



# Analyzing Stock Price Dynamics in the Indonesian Banking Sector: A Study of Technical and Fundamental Factors on the IDX

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## ABSTRACT

This research investigates the intricate relationships between technical and fundamental variables and their influence on stock prices in the Indonesian banking sector on the Indonesian Stock Exchange (IDX). Employing a mixed-methods approach that combines quantitative and qualitative analyses, the study delves into the multifaceted dynamics shaping stock price movements in this critical sector of the Indonesian economy. Quantitative data include historical stock prices, trading volume, and various technical indicators, while qualitative data is collected through interviews with industry experts and banking professionals. The research reveals significant correlations between specific technical indicators, such as moving averages and the Relative Strength Index (RSI), and stock prices. Similarly, fundamental variables like earnings growth, non-performing loan (NPL) ratios, and interest rates exhibit notable associations with stock prices, affirming their impact on market valuations. In the context of existing literature, the research findings align with established theories and empirical evidence, underlining the relevance of both technical and fundamental analysis in understanding stock price movements. The implications of these findings extend to investors, policymakers, financial institutions, market analysts, and the banking industry. Investors can make more informed decisions, manage risks effectively, and optimize portfolio allocations. This research offers valuable insights into the complexities of stock price movements within the Indonesian banking sector on the IDX, providing a foundation for further research and real-time market analysis.

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## 1. INTRODUCTION

The Indonesian Stock Exchange (IDX), established in 2007 through the merger of Jakarta Stock Exchange and Surabaya Stock Exchange, is the principal securities exchange in Indonesia (Yang & Pangastuti, 2016). It serves as a vital platform for companies to list and trade their shares, bonds, and other financial instruments. The Indonesian Stock Exchange (IDX) plays a pivotal role in Southeast Asia's financial landscape and serves as a critical platform for capital mobilization, investment, and economic development within the Indonesian archipelago.

Within the IDX, the banking sector stands as a cornerstone of the nation's financial stability and growth, with numerous banks actively traded on the stock exchange (Malini & Yulindisti, 2022). The IDX has experienced substantial growth and evolution, attracting both domestic and international investors. Its indices, such as the Jakarta Composite Index (JCI), serve as barometers for the Indonesian economy's performance and market sentiment. As such, the performance and valuation of banking shares have a profound impact on Indonesia's broader economic health and investor confidence.

Understanding the intricate dynamics of share price movements within the Indonesian banking sector is a multifaceted challenge that draws from both technical and fundamental analysis. Technical analysis involves examining historical price and trading volume data to predict future price movements, whereas fundamental analysis delves into the financial health and qualitative attributes of the banking institutions themselves. The interplay between these factors is particularly intricate within the context of the Indonesian Stock Exchange, where economic and geopolitical factors can introduce unique variables into the equation (Basher et al., 2012).

Banking shares are among the most actively traded entities on the IDX. These stocks are closely linked to Indonesia's economic health and financial stability (Robiyanto et al., 2019). Movements in the banking sector can reflect broader economic conditions, making their performance a crucial indicator for market observers, investors, and policymakers. The banking sector in Indonesia is a fundamental pillar of the country's financial system. It encompasses a diverse array of banks, including both domestic and international institutions. These banks offer various financial services, ranging from traditional banking activities to more sophisticated investment products. Notable players in this sector include Bank Mandiri, Bank Rakyat Indonesia (BRI), Bank Central Asia (BCA), and others.

The banking sector is integral to Indonesia's economic stability and growth, supporting businesses, individuals, and the government (Erlando et al., 2020). These banks are among the most actively traded entities on the IDX, making their share prices crucial indicators of the broader financial market's health. Indonesia's financial market is influenced by multifaceted factors such as economic growth rates, inflation, government policies, industry regulations, and geopolitical dynamics. These elements create a distinctive and complex environment where various technical and fundamental variables may impact stock prices differently compared to other markets.

Investors need comprehensive insights into the Indonesian banking sector to make informed decisions (Senbet & Otchere, 2006). Understanding the interplay between technical indicators and fundamental variables is essential for effective investment strategies, risk management, and portfolio diversification. The performance of the banking sector profoundly impacts Indonesia's economic stability. Therefore, understanding the variables affecting banking share prices is not only critical for investors but also for policymakers and economists for forecasting and planning purposes.

Analyzing these factors aids in improving market efficiency and transparency (Bloomfield & O'Hara, 1999). Identifying the determinants of stock price movements contributes to a better-functioning stock exchange, enhancing investor confidence and reducing market volatility.

This research seeks to address the need for a comprehensive analysis of the factors influencing banking share prices on the IDX. The Indonesian stock market has experienced significant growth and transformation over the years, and this has been accompanied by changes in banking sector dynamics. Investors, financial institutions, policymakers, and market analysts have a vested interest in understanding the determinants of share price fluctuations in the banking sector. By analyzing both technical and fundamental variables, this research aims to shed light on the complex interrelationships and dependencies that underlie share price movements.

The research also acknowledges the distinct characteristics of the Indonesian financial landscape, including regulatory environments, economic conditions, and cultural nuances that can influence stock market behavior. Furthermore, it recognizes the importance of providing actionable insights that can guide investment decisions, risk management, and policy formulation in this unique context.

Analysis of Factors That Influence Technical and Fundamental Variables on Several Banking Share Prices on the Indonesian Stock Exchange is a research endeavor that seeks to bridge the gap

between traditional and modern analytical approaches to enhance our understanding of the Indonesian banking sector's stock market performance. This study will contribute valuable insights to investors and policymakers alike, fostering a more informed and resilient financial market in Indonesia.

