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An Integrated Technical Analysis Strategy for Zakat and Waqf Investment in Islamic Equity Markets

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Abstract

Islamic social funds such as zakat and waqf have significant potential to support financial stability and national economic resilience. However, the investment management of these funds is often constrained by the limited use of systematic and measurable strategies among fund managers. This study aims to develop an integrated technical analysis strategy to support more accountable and risk-aware investment decisions in the management of Islamic social funds. The research employs a quantitative analytical method with a cross-sectional approach using historical market data. The strategy integrates three technical analysis indicators: trend lines, support and resistance levels, and moving average analysis. Empirical simulations are conducted on stocks listed in the Jakarta Islamic Index over the past five years to evaluate the performance of the proposed strategy. The results show that the integrated technical analysis strategy produces more stable and profitable returns compared to the buy-and-hold strategy, while maintaining controlled levels of maximum drawdown. These findings indicate that the integration of technical analysis tools can enhance the effectiveness of investment decisions and strengthen the role of zakat and waqf funds as instruments supporting economic stability and resilience.

INTRODUCTION

The Islamic capital market in Indonesia has experienced significant growth and has become an integral part of the national financial ecosystem (Hidayah, 2021; Utomo et al., 2021). This growth is supported not only by technological advancements that facilitate investment access but also by increasing awareness among Muslims to invest in accordance with Islamic principles (Al-Roubaie & Sarea, 2020). In terms of zakat funds, a statement issued by the National Amil Zakat Agency on March 21, 2025, estimates that the potential national zakat fitrah in 2025 will reach approximately 604,813.992 tons of rice, equivalent to around IDR 8 trillion. This monetary estimate is calculated based on the national average price of medium-quality rice, which is IDR 14,337 per kilogram. Meanwhile, regarding waqf

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funds, according to information published on the website of the Ministry of Religious Affairs of the Republic of Indonesia, the Chairman of the Indonesian Waqf Board, Kamaruddin Amin, stated that Indonesia has a waqf potential of nearly IDR 400 trillion annually.

In a broader context, the potential of Islamic social funds, particularly zakat and waqf, represents an essential driving force in supporting financial stability and national economic resilience (Danlami et al., 2023). These funds, entrusted to Nazhir and Amil, have a dual role: as instruments of wealth redistribution and as productive capital that can be invested to generate optimal and sustainable returns. The strategic role of zakat and waqf is crucial in reducing the fiscal burden on the state, alleviating poverty, and serving as an economic buffer amid global market fluctuations (Razak, 2020).

However, the main challenge lies in optimizing the productive assets of these funds. Zakat and waqf funds are often still managed using passive investment strategies, resulting in less than optimal returns. Unsystematic management risks reducing the social and economic impact that can be distributed to mustahik and mauquf alaih, which in turn weakens the role of these community funds as a buffer for financial stability (Azmi et al., 2021; Muqorobin & Urrosyidin, 2023). As reported by *Jawa Pos* on Thursday, September 25, 2025, the realization of both collections remains far below their potential. For waqf, the recorded land area reaches approximately 420 thousand hectares equivalent to six times the area of Jakarta yet only about 30 percent is used productively. These data indicate that the available assets have not been optimally managed as instruments for poverty alleviation.

The synergy of three main technical analysis tools trend lines, support and resistance levels, and moving averages integrated into a disciplined trading plan constitutes the main focus of this study. This trading plan serves as a guideline for Nazhir and Amil in planning and implementing investment strategies for waqf and zakat assets in the Islamic capital market, particularly through stocks included in the Jakarta Islamic Index (Azmi et al., 2021).

These three tools have distinct and complementary functions. Trend lines serve as indicators that show the direction of price movements. Support and resistance levels represent price boundaries that help determine strategic entry and exit points. Meanwhile, moving averages act as filters to smooth short-term price fluctuations, helping Nazhir and Amil confirm trend strength and focus on broader market movements (Zhang et al., 2022). The integration of these tools aims to ensure that zakat and waqf asset investments generate optimal returns while minimizing unnecessary risks, in line with the Islamic principle of prudence. Therefore, a disciplined and measurable framework is required to enable Nazhir and Amil to perform their responsibilities professionally and accountably. In this regard, technical analysis plays an important role as an objective decision-support tool. Based on historical price movements, technical analysis provides a rational framework for determining appropriate investment timing, including buying and selling decisions (Detzel et al., 2021).

Although Sharia instruments are guaranteed to comply with Islamic principles including Sharia stocks, sukuk, and other Sharia securities the main challenge lies in the ability of Nazhir and Amil to utilize these instruments optimally. Previous empirical studies have extensively examined the use of technical analysis for individual investors; however, few studies have positioned it within the context

of waqf and zakat asset investment as a measurable strategy to support financial stability. For example, the study conducted by Apriliani & Hidayati (2023) focused on individual or general investors for trading and buy–sell decision making, rather than on optimizing Nazhir and Amil asset management for social funds with long-term objectives. This situation highlights the need to develop an accountable investment model. Meanwhile, Rohman (2023) emphasized the fundamental utilization of assets, such as property and productive businesses, to support social programs, indicating that Nazhir investment strategies rarely employ technical approaches from the capital market for financial assets. Furthermore, Amalia (2018) highlighted the issue of financial stability within the national Sharia economic ecosystem, emphasizing the importance of professional and measurable Sharia asset management that contributes not only to profitability but also to broader financial stability.

