the supervision of the principal, which allows for real-time capital movements and increased profitability. The advantages of IT enable management to allocate capital more effectively, maximizing returns on investment and improving financial performance. This improvement in financial performance consequently leads to an increase in stock prices as the company's financial health improves [40].

H8: Information Technology Investment strengthen return on equity in influencing the stock process of financial companies from 2019 to 2022

3 Method

A quantitative method was applied in the research testing. The following is an illustration of the research design:

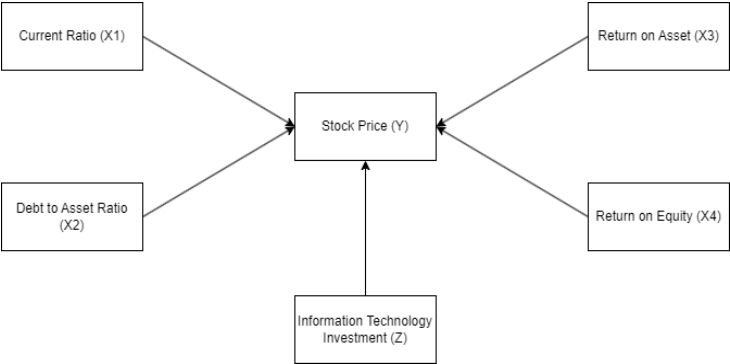


Fig. 1. Research Design

There are 105 companies within the population. Purposive sampling was used to select the sample based on four criteria: companies in the financial sector that were listed on the stock exchange, companies that reported software acquisition costs, companies that regularly posted their closing stock prices on the Indonesia Stock Exchange (IDX), and companies that released financial reports during the study period. 41 companies fulfilled the criteria based on these factors. The study used secondary data from www.idx.co.id, which included stock prices and financial reports.

The research, which used a descriptive analysis approach, was carried out using the SmartPLS 4.0 program. Formative indicators were used to measure the latent variables. Financial performance (X), the study's exogenous variable, is represented by the CR (X1), DAR (X2), ROE (X3), and ROA (X4). Stock prices (Y) are the endogenous variable, and information technology investment (Z) is the moderating variable that enhances the correlation between the exogenous and endogenous variables.

4 Results

4.1 Convergent Validity

Convergent validity is a measure of how well a construct and its latent variables correlate. The loading factor is the indicator used for measurement. An indicator is considered ideal or valid if its loading factor exceeds 0.7, meaning that the indicator is a reliable measure of the construct it represents.

Table 1. Outer Loading Values

	Current Ratio	Debt to Asset Ratio	Return on Asset	Return on Equity	Stock Price	IT Investment
Current Ratio	1.000					
DAR		1.000				
ROA			1.000			
ROE				1.000		

Stock Price					1.000	
IT Investment						1.000

Table 1 shows that all variables have an outer loading value of 1.000, indicating that all variables exhibit a strong correlation with their respective indicators.

4.2 Average Variance Extracted

An AVE (Average Variance Extracted) value greater than 0.5 is considered to indicate significant and acceptable convergent validity. The following are the results of the AVE analysis:

Table 2. AVE Indicator

	AVE
Current Ratio	1.000
Debt to Asset Ratio	1.000
Stock Prices	1.000
Investment on Information Technology	1.000
Investment *CR	1.000
Investment *DAR	1.000
Investment *ROA	1.000
Investment *ROE	1.000
Return on Asset	1.000
Return on Equity	1.000

The validity analysis in Table 2 shows an AVE indicator of 1.000 for all variables, indicating that all variables have significant and acceptable correlation values.

4.3 Cronbach's Alpha

Reliability testing, using Cronbach's Alpha with a range of results between 0 and 1.0, was conducted. A Cronbach's Alpha value above 0.70 for the variables indicates that the variables meet the assumption of reliability and are considered reliable.

Table 3. Cronbach's Alpha Results

	Cronbach's Alpha
Current Ratio	1.000
Debt to Asset ratio	1.000
Stock Prices	1.000
Investment on Information Technology	1.000
Investment *CR	1.000
Investment *DAR	1.000
Investment *ROA	1.000
Investment *ROE	1.000

Return on Asset	1.000
Return on Equity	1.000

The data presented in Table 3 shows that all Cronbach's Alpha values for the latent variables are 1.000, which is greater than 0.7. This means that all variables fall into the category of being highly reliable.

4.4 Coefficient of Determinant

The coefficient of determinant (R^2) is used to evaluate the capacity of endogenous variables to explain the variance in the dependent variable. The model's assessment can be interpreted from the results, where a value between 0.19 and 0.33 is considered weak, and a value between 0.33 and 0.67 is categorized as moderate.

Table 4. Coefficient of Determinant

	R Square	R Square Adjusted
Stock Prices	0.291	0.249

The data from Table 4 indicates that the R-square value of the endogenous variable, stock prices, is 0.291. Thus, financial performance is considered a weak model in explaining stock prices.

