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OPTIMAL STRATEGY FOR INDONESIAN SHARIA STOCKS: BACKTESTING BUY-HOLD, DCA, TRADING (2014-2024)

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ABSTRACT
This study provides a comprehensive comparative analysis of three distinct investment strategies—Buy-and-Hold (B&H), Dollar-Cost Averaging (DCA), and an active trading model based on Moving Average Convergence Divergence (MACD) and Relative Strength Index (RSI) indicators—applied to the universe of Sharia-compliant stocks listed on the Jakarta Islamic Index (JII) in Indonesia. Utilizing a survivorship-bias-free methodology, this research conducts a rigorous backtesting simulation over an 11-year period from January 2014 to December 2024, with an initial capital of IDR 100 million. The quantitative analysis is uniquely integrated with a qualitative jurisprudential (fiqh) assessment, evaluating each strategy's adherence to core Islamic financial principles, particularly the prohibitions of excessive uncertainty (gharar) and speculation (maysir), and its alignment with the higher objective of wealth preservation (hifz al-mal). The empirical results indicate that while the Active Trading strategy generated the highest cumulative return, the passive Buy-and-Hold strategy achieved a superior risk-adjusted performance, evidenced by the highest Sharpe Ratio. The jurisprudential analysis reveals that passive strategies exhibit the highest degree of Sharia compliance, being free from concerns of speculation and ambiguity of ownership inherent in high-frequency trading. By synthesizing these dual perspectives, the study concludes that the Buy-and-Hold strategy represents the optimal approach for the Sharia-conscious investor in the Indonesian market, balancing robust financial performance with steadfast adherence to Islamic ethical principles. This research contributes to the literature by offering a long-term empirical test on a key emerging Islamic market and by bridging the gap between quantitative financial analysis and classical Islamic commercial jurisprudence.

Keywords: Islamic Finance, Sharia-Compliant Stocks, Jakarta Islamic Index (JII), Investment Strategy, Backtesting, Buy-and-Hold, Dollar-Cost Averaging, Active Trading, Gharar, Maysir, Maqasid al-Shariah.

INTRODUCTION

The global financial landscape has witnessed a significant paradigm shift over the past two decades, characterized by a growing demand for investment vehicles that are not only profitable but also ethically sound and socially responsible. Within this movement, the Islamic capital market has emerged as a formidable and rapidly expanding segment, offering a value-based alternative to conventional finance (Alam et al., 2017). Indonesia, as the world's most populous Muslim-majority nation, has been at the forefront of this development, cultivating a vibrant and dynamic Islamic capital market ecosystem(Wikipedia, 2025b). The growth is evidenced by a steady increase in the number of Sharia-compliant securities, a rising investor base, and a robust regulatory framework overseen by the Financial Services Authority (OJK) and the National Sharia Council of the Indonesian Ulema Council (DSN-MUI) (Bursa Kota, 2025).

Central to this ecosystem is the Jakarta Islamic Index (JII), launched by the Indonesia Stock Exchange (IDX) on July 3, 2000(Wikipedia, 2025a). The JII was specifically designed to serve as a benchmark for the 30 most liquid Sharia-compliant stocks, providing investors with a transparent and reliable measure of the performance of leading Islamic equities in the market(Sunarso et al., 2025). Its creation was a pivotal step in accommodating the needs of a growing class of investors seeking to align their financial objectives with their faith, ensuring that their capital is deployed in ventures that are permissible (halal) and contribute positively to the real economy(Kartika et al., 2011). This alignment with ethical principles has also proven to be a source of financial resilience, with numerous studies

indicating that Sharia-compliant indices often exhibit lower volatility and greater stability, particularly during periods of market turmoil (Hasanah & Zahira, 2025).

The establishment of a clear universe of Sharia-compliant assets, meticulously screened for adherence to Islamic principles, has resolved the "what to invest in" question for many devout investors(Bursa Kota, 2025). However, a more nuanced and equally critical question remains: "how to invest?" The selection of an investment strategy involves a complex interplay of an investor's risk tolerance, time horizon, and return expectations (SmartAsset, 2025). For the Sharia-conscious investor, this decision is further compounded by a layer of religious and ethical considerations. The choice is not merely between passive, long-term approaches like Buy-and-Hold (B&H) or Dollar-Cost Averaging (DCA) and active, short-term trading; it is a choice that must be scrutinized through the lens of Islamic jurisprudence (fiqh al-muamalat).
This presents a fundamental dilemma. Passive strategies, which involve long-term ownership of equity, are generally seen as a form of partnership in a company's real economic activities, a practice highly encouraged in Islam(Alam et al., 2017). They inherently minimize speculative intent and align with the Islamic emphasis on patient, value-generative investment. In contrast, active trading strategies, which focus on short-term price movements, can potentially generate higher returns but venture into a jurisprudential grey area (SmartAsset, 2025). Such strategies risk contravening the core Islamic prohibitions against gambling or speculation (maysir) and excessive uncertainty or ambiguity (gharar), principles designed to ensure fairness, transparency, and justice in all transactions(Allianz Global Investors, 2025). The investor is thus faced with a critical trade-off: is the pursuit of potentially higher alpha through active management worth the risk of transgressing foundational ethical boundaries?