## 2. RESEARCH METHOD

### 2.1 *Existing Literature and Related Studies*

Here's an overview of the existing research and literature related to the factors influencing stock prices, especially within the context of banking and the Indonesian Stock Exchange (IDX):

**Market Efficiency and Behavioral Finance:** Numerous studies have explored the Efficient Market Hypothesis (EMH) in the Indonesian context (Ali et al., 2021). EMH posits that stock prices reflect all available information, making it challenging to outperform the market consistently. However, research has also delved into behavioral finance to understand how psychological factors, investor sentiment, and herding behavior can affect stock prices in ways that may not align with perfect efficiency.

**Technical Analysis in Indonesian Markets:** Research often investigates the applicability of technical analysis to the Indonesian Stock Exchange (Ilham et al., 2022). This involves the study of historical price data, trading volume, and various chart patterns to forecast future price movements. Scholars have examined the effectiveness of technical analysis tools like moving averages, Relative Strength Index (RSI), and others in the Indonesian market.

**Fundamental Analysis in the Indonesian Banking Sector:** Studies have delved into the fundamental analysis of banks listed on the IDX (Anggita & Djamaludin, 2021). Researchers typically analyze financial ratios, earnings reports, and other fundamental variables to assess the health and performance of these banking institutions. This is crucial for understanding the factors driving share prices in the banking sector.

**Market Sentiment and Investor Behavior:** Researchers have explored the role of investor sentiment and behavior in influencing stock prices (Baker & Wurgler, 2007). Behavioral biases, such as overreaction, underreaction, and sentiment-driven trading, can lead to deviations from rational market pricing. Understanding these factors is particularly relevant in the Indonesian context, where cultural and local market-specific influences can come into play.

**Macroeconomic Factors:** Studies have examined the impact of macroeconomic variables on stock prices in Indonesia (Jamaludin et al., 2017). These factors include inflation rates, interest rates, GDP growth, and government policies. Changes in these macroeconomic variables can have significant repercussions on the stock market, including the banking sector.

**Regulatory and Policy Impact:** Research often investigates the effects of regulatory changes and government policies on stock prices, especially within the financial sector (Leuz & Wysocki, 2016). For example, the impact of banking regulations, interest rate policies, and fiscal measures on bank stock prices has been analyzed.

**Industry-Specific Factors:** Banking sector-specific studies have explored the influence of factors like non-performing loans, capital adequacy ratios, loan growth, and competition within the Indonesian banking industry on stock prices (Hassan et al., 2022).

**Event Studies:** Event studies examine how specific events, such as mergers and acquisitions, corporate earnings announcements, or regulatory changes, influence stock prices (Halpern, 1983). Such studies are critical for understanding the impact of individual events on the banking sector within the Indonesian stock market.

**Regulatory Impact on Banking Stocks:** Research assesses the effects of regulatory changes and government policies, especially those impacting the banking sector (Laeven & Levine, 2009). The impact of financial regulations, interest rate policies, and fiscal measures on bank stock prices are areas of interest.

### 2.2 *Indonesian Stock Exchange*

The Indonesian Stock Exchange (IDX) stands as the nucleus of Indonesia's financial markets, playing a pivotal role in the country's economic development, investment opportunities, and capital

formation. Established in 2007 through the merging of Jakarta Stock Exchange and Surabaya Stock Exchange, the IDX operates as a significant platform where companies list and trade their securities, contributing to the growth and dynamism of Indonesia's economy.

The history of the Indonesian Stock Exchange reflects the country's economic progression (Barro, 2001). It has evolved from a relatively smaller exchange to become one of the crucial financial markets in Southeast Asia. Over time, the IDX has seen technological advancements, regulatory improvements, and an increasing number of listed companies, signifying its substantial growth and maturation.

The IDX serves as a marketplace for various financial instruments, including stocks, bonds, mutual funds, and exchange-traded funds (Bakhri et al., 2021). Its core function is to facilitate the trading of these instruments, providing an efficient and transparent platform for investors. It operates with the aim of maintaining market integrity, safeguarding investor interests, and fostering a fair and competitive trading environment.

The IDX is a barometer of Indonesia's economic performance, reflecting the country's economic health and investor sentiment. The indices, notably the Jakarta Composite Index (JCI), gauge the overall market performance and serve as a key benchmark for market movements. As a vital component of the country's financial infrastructure, the IDX's fluctuations influence economic perceptions, foreign investments, and capital flows.

A diverse array of participants engages within the IDX, including individual retail investors, institutional investors, listed companies, brokers, market regulators, and other financial intermediaries (Koesrindartoto et al., 2020). This mix of stakeholders contributes to the vibrancy and liquidity of the market.

Regulation and oversight are critical aspects of the IDX's functioning. The Financial Services Authority (Otoritas Jasa Keuangan or OJK) oversees and regulates the securities markets, ensuring compliance with rules and maintaining market stability. This regulatory framework aims to foster a transparent and efficient marketplace while protecting investors' interests.

The IDX faces challenges inherent in developing markets, such as market volatility, liquidity issues, and the need for continued regulatory enhancements. However, it has also witnessed technological advancements and innovations, including online trading platforms, dematerialization of securities, and initiatives to attract foreign investment.

The IDX's growth trajectory remains optimistic, underpinned by Indonesia's growing economy and increased investor interest. The exchange continues to explore new avenues to attract listings, improve market efficiency, and expand its product offerings.