4.5 Effect Size (F^2)

Effect Size (F^2) indicates the significance of the impact of exogenous variables on endogenous variables. The criteria for evaluating effect size are as follows: a value of 0.02 indicates a small effect, 0.15 indicates a medium effect, and 0.35 indicates a large effect. Effect Size can also be used to assess moderation effects and explain the evaluation of small, moderate, and large models. The following are the F-square values:

Table 5. F-Square

	Stock Prices
Current Ratio	0.003
Debt to Asset Ratio	0.028
Investment on Information Technology	0.000
Investment *CR	0.001
Investment *DAR	0.057
Investment *ROA	0.027
Investment *ROE	0.060
Return on Asset	0.020
Return on Equity	0.094

Based on Table 5, the model shows that the current ratio has a small effect on influencing stock prices. The debt-to-asset ratio (DAR) and return on assets (ROA) have a

medium effect on stock prices, while return on equity (ROE) has a significant effect on stock prices. Additionally, the model reveals that information technology (IT) investments moderating the current ratio have no effect on stock prices. However, IT investments moderating DAR and ROE have a large effect on stock prices, whereas IT investments moderating ROA have a medium effect on stock prices.

4.6 Hypothesis testing

In hypothesis testing, the correlation between variables is determined using the original sample estimates (O), and the significance of the relationship is confirmed through the t-statistics (T) and p-values (P). An initial sample value that approaches +1 indicates a positive relationship, whereas a value that approaches -1 indicates a negative relationship, as stated by [30]. If the p-value is less than 0.05 or the T-statistic value is more than 1.96 ($\pm 5\%$), the hypothesis is accepted in this test. The outcomes of the hypothesis testing are as follows:

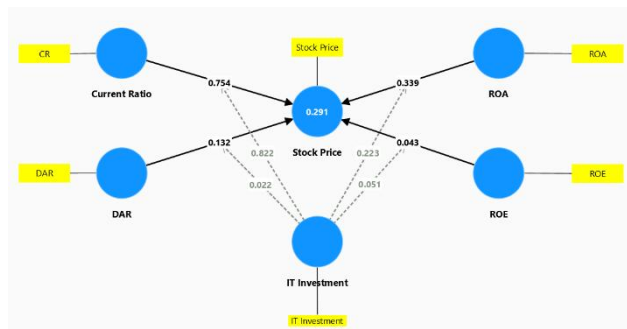


Fig. 2. Bootstrapping

Table 6. Bootstrapping Hipotesis

	Samples	M	STD	T Statistik	P Value
Direct influence					
Current ratio -> Stock prices	-0.244	-0.175	0.777	0.314	0.754
Debt to asset ratio -> Stock prices	-0.153	-0.117	0.102	1.506	0.132
Information Technology Investment -> Stock prices	0.026	0.002	0.456	0.057	0.955
Return on asset -> Stock prices	-0.630	-0.366	0.659	0.957	0.339
Return on equity -> Stock prices	0.787	0.705	0.388	2.029	0.043
Moderation Effect					
Information Technology Investment x Current Ratio -> Stock prices	-0.803	-0.823	3.567	0.225	0.822
Information Technology Investment x DAR -> Stock prices	-0.338	-0.304	0.147	2.296	0.022
Information Technology Investment x ROA -> Stock prices	-1.449	-1.014	1.190	1.218	0.223
Information Technology Investment x ROE -> Stock prices	1.466	1.301	0.750	1.956	0.051

According to the outcome of the hypothesis testing research, which are shown in Table 6, the current ratio, debt-to-asset ratio, and return on assets have no influence on stock prices. However, return on equity (ROE) has a positive and significant impact on stock prices. Investments in information technology (IT) do not moderate the impact of the current ratio, return on equity, or return on assets on stock prices. However, it has been demonstrated that IT investments considerably and negatively moderate the impact of the debt-to-asset ratio on stock prices.

5 Discussion

5.1 Current Ratio on Stock prices

The conclusion that the current ratio (CR) has no effect on stock prices is consistent with studies by [41], [42], [13], and [14]. According to [43], the CR may not accurately reflect the financial health of companies in the financial sector, such as banks and other financial institutions, which have fundamentally different business models compared to non-financial companies. The balance sheets of financial firms are composed of a large proportion of liquid assets and short-term liabilities. Financial companies often have access to highly liquid assets such as cash, marketable securities that can be quickly sold, and money market instruments. These liquid assets allow financial firms to meet short-term obligations without relying heavily on the CR.

Moreover, several external factors can affect stock prices, leading investors to overlook a company's liquidity. The COVID-19 pandemic is one of the most significant external factors that impacted global stock markets. Investors focused on surviving in a highly unpredictable market environment during the COVID-19. As a result, regardless of a company's liquidity, people began to favor safer assets like gold or government bonds over stocks.

Government assistance was also very important. Investor confidence was strengthened by significant fiscal and monetary stimulus measures implemented by the Indonesian government and Bank Indonesia to preserve the stability of the financial and economic markets. This stimulus was frequently seen as a safety net that resolved worries about certain enterprises' liquidity.

