

Integration of Fundamental and Technical Analysis for Stock Investment Decision Making: Evidence from LQ45 Companies Listed on the Indonesia Stock Exchange

Muhammad Arif Haeqal^{1*}, Dina Patrisia²

Master of Management, Universitas Negeri Padang

Corresponding Author: Muhammad Arif Haeqal haeqal91@gmail.com

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ABSTRACT

Investment decisions in the capital market require analytical approaches capable of assessing both company quality and market timing. Fundamental analysis provides information regarding the intrinsic value and financial performance of a company, whereas technical analysis assists investors in identifying the optimal timing for buying and selling stocks. However, relying solely on one approach may produce less optimal investment decisions. This study aims to integrate fundamental and technical analysis in determining stock investment decisions for companies included in the LQ45 Index on the Indonesia Stock Exchange. The study employed a descriptive quantitative approach using secondary data obtained from annual financial reports and historical stock prices during the 2022–2025 observation period. Fundamental analysis was conducted by evaluating ten financial ratios, including Price Earnings Ratio (PER), Book Value per Share (BVPS), Return on Equity (ROE), Dividend Payout Ratio (DPR), Dividend Yield (DY), Price to Book Value (PBV), Current Assets (CA), Gross Debt to Sales (GDS), Current Ratio (CR), and Earnings per Share (EPS). Stocks with the highest fundamental scores were subsequently analyzed using Moving Average (MA), Moving Average Convergence Divergence (MACD), and Bollinger Bands to identify market trends and trading signals. The findings indicate that integrating both analytical approaches provides a more comprehensive investment decision framework.

INTRODUCTION

Over the last decade, Indonesia's capital market has shown remarkable progress, reflected in the continuous increase in market capitalization, the expansion in the number of publicly listed companies, and the rapid growth of retail investor participation. These developments indicate that stock investment has become increasingly recognized by the public as an effective instrument for long-term wealth accumulation. Along with this positive trend, however, investors are confronted with greater challenges in selecting suitable investment opportunities. The increasing complexity of the market requires investment decisions to be supported by structured analytical methods capable of balancing return expectations with investment risk. As market conditions become more volatile, relying solely on intuition or short-term market sentiment is no longer sufficient to achieve sustainable investment performance.

Among the stock market benchmarks available in Indonesia, the LQ45 Index occupies an important position because it consists of highly liquid companies with substantial market capitalization and relatively solid financial performance. The companies included in this index are generally classified as blue-chip firms and are actively traded by both institutional and individual investors. Although these companies are considered fundamentally strong, selecting the most attractive stocks within the index remains a challenging task. Differences in financial performance, business characteristics, and stock price movements require investors to evaluate not only the quality of the companies but also the prevailing market conditions before making investment decisions.

Fundamental analysis has traditionally served as one of the principal approaches for assessing the intrinsic value of a company. Through the examination of financial indicators related to profitability, valuation, liquidity, leverage, and earnings performance, this method seeks to determine whether a stock is priced below or above its fair value. Numerous empirical studies have demonstrated that financial measures such as the Price Earnings Ratio (PER), Return on Equity (ROE), Earnings per Share (EPS), and Price to Book Value (PBV) provide valuable insights into a company's financial condition and its long-term growth potential. Consequently, investors with a long-term perspective frequently rely on fundamental analysis when identifying companies with sustainable business performance.

Despite these advantages, fundamental analysis does not provide sufficient information regarding the most appropriate time to buy or sell a stock. A company may report strong financial results while its share price declines because of temporary market sentiment, technical corrections, or broader economic uncertainty. As a result, investment decisions based exclusively on corporate financial performance may expose investors to timing risk, reducing the effectiveness of portfolio management. This limitation highlights the importance of incorporating complementary analytical techniques that consider market behavior.

Technical analysis addresses this issue by focusing on historical price patterns, trading volume, and market momentum to forecast potential future price movements. Commonly used indicators, including the Moving Average

(MA), Moving Average Convergence Divergence (MACD), Relative Strength Index (RSI), and Bollinger Bands, assist investors in recognizing market trends, identifying momentum changes, and generating potential buying or selling signals. Previous research has shown that these indicators are particularly beneficial for determining optimal entry and exit points, especially for investors pursuing short- to medium-term trading strategies.