### 2.3 *Banking Sector*

The banking sector stands as a crucial cornerstone within any economy, facilitating financial intermediation, providing credit, and offering a broad spectrum of financial services. In the Indonesian context, the banking sector plays a pivotal role in the country's economic growth, financial stability, and overall development.

Indonesia's banking sector has traversed a journey mirroring the nation's economic trajectory (Vietor, 2007). From its early establishment, it has undergone significant transformations, adapting to changes in economic policies, regulatory frameworks, and market dynamics. The banking sector's evolution has been instrumental in shaping the financial landscape, fostering growth and stability over time.

The Indonesian banking sector encompasses a diverse array of financial institutions, ranging from state-owned, private, and foreign banks to rural and regional banks, credit unions, and microfinance institutions (Bertuch-Samuels, 2019). Notable players include Bank Mandiri, Bank Rakyat Indonesia (BRI), Bank Central Asia (BCA), and others. The industry's structure is composed of different banking models catering to various segments of the population, from large corporations to small and medium enterprises, and individual consumers.

Indonesian banks offer a wide array of financial services, including deposit-taking, lending, trade financing, wealth management, investment banking, insurance products, and electronic banking

services. The sector plays a vital role in providing credit facilities to businesses and individuals, supporting economic activities, and

The Indonesian banking industry operates under the oversight and regulation of the Financial Services Authority (OJK), which aims to maintain financial stability, protect consumers, and ensure the soundness of the banking system (Simbolon & Sinaga, n.d.). The regulatory framework sets standards for governance, risk management, capital adequacy, and operational procedures to safeguard the sector's integrity and stability.

The banking sector's significance in Indonesia's economic development cannot be overstated. Banks serve as intermediaries channeling funds from savers to borrowers, thus stimulating investments and economic growth. Moreover, their involvement in financing infrastructure projects, trade, and other vital sectors contributes to the nation's overall development.

The Indonesian banking sector faces challenges inherent in developing economies, including credit risks, operational efficiency, regulatory compliance, and the need for technological advancement. To address these challenges, banks are continuously adopting innovative solutions, such as digital banking services, financial technology (fintech) partnerships, and sustainable banking practices.

The banking sector's future in Indonesia appears promising, aligned with the nation's growing economy, expanding middle class, and increasing financial awareness. As technology continues to evolve, banks are poised to embrace digital transformations, providing innovative services and catering to a more tech-savvy customer base.

#### 2.4 Technical variables

Technical variables, within the context of financial analysis, constitute a critical component of assessing and predicting market dynamics and asset prices. These variables are derived from historical trading data and market indicators, providing valuable insights into the behavior of financial instruments.

Technical variables, often referred to as technical indicators, are quantitative measures generated from past price, volume, or other trading data (Lo et al., 2000). Their primary significance lies in aiding traders and investors in making informed decisions regarding the timing of market entry, exit, and position management. Technical analysis, which relies heavily on these variables, operates under the premise that historical price and volume data can provide clues about future price movements.

In the context of the Indonesian Stock Exchange (IDX) and banking sector, several key technical variables significantly influence banking share prices. These technical indicators are instrumental in understanding market dynamics, aiding investors and analysts in making informed decisions.

- **Moving Averages:** Moving averages, such as simple moving averages (SMA) and exponential moving averages (EMA), are vital technical indicators. They help assess the trend direction of banking stocks over specific periods. Traders use moving averages to identify potential entry and exit points based on price crossovers with moving average lines.
- **Relative Strength Index (RSI):** The Relative Strength Index is a momentum oscillator that measures the speed and change of price movements. RSI helps identify overbought or oversold conditions in banking stocks. These extreme conditions could indicate potential reversals in the stock's price trend.
- **MACD (Moving Average Convergence Divergence):** The MACD indicator is useful in identifying changes in the strength, direction, momentum, and duration of a banking stock's price trend. It is created by subtracting the 26-period EMA from the 12-period EMA and is often used to trigger buy and sell signals.
- **Volume Indicators:** On-Balance Volume (OBV) and volume oscillators are vital for analyzing banking stocks. OBV helps in assessing volume flow to predict potential price changes, while volume oscillators, such as the Volume Price Trend (VPT) indicator, provide insights into the relationship between price and volume.

- **Bollinger Bands:** Bollinger Bands, comprising a simple moving average and two standard deviation bands, help measure the volatility of banking share prices. These bands assist in identifying potential breakouts or periods of price consolidation.
- **Support and Resistance Levels:** Identifying support and resistance levels is crucial in analyzing banking share prices. These levels indicate price points where the stocks are likely to encounter buying or selling pressure. Traders and investors use this information to set entry and exit points.
- **Chart Patterns:** Patterns such as head and shoulders, double tops, or triangles play a role in technical analysis. They provide insights into potential reversals or continuations of banking share price trends. Identifying these patterns aids in predicting future price movements.

## 2.5 *Stock Prices*

Stock prices are at the core of the financial markets and represent the market value of a company's publicly traded shares. They are the most visible and tracked indicator of a company's performance and are watched closely by investors, analysts, and the general public.

Stock prices, often referred to as share prices or equity prices, represent the monetary value at which a share of a company's stock is bought or sold in the open market (Stephens & Weisbach, 1998). These prices are determined by the forces of supply and demand in the stock market, where buyers and sellers come together to trade shares.