The U.S. Federal Reserve and other major central banks' global monetary policy, in particular, was a crucial factor in influencing capital flows to emerging markets like Indonesia. Despite higher risks, investors sought larger yields in emerging markets due to low interest rates in wealthier nations. As a result, the pursuit of greater returns took precedence over a thorough examination of business liquidity. Major central banks' aggressive Quantitative Easing (QE) initiatives also improved global liquidity, which encouraged investors to take on more risk, including investing in less liquid enterprises. As a developing nation, Indonesia is also heavily impacted by the price of commodities like palm oil and oil globally. The entire economy may be influenced by shifts in commodity prices. Key commodity price increases can improve national income and revenues for associated businesses, increasing investor optimism generally and deflecting

attention from liquidity issues. Expectations of improved economic development are frequently linked to higher commodity prices, which makes investors more upbeat about the stock market overall.

5.2 Debt to Asset Ratio on Stock prices

The conclusion that the debt to asset ratio (DAR) has no effect on stock prices is consistent with studies by [17] and [44]. Companies with a high DAR are often perceived negatively due to the potential risk of defaulting on debt obligations [17]. Excessive debt also leads to higher interest expenses for the company, which can be used to reduce its tax liabilities. As long as the business can continue operations and repay the debt when it matures, the risk of default can be avoided, which does not significantly influence investors' decisions to purchase shares [45].

Several external factors, beyond a company's internal characteristics, can influence stock prices, leading investors to overlook a company's debt levels. In the latter part of 2019, the COVID-19 pandemic started, drastically altered the dynamics of financial markets. The Indonesian government, like many others, implemented massive fiscal stimulus and loose monetary policies to support the economy during the pandemic. In addition to providing more liquidity to the financial system, Bank Indonesia reduced the benchmark interest rate. As a result, borrowing costs decreased and businesses had better access to debt financing. Investors in this situation were more interested in a company's capacity to endure and bounce back than in the amount of debt it owed. Investor concerns about corporate leverage were also lessened by worldwide lax monetary policies, such as those implemented by the U.S. Federal Reserve, which drove interest rates to unprecedented lows and made corporate debt more affordable and accessible.

Indonesia's financial markets were significantly impacted by global fiscal and monetary policies. Major central banks like the European Central Bank and the U.S. Federal Reserve have implemented quantitative easing (QE) initiatives that have improved global liquidity and stimulated capital flows to emerging countries like Indonesia. In these markets, investors were more inclined to take on risks, particularly issues related to corporate debt, and frequently looked for greater yields. Additionally, corporations' borrowing costs were lowered by internationally low interest rates. Since lower interest costs made debt easier to handle, investors were more concerned with economic recovery and growth potential than with corporate debt.

There was considerable market anticipation from 2019 to 2022, especially following the early stages of the epidemic. Stock markets quickly recovered from a steep drop at the start of the pandemic, propelled by hope for COVID-19 vaccinations and economic recovery. During this period, investors were more focused on long-term growth potential and a swift recovery than on conducting in-depth analyses of corporate debt structures. Herd behavior also became more prominent during this time. As investors observed the overall market rising, they tended to follow suit, participating in the rally without paying close attention to the company's fundamentals, including its debt levels.

5.3 Return on Asset on Stock prices

The hypothesis that stock prices are affected by Return on Assets (ROA) was rejected, as evidenced by findings from [14] and [17]. ROA is a percentage that represents the return on assets available to shareholders, known as return on assets. A decline in stock prices alongside an increase in ROA indicates that the business has not maximized its capacity to manage and use its assets. Furthermore, the business might not be able to generate a sufficient profit off of its assets. Consequently, when a business fails to allocate resources effectively, its performance becomes inefficient, and returns do not meet expectations [17]. However, it is possible that this situation may not significantly impact investor interest. This could be due to investors focusing more on external risks and market conditions rather than solely on the company's internal profit-generating capacity [46].

Global financial markets, especially those in Indonesia, were significantly impacted by the COVID-19 epidemic, which started in late 2019. COVID-19 created extreme economic uncertainty, leading investors to focus more on a company's short-term survival rather than financial metrics like ROA. Companies that demonstrated resilience and adaptability during the pandemic received more attention, even if their ROA declined due to economic disruptions. Additionally, the large-scale fiscal stimulus and loose monetary policies implemented by governments and central banks helped stabilize markets and increase liquidity. This created an environment where investors were more concerned with macroeconomic stability than individual performance indicators such as ROA. Moreover, globally low interest rates reduced borrowing costs for companies, enabling them to sustain operations and continue investments, even if their ROA was not particularly strong. In this context, investors were more interested in the potential for growth than in current financial performance, as lower interest expenses allowed companies to focus on expansion despite temporarily weaker returns on assets.

