

CHAPTER V CONCLUSION

5.1 Conclusion

This study examined the application of four technical analysis indicators, namely Trendline, Support and Resistance (S&R), Simple Moving Average (SMA), and Stochastic Oscillator, to the stock price movements of Indonesia's four largest banking institutions, BBCA, BBRI, BMRI, and BBNI, over the period from May to December 2024. The primary objective was to determine optimal entry and exit points and to assess whether a multi-indicator framework could deliver reliable buy and sell signals in the context of the Indonesian capital market.

The findings reveal a consistent and structurally coherent pattern across all four stocks. Each bank's stock followed a similar trajectory: a clear uptrend from approximately May to September 2024, characterised by higher highs and higher lows, a Golden Cross SMA signal, and Stochastic readings within bullish territory, followed by a decisive trendline breakdown and Death Cross signal between October and November 2024, which marked the onset of a sustained downtrend. These transitions were not random or ambiguous; in every case, multiple indicators converged to signal the same directional shift, thereby validating the reliability of the combined indicator framework.

Among the four indicators, the Stochastic Oscillator demonstrated the highest early-warning utility, particularly through its divergence analysis. Bearish divergences formed at the peaks of BBCA, BBRI, BMRI, and BBNI prior to their respective breakdowns, providing early signals of exhausted bullish momentum before price visibly deteriorated. Conversely, bullish divergences began to re-

emerge in the November–December period, most visibly in BBNI, where a similar bullish divergence pattern emerged; however, unlike the June setup, this signal had not yet been confirmed by price action and therefore remained insufficient to generate a buy recommendation given the prevailing bearish structure. This finding is consistent with Hidayat (2022), who concluded that the Stochastic Oscillator is the most recommended tool for determining buy, hold, and sell positions, and aligns with Siahaan, Muda, and Irawati (2024), who confirmed the Stochastic's effectiveness on Indonesian banking stocks.

The SMA crossover signals, particularly the Golden Cross (20-day MA crossing above the 50-day MA) and Death Cross (20-day MA crossing below the 50-day MA), proved to be reliable trend confirmation tools across all four stocks. While inherently lagging in nature, they consistently validated the direction established by the Trendline and S&R analyses. The SMA's dynamic role, acting as support during uptrends and resistance during downtrends, added significant value in distinguishing between genuine trend phases and temporary corrections. This observation is consistent with the broader literature that characterises the SMA as an effective trend-confirmation instrument rather than a leading signal generator (Brock et al., 1992).

Trendline analysis provided the clearest and most visually intuitive framework for identifying directional bias. In all four stocks, the upward trendlines drawn from the May 2024 lows proved to be reliable dynamic support structures until their respective breakdowns, at which point they transitioned into confirmation signals for a bearish phase. The S&R analysis complemented this by identifying

specific price zones, such as the IDR 5,551 resistance-turned-support level for BBNI, the IDR 5,538 level for BMRI, and IDR 4,100 for BBRI, where market participants historically concentrated supply and demand activity, making these zones critical reference points for entry and exit decisions.

In terms of individual stock conclusions, all four stocks, BBCA, BBRI, BMRI, and BBNI warranted a SELL or wait-and-see position as of December 2024, given the convergent bearish evidence from all four indicators across each stock. While BBNI's Stochastic Oscillator produced a nascent bullish divergence in November–December, with price printing new lows while the Stochastic held higher lows from oversold territory, this signal alone was insufficient to override the dominant bearish structure confirmed by the trendline breakdown, the support-to-resistance flip at IDR 5,551, and the active Death Cross near IDR 5,400. The consistency of this bearish convergence across all four stocks validates the reliability of the combined indicator framework and demonstrates that no single indicator, particularly an unconfirmed divergence should be treated as grounds for re-entry when the broader weight of evidence remains bearish.

Overall, this study concludes that the combined use of Trendline, Support and Resistance, SMA, and Stochastic Oscillator constitutes an effective and practically applicable framework for generating trading signals in Indonesian banking stocks. The indicators were most powerful when used in combination: divergence signals from the Stochastic provided early warnings, trendline breakouts confirmed directional shifts, SMA crossovers validated momentum changes, and S&R zones anchored entry and exit levels. This multi-layered methodology reduced

the risk of false signals and delivered consistent, interpretable conclusions across all four stocks and both phases of the market cycle observed in this study.