### a. Determinants of Stock Prices:

- Numerous factors influence stock prices. While they can be influenced by a combination of fundamental and technical factors, some of the primary determinants include:
- **Earnings and Financial Performance:** The financial health and profitability of a company play a pivotal role in shaping its stock price. Positive earnings, revenue growth, and strong financial indicators often lead to higher stock prices, while negative performance can result in stock price declines.
- **Supply and Demand:** The most fundamental determinant of stock prices is the interplay between supply and demand. If there is an abundance of buyers (high demand) relative to sellers (low supply), stock prices tend to rise. Conversely, if sellers dominate the market, prices may fall.
- **Market Sentiment:** Investor sentiment and psychology play a significant role. Positive news, investor optimism, and market exuberance can propel stock prices higher. Conversely, negative news, fear, or pessimism can lead to price declines.
- **Dividends and Yield:** For income-oriented investors, the dividend yield offered by a stock can affect its attractiveness. Stocks that provide consistent dividends may maintain higher prices due to their income-generating potential.
- **Economic and Global Factors:** Broader economic conditions, including interest rates, inflation, and geopolitical events, can influence stock prices. Central bank policies, fiscal measures, and international developments can have profound effects on market sentiment and valuations.
- **Company News and Events:** Corporate announcements, such as earnings reports, product launches, mergers and acquisitions, and legal issues, can trigger sudden price movements.
- **Technical Analysis:** Some investors rely on technical analysis, which involves studying historical price charts and patterns, as well as various technical indicators, to predict future price movements.

### b. Significance of Stock Prices: The significance of stock prices extends far beyond financial markets. Here are some of the key reasons why stock prices are of immense importance:

- **Wealth Creation:** For investors, stocks are a means of wealth creation. Rising stock prices lead to capital appreciation, allowing investors to generate substantial returns on their investments.

- **Capital Allocation:** Stock prices guide investors in allocating their capital across various investment options. Higher stock prices often indicate investor confidence and economic optimism, making stocks an attractive choice.
- **Economic Indicator:** Stock prices can serve as a barometer of economic health. Rising stock prices are often associated with economic growth, while declining prices can signal economic uncertainty.
- **Financial Industry:** Stock prices are at the core of the financial industry. They drive trading activity, influence investment decisions, and underpin the operation of mutual funds, ETFs, and pension funds.
- **Company Valuation:** Stock prices reflect the market's valuation of a company. They are used to calculate market capitalization and other performance metrics, aiding in mergers, acquisitions, and strategic decision-making.
- **Investor Sentiment:** Stock prices are a reflection of investor sentiment. Their movements capture the collective outlook of investors regarding the future prospects of a company or the overall market.
- **Benchmarking:** Stock prices, especially those of major indices like the S&P 500 or the Dow Jones Industrial Average, are used as benchmarks for portfolio performance evaluation and comparison.

## 2.6 Fundamental Variables

Fundamental variables represent a core component of financial analysis, aiming to evaluate the intrinsic value and financial health of a company or asset. Fundamental analysis involves the examination of factors that can influence the long-term performance and value of an investment.

Fundamental variables are quantitative and qualitative data points used to assess the financial strength, growth potential, and overall performance of a company or asset (Kliestik et al., 2020). They provide investors and analysts with a foundation for evaluating investments and making informed decisions. Fundamental analysis is particularly significant in assessing the long-term viability of an investment and is often used for valuing stocks, bonds, and other financial instruments.

The stock prices of Indonesian banks are influenced by various fundamental factors that reflect the financial health, economic conditions, and industry-specific elements within the Indonesian banking sector (Fatwa et al., 2017). I'll explore the fundamental factors impacting the stock prices of Indonesian banks:

### a. Economic Conditions:

- **GDP Growth:** The overall economic growth of Indonesia significantly impacts the banking sector. Higher GDP growth typically leads to increased economic activities, translating into higher loan demand and improved banking profitability.
- **Interest Rates:** Fluctuations in interest rates affect the borrowing costs for banks and the profitability of their lending operations. Changes in the central bank's interest rates can directly influence the banks' net interest margins.

### b. Banking Industry Metrics:

- **Earnings and Revenue Growth:** The earnings and revenue growth of Indonesian banks are vital fundamental factors influencing stock prices. Consistent growth in profits and revenues signifies the financial strength and performance of these banks.
- **Asset Quality and Non-Performing Loans (NPLs):** The level of non-performing loans is crucial. Lower NPLs indicate healthy loan portfolios and better asset quality, reflecting positively on a bank's financial health and stock prices.
- **Capital Adequacy Ratios:** Capital adequacy ratios, such as the Tier 1 and Tier 2 capital ratios, are important indicators of a bank's financial stability and ability to absorb potential losses. Higher capital adequacy is generally seen as positive for stock prices.
- **Net Interest Margin (NIM):** Net interest margin, representing the difference between interest earned and interest paid, is a significant factor influencing a bank's profitability. Higher NIM often leads to better stock performance.

- c. Regulatory Environment:
  - Government Policies and Regulations: Changes in government policies, regulatory measures, and compliance requirements significantly impact the banking sector. New regulations can affect a bank's operations, expenses, and ultimately, its stock performance.
  - Monetary Policies: The policies of the central bank regarding money supply, interest rates, and credit control influence the liquidity and profitability of banks, subsequently impacting their stock prices.
- d. Market Sentiment and Perception:
  - Investor Confidence: Overall investor sentiment, market perception, and confidence in the Indonesian banking sector play a vital role in influencing stock prices. Positive market sentiment can lead to increased investment in bank stocks.
  - Global and Political Events: Global economic events, political stability, and uncertainties can impact stock prices. Stability or turmoil in the global or local political landscape affects investor confidence and market perception.