5.4 Return on Equity on Stock prices

The hypothesis regarding how Return on Equity (ROE) affects stock prices has been proven valid, as supported by the studies of [47] and [20]. Shareholders' equity management is a way for companies to demonstrate their ability to generate profits. Furthermore, a company can stimulate its stock price through its equity. As a result, businesses that manage their available capital effectively and maximize profits increase investor confidence in investing or purchasing the company's stock. A higher ROE reflects effective capital management, which boosts the company's net income and investor trust [17].

Beyond this, ROE was crucial for financial companies in Indonesia during the 2019-2022 period, significantly impacting stock prices. The economic environment and market conditions during this period made ROE a key performance indicator for investors. The COVID-19 pandemic brought about unprecedented economic uncertainty, prompting investors to seek out companies capable of remaining profitable and resilient during the crisis. A high ROE signaled that a company could generate profits despite the challenging economic conditions. Financial companies with strong ROE were perceived as

more resilient to economic shocks, making them attractive to investors looking for security in an uncertain market.

During the pandemic, Bank Indonesia lowered interest rates to support the economy. Lower interest rates increased borrowing and liquidity, allowing companies to improve their ROE through reduced capital costs. The Indonesian government also implemented various fiscal stimulus measures to maintain economic stability. Financial companies that effectively utilized these stimulus packages often demonstrated higher ROE, attracting investor attention. Following the sharp decline at the onset of the pandemic, the Indonesian stock market experienced a strong recovery driven by optimism around COVID-19 vaccines and economic recovery. Investors increasingly focused on companies with high ROE, as this indicated their ability to capitalize on the economic rebound.

5.5 Current Ratio on Stock Prices with Information Technology Investment as Moderating Variabel

Information technology (IT) investment could not moderate the relationship between current ratio and stock price, thus the hypothesis is rejected. It is consistent with the results of studies by [36]. Managing corporate liquidity, including investments in current assets, is a key component of liquidity management [36]. As such, investing in IT is often seen as a way for companies to enhance resources by allocating actual expenditures on IT with the goal of achieving expected value [36]. However, the implementation of new and complex IT systems takes significant time. From planning to execution and training, the entire process can take years before tangible benefits, such as operational efficiency improvements or cost reductions, are realized. During the 2019-2022 period, investors likely did not observe an immediate impact on company liquidity or stock prices from IT investments.

Additionally, between 2019 and 2022, investors were primarily focused on the macroeconomic effect of the COVID-19 pandemic and the financial stability of companies. While corporate liquidity was a major concern, IT investments did not provide an immediate solution to liquidity problems caused by the pandemic. The global economic shifts and instability in the business environment due to the pandemic also led to uncertainty. Because the immediate survival of the business was considered more important than long-term efficiency benefits through IT investments, financial companies may have placed a higher priority on retaining liquidity than making significant investments in technology.

5.6 Debt to Asset Ratio on Stock Prices with Information Technology Investment as Moderating Variabel

It has been demonstrated that investments in information technology (IT) considerably reduce the connection of stock prices and the debt to asset ratio (DAR), confirming the theory. Research [29] supports this conclusion. Investments in IT may accelerate internal business process integration, provide customer-focused products and services, boost

productivity, improve corporate performance, and gain market share (Laudon & Laudon, 2018). Investments in IT allow financial firms to create new services and products that are more in line with consumer demands. For instance, mobile apps, digital banking services, and other fintech solutions can boost sales and draw in new clients.

Investing in IT through debt is an example of asset funding that may raise a company's value and competitiveness. By enhancing process efficiency, IT investment helps financial firms save operating expenses. Digitalization and automation can reduce labor costs, automate manual operations, and lower administrative expenses, increasing profitability and lowering the need for debt financing. Furthermore, IT offers strong analytical capabilities for improved risk management, enabling companies to recognize and minimize financial threats. Through limiting exposure to risks and associated expenses, this promotes financial stability and lessens reliance on debt.

Companies can improve their credit profiles by investing in IT to increase revenue and enhance operational efficiency. A higher credit score might result in less expensive borrowing costs, which will lessen debt and raise DAR. Companies that use innovative technologies to improve performance also have a higher chance of winning over investors. Higher stock prices may result from this boosted confidence, which would allow the company to issue equity rather than debt at a reduced cost to raise capital.

Among external element that might have affected the study's results is the COVID-19 epidemic. Many financial institutions encountered major operational and customer service issues during the pandemic. By providing digital solutions that facilitated online purchases, contactless services, and remote work, IT investment enabled businesses to quickly adapt. This flexibility contributed to the preservation of both financial and operational stability. Investments in IT were in line with financial firms' expansion plans that prioritized efficiency gains and digitalization. Companies maintained good debt-to-asset ratios by lowering their reliance on debt to finance expansion, which raised stock values. Businesses that made IT investments to improve operational sustainability and efficiency had a higher chance of attracting investors in the face of global economic uncertainty. Businesses that used innovative technologies to show resilience and adaptability were highly regarded by investors since these attributes are critical for prolonged success and expansion in difficult economic times.