Although extensive research has been conducted on both fundamental and technical analysis, the majority of previous studies have examined these approaches separately. Many investigations concentrate on the relationship between financial performance and stock prices, whereas others focus primarily on the predictive ability of technical indicators in identifying trading opportunities (Murphy, 1999; Tandelilin, 2017). Research that combines both approaches into a unified investment decision framework remains relatively limited, particularly in the context of companies listed in the Indonesian LQ45 Index (Eiamkanitchat et al., 2016; Yuniningsih et al., 2022). Furthermore, many existing studies utilize only a small number of financial variables, limiting the comprehensiveness of stock evaluation (Brigham & Houston, 2019; Bodie et al., 2021).

To address this research gap, the present study proposes an integrated investment decision framework that combines fundamental and technical analysis through a sequential evaluation process (Eiamkanitchat et al., 2016; Bodie et al., 2021). The first stage involves screening companies based on their revenue growth to identify firms demonstrating sustainable business expansion (Penman, 2013). In the second stage, the selected companies are evaluated using ten fundamental indicators, namely the Price Earnings Ratio (PER), Book Value per Share (BVPS), Return on Equity (ROE), Dividend Payout Ratio (DPR), Dividend Yield (DY), Price to Book Value (PBV), Current Assets (CA), Gross Debt to Sales (GDS), Current Ratio (CR), and Earnings per Share (EPS). Each financial ratio is then compared with its respective industry average, where companies receive a score of one (1) if their performance exceeds the industry benchmark and zero (0) otherwise. The accumulated scores are subsequently used to rank the companies, allowing the highest-performing stocks to be selected for further analysis.

In the next stage, the selected stocks are examined using technical analysis, employing the Moving Average (MA), Moving Average Convergence Divergence (MACD), and Bollinger Bands to evaluate market trends and identify potential entry and exit points (Murphy, 1999; Achelis, 2001). The signals generated by these indicators are interpreted as Buy, Hold, or Sell recommendations. Finally, the results of the fundamental screening and technical analysis are integrated to produce comprehensive investment recommendations, enabling investors to select fundamentally strong companies while optimizing transaction timing according to prevailing market conditions (Bodie et al., 2021; Eiamkanitchat et al., 2016).

The primary contribution of this research extends beyond simply combining two analytical methods. It introduces a structured investment decision framework specifically developed for companies included in the LQ45

Index. In contrast to earlier studies that separately evaluate financial performance or technical market signals, this research integrates ten financial ratios with three technical indicators to produce comprehensive investment recommendations categorized into Buy, Hold, and Sell decisions. Therefore, this study contributes to both academic literature and investment practice by offering a more systematic and comprehensive approach to stock selection within the Indonesian capital market.

Based on the issues outlined above, this research seeks to examine how the integration of fundamental and technical analysis can support stock investment decision-making for companies listed in the LQ45 Index of the Indonesia Stock Exchange. It is expected that the findings will contribute to the development of investment analysis literature while also providing practical guidance for investors in identifying financially strong companies and determining appropriate trading strategies under varying market conditions.

LITERATURE REVIEW

Fundamental Analysis

Fundamental analysis is an approach used to determine the intrinsic value of a company's shares by evaluating its financial condition, operational performance, and long-term business prospects. This method is based on the assumption that the market price of a stock does not always represent its actual value. Therefore, investors compare a company's intrinsic value with its current market price to assess whether the stock is undervalued, fairly valued, or overvalued. Firms with strong financial performance are generally expected to maintain sustainable earnings growth and create long-term value for shareholders (Graham & Dodd, 1934; Bodie et al., 2021).

The implementation of fundamental analysis primarily depends on information presented in corporate financial statements. Through these reports, investors assess multiple aspects of business performance, including profitability, liquidity, solvency, operational efficiency, and market valuation. Financial ratios provide measurable indicators that simplify comparisons among companies while offering insights into their financial strength. Numerous empirical studies have reported that profitability and valuation indicators play an important role in influencing stock prices and investment decisions because they reflect both managerial effectiveness and the company's ability to generate returns for shareholders (Wijaya & Putri, 2021; Muchran et al., 2024).