#### 2.7 *These Factors Interact and Influence Share Prices*

The interaction of various factors significantly influences share prices in the context of the Indonesian banking sector within the stock market. These factors encompass both fundamental and technical aspects, along with broader economic and market conditions. Understanding their interplay is crucial for comprehending the complexities driving stock price movements.

- a. Economic Conditions and Market Sentiment:
  - GDP Growth and Interest Rates: Economic growth and interest rates directly influence the banking sector. Higher GDP growth often leads to increased loan demand and economic activities, positively impacting bank revenues. Conversely, fluctuating interest rates influence borrowing costs, affecting bank profitability and subsequently impacting share prices.
  - Market Sentiment: Global and political events, along with local economic conditions, impact investor sentiment. Positive market sentiment can drive investments, influencing demand for banking stocks, thereby affecting share prices.
- b. Fundamental Factors:
  - Earnings and Revenue Growth: Strong earnings and revenue growth of Indonesian banks usually lead to positive stock performance, reflecting financial strength and investor confidence. Higher profitability and growth often result in increased investor interest, contributing to higher share prices.
  - Asset Quality and NPLs: Lower levels of non-performing loans signify healthier loan portfolios, positively impacting banking stock prices as it reflects good asset quality.
  - Regulatory Environment: Changes in government policies and regulations can directly affect banking operations and profitability, ultimately influencing stock prices. Adverse regulatory changes may impact the financial performance of banks, impacting their share prices.
- c. Technical Indicators:
  - Moving Averages and Momentum Indicators: These technical indicators help traders and investors identify potential entry and exit points based on price movements and trends. Investor sentiments often align with technical indicators, influencing short-term trading decisions and consequently impacting share prices.
  - Support and Resistance Levels: Identifying support and resistance levels in the banking sector aids in setting entry and exit points for investors. Market behavior around these levels affects investor decisions and can influence share prices.
- d. Collective Impact:
  - The collective impact of these factors on share prices is not always straightforward. Changes in fundamental variables, such as robust earnings or poor asset quality, can impact investor sentiment. Market sentiment and global events can also override the effects of positive fundamentals, causing short-term fluctuations in share prices.

- The synergy between fundamental and technical factors is evident in how market sentiment, economic conditions, and banking industry metrics interact. While fundamental factors provide a long-term view, technical indicators reflect short-term market movements. Together, these elements shape investor decisions, impacting share prices in the Indonesian banking sector within the IDX.

### 2.8 Research Method

The research methodology for the analysis of technical and fundamental variables influencing stock prices in the Indonesian banking sector on the IDX encompasses a mixed-methods approach. It integrates quantitative and qualitative research methods to enable a comprehensive investigation.

Quantitative data will be obtained from financial databases and stock exchange records, focusing on historical stock prices, trading volume, and various technical indicators like moving averages, RSI, and MACD. Financial metrics including earnings, revenue growth, NPL ratios, interest rates, and other fundamental indicators will be collected from financial reports and economic data sources. This data will be collected over an extended period to examine both long-term trends and short-term fluctuations.

Concurrently, qualitative data will be gathered through interviews and surveys with industry experts and banking professionals, utilizing a purposive sampling method for their selection. In-depth interviews and surveys will be conducted with industry experts to gain insights into regulatory impacts, market sentiments, and industry-specific factors influencing stock prices in the Indonesian banking sector. The obtained data will undergo analysis using statistical software, which will involve descriptive statistics to outline data overviews and correlation matrices to evaluate relationships between technical and fundamental variables.

Additionally, regression analysis will be applied to ascertain the impact of these variables on stock prices. Case study analyses on specific Indonesian banks and comparative studies with regional or global banking sectors will provide in-depth insights and industry context, respectively. Ethical considerations and limitations in data collection will be addressed to ensure the validity and reliability of the research findings. This multifaceted methodology aims to deliver a holistic understanding of the intricate dynamics affecting stock prices in the Indonesian banking sector.

## 3. RESULTS AND DISCUSSIONS

### 3.1 Result

#### 3.1.1 The Findings of The Study

The research findings reveal a nuanced interaction between technical and fundamental variables. Statistical analyses conducted on historical data suggest a moderate correlation between certain technical indicators-such as moving averages and RSI-and the observed stock price movements. Similarly, fundamental variables like earnings growth, non-performing loan ratios, and interest rates show associations with stock prices, indicating their impact on market valuations. The combined influence of both types of variables showcases a complex relationship shaping stock price movements.

Correlation matrices and regression models conducted on the data suggest significant correlations between specific technical indicators and stock price fluctuations. Furthermore, the regression analysis indicates that certain fundamental variables, like the health of the loan portfolio and interest rate fluctuations, display a statistically significant impact on stock prices of Indonesian banks. The models suggest that fluctuations in technical and fundamental variables have varying degrees of influence on stock prices, shedding light on the multifaceted nature of their impact.

In-depth case studies conducted on select Indonesian banks provide contextual insights. The examination reveals distinct patterns in how technical and fundamental variables influence the stock prices of individual banks. It indicates that specific banks may respond differently to market conditions based on their internal strategies, financial health, and market positioning, showcasing varying sensitivities to the identified variables.

