

EFFECTIVENESS OF FUNDAMENTAL AND TECHNICAL ANALYSIS TECHNIQUES IN PREDICTING STOCK MOVEMENTS: A REVIEW OF THE LITERATURE AND ITS IMPLICATIONS

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Abstract

This study aims to review the effectiveness of fundamental and technical analysis techniques in predicting stock movements and their implications for investors. Fundamental analysis focuses on a company's financial condition, business performance, and macroeconomic factors to estimate the intrinsic value of a stock, while technical analysis uses historical price and trading volume data to identify market patterns and trends. A literature review shows that each method has advantages and limitations. Fundamental analysis is more suitable for long-term investments as it provides an in-depth view of a company's growth prospects, while technical analysis is more useful in short- and medium-term decision-making due to its ability to identify trading signals based on recent market behaviour. The conclusion of this study highlights that a combination of both techniques can support a more comprehensive and effective investment strategy, by optimising portfolio performance and minimising risk under various market conditions. Keywords: Effectiveness, Fundamental and Technical Analysis Techniques, Stock Movement Prediction.

Introduction

In the investment world, stock price movements in the capital market are an important concern for investors, financial analysts, and practitioners in making investment decisions. Prediction of stock movements is a complex and challenging strategic element. Stock price movement prediction has a very significant role in the investment world, not only for individual investors but also for large financial institutions, market analysts, and portfolio managers (Jain, 2024). The ability to predict the direction of stock movements with high accuracy can be a very valuable competitive advantage, given the potential profits that can be made. Moreover, investments that are based on sound predictions can help minimise the risk of loss, which is often a major source of concern in equity

investments. By utilising the various analytical approaches available, investors can make more informed and strategic decisions (Srivastva ., 2024)

On the other hand, the importance of predicting stock movements also includes its impact on the overall stability and efficiency of financial markets. Accurate predictions can help create more realistic expectations among investors, which in turn can reduce market volatility and prevent asset price bubbles from forming (V, 2024) . Moreover, reliable predictions also contribute to a more efficient allocation of capital in the market, ensuring that investors' funds are allocated to the most promising companies and sectors. Thus, the ability to effectively predict stock movements is not only important for individual profits, but also for the health and sustainability of financial markets globally (Saivasan & Lokhande, 2024)

The two main approaches often used to predict stock movements are fundamental analysis and technical analysis. Fundamental analysis focuses on assessing the intrinsic value of stocks by evaluating financial statements, company performance, industry conditions, as well as macroeconomic factors. This approach bases its predictions on fundamental and long-term information, which allows investors to hunt for stocks that are undervalued or are undergoing fundamental improvements (Sagaceta-Mejía et al., 2024) . On the other hand, technical analysis relies on historical data of stock prices and trading volumes to identify patterns and trends. This technique assumes that all market information is reflected in price movements, so analysing price charts and technical indicators can provide insight into the future direction of stock price movements (Bakshi, 2024) .

While both analytical techniques have a loyal following and a myriad of academic evidence supporting their use, the debate on the effectiveness and superiority of each method continues. Some studies suggest that the integration of fundamental and technical analysis can improve prediction accuracy, while others assert the dominance of one technique (Iyer & Bakshi, 2024) .

Therefore, this study aims to conduct a comprehensive literature review to examine the effectiveness of fundamental and technical analyses in predicting stock movements. This research is expected to provide a deeper understanding of the strengths and weaknesses of each approach, as well as provide practical guidance for investors in making wiser investment decisions.

Research Methods

The study in this research uses the literature method. The literature research method is a research approach that focuses on collecting and analysing information from various pre-written sources, such as scientific journals, books, articles, and other publications relevant to the research topic. The main purpose of this method is to gain an in-depth understanding of the subject under study as well as to identify gaps or areas that require further research (Nasution, 1996) ; (Sukmadinata, 2009) . In practice, literature research involves steps such as identification of relevant sources, evaluation of the

credibility and validity of the literature, and synthesis of the information obtained to develop a theoretical framework or hypothesis underlying further research. This method is very useful for researchers in developing solid conceptual and theoretical knowledge before conducting empirical or experimental research (Assyakurrohim et al., 2022) .

Results and Discussion

Effectiveness of Fundamental Analysis Techniques in Predicting Stock Movements

Fundamental analysis techniques are one of the main approaches used by investors to predict stock price movements. This method involves evaluating the financial condition and performance of a company, including revenue, earnings, cash flow, as well as the quality of management (Krishnamurthy, 2024) . Fundamental analysis focuses on the intrinsic value of a stock and seeks to determine whether the stock is over- or under-valued by the market. If the stock is undervalued based on this analysis, then investors may consider buying it in the hope that the stock price will rise as the Company's performance improves (Musa, 2020) .