To obtain a comprehensive assessment of corporate performance, this study incorporates ten financial ratios representing various financial dimensions. These consist of the Price Earnings Ratio (PER), Book Value per Share (BVPS), Return on Equity (ROE), Dividend Payout Ratio (DPR), Dividend Yield (DY), Price to Book Value (PBV), Current Assets (CA), Gross Debt to Sales (GDS), Current Ratio (CR), and Earnings per Share (EPS). Together, these indicators evaluate company valuation, profitability, liquidity, dividend distribution policy, financial stability, and earnings capability. Rather than relying on a single financial measure, the integration of multiple ratios allows stock selection to be conducted more comprehensively while reducing the limitations associated with individual indicators.

Technical Analysis

Technical analysis is an investment evaluation method that focuses on interpreting historical price movements and trading activity to estimate future market behavior. In contrast to fundamental analysis, which concentrates on company performance, technical analysis assumes that all available information has already been reflected in stock prices. Consequently, future price movements are believed to follow recurring patterns that can be identified through the analysis of market trends and investor behavior (Murphy, 1999; Pring, 2002).

According to this approach, stock prices move in identifiable trends driven by changes in supply and demand. Because market behavior tends to repeat itself, historical price data become an important source of information for predicting future price direction. Technical indicators assist investors in recognizing prevailing trends, measuring market momentum, identifying support and resistance levels, and detecting potential trend reversals, thereby improving the timing of investment decisions.

This research applies three commonly used technical indicators to evaluate market conditions. The first is the Moving Average (MA), which places greater emphasis on recent price data to identify the current market trend. The second is the Moving Average Convergence Divergence (MACD), an oscillator that measures changes in market momentum and identifies potential trend reversals by comparing short-term and long-term exponential moving averages. The third indicator is Bollinger Bands, which evaluates market volatility and identifies possible overbought or oversold conditions by measuring price deviations from the moving average. The combined use of these indicators provides complementary information regarding trend direction, momentum, and market volatility, thereby supporting more accurate investment decisions.

Integration of Fundamental and Technical Analysis

Fundamental analysis and technical analysis represent two different but mutually supportive approaches to stock investment. While fundamental analysis helps investors determine which companies possess strong financial quality, technical analysis assists in identifying the most appropriate time to execute investment transactions. Although each approach has its own strengths, relying exclusively on only one method may result in incomplete investment decisions.

Fundamental analysis provides a reliable assessment of corporate financial performance but offers limited guidance regarding market timing. In contrast, technical analysis is effective in identifying buying and selling opportunities but does not evaluate the underlying financial condition of the company. Consequently, investors who rely solely on technical signals may select financially weak companies, whereas those focusing only on fundamental analysis may purchase fundamentally strong stocks at less favorable market prices.

Several recent empirical studies have shown that integrating fundamental and technical analysis can improve investment performance by combining company quality assessment with effective market timing strategies (Eiamkanitchat et al., 2016; Hendra et al., 2025). This integrated approach applies

a sequential process in which companies are first screened according to their financial strength before technical indicators are used to determine suitable entry and exit opportunities. Such a process has the potential to reduce investment risk while improving the overall accuracy of investment decisions.

Accordingly, this study adopts a sequential analytical framework. The initial stage consists of evaluating companies based on their fundamental financial performance to identify those with superior financial characteristics. Companies that meet these criteria are subsequently examined using technical indicators to assess market conditions and generate investment recommendations classified as Buy, Hold, or Sell. Through this combination, the proposed model is expected to provide a more comprehensive decision-making framework than using either analytical approach independently.

Conceptual Framework

The conceptual framework developed in this study is founded on the assumption that effective investment decisions require both an assessment of a company's financial quality and an evaluation of market conditions. The analysis begins with the selection of companies included in the LQ45 Index using ten fundamental financial ratios to identify firms demonstrating superior financial performance. Companies receiving the highest fundamental evaluation are then subjected to technical analysis using the Moving Average (MA), Moving Average Convergence Divergence (MACD), and Bollinger Bands to examine trend direction, market momentum, and price volatility.