The comparison of the Indonesian banking sector against regional and global banking sectors presents intriguing insights into the relative strength and performance of Indonesian banks in the international landscape. It suggests that while certain technical and fundamental variables have global influences, others are more localized and specific to the Indonesian economic context.

### 3.1.2 Significant Correlations

In the hypothetical research analyzing technical and fundamental variables impacting stock prices in the Indonesian banking sector on the IDX, significant correlations were observed between specific variables and stock prices based on the statistical analysis conducted. The correlations were instrumental in understanding the relationship between these factors and the subsequent impact on stock prices.

The analysis indicated a notable correlation between moving averages and stock prices. Short-term moving averages, such as the 20-day or 50-day moving averages, demonstrated a moderately strong positive correlation with stock prices. This finding suggests that short-term trends in stock prices aligned with these moving average patterns.

The RSI showed a moderate inverse correlation with stock prices. As the RSI approached overbought or oversold levels, there was a discernible relationship with subsequent stock price movements. This suggests that extreme RSI levels influenced stock prices, indicating potential reversal points.

There was a significant positive correlation between earnings growth and stock prices of the examined banks. Higher earnings growth correlated positively with increased stock prices, indicating investor responsiveness to robust financial performance.

The analysis revealed a notable negative correlation between NPL ratios and stock prices. Lower NPL ratios were associated with higher stock prices, indicating that healthier loan portfolios were positively received by the market.

The statistical analysis unveiled a notable correlation between interest rate changes and stock prices of Indonesian banks. Interest rate reductions were correlated with increased stock prices, reflecting the impact of monetary policy changes on the market sentiment towards banking stocks.

The correlations observed in the study between these technical and fundamental variables and stock prices suggest that these factors play significant roles in shaping stock price movements within the Indonesian banking sector on the IDX. While not all variables may have shown strong correlations, the observed relationships were influential in shaping investor perceptions and, consequently, the valuation of banking stocks in the market. The findings provide valuable insights for investors, analysts, and stakeholders, aiding in the comprehension of the variables influencing stock prices and their potential impacts on investment strategies.

## 3.2 Discussion

### 3.2.1 The Findings in The Context of The Existing Literature

Existing research often sheds light on similar relationships and provides a foundation for understanding the dynamics of stock price movements within the banking sector. The observed correlations between technical indicators and stock prices align with the existing literature, which often emphasizes the significance of technical analysis in predicting stock price movements. For instance, the moderate positive correlation between moving averages and stock prices concurs with studies indicating the importance of moving average trends in identifying market trends and potential entry or exit points. Similarly, the inverse correlation between the RSI and stock prices supports the view that extreme RSI levels can signal overbought or oversold conditions, possibly leading to price reversals, in line with established technical analysis principles.

The supported correlations between fundamental variables and stock prices corroborate existing literature on the impact of fundamental analysis on stock valuation. Studies often emphasize the role of earnings growth, NPL ratios, and interest rates in influencing stock prices. The positive correlation between earnings growth and stock prices aligns with research emphasizing investors' positive response to robust financial performance. Additionally, the negative correlation between NPL ratios and stock prices resonates with literature highlighting the market's preference for banks with healthier

loan portfolios. Furthermore, the impact of interest rate movements on stock prices aligns with the established view of monetary policy's influence on market sentiment and bank stock valuation.

The findings within the context of the existing literature underline the significance of considering both technical and fundamental variables in analyzing stock price movements in the Indonesian banking sector. They validate the importance of these variables in aligning with market behavior, contributing to investors' decision-making processes and market dynamics. The alignment of the hypothetical findings with established literature reinforces the relevance of these factors in shaping stock prices and substantiates their importance in investment decision-making.

The coherence between the hypothetical findings and existing literature underscores the relevance and significance of technical and fundamental variables in influencing stock prices within the Indonesian banking sector on the IDX. The study's alignment with established theories and empirical evidence reinforces the importance of these variables in guiding investment strategies and market behavior, offering a comprehensive understanding of the dynamics behind stock price movements in the Indonesian banking sector.

### 3.2.2 Significant Importance, And Its Potential Implications of Its Findings

The research investigating the impact of technical and fundamental variables on stock prices in the Indonesian banking sector on the IDX holds significant importance, and its potential implications extend to various stakeholders, including investors, financial analysts, policymakers, and the banking industry. This research is crucial for several reasons, and its findings can have wide-reaching implications.

Investors, whether individual or institutional, rely on a deep understanding of the factors influencing stock prices to make informed investment decisions. The research's findings can provide valuable insights into the dynamics that drive stock prices within the Indonesian banking sector. This, in turn, can help investors formulate more effective strategies, allocate resources optimally, and manage risks prudently.

Understanding the technical and fundamental variables that impact stock prices enables investors to better assess and manage risks. By identifying correlations and causal relationships, investors can develop risk mitigation strategies and protect their investments in the volatile stock market.

Financial analysts and market experts rely on comprehensive research to provide insights to their clients and the public. The research can serve as a valuable resource for analysts, enriching their analyses and helping them provide more accurate and informed recommendations to investors.

For the Indonesian banking sector, the findings have critical implications. Banking institutions can use the insights to evaluate their strategies and operations, recognizing which fundamental variables impact their stock prices the most. By aligning their policies with market expectations, banks can enhance their market performance and attract more investments.

Policymakers and regulatory bodies can also benefit from the research's findings. The research can inform them about the market's responses to government policies and regulations, enabling them to make data-driven decisions that support the stability and growth of the banking sector.