5.7 Return on Asset on Stock Prices with Information Technology Investment as Moderating Variabel

Since information technology investment, which serves as a moderator, does not support return on assets in affecting stock prices, it is recognized that this theory is rejected. The research results are in accordance with [48], [49], and [50]. Return on assets (ROA) is a measure which can be used by companies in evaluating investment performance against the expected rate of return on invested investments, based on the assumption that the investment is equal in value to the assets owned by the company. [51]. Information technology investment is needed to gain a competitive advantage and produce fast, accurate, and complete information both internally and externally [35]. However, Indonesian investors do not feel that companies will benefit from information technology investments in the long term [52]. Financial firms continue to innovate to remain

competitive. While investment in technology is part of this strategy, other innovations such as new financial products or effective marketing strategies can more directly affect financial performance and ROA. In highly competitive markets, a company's ability to quickly adapt and offer new services can be more critical to success than long-term IT investments. Companies that are able to respond quickly to market changes are often more valued by investors.

In 2019 to 2022, the impact of the COVID-19 pandemic is a serious concern for investors. A company's liquidity and financial stability are prioritized, while the long-term benefits of IT investments may receive less attention. Investors tend to focus more on fundamental financial metrics such as revenue, net income, and ROA. Even so, large IT investments may temporarily lower ROA as the costs outweigh the benefits.

5.8 Return on Equity on Stock Prices with Information Technology Investment as Moderating Variabel

Information technology investment, which functions as moderation, does not support return on equity in influencing stock prices, so the hypothesis is rejected. These results are supported by [53], [54], and [55]. IT investments often require large initial costs, such as hardware and software procurement and training costs. These costs can reduce net income, which in turn can lower ROE in the short term. ROE is affected by net income and equity, so high costs can worsen ROE. Then in the initial phase of implementation, companies may experience an increase in operating expenses and other operating costs. This can reduce net income and affect ROE before the benefits of IT investments begin to be felt.

The global pandemic that began to affect the economy in 2020 focused on the financial stability and liquidity of companies. During this time, investors focus more on financial performance and operational stability rather than the long-term benefits of IT investments. Economic uncertainty and disrupted markets divert attention from the long-term improvements that IT may bring. In addition, IT investments may also be perceived as non-urgent expenditures in situations of economic uncertainty.

6 Conclusion

The study concludes that from 2019 to 2022, external variables like the COVID-19 pandemic, global monetary policies, and market conditions had a major impact on Indonesian financial companies' stock prices. These factors overshadowed more conventional financial ratios like ROA, DAR, and CR. Investors prioritized macroeconomic stability and growth potential over detailed fundamental analysis. However, one important element that has a beneficial impact on stock prices is ROE, reflecting investor confidence in profitability and efficiency. While information technology (IT) investments improved operational efficiency, they did not significantly moderate the immediate correlation between the price of the stock and financial ratios, due to long implementation timelines and high costs.