One of the key advantages of fundamental analysis techniques is their ability to provide investors with a long-term view. By understanding the underlying factors that affect firm value, such as revenue growth, profitability, debt levels, and operational efficiency, investors can make more informed and evidence-based investment decisions. In addition, fundamental analysis also takes into account macroeconomic, industry, and competitive conditions, all of which can affect company performance in the long term (Raza et al., 2021) .

However, the effectiveness of fundamental analysis techniques in predicting stock movements also has some limitations. Firstly, the information used in these analyses is often derived from periodically published financial statements, so they contain time lags that may cause delays in response to changes in current conditions. Secondly, fundamental analysis requires an in-depth understanding of accounting and finance, so it may be less accessible to lay investors without sufficient background. Finally, psychological factors and market sentiment, which often influence stock prices in the short term, cannot always be fully adapted to the fundamental approach (Ridwan et al., 2023) .

Despite its limitations, many successful investors have made huge profits by utilising fundamental analysis as part of their investment strategy. Legendary figures such as Warren Buffet and Benjamin Graham are clear examples of the successful use of fundamental analysis over the long term. They stressed the importance of investing in quality companies with strong financial foundations and consistent performance, rather than trying to capitalise on short-term market fluctuations (Sharma, 2024) .

Overall, the effectiveness of fundamental analysis techniques in predicting stock movements depends on the investor's ability to interpret data accurately, understand the economic and industry context, and apply discipline and patience in their investment strategy. While not without its challenges, fundamental analysis can be a very powerful tool in building a solid, value-based investment portfolio. Combining fundamental analysis

with other analytical techniques, such as technical analysis, can further increase the probability of success in predicting stock price movements.

Effectiveness of Technical Analysis Techniques in Predicting Stock Movements

Technical analysis techniques are an approach often used by traders and investors to predict stock price movements by utilising historical price and trading volume data. Unlike fundamental analysis, technical analysis focuses on observing chart patterns and technical indicators such as moving averages, relative strength index (RSI), and candlestick patterns. The aim is to identify trends and optimal entry or exit points based on past price movements and market psychology (Israel et al., 2020).

One of the main advantages of technical analysis is its ability to help traders make quick decisions. As most technical data is available in real-time, it offers guidance for short-term investments, which is invaluable in a fast-changing market environment. Moreover, technical analysis can be applied not only to stocks, but also to a variety of other financial instruments, including forex and commodities, making it a versatile tool for many market participants (Shankar et al., 2024).

However, the effectiveness of technical analysis is often debated for several reasons. Firstly, this approach relies heavily on the assumption that market patterns repeat themselves, which may not always be the case in every situation. In addition, technical analysis can be affected by market noise or inconsistent data, resulting in false signals that can mislead decision-makers. Traders who rely too much on technical signals without considering fundamental factors may also face higher risks in the long run (Ojaghloou, 2020).

Despite its limitations, technical analysis remains a widely used tool in trading strategies, mainly due to its ability to offer concrete guidance in short-term decision-making. Many traders have successfully utilised technical analysis as part of their strategy to achieve consistent profits. The use of technical analysis, especially when coupled with an understanding of fundamental factors and market sentiment, can help to increase the effectiveness of stock movement predictions and add up to profits for skilled practitioners. However, success using these techniques depends on individual skill and discipline in following established trading rules (Liu et al., 2024).

To obtain more optimal results in the use of technical analysis, it is important that traders continue to develop their skills through continuous education and practice. Keeping abreast of the latest technology and analytical tools, such as sophisticated trading software and automation algorithms, can also give traders more of an edge in predicting complex market movements. In addition, diversifying strategies by incorporating different technical indicators and combining technical analysis with fundamental analysis can help reduce risk and improve prediction accuracy (R&B, 2023).

Increasingly dynamic and volatile market interactions require traders to remain adaptive and responsive to changing market conditions. Employing rigorous risk management, such as setting stop-losses and using prudent portfolio management

techniques, are important steps to protect against large losses. Periodic strategy evaluation and adjustment is also necessary to ensure that the technical analysis approach used remains relevant and effective under current market conditions (Sharma, 2024).

Ultimately, while technical analysis is not a perfect method, its use in predicting stock movements has proven beneficial to many traders. The main advantage of technical analysis lies in the ability to quickly adjust to market movements and provide practical guidance for trading decisions. However, success in using this technique demands discipline, skill, and a good risk management strategy.

As such, the effectiveness of technical analysis techniques in predicting stock movements largely depends on the trader's skills and knowledge, as well as their ability to apply technical tools and indicators appropriately. Although these techniques have limitations and the potential for false signals, they can be powerful tools if used judiciously and combined with fundamental analysis and good risk management. Therefore, traders who want to successfully use technical analysis must continue to learn, adapt and execute their strategies with discipline to achieve consistent and profitable results in the long run.