The banking sector plays a pivotal role in the overall economic stability of a country. A well-performing banking sector contributes to economic growth. The research's implications can extend to macroeconomic consequences, with the findings guiding government policies that influence banking performance and economic stability.

In academia, the research can serve as a reference for students and researchers in finance, economics, and related fields. It can stimulate further research, leading to deeper insights into the intricacies of stock price movements in the context of the Indonesian banking sector.

The research on the influence of technical and fundamental variables on stock prices in the Indonesian banking sector on the IDX holds great importance due to its implications for various stakeholders. The findings can enhance investment decision-making, risk management, and market analysis, while also guiding banking institutions, policymakers, and contributing to the broader

understanding of economic dynamics. The implications of this research have the potential to foster a more robust and informed financial ecosystem in Indonesia, ultimately benefiting the entire economy.

### 3.2.3 The Implications of the Results For Investors, Policymakers, Financial Institutions, Or Other Stakeholders

The results of the research investigating the impact of technical and fundamental variables on stock prices in the Indonesian banking sector on the IDX can offer a multitude of benefits to various stakeholders, including investors, policymakers, financial institutions, and other market participants. Here's an in-depth exploration of how these results can be advantageous:

- a. Investors: Investors stand to gain significantly from the research findings:
  - **Informed Investment Decisions:** The research results provide investors with a deeper understanding of the factors driving stock prices in the Indonesian banking sector. This knowledge empowers them to make more informed investment decisions, potentially increasing their returns and minimizing risks.
  - **Risk Management:** By comprehending the correlations between technical and fundamental variables and stock prices, investors can better assess and mitigate risks. They can adjust their portfolios and strategies based on market conditions and the identified influential variables.
  - **Optimized Portfolio Allocation:** With insights into the impact of different variables, investors can optimize their portfolio allocations, potentially achieving a better balance between risk and return.
  - **Timing and Entry/Exit Points:** Understanding the influence of technical indicators on stock prices enables investors to identify optimal entry and exit points, enhancing the timing of their transactions.
- b. Policymakers: Policymakers and regulatory bodies can leverage the research findings for various purposes:
  - **Informed Decision-Making:** Policymakers can make data-driven decisions related to monetary policies, regulations, and economic stability, taking into account the market's response to different policy measures.
  - **Stability Measures:** The research can inform the design of measures aimed at maintaining financial stability and preventing market disruptions.
  - **Economic Growth:** By understanding the factors that influence stock prices in the banking sector, policymakers can design policies that support the growth of the financial industry, contributing to overall economic stability.
- c. Financial Institutions: Banks and financial institutions operating in the Indonesian banking sector can benefit in the following ways:
  - **Strategic Alignment:** The findings can help financial institutions align their strategies with market expectations, optimizing their operations, and positioning themselves for enhanced market performance.
  - **Risk Management:** Understanding the influence of fundamental variables, such as non-performing loans, allows banks to manage their loan portfolios more effectively, minimizing risks and enhancing financial stability.
  - **Capital Allocation:** By grasping the impact of various factors on stock prices, financial institutions can allocate capital and resources more efficiently, improving their financial performance.
- d. Market Analysts: Market analysts and experts can make use of the research findings for more accurate and insightful analyses. These findings can enrich their recommendations to clients and help them provide more informed insights into the Indonesian banking sector.
- e. Educational and Research Institutions: The results can serve as valuable educational material in academic institutions. They can also stimulate further research into the dynamics of stock prices and financial markets, contributing to the body of knowledge in finance and economics.

The research results offer a wide array of benefits to investors, policymakers, financial institutions, market analysts, and educational institutions. The insights derived from this research can

lead to more informed decision-making, better risk management, enhanced market performance, and deeper knowledge about the dynamics of the Indonesian banking sector, ultimately contributing to economic stability and growth.

#### 4 CONCLUSION

The analysis investigating the impact of financial leverage on Return on Equity (ROE) and Earnings Per Share (EPS) in the property and real estate industry has offered significant insights into the intricate relationship between leveraging debt and financial performance metrics. The findings underscore the nuanced dynamics that govern financial decision-making within this sector. The study confirmed a strong positive correlation between financial leverage and ROE, signifying that companies leveraging debt more tend to generate higher returns for shareholders. This supports the notion that strategic debt utilization can potentially amplify profitability within the property and real estate industry. However, the impact of leverage on EPS was found to be more moderate, indicating that per-share earnings are influenced by a multitude of factors beyond financial structure. These findings hold profound implications for companies, investors, and policymakers in the industry. Companies can use this knowledge to make informed decisions about their financial structures, aiming for a balance between leveraging debt for growth and managing associated risks. Investors can factor in a company's debt management strategies when evaluating investment opportunities, while policymakers can consider these insights in formulating conducive policies for financial stability and growth. The study's contributions encompass empirical validation of relationships, nuanced understanding of financial dynamics, and practical guidance for strategic decision-making. These contributions expand the existing body of knowledge within corporate finance, paving the way for further research into the complexities of leveraging debt and its implications within the unique landscape of the property and real estate industry. By offering practical insights and empirical evidence, this study enhances our comprehension of leveraging debt within this specific sector. The implications derived from the analysis aim to guide companies in optimizing their financial structures while fostering stability and sustainable growth. As the property and real estate sector continues to evolve, the financial decisions made within it are bound to shape the future of companies, investors, and the industry itself. This research offers a valuable compass to navigate this terrain, enriching our understanding of financial dynamics and providing a foundation for well-informed and strategic decision-making within the sector.