5.2 Implication

The findings of this study carry significant practical and academic implications for investors, traders, market regulators, and researchers operating within the Indonesian capital market and, more broadly, in similar emerging market environments.

5.2.1 Implication for Individual Traders and Retail Investors

For retail investors and short-term traders, this study provides a practical, replicable decision-making framework that requires no advanced quantitative tools. The four indicators used in this research, Trendline, S&R, SMA, and Stochastic Oscillator, are all readily available on free platforms such as TradingView and Investing.com, which were used as the primary data sources in this study. By learning to apply these tools in combination, retail participants can significantly improve the quality of their buy and sell timing decisions, reducing reliance on speculation or market rumour.

The study also highlights a critical practical lesson: no single indicator should be used in isolation. Each indicator in this framework serves a specific function. The Trendline establishes directional context; S&R defines structural price boundaries; the SMA confirms momentum through lagging crossover signals; and the Stochastic Oscillator provides early-warning momentum signals via overbought/oversold thresholds and divergence patterns. Together, they create a system of checks and balances. When three or four indicators align in the same

direction, the trading signal carries significantly higher confidence than when only one indicator triggers. This principle of confirmation across multiple dimensions should be internalized by any trader seeking to improve signal reliability in volatile, liquidity-driven markets such as the IDX.

5.2.2 Implication for Institutional Investors and Portfolio Managers

For institutional investors and portfolio managers, the results of this study reinforce the value of integrating technical analysis into sector monitoring frameworks, particularly for market timing decisions within the banking sector. The KBMI 4 banking stocks represent the four largest weight components of the Jakarta Composite Index (JCI), meaning that their price movements have outsized implications for overall index performance and portfolio beta. The ability to detect trendline breakdowns and SMA Death Crosses early, as demonstrated in this study, can serve as a systematic trigger for reducing sector exposure during transitional phases of the market cycle.

Furthermore, the Stochastic divergence analysis demonstrated in this study can serve as an early alert mechanism to detect deteriorating momentum in positions even before a formal price breakdown occurs. Institutional desks that combine fundamental analysis of banking sector balance sheets and loan growth metrics with the technical signals identified here would likely produce more refined and timely entry/exit decisions than fundamental analysis alone can provide, particularly in periods of macroeconomic uncertainty or policy rate volatility.

5.2.3 Implication for the Academic Literature

From an academic perspective, this study contributes to the growing body of empirical evidence supporting the validity of technical analysis in emerging market contexts. The Indonesian capital market, characterised by a high proportion of retail participants, relatively concentrated liquidity in blue-chip banking stocks, and susceptibility to global sentiment shocks, represents an environment where technical analysis can be particularly effective. This is because price action in such markets tends to be more momentum-driven and psychologically reactive than in mature, institutionally dominated markets, making the behavioral finance underpinnings of technical analysis, including support and resistance as reflections of collective anchoring and loss aversion, highly applicable.

The study also addresses a gap in the existing literature by applying a four-indicator combined framework specifically to the KBMI 4 banking sector over a concentrated eight-month window that captured both a full uptrend and downtrend cycle. Prior studies have tended to examine individual indicators in isolation or across mixed sectors. This study's sector-specific focus and the deliberate integration of divergence analysis within the Stochastic Oscillator represent methodological novelties that can inform the design of future empirical research on technical signal reliability in banking and financial sector stocks across Southeast Asia.

5.2.4 Implication for Market Participants in Similar Markets

Beyond Indonesia, the multi-indicator framework applied in this study has potential applicability in other developing markets in Southeast Asia, South Asia,

Africa, and Latin America, where equity markets share structural characteristics with the IDX: high retail participation, concentrated liquidity in a small number of large-cap names, and sensitivity to external macroeconomic shocks. Investors active across these markets may find that the signal patterns identified here, particularly the predictive value of trendline breakdowns combined with Stochastic divergences, can be adapted to their own market environments with limited modification. The principle that convergence across multiple technical indicators produces more reliable signals than any single tool in isolation is a broadly transferable insight that transcends any specific market or instrument.