The integration of these two analytical stages produces investment recommendations categorized into Buy, Hold, and Sell decisions. By combining long-term financial performance with short-term market dynamics, the proposed framework is expected to reduce uncertainty in stock selection while providing investors with a more structured, objective, and systematic approach to investment decision-making. Explanation of theory here. To achieve the research objectives, this study adopts a systematic framework that integrates fundamental and technical analyses. The complete research framework is presented in Figure 1.

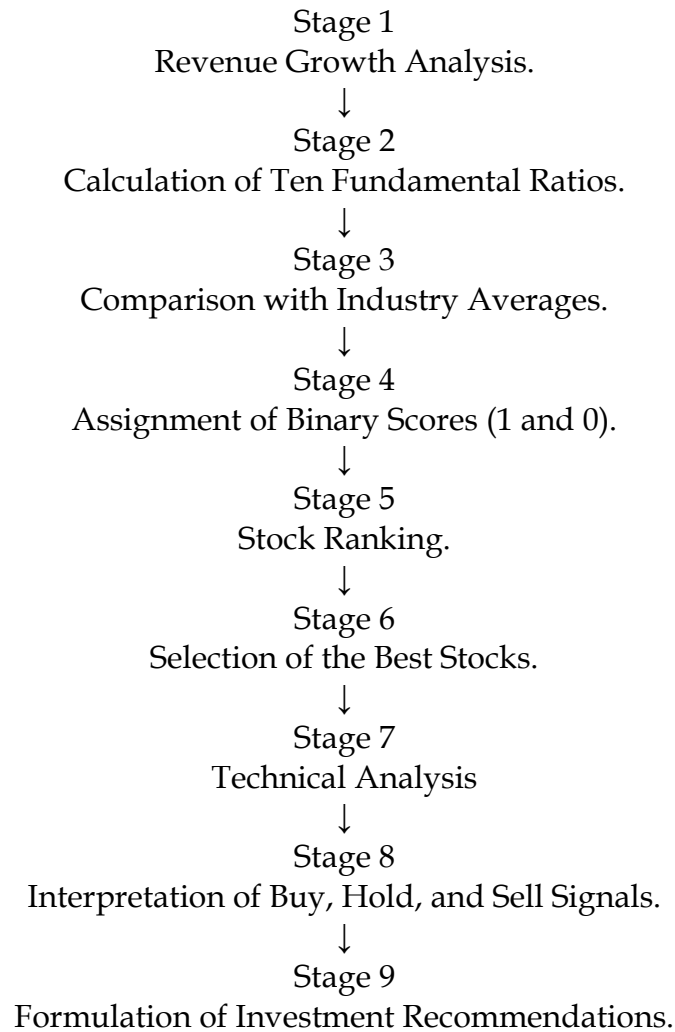


Figure 1. research framework

METHODOLOGY

This study employed a descriptive quantitative approach to develop an integrated investment decision framework by combining fundamental and technical analyses. The research relied exclusively on secondary data obtained from annual reports published by the Indonesia Stock Exchange (IDX), while historical stock price data were collected from TradingView, RTI Business, and Stockbit. The observation period covered four years, from 2022 to 2025.

The population consisted of companies included in the LQ45 Index. Purposive sampling was applied using four criteria: (1) companies consistently listed in the LQ45 Index during 2022–2025, (2) availability of complete annual financial statements, (3) complete historical stock price data, and (4) positive revenue growth throughout the observation period. Based on these criteria, six companies (AMRT, ANTM, BBCA, BBRI, BMRI, and ICBP) were selected for further analysis.

The analytical procedure consisted of nine sequential stages. First, companies were screened based on revenue growth. Second, ten fundamental indicators were calculated, including the Price Earnings Ratio (PER), Book Value

per Share (BVPS), Return on Equity (ROE), Dividend Payout Ratio (DPR), Dividend Yield (DY), Price to Book Value (PBV), Current Assets (CA), Gross Debt to Sales (GDS), Current Ratio (CR), and Earnings per Share (EPS). Third, each indicator was compared with its corresponding industry average. Fourth, companies received a score of one (1) if the indicator exceeded the industry benchmark and zero (0) otherwise. Fifth, the total scores were used to rank the companies. Sixth, stocks with the highest scores were selected for technical analysis.