References

1. A. Satar and S. D. Jayanti, "Pengaruh Profitabilitas dan Leverage terhadap Harga Saham dengan Kebijakan Dividen sebagai Variabel Moderating pada Perusahaan Manufaktur yang Terdaftar di Indeks Saham Syariah Indonesia (ISSI) Tahun 2014–2018," *I-Finance: a Research Journal on Islamic Finance*, vol. 6, no. 2, pp. 148–167, 2020.
2. T. Arkan, "The importance of financial ratios in predicting stock price trends: A case study in emerging markets," *Finanse, Rynki Finansowe, Ubezpieczenia*, no. 79, pp. 13–26, 2016.
3. N. U. Viandiny, "Analisis Keterkaitan Antar Indeks Harga Saham Sektor Keuangan: Studi Pada Negara Indonesia dan Malaysia," *Jurnal Ilmiah Mahasiswa FEB*, vol. 5, no. 2, 2017.
4. F. Y. Y. Lumbantoruan, T. Ismail, and I. Geraldina, "Analisis Dampak Dinamika Pandemi Covid-19 Terhadap Return Indeks Saham Sektor Finance Di Bursa Efek Indonesia," *JMBI UNSRAT (Jurnal Ilmiah Manajemen Bisnis dan Inovasi Universitas Sam Ratulangi)*, vol. 10, no. 3, pp. 2193–2208, 2023.
5. L. N. Savira and D. I. Hapsari, "Pengaruh Faktor Fundamental dan Makro Ekonomi terhadap Harga Saham Perusahaan Sektor Keuangan pada Masa Pandemi COVID-19," *Jurnal Riset Terapan Akuntansi*, vol. 7, no. 1, pp. 44–51, 2023.
6. D. K. Riyadi, A. Soemitra, and Z. M. Nawawi, "Pertumbuhan Transaksi Financial Technology (Fintech) Di Dalam Perbankan Pada Masa Pandemi Covid-19," *Management Studies and Entrepreneurship Journal (MSEJ)*, vol. 3, no. 2, pp. 634–643, 2022.
7. S. Laurensia, "Pengaruh Kinerja Keuangan Terhadap Harga Saham Melalui Pengungkapan CSR Pada Perusahaan Konstituen Indeks Sri Kehati," *Agora*, vol. 3, no. 2, pp. 491–497, 2015.
8. A. Faisal, R. Samben, and S. Pattisahusiwa, "Analisis kinerja keuangan," *Kinerja*, vol. 14, no. 1, pp. 6–15, 2017.
9. Kasmir, *Analisis Laporan Keuangan*, 1st ed. Jakarta: Raja Grafindo Persada, 2017.
10. H. Nisa, "Pengaruh rasio keuangan terhadap harga saham pada industri sektor pertanian yang terdaftar di Bursa Efek Indonesia Tahun 2012–2016," *Jurnal Pendidikan Dan Ekonomi*, vol. 7, no. 5, pp. 399–407, 2018.
11. R. Wuryaningrum and A. Budiarti, "Pengaruh rasio keuangan terhadap harga saham pada perusahaan farmasi di BEI," *Jurnal Ilmu Dan Riset Manajemen (JIRM)*, vol. 4, no. 11, 2015.
12. S. Winata, S. Selfiyani, S. Suhendra, and A. Samara, "Pengaruh Current Ratio, Return On Assets, dan Total Assets Turnover Terhadap Harga Saham Pada Perusahaan Makanan dan Minuman Yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2017–2021," *eCo-Buss*, vol. 5, no. 3, pp. 1058–1069, Apr. 2023, doi: 10.32877/eb.v5i3.596.
13. S. M. Pratiwi, M. Miftahuddin, and W. R. Amelia, "Pengaruh Current Ratio (Cr), Debt To Equity Ratio (Der), Dan Earning Per Share (Eps) Terhadap Harga Saham Pada Pt. Indofood Sukses Makmur Tbk.," *Jurnal Ilmiah Manajemen dan Bisnis (JIMBI)*, vol. 1, no. 2, 2020.
14. K. Vanesia, M. Monica, and N. Purnasari, "Analisis Pengaruh Current Ratio, Debt To Equity Ratio, Return On Equity, Dan Return On Assets Terhadap Harga Saham," *Jurnal AKMAMI (Akuntansi Manajemen Ekonomi)*, vol. 2, no. 3, pp. 629–635, 2021.
15. H. Dwiyaniti, R. Apriani, and W. Handayani, "Pengaruh Rasio Keuangan Terhadap Harga Saham (Studi Kasus pada Perusahaan Property & Real Estate Sub Sektor Kontruksi dan Bangunan yang Terdaftar di Bursa Efek Indonesia)," *Jurnal Aktiva: Riset Akuntansi Dan Keuangan*, vol. 2, no. 2, pp. 66–80, 2020.
16. S. A. Prastyo, T. Akbar, and S. Hendratmoko, "Pengaruh Return on Asset (ROA), Current Ratio (CR), Dan Debt to Total Asset Ratio (DAR) Terhadap Harga Saham Pada Pt. Erajaya Swasembada Tbk.," *Akuntansi*, vol. 1, no. 2, pp. 14–34, 2022.