5.3 Limitation

Despite the meaningful findings discussed above, this study is subject to several limitations. These limitations should be acknowledged carefully when interpreting and evaluating the overall research results.

First, the study covers a relatively short observation window of approximately seven months, from May to December 2024. While this period captures a full market cycle from uptrend to downtrend, it may not be representative of broader long-term price behavior or cyclical patterns that unfold over multiple years. Technical patterns and indicator signals can behave differently across varying market regimes, including periods of prolonged sideways movement or unusually high volatility, which were not fully captured within the timeframe selected.

Second, the analysis is based exclusively on daily price data. While daily data is well-suited for identifying medium-term trends, it does not capture intraday price behavior or shorter-term volatility that may affect the precision of entry and

exit signals in practice. A trader executing positions in real time may encounter slippage and intraday noise that do not appear in daily chart analysis.

Third, the absence of backtesting represents a significant constraint on this study's predictive power for a practising trader. While the buy and sell signals identified are logically grounded in established technical principles, no quantitative simulation was conducted to measure the actual profitability, win rate, maximum drawdown, or risk-adjusted return of executing these signals in real market conditions. This distinction matters considerably: a signal that appears valid on a chart does not guarantee a profitable trade, because real-world execution involves transaction costs, slippage, and position sizing decisions that chart-based analysis cannot capture. More critically, without backtesting, it is impossible to determine whether the indicator combinations used in this study would have generated positive expected value over a statistically meaningful number of trades, or whether the results observed during this seven-month window represent genuine signal reliability or a sample-specific coincidence. A trader who relies solely on these findings to deploy capital assumes an unknown level of risk, as the performance characteristics of the framework remain unvalidated beyond the observation period. This limits the study's utility as a standalone trading guide and positions it more appropriately as a foundation for further empirical validation.

Fourth, external macroeconomic and geopolitical factors were not incorporated into the analysis. Events such as shifts in Bank Indonesia's monetary policy, movements in global interest rates, foreign capital flows, and broader risk-off sentiment in emerging markets all had the potential to influence the price

behavior of these stocks during the observation period. Technical analysis, by design, does not directly account for these fundamental drivers, and unexpected events of this nature can override technical signals entirely.

Finally, the scope of this study is limited to four stocks within a single sector. While the KBMI 4 banks are among the most representative equities on the Indonesia Stock Exchange, the findings may not be directly transferable to stocks in other sectors, smaller-cap equities, or other asset classes where liquidity, volatility, and market participant behavior differ substantially.

5.4 Suggestion for Future Research

First, extending the observation period to cover at least two to three full years would allow researchers to test whether the patterns and signal combinations identified in this study hold across different market conditions, including recovery phases, prolonged bear markets, and range-bound environments. A longer dataset would also make it possible to conduct formal backtesting, calculating metrics such as win rate, average return per trade, and maximum drawdown to quantify the performance of the indicator framework more rigorously.

Second, future studies could incorporate additional technical indicators alongside those used in this research, such as the Relative Strength Index (RSI), Bollinger Bands, or volume-based indicators like On-Balance Volume (OBV). Including trading volume data in particular would strengthen signal interpretation, as breakouts from trendlines and support-resistance zones accompanied by high volume are generally considered more reliable than those occurring on thin trading activity.

Third, it would be worthwhile to develop a hybrid analytical framework that integrates technical analysis with selected fundamental variables, such as price-to-earnings ratios, dividend yields, or loan-to-deposit ratios specific to the banking sector. This would address one of the key criticisms of pure technical analysis, which is its disregard for underlying business fundamentals, and could produce more comprehensive buy and sell decision models for long-term investors as well as short-term traders.