Thus, this study aims to present an integrated and measurable investment strategy for Sharia social fund managers. It demonstrates that the synergy of technical analysis tools can enhance the effectiveness of investment decision-making supported by simulations showing optimal returns and controlled maximum drawdowns and contribute to strengthening the role of zakat and waqf funds as pillars of national economic stability and resilience.

METHODS

This study employs a quantitative analytical method with a cross-sectional approach, focusing primarily on testing the performance of a measurable investment strategy based on historical data (Busral et al., 2025; Engkizar et al., 2025; Engkizar et al., 2023, 2025). This approach is relevant for providing empirical evidence regarding the potential returns that can be achieved by managers of Islamic social funds (Akbar et al., 2024). The main research instrument used in this study is daily closing price data from Sharia-compliant stocks. The investment subjects in this study are assumed to be Nazhir, namely waqf managers, or Amil, namely zakat managers, who are responsible for investing a portion of their productive funds in liquid Sharia-compliant financial assets (Az-Zahra et al., 2025; Sari et al., 2025).

The data collection process was conducted by selecting a stock sample with good liquidity from the Jakarta Islamic Index to ensure market relevance, namely Ace Hardware Indonesia Public Company. The data used cover the last five years of trading activity. The selection of this sample aims to represent the type of assets that should ideally be chosen by social fund management institutions, namely assets that are liquid, Sharia-compliant, and supported by strong market capitalization (Kassymova et al., 2025; Okenova et al., 2025).

The data analysis and hypothesis testing process was carried out through backtesting simulations. In this simulation, an investment strategy integrated with clear operational rules is applied to historical price data of Ace Hardware Indonesia Public Company (Du et al., 2024). The main objective of this backtesting process is to compare the performance of the combined technical analysis strategy, which represents a professional management model for Nazhir and Amil, with a long-term holding strategy that represents a passive or less measurable management approach. This comparison aims to demonstrate the potential optimization of returns from waqf and zakat assets (Engkizar et al., 2024; Urif et al., 2019).

The presentation of the results will display the outcomes of the simulation

using several key performance indicators, including total profit, profit factor, maximum drawdown, and winning percentage. These results will then be compared with the conventional long-term holding strategy to demonstrate the effectiveness of the integrated technical analysis approach. Subsequently, the interpretation of the findings will focus on the optimization of waqf and zakat asset management and on disciplined risk management, which constitute essential principles in safeguarding the funds entrusted by the community (Dichtl, 2020).

RESULT AND DISCUSSION

The performance metrics derived from the backtesting simulation provide empirical evidence regarding the effectiveness of the proposed investment strategy. The simulation was conducted using historical price data from a liquid Sharia-compliant stock, namely Ace Hardware Indonesia Public Company, over a five-year period. The analysis compares two investment approaches: a combined technical analysis strategy and a passive long-term holding strategy.

The results indicate a substantial difference in performance between the two strategies. The combined strategy, which integrates trend lines, support and resistance levels, and moving average indicators, generated a total return of approximately 35 percent during the observed period. In contrast, the long-term holding strategy, which represents a passive management approach, recorded a negative return of approximately 12 percent over the same timeframe.

From a risk management perspective, the results also reveal a notable disparity. The combined strategy was able to limit the maximum drawdown to around negative 15 percent, whereas the long-term holding strategy experienced a deeper decline of approximately negative 40 percent. These findings suggest that the application of a structured technical analysis framework may contribute to improved investment performance while also reducing exposure to extreme market downturns.

The results highlight the importance of professional and measurable investment management for zakat and waqf assets. Compared with passive investment approaches, the integration of multiple technical indicators allows fund managers to identify market trends, determine strategic entry and exit points, and manage potential losses more effectively. Consequently, the application of disciplined technical analysis may assist Nazhir and Amil in managing social funds in a more accountable and sustainable manner.

To support this approach, technical analysis offers a rational decision-making framework based on historical price movements. In the context of this study, three fundamental tools are emphasized: trend lines, support and resistance levels, and moving averages. These indicators work together to identify market direction, determine potential price boundaries, and filter short-term price fluctuations. Through the integration of these analytical tools, investment decisions can be made in a more systematic and accountable manner, thereby supporting the role of zakat and waqf funds as instruments that contribute to financial stability and economic resilience.

Synergy of Technical Analysis Tools

The integration of three technical analysis tools trend lines, support and resistance levels, and moving averages appears to create a more stable and measurable investment framework compared with single-indicator or passive investment strategies. This synergy is particularly relevant for Nazhir and Amil in

managing waqf and zakat assets, as each indicator functions as a complementary filter that helps reduce misleading signals and minimize uncertainty (*gharar*) in investment decision-making (Noh et al., 2025).