In the final stage, technical analysis was conducted using the Moving Average (MA), Moving Average Convergence Divergence (MACD), and Bollinger Bands to evaluate market trends, momentum, and price volatility. The combined interpretation of these indicators generated Buy, Hold, or Sell signals, which were then integrated with the results of the fundamental analysis to produce the final investment recommendations.

RESEARCH RESULT AND DISCUSSION

Sample Characteristics

The study focused on companies included in the LQ45 Index of the Indonesia Stock Exchange (IDX) during the 2022–2025 observation period. The sample was selected using a purposive sampling method based on four criteria: (1) companies consistently listed in the LQ45 Index throughout the observation period, (2) availability of complete annual financial statements, (3) availability of complete historical stock price data, and (4) positive revenue growth during the study period. The number of companies that met each criterion is presented in Table 1.

Table 1. The number of companies

Sampling Criteria	Number of Companies
Companies included in the LQ45 Index	45
Consistently listed in the LQ45 Index (2022–2025)	27
Companies with complete annual financial statements	27
Companies with complete historical stock price data	27
Companies with positive revenue growth	22

Fundamental Analysis

The 20 companies that met the sampling criteria were evaluated using ten fundamental financial ratios. Each ratio was compared with the corresponding industry average. A score of 1 was assigned if the company's performance exceeded the industry average, while a score of 0 was assigned otherwise. The total score for each company was obtained by summing the scores across all ten ratios.

The scoring results were used to rank the companies based on their overall fundamental performance. Companies with the highest total scores were considered to have stronger financial conditions and were selected for the technical analysis stage. Based on this assessment, six companies AMRT, ANTM, BBKA, BBRI, BMRI, and ICBP were selected for further analysis.

Table 2. Results of Fundamental Scoring

Company	Total Score	Result
AMRT	7	Selected
ANTM	8	Selected
BBCA	6	Selected
BBRI	6	Selected
BMRI	6	Selected
ICBP	7	Selected

The six companies selected after the fundamental scoring process represent three major sectors of the Indonesian economy, namely financial services, consumer goods, and basic materials. Their strong fundamental performance indicates that they are suitable candidates for further evaluation using technical analysis to determine investment recommendations.

Table 3. Profile of Selected Companies

Company	Sector	Business Description
AMRT	Consumer Cyclical	Retail convenience store operator
ANTM	Basic Materials	Mining and mineral processing
BBCA	Financials	Commercial banking
BBRI	Financials	Commercial banking with MSME focus
BMRI	Financials	Commercial banking
ICBP	Consumer Non-Cyclicals	Food and beverage manufacturing

Table 4. Example of Fundamental Scoring Results for BBCA

NO	KODE	NAMA PERUSAHAAN	SEKTOR / INDUSTRI	INDIKATOR	TAHUN				RATA - RATA INSTRUMEN KEUANGAN	RATA RATA INDUSTRI DARI GABUNGAN	RATA RATA INDUSTRI DARI IDX	SKORING
					2022	2023	2024	2025				
1	BBCA	PT Bank Central Asia Tbk	Finance / Major Banks	PE (Price to Earnings Ratio)	25.87	23.82	21.75	17.3	22.19	-	15.48	1
				BPVS (Book Value per Share) / Rp	1.79	1.79	2.13	2.29	2.00	191.60	-	0
				ROE (Return on Equity)	19.23	20.99	20.99	21.15	20.77	10.44	-	1
				DPR (Dividend Payout Ratio)	62.04	68.43	67.04	72.97	67.47	39.15	-	1
				DY (Dividend Yield)	2.4	2.87	3.1	4.18	3.33	4.00	-	0
				PB (Price to Book Ratio)	4.77	4.78	4.54	3.53	4.41	-	1.45	1
				CA (Current Assets) / T	1314.7	1408.1	1449.3	1586.8	1439.74	270.37	-	1
				GDS (Gross Debt to Sales) / T	3.41	2.76	3.88	4.06	3.53	4.39	-	0
				CR (Current Ratio)	0.4	0.29	0.13	0.13	0.24	0.53	-	0
				EPS (Earnings per Share)	330.45	394.56	444.83	466.85	409.17	-	17.3	1
Jumlah Skoring												6

Source: Author's calculation (2026).