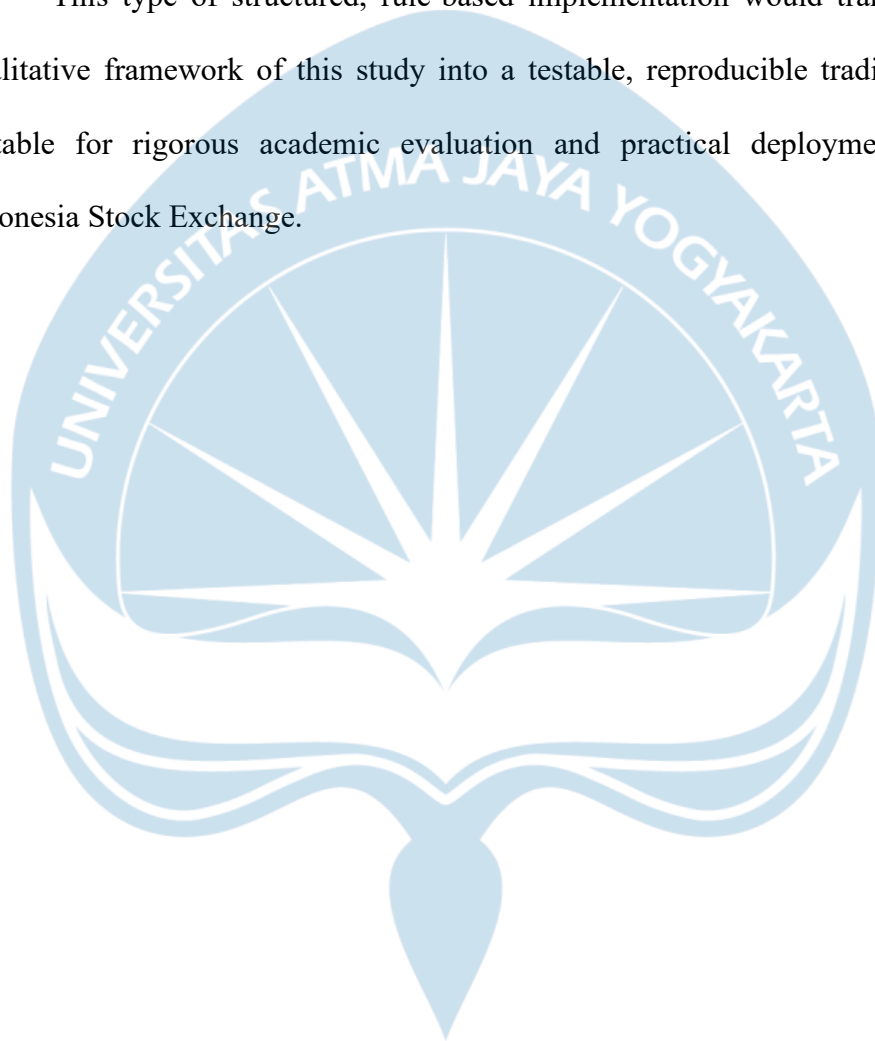
Fourth, applying the same multi-indicator framework to stocks in other sectors on the Indonesia Stock Exchange, such as consumer goods, energy, or infrastructure, would help determine whether the findings of this study are sector-specific or broadly applicable across the IDX. Cross-sector comparisons could reveal whether the signal reliability observed in the banking sector is a function of the high liquidity and institutional participation characteristic of KBMI 4 stocks, or whether it extends to less liquid segments of the market.

Finally, given the growing accessibility of algorithmic trading platforms and open-source backtesting libraries such as Python's Backtrader or Zipline, future research should move beyond conceptual signal identification toward the construction and empirical testing of a fully automated rule-based trading system built on the indicator framework used in this study.

After generating signals, the system would compute performance metrics including total return, win rate (percentage of profitable trades), average profit per winning trade versus average loss per losing trade, maximum drawdown, and the Sharpe ratio. A trendline breakout confirmation module could also be layered in as

an additional filter: a BUY signal would only be acted upon if price had recently closed above a defined ascending trendline, and a SELL signal would require a confirmed breakdown below that trendline or a key support level.

This type of structured, rule-based implementation would transform the qualitative framework of this study into a testable, reproducible trading system suitable for rigorous academic evaluation and practical deployment on the Indonesia Stock Exchange.



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