Trend lines provide a broader perspective on market direction, helping fund managers align their investment decisions with prevailing market trends (Cloughton, 2020). By identifying the dominant direction of price movements, trend lines help reduce the likelihood of investment actions that contradict broader market dynamics. Support and resistance levels, meanwhile, offer more precise guidance for determining entry and exit points, helping investors avoid purchasing assets at excessively high prices or selling them prematurely.

Moving averages function as confirmation tools that complement the other indicators by smoothing short-term price fluctuations and filtering out insignificant market noise. In practical terms, a price rebound near a support level becomes a stronger buy signal when the price simultaneously remains above the moving average indicator, indicating that the medium-term trend remains intact (Weis et al., 2022). This multi-indicator confirmation helps improve the reliability of investment signals and supports more disciplined investment decision-making.

Support and Resistance Lines for Precision and Risk Management

For Nazhir and Amil, the role of support and resistance levels is particularly important in implementing disciplined risk management and accountability in managing community funds. Within technical analysis, these levels serve as practical tools for determining entry and exit points in a systematic manner, thereby reducing speculative behavior in investment decisions.

The support level functions as a psychological price floor, representing a potential buying area where demand tends to exceed selling pressure (Nti et al., 2020; Yıldırım et al., 2021). Conversely, the resistance level represents a price ceiling, where selling activity tends to increase and profit-taking becomes more relevant before potential price reversals occur. Such practices reflect disciplined and rational management, consistent with the principle of prudence emphasized in Islamic financial ethics (Debo et al., 2020; Sukma & Namahoot, 2025).

Beyond facilitating profit-taking, these indicators also contribute to effective loss control. Simulation findings indicate that the combined strategy limits maximum drawdown to approximately negative 15 percent, suggesting that the strategy is capable of limiting losses in a relatively controlled manner. In this framework, the support level may also function as a reference for establishing stop-loss boundaries when prices move below expected levels.

Effective drawdown control is particularly important because zakat and waqf assets represent trust funds that must be preserved sustainably. Measurable risk management therefore supports the reliability of Sharia social funds as an economic buffer, which may contribute to broader financial stability (Dai et al., 2021; Xiang & Deng, 2024). In this context, support and resistance levels function not only as technical indicators but also as practical mechanisms that help safeguard the integrity of community funds.

Moving Average as Confirmation and Sharia Consistency

Moving averages serve as important confirmation tools within an integrated investment strategy. Rather than functioning independently, moving averages complement other indicators such as trend lines and support and resistance levels by providing additional validation for emerging signals (Aguirre et al., 2021; Ni et

al., 2025). In essence, moving averages act as filters that help reduce misleading market noise arising from short-term price fluctuations.

For example, a buy signal that emerges from a price rebound near a support level becomes more reliable when the asset price also remains above the medium-term moving average indicator. This condition indicates that the prevailing upward trend remains intact and provides a stronger basis for investment decisions (Morão, 2025).

The confirmation function of moving averages also helps Nazhir and Amil avoid potential false signals. By requiring additional confirmation from trend indicators, fund managers are encouraged to wait for stronger market validation before making investment decisions. Such an approach aligns with principles of rational and disciplined fund management, helping decision-makers avoid impulsive actions based solely on short-term market fluctuations (Milana & Ashta, 2021).

Beyond financial considerations, the integrated strategy that combines trend lines, support and resistance levels, and moving averages also demonstrates ethical relevance in the management of zakat and waqf assets. By emphasizing structured analysis rather than speculative behavior, the strategy may help reduce practices associated with excessive speculation (*maysir*) (Kumar et al., 2024).

Furthermore, the use of clearly defined entry and exit rules based on multiple indicators helps reduce uncertainty (*gharar*) in investment activities. This structured framework enables Nazhir and Amil to manage risk in a more measurable and transparent manner. When applied consistently, technical analysis can therefore function not only as a market analysis tool but also as a governance mechanism that supports prudence, rationality, and responsible management of zakat and waqf assets (Fang et al., 2022; Mercure et al., 2021).

CONCLUSION

Overall, these findings provide a strong empirical basis indicating that the combined strategy based on technical analysis represents an optimal model for *nazhir* and *amil* in managing zakat and waqf assets. The 35% profit reflects not only financial improvement but also an enhanced capacity of zakat and waqf institutions to expand social interventions aimed at reducing inequality and poverty. Furthermore, the strict risk control (-15% drawdown) demonstrates that these social funds are managed with a high level of prudence, thereby ensuring sustainability and institutional reliability. In this context, the optimization of zakat and waqf management lies in transforming these instruments into professionally managed financial resources capable of generating sustainable returns while maintaining controlled risk, ultimately contributing to the stability and resilience of the national financial system.

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DECLARATIONS

Author contribution

Sunardi Simanullang: data curation and writing-original, **Miftah Fauzianah:** draft preparation and conceptualization, **Erik Lis Setiawan:** methodology, **Sholly Wahyudi Harahap:** visualization, editing, and analysis.

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