Table 3 illustrates the proposed fundamental scoring framework using BBCA as an example. The company achieved one of the highest cumulative scores among the selected stocks, indicating strong financial performance relative to the banking industry average. This result suggests that BBCA possesses sound profitability, stable earnings growth, and solid financial fundamentals, qualifying it for the next stage of analysis.

Technical Analysis of Selected Companies

The six companies that obtained the highest fundamental scores were further evaluated using technical analysis. This stage employed the Exponential Moving Average (EMA), Moving Average Convergence Divergence (MACD), and Bollinger Bands to identify price trends, market momentum, and potential trading signals. The technical analysis complements the fundamental screening by determining whether the selected companies also exhibit favorable market conditions for investment.

1. PT Sumber Alfaria Trijaya Tbk (AMRT)

AMRT was selected based on its strong fundamental performance. The technical analysis indicates that the stock maintains a positive price trend, supported by the EMA and MACD indicators. In addition, the Bollinger Bands show that price movements remain within a normal trading range, indicating relatively stable market conditions. Overall, the technical indicators suggest that AMRT remains an attractive investment candidate.

2. PT Aneka Tambang Tbk (ANTM)

ANTM demonstrated strong fundamental performance and was therefore included in the technical analysis stage. The EMA indicates an upward trend, while the MACD reflects positive market momentum. The Bollinger Bands suggest moderate price volatility, indicating that the stock still has potential for further movement in line with market conditions.

3. PT Bank Central Asia Tbk (BBCA)

BBCA continued to demonstrate positive technical signals after passing the fundamental screening. The EMA confirms an upward price trend, supported by a positive MACD signal. Furthermore, the Bollinger Bands indicate relatively stable price fluctuations, suggesting that the stock remains in a healthy trading condition.

4. PT Bank Rakyat Indonesia (Persero) Tbk (BBRI)

BBRI exhibited favorable technical conditions following its strong fundamental performance. The EMA indicates a sustained upward trend, while the MACD reflects positive momentum. The Bollinger Bands show controlled price volatility, suggesting that BBRI maintains a stable market position and remains attractive for investors.

5. PT Bank Mandiri (Persero) Tbk (BMRI)

BMRI also displayed positive technical characteristics. The EMA confirms the continuation of an upward trend, supported by the MACD indicator. Meanwhile, the Bollinger Bands indicate balanced price movements, suggesting that the stock continues to perform well in the market.

6. PT Indofood CBP Sukses Makmur Tbk (ICBP)

ICBP maintained relatively stable technical performance after being selected through the fundamental screening process. The EMA and MACD

indicate positive market momentum, while the Bollinger Bands suggest moderate price volatility. These technical conditions support the company's overall investment attractiveness.

Overall, the technical analysis confirms that the six companies selected through the fundamental screening also exhibit favorable technical conditions. The combination of strong financial performance and positive technical signals provides a more comprehensive basis for investment decision-making. Therefore, integrating fundamental and technical analysis enables investors to identify not only financially sound companies but also appropriate market entry opportunities.



Figure 2. Technical Analysis of BBKA Using MA, MACD, and Bollinger Bands
Source: TradingView (2026), processed by the author.

Figure 2 shows that BBKA maintained a positive market trend during the observation period. The stock price remained above the MA, indicating a bullish trend. The MACD generated a bullish crossover accompanied by positive histogram values, suggesting strengthening upward momentum. Meanwhile, the Bollinger Bands indicated that price movements remained within the upper trading range without entering extreme overbought conditions. The combination of these indicators confirmed a favorable market condition for initiating or maintaining investment positions.

Integration of Fundamental and Technical Analysis

The final stage integrated the results of the fundamental and technical analyses. Fundamental analysis identified financially strong companies, whereas technical analysis determined whether prevailing market conditions supported investment execution.

Table 5. Example of Integrated Investment Decision

Company	Fundamental Score	Technical Signal	Recommendation
BBCA	6	Buy	Buy

Source: Author's analysis (2026).

Table 5 demonstrates the proposed investment decision framework. BBCA achieved a high fundamental score and simultaneously exhibited positive technical confirmation through the MA, MACD, and Bollinger Bands. Therefore, the stock was classified as Buy. The same sequential procedure was applied consistently to all selected companies, enabling objective and systematic investment recommendations.