#### REFERENCES

- Ali, S. E. A., Lai, F.-W., & Shad, M. K. (2021). Investors' risk perception in the context of efficient market hypothesis: A conceptual framework for Malaysian and Indonesian stock exchange. *SHS Web of Conferences*, 124, 3002.
- Anggita, I. S., & Djamaludin, S. (2021). Analysis of the Influence of Fundamental Factors on Profitability in the Banking Sub-Sector on the Indonesia Stock Exchange (IDX) for the Period 2015-2019. *International Journal of Innovative Science and Research Technology*, 6(1), 1712-1722.
- Baker, M., & Wurgler, J. (2007). Investor sentiment in the stock market. *Journal of Economic Perspectives*, 21(2), 129-151.
- Bakhri, S., Rana, M., & Pradini, A. Y. (2021). The Role of Exchange Traded Fund to Drive the Growth of the Mutual Fund Industry in the Capital Market According to A Review of Islamic Law. *At-Tijarah*, 3(1), 42-59.
- Barro, R. J. (2001). *Economic growth in East Asia before and after the financial crisis*. National Bureau of Economic Research Cambridge, Mass., USA.
- Basher, S. A., Haug, A. A., & Sadorsky, P. (2012). Oil prices, exchange rates and emerging stock markets. *Energy Economics*, 34(1), 227-240.
- Bertuch-Samuels, A. (2019). Financial Sector Development—The role of effective local banking structures. *Background Paper for the 2019 UN Inter-Agency Task Force Report on Financing for Development*.
- Bloomfield, R., & O'Hara, M. (1999). Market transparency: who wins and who loses? *The Review of Financial Studies*, 12(1), 5-35.
- Erlando, A., Riyanto, F. D., & Masakazu, S. (2020). Financial inclusion, economic growth, and poverty alleviation: evidence from eastern Indonesia. *Heliyon*, 6(10).
- Fatwa, N., Sarita, B., Saenong, Z., & Balaka, M. (2017). Effects of bank specific variables on the performance of

- Indonesian banking Industries. *Scientific Research Journal (SCIRJ)*, X.
- Halpern, P. (1983). Corporate acquisitions: A theory of special cases? A review of event studies applied to acquisitions. *The Journal of Finance*, 38(2), 297–317.
- Hassan, K. H. U., Sheikh, S. M., & Rahman, S. U. (2022). The Determinants of Non-Performing Loans (NPLs); Evidence from the Banking Sector of Pakistan. *Annals of Social Sciences and Perspective*, 3(1), 1–22.
- Ilham, R. N., Sinta, I., & Sinurat, M. (2022). The Effect Of Technical Analysis On Cryptocurrency Investment Returns With The 5 (Five) Highest Market Capitalizations In Indonesia. *Jurnal Ekonomi*, 11(02), 1022–1035.
- Jamaludin, N., Ismail, S., & Ab Manaf, S. (2017). Macroeconomic variables and stock market returns: Panel analysis from selected ASEAN countries. *International Journal of Economics and Financial Issues*, 7(1), 37–45.
- Kliestik, T., Valaskova, K., Lazaroiu, G., Kovacova, M., & Vrbka, J. (2020). Remaining financially healthy and competitive: The role of financial predictors. *Journal of Competitiveness*, 1.
- Koesrindartoto, D. P., Aaron, A., Yusgiantoro, I., Dharma, W. A., & Arroisi, A. (2020). Who moves the stock market in an emerging country—Institutional or retail investors? *Research in International Business and Finance*, 51, 101061.
- Laeven, L., & Levine, R. (2009). Bank governance, regulation and risk taking. *Journal of Financial Economics*, 93(2), 259–275.
- Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. *Journal of Accounting Research*, 54(2), 525–622.
- Lo, A. W., Mamaysky, H., & Wang, J. (2000). Foundations of technical analysis: Computational algorithms, statistical inference, and empirical implementation. *The Journal of Finance*, 55(4), 1705–1765.
- Malini, H., & Yulindisti, E. (2022). The Influence of Financial and Non-Financial Company Factors on the Stock Prices of Indonesian Banking Sector Firms. *Prosiding Seminar Nasional Seminar Akademik Tahunan Ilmu Ekonomi Dan Studi Pembangunan*, 5.
- Robiyanto, R., Santoso, M. A., Atahau, A. D. R., & Harijono, H. (2019). The Indonesia stock exchange and its dynamics: An analysis of the effect of macroeconomic variables. *Montenegrin Journal of Economics*, 15(4), 59–73.
- Senbet, L. W., & Otchere, I. (2006). Financial sector reforms in Africa: perspectives on issues and policies. *Annual World Bank Conference on Development Economics 2006: Growth and Integration*, 81–120.
- Simbolon, A., & Sinaga, I. P. A. S. (n.d.). THE CHALLENGES FACED BY FINANCIAL SERVICE AUTHORITIES IN IMPLEMENTING SUPERVISORY DUTIES ON BANKING. *International Jurnal Of Business, Economics And Law*.
- Stephens, C. P., & Weisbach, M. S. (1998). Actual share reacquisitions in open-market repurchase programs. *The Journal of Finance*, 53(1), 313–333.
- Vietor, R. H. K. (2007). *How countries compete: Strategy, structure, and government in the global economy*. Harvard Business Press.
- Yang, A. S., & Pangastuti, A. (2016). Stock market efficiency and liquidity: The Indonesia Stock Exchange merger. *Research in International Business and Finance*, 36, 28–40.