17. N. D. Priliana and G. A. Lisiantara, "Pengaruh Profitabilitas, Leverage dan Market Value terhadap Harga Saham pada Perusahaan Industri Barang Konsumsi yang Terdaftar Di Bursa Efek Indonesia Tahun 2019-2021," *Journal of Economic, Bussines and Accounting (COSTING)*, vol. 6, no. 2, pp. 2481–2496, 2023.
18. D. Widianingsih, R. R. Dewi, and P. Siddi, "LDR, ROA Dan BOPO terhadap harga saham," *Jurnal Eksplorasi Akuntansi. Journals of Economics Development Issues (JEDI)*. JEDI, vol. 4, no. 1, pp. 399–409, 2021.
19. R. Ryando, "Pengaruh Profitabilitas Terhadap Struktur Modal Perusahaan Pertambangan Subsektor Batubara yang Terdaftar di Bursa Efek Indonesia Tahun 2012–2017," *Jurnal Ilmiah Manajemen Surya Pasca Scientia*, vol. 10, no. 1, 2020.
20. Yulistina and Novalita, "Pengaruh CR, DER, ROE Dan ROA Terhadap Harga Saham Pada Perusahaan Indeks Lq45 Di Bursa Efek Indonesia," *Jurnal Pionir LPPM Universitas Asahan Vol*, vol. 7, no. 02, 2021.
21. N. N. Janaina and D. Yudiantoro, "Pengaruh EPS, ROE Dan DER terhadap Harga Saham Properti dan Real Estate yang Terdaftar di JII70," *Al-Kharaj : Jurnal Ekonomi, Keuangan & Bisnis Syariah*, vol. 5, no. 2, pp. 762–771, Aug. 2022, doi: 10.47467/alkharaj.v5i2.1314.
22. K. C. Laudon and J. P. Laudon, *Management Information Systems, Managing the Digital Firm*, 15th ed. England: Pearson Education Limited, 2018.
23. R. D. Morris, "Signalling, agency theory and accounting policy choice," *Accounting and business Research*, vol. 18, no. 69, pp. 47–56, 1987.
24. M. C. Jensen and W. H. Meckling, "Theory of the firm: Managerial behavior, agency costs and ownership structure," *J financ econ*, vol. 3, no. 4, pp. 305–360, Oct. 1976, doi: 10.1016/0304-405X(76)90026-X.
25. S. Mudjijah, Z. Khalid, and D. A. S. Astuti, "Pengaruh kinerja keuangan dan struktur modal terhadap nilai perusahaan yang dimoderasi variabel ukuran perusahaan," *Jurnal Akuntansi Dan Keuangan*, vol. 8, no. 1, pp. 41–56, 2019.
26. N. Priliyastuti and S. Stella, "Pengaruh current ratio, debt to asset, debt to equity, return on assets dan price earnings ratio terhadap harga saham," *Jurnal Bisnis Dan Akuntansi*, vol. 19, no. 1a–5, pp. 320–324, 2017.
27. S. V. Manurung, "Pengaruh Good Corporate Governance Terhadap Kinerja Keuangan Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia," *Majalah Iptek Politeknik Negeri Medan Polimedia*, vol. 24, no. 4, pp. 62–80, Sep. 2023, doi: 10.51510/polimedia.v24i4.1364.
28. Q. R. Siregar and S. Farisi, "Pengaruh Return on Assets Dan Earning Per Share Terhadap Harga Saham," *Maneggio: Jurnal Ilmiah Magister Manajemen*, vol. 1, no. 1, pp. 81–89, 2018.
29. L. Lee, *In love with Fibonacci: Menguasai Perdagangan Saham Dengan Menggunakan Fibonacci*. 2015. [Online]. Available: <https://books.google.co.id/books?id=gU8ECwAAQBAJ>
30. E. Sriwahyuni and R. S. Saputra, "Pengaruh cr, der, roe, tat, dan eps terhadap Harga Saham Industri Farmasi di BEI Tahun 2011-2015," *Jurnal Online Insan Akuntan*, vol. 2, no. 1, pp. 119–â, 2017.
31. G. G. Gunadi and K. W. Kesuma, "Pengaruh Roa, Der, Eps terhadap Return Saham Perusahaan Food And Beverage Bei," *E-Jurnal Manajemen Universitas Udayana*, vol. 4, no. 6, 2015.
32. N. P. A. K. Almira and N. L. P. Wiagustini, "Return On Asset, Return On Equity, Dan Earning Per Share Berpengaruh Terhadap Return Saham," *E-Jurnal Manajemen Universitas Udayana*, vol. 9, no. 3, p. 1069, Mar. 2020, doi: 10.24843/EJMUNUD.2020.v09.i03.p13.