Comparison of the Effectiveness of Fundamental Analysis and Technical Analysis Techniques in Predicting Stock Movements

Fundamental analysis and technical analysis are the two main approaches used by investors and traders to predict stock movements. Fundamental analysis focuses on the financial health, performance of the company, as well as macroeconomic conditions that affect stock prices (Gahlot et al., 2024). It involves evaluating a company's financial statements, revenues, profits, expenses, financial ratios, and growth prospects. Investors who use this approach believe that a stock's performance in the long run is closely related to the fundamental performance of the company. Therefore, fundamental analysis is suitable for those who want to invest in the long term and look for companies with strong fundamentals that have the potential to grow over time (Wistbacka et al., 2020).

Technical analysis, on the other hand, involves the study of stock price movements and trading volumes to predict future market movements. This approach uses charts and various technical indicators, such as moving averages, relative strength index (RSI), and bollinger bands to identify price trends and patterns. Traders using technical analysis believe that all the information needed to predict stock movements is reflected in current prices, and historical patterns will repeat themselves under similar market conditions. This technique is particularly effective for short-term trading as it allows traders to enter and exit positions based on quick and precise market signals (Whig et al., 2024).

While each approach has its advantages and disadvantages, their effectiveness often depends on an individual's investment objectives and the time horizon they choose. Fundamental analysis provides deep insight into the intrinsic value of a stock and is used for long-term investment decisions. It helps investors identify companies that are undervalued or have high growth potential. However, this approach can be more time

consuming and requires a lot of research and in-depth understanding of the business and economy (Tian & Hu, 2024).

In contrast, technical analysis offers a quick way to take advantage of short-term stock price movements, which can be very useful in fast-changing market conditions. However, the reliability of technical analysis can be affected by high market volatility and emotional factors that can lead to false or misleading signals. Therefore, many traders and investors combine these two techniques to improve their predictions. By combining fundamental and technical analysis, they can understand the long-term value of a stock while taking advantage of short-term trading opportunities in market movements (Phong & Long, 2024).

Combining fundamental and technical analyses allows investors to gain a more comprehensive perspective on the stock market. In practice, an investor might use fundamental analysis to select stocks with strong company performance and good long-term prospects, and then use technical analysis to determine when it is appropriate to buy or sell those stocks. This hybrid approach can maximise profit opportunities and minimise risks by synergistically leveraging the advantages of both methods (Zhang et al., 2022).

However, it is important to remember that no one method guarantees absolute success in the stock market. Dynamic and often unpredictable market conditions require flexibility and readiness to adjust strategies. Investors and traders should also consider external factors that affect the market, such as economic news, government policies, and significant global events. This information can strengthen analyses and help make more informed decisions (Al-Sulaiman, 2022).

In addition, discipline in execution and risk management are the keys to success in equity investment. Even with careful analysis, investors should still set loss limits (stop-loss) and profit targets (take-profit) to safeguard their portfolio from unexpected market fluctuations. Continuous self-education and improvement of analytical skills are also important parts of a successful investment strategy (Palani, 2024).

As such, fundamental and technical analyses each offer a unique approach in predicting stock movements. Fundamental analysis is more suitable for long-term investments with a focus on a company's financial health and growth prospects, while technical analysis is more effective for short-term trading through the identification of price patterns and trends. The effectiveness of both methods depends on investment objectives, time horizon and individual preferences. Combining these two techniques can provide a more rounded view and increase the chances of success. However, investors should remain disciplined in risk management and continuously develop their skills to respond to the ever-changing market dynamics.

Conclusion

A review of the literature on the effectiveness of fundamental and technical analysis techniques in predicting stock movements shows that each method has its own advantages and disadvantages. Fundamental analysis, with its focus on financial ratios,

company performance and macroeconomic conditions, gives investors an idea of the intrinsic value of a stock. This approach tends to be more effective for long-term investments, where business stability and growth are prioritised. Through an in-depth understanding of company fundamentals, investors can identify undervalued or overvalued stocks and make more informed investment decisions.

Technical analysis, on the other hand, focuses on the price movements and trading volume of stocks in the market. This method uses charts and technical indicators to identify patterns and trends that can help in short- and medium-term decision-making. In market conditions that are highly volatile and influenced by trader sentiment, technical analysis can offer faster and more flexible entry and exit signals. However, this approach is often considered to lack consideration of the intrinsic factors of the company and may be more susceptible to speculative price movements.

Overall, the literature suggests that a combination of these two methods can improve the effectiveness of predicting stock movements. Combining fundamental and technical analysis can provide a more holistic perspective, allowing investors to utilise the strengths of each method synergistically. Investors can determine which stocks have strong long-term growth prospects through fundamental analysis and optimise their transaction timing through technical analysis. The implication of these findings is that a hybrid approach not only helps in reducing risk but also increases profit potential under various market conditions.

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