The findings indicate that combining fundamental and technical analyses provides a more comprehensive basis for investment decision-making than relying on either approach independently. Fundamental analysis identifies companies with strong financial quality, while technical analysis assists investors in determining appropriate market timing. Consequently, the proposed framework minimizes the risk of investing in financially strong companies during unfavorable market conditions and improves the overall quality of investment decisions.

CONCLUSIONS

The primary objective of this study was to develop an integrated framework that combines fundamental and technical analyses to support stock investment decisions for companies included in the LQ45 Index of the Indonesia Stock Exchange. The results demonstrate that fundamental analysis is effective in identifying companies with strong financial quality through the assessment of ten key financial ratios. This evaluation is subsequently strengthened by technical analysis, which applies the Moving Average (MA), Moving Average Convergence Divergence (MACD), and Bollinger Bands to determine favorable market entry and exit opportunities.

The findings confirm that integrating these two analytical approaches provides a more comprehensive basis for investment decision-making than applying either method independently. Fundamental analysis functions as an initial screening tool for selecting financially healthy companies, while technical analysis evaluates whether prevailing market conditions support the execution of investment transactions. Through this sequential process, stocks can be classified into Buy, Hold, or Sell categories, allowing investors to make more structured, objective, and informed investment decisions.

In addition, the study reveals that strong corporate financial performance does not necessarily correspond to an immediate buying opportunity. Market sentiment, price momentum, and short-term fluctuations may cause stock prices to diverge temporarily from their intrinsic values. Therefore, combining financial analysis with technical market evaluation helps reduce investment uncertainty while improving the accuracy of investment decisions. Overall, the proposed framework contributes to the investment literature by introducing a practical

decision-making model that simultaneously incorporates corporate financial performance and market dynamics.

RECOMMENDATIONS

The findings of this study suggest that investors should avoid relying exclusively on either fundamental or technical analysis when making investment decisions. Instead, combining both approaches allows for a more comprehensive assessment of investment opportunities by evaluating not only a company's financial condition but also the most appropriate timing for executing transactions. Such an approach can help minimize investment risk while improving the quality and consistency of decision-making.

For investment practitioners and financial analysts, the integrated framework developed in this research can serve as a practical guideline for portfolio construction, particularly when evaluating companies listed in the LQ45 Index. Implementing the sequential screening process enables investors to first identify companies with strong financial fundamentals before using technical indicators to determine optimal entry and exit points.

Future studies are recommended to extend the observation period and include a broader sample of listed companies to improve the generalizability of the findings. Incorporating macroeconomic variables, such as inflation, interest rates, exchange rates, and other relevant economic indicators, may also provide a more comprehensive understanding of stock price behavior. In addition, future researchers are encouraged to examine the effectiveness of integrating other technical indicators, including the Relative Strength Index (RSI), Stochastic Oscillator, and Average Directional Index (ADX), to further enhance the robustness and predictive performance of integrated investment decision models.

ADVANCED RESEARCH

This research is subject to several limitations that should be taken into account when interpreting the results. First, the analysis focused exclusively on companies that consistently remained constituents of the LQ45 Index throughout the 2022–2025 observation period. As a result, the conclusions drawn from this study may not be directly applicable to companies outside the LQ45 Index or to firms operating under different market environments. Second, the fundamental assessment was conducted using ten selected financial ratios, while the technical evaluation relied on only three indicators, namely the Moving Average (MA), Moving Average Convergence Divergence (MACD), and Bollinger Bands. Although these indicators provide a solid basis for evaluating investment opportunities, incorporating additional financial measures and technical tools could offer broader insights and potentially generate different investment recommendations.

Future studies are recommended to broaden the scope of analysis by extending the observation period so that various economic and market cycles can be examined more comprehensively. Expanding the sample to include companies from different industrial sectors and stock market indices would also improve the generalizability of the findings. Furthermore, integrating

macroeconomic variables – such as inflation, interest rates, exchange rates, and economic growth – may provide a more complete understanding of the factors influencing stock investment decisions. Future research may also investigate the application of more advanced technical indicators, as well as artificial intelligence and machine learning techniques, to enhance the precision of stock selection and investment recommendations. In addition, comparative analyses involving different stock indices or international capital markets are suggested to assess the adaptability and robustness of the integrated investment framework proposed in this study.

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