33. M. Munira, E. E. Merawati, and S. B. Astuti, "Pengaruh ROE dan DER terhadap Harga Saham Perusahaan Kertas di Bursa Efek Indonesia," *JABE (Journal of Applied Business and Economic)*, vol. 4, no. 3, p. 191, Apr. 2018, doi: 10.30998/jabe.v4i3.2478.
34. I. S. Simbolon, Y. Yolanda, D. Angraini, and F. Astuty, "Pengaruh Earning Per Share, Debt to Equity Ratio dan Current Ratio Terhadap Harga Saham Pada Perusahaan Manufaktur Sektor Consumer Goods Industry Yang Terdaftar di Bursa Efek Indonesia Periode Tahun 2015-2019," *Jurnal Manajemen Terapan dan Keuangan*, vol. 11, no. 2, pp. 310–323, 2022.
35. M. N. Purwanto, L. Abdurrahman, and A. F. Santoso, "Analisis Investasi Teknologi Informasi Pada PT Bank Mandiri Dengan Menggunakan Fungsi Produksi Cobb-Douglas," *JIPI (Jurnal Ilmiah Penelitian dan Pembelajaran Informatika)*, vol. 8, no. 1, pp. 94–105, Feb. 2023, doi: 10.29100/jipi.v8i1.3294.
36. P. D. I. P. R. Sidik, "Pengukuran Investasi Teknologi Informasi Pada Domain Value Governance (VG) Val IT Framework 2.0 di Universitas XYZ," *Prosiding Saintiks Ftik Unikom*, vol. 2, 2017.
37. P. Anjayagni and D. L. Purbawati, "Pengaruh CR (Current Rasio), DER (Debt to Equity Rasio), dan TATO (Total Assets Turn Over) Terhadap Harga Saham (Studi Pada Perusahaan Sub Sektor Farmasi di Bursa Efek Indonesia Periode 2015-2018)," 2020.
38. A. Gunawan, "Pengaruh Current Ratio Dan Debt To Equity Ratio Terhadap Harga Saham Pada Perusahaan Plastik Dan Kemasan," *Sosek: Jurnal Sosial Dan Ekonomi*, vol. 1, no. 1, pp. 29–40, 2020.
39. H. Gunawan and S. Serlyna, "Impact of information technology investment to financial performance on banking sector," *Journal of Applied Managerial Accounting*, vol. 2, no. 1, pp. 41–46, 2018.
40. S. M. Rashid, "Impact of Information Technology (IT) Investment on Banks' Performance: A Study on Dhaka Stock Exchange (DSE) Listed Banks of Bangladesh," *Journal of Information Engineering and Applications*, vol. 8, no. 2, pp. 8–12, 2018.
41. E. Tamba and S. R. Hasibuan, "Pengaruh Current Ratio, Debt to Equity Ratio, Dan Return on Equity terhadap Harga Saham (Studi Kasus pada Perusahaan Tekstil Yang Terdaftar di Bursa Efek Indonesia)," *Jurnal Global Manajemen*, vol. 11, no. 1, pp. 157–168, 2022.
42. R. Nuraeni, B. Barnas, and F. A. Tripuspitorini, "Pengaruh CR, DER, dan ROE Terhadap Harga Saham Perusahaan LQ45 di BEI," *Indonesian Journal of Economics and Management*, vol. 1, no. 3, pp. 634–641, Jul. 2021, doi: 10.35313/ijem.v1i3.3094.
43. J. Berk and P. DeMarzo, "Corporate Finance, 4th global ed," Harlow: Pearson, 2017.
44. J. K. B. Pane, M. Meliyani, D. T. B. Pandia, S. W. Sihombing, and M. Y. Herosian, "Pengaruh DAR, ROA, CR Terhadap Harga Saham di Perusahaan Sektor Industri Barang Konsumsi Yang Terdaftar di Bei Periode 2015-2019," *Ecobisma (Jurnal Ekonomi, Bisnis Dan Manajemen)*, vol. 8, no. 2, pp. 35–45, 2021.
45. V. Veny, D. Angelene, and E. Junita, "Analisis Faktor Fundamental Terhadap Harga Saham Perusahaan Sektor Ritel Sebelum Dan Selama Pandemi Covid-19," *Akurasi : Jurnal Studi Akuntansi Dan Keuangan*, vol. 5, no. 2, pp. 180–192, Dec. 2022, doi: 10.29303/akurasi.v5i2.236.
46. B. A. Sa'idah and H. S. Kusno, "Pengaruh Rasio Profitabilitas dan Solvabilitas Terhadap Harga Saham pada Bank Umum Swasta di Era Covid-19," *Jurnal Bisnis dan Kewirausahaan*, vol. 18, no. 1, pp. 72–81, 2022.
47. Z. Fitria and D. Suselo, "Pengaruh CR, DER, ROE Dan EPS Terhadap Harga Saham Pada Perusahaan Pertambangan," *Jurnal Ekonomi, Manajemen, Bisnis, Dan Sosial (EMBISS)*, vol. 2, no. 3, pp. 275–283, 2022.
48. A. T. Thompson and K. L. Davis, "Impact of IT Investment on Financial Metrics and Stock Performance in Financial Institutions," *J financ econ*, vol. 61, no. 4, pp. 512–525, 2019.

49. R. M. Jones and L. W. Green, "Information Technology Investment and Financial Performance: A Moderation Analysis," *J Bank Financ*, vol. 49, pp. 352–366, 2018.
50. H. M. Al-Tamimi and A. M. Al-Mutairi, "The Role of Information Technology Investment in Financial Performance: Evidence from the Banking Sector," *International Journal of Financial Studies*, vol. 5, no. 2, pp. 24–38, 2017.
51. I. Fahmi, *Analisis Kinerja Keuangan*. Bandung: Alfabeta, 2012.
52. H. I. Nugroho, "Reaksi Pasar Saham Indonesia Terhadap Investasi Teknologi Informasi Berdasarkan Karakteristik Investasi Teknologi Informasi Dan Perusahaan," *ABIS: Accounting and Business Information Systems Journal*, vol. 1, no. 1, Sep. 2020, doi: 10.22146/abis.v1i1.59410.
53. E. T. Garcia and L. R. Edwards, "Does IT Investment Influence ROE and Stock Prices? A Study of Financial Institutions," *Does IT Investment Influence ROE and Stock Prices? A Study of Financial Institutions*, vol. 43, no. 2, pp. 299–314, 2020.
54. J. B. Morris and C. L. Lee, "The Effect of IT on Firm Performance and Its Moderating Role on Financial Ratios: Evidence from the Banking Sector," *J Bank Financ*, vol. 52, pp. 177–190, 2019.
55. R. L. Peterson and M. H. Cohen, "The Impact of IT Investments on Financial Performance and Stock Price: An Empirical Study in the Financial Sector," *Financial Management Review*, vol. 61, no. 3, pp. 201–215, 2018.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