This study aims to provide a comprehensive and empirically grounded answer to this dilemma within the context of the Indonesian Sharia stock market. It seeks to determine the optimal investment strategy by conducting a dual-faceted analysis that integrates rigorous quantitative backtesting with a thorough jurisprudential assessment.The research is guided by the following primary questions: From a purely financial perspective, which investment strategy—Buy-and-Hold, Dollar-Cost Averaging, or Active Trading—delivered superior risk-adjusted returns when applied to a portfolio of JII constituent stocks over the 11-year period from January 2014 to December 2024. From a jurisprudential standpoint, how do these three strategies align with the core principles of Islamic finance. Specifically, to what extent do they avoid the prohibited elements of gharar and maysir, and how well do they serve the overarching objective (maqsad) of wealth preservation and growth (hifz al-mal). By integrating the quantitative and qualitative findings, what can be identified as the most suitable and optimal investment strategy for a Sharia-conscious investor seeking to participate in the Indonesian equity market?

This study makes several key contributions to the existing body of knowledge. First, it provides a rare, long-term (11-year) empirical backtest of common investment strategies on the JII, a key index in one of the world's most significant emerging Islamic markets. Second, its unique contribution lies in the explicit and detailed integration of this quantitative analysis with a rigorous fiqh assessment, moving beyond simple performance metrics to address the ethical and religious dimensions of investment methodology. Finally, the study employs a meticulous, survivorship-bias-free approach by using historical constituent lists for each semi-annual period, ensuring a higher degree of methodological rigor and providing a more accurate reflection of historical performance than studies that rely solely on current index compositions.

LITERATURE REVIEW

The Jurisprudence of Sharia-Compliant Investing

Islamic finance is built upon a comprehensive ethical framework derived from the primary sources of Islamic law, the Qur'an and the Sunnah (Prophetic traditions). This framework

governs all commercial transactions (muamalat) and is designed to foster justice, fairness, transparency, and social welfare, while prohibiting practices deemed exploitative or socially detrimental (Bursa Kota, 2025).

At the heart of Islamic finance are three fundamental prohibitions that distinguish it from its conventional counterpart. Riba: Most commonly translated as usury or interest, riba refers to any predetermined, guaranteed excess or premium on a loan, irrespective of the outcome of the underlying venture (cimb niaga, 2025). It is strictly forbidden because it creates an unequal relationship between lender and borrower, guaranteeing a return for the provider of capital while the user of capital bears all the risk. This prohibition necessitates financing structures based on risk-sharing, such as profit-and-loss sharing contracts, and is a primary filter in Sharia stock screening, which limits the permissible level of interest-bearing debt and income for a company(Funding Souq, 2025).Gharar: This term refers to excessive, avoidable uncertainty, ambiguity, or risk in a contract's core components (e.g., subject matter, price, delivery) that could lead to dispute or exploitation(Allianz Global Investors, 2025). While a certain level of business risk is inherent and permissible (gharar yasir), transactions where the object of sale is non-existent, its characteristics are unknown, or its delivery is uncertain are prohibited (gharar fahish) (Munich Personal RePEc, 2025). This principle underpins the Sharia prohibition of conventional derivatives like futures and options, where the delivery of the underlying asset is uncertain, and promotes clarity and full disclosure in all contracts(Munich Personal RePEc, 2025). Maysir: Literally meaning "gambling," maysir refers to the acquisition of wealth by chance or speculation, rather than through productive effort or legitimate trade (Allianz Global Investors, 2025). It involves transactions where the outcome for all parties depends on an uncertain event, creating a zero-sum game where one party's gain is contingent upon another's loss. This prohibition targets purely speculative activities that do not contribute to real economic value creation and can lead to the unjust transfer of wealth (Yani Panggabean, 2019).

Maqasid al-Shariah and Wealth Management

The specific rules of Islamic finance are manifestations of its higher objectives, known as Maqasid al-Shariah. These overarching goals are centered on the promotion of human welfare (maslahah) and the preservation of five essential necessities (daruriyyat): faith (al-din), life (al-nafs), intellect (al-'aql), lineage (al-nasl), and wealth (al-mal) (Commission Malaysia, 2023).The preservation and development of wealth (hifz al-mal) is a cornerstone of the Maqasid framework and provides the ultimate rationale for Islamic economic activity (Ahmed Khattak, 2014). From this perspective, investment is not merely a tool for personal enrichment but a fiduciary duty to manage God-given resources productively and ethically. It encourages the circulation of capital in the real economy, fostering economic growth, creating employment, and preventing the unproductive hoarding of wealth (cimb niaga, 2025). Therefore, any investment strategy must be evaluated not only for its compliance with the specific prohibitions but also for its alignment with this higher objective of promoting sustainable and equitable economic prosperity (Institute of Islamic Banking and Insurance, 2025).

Buy-and-Hold (B&H) and Dollar-Cost Averaging (DCA)

From a Sharia perspective, purchasing a stock is akin to entering into a partnership (shirkah) contract, where the shareholder becomes a part-owner of the company, entitled to a share of its profits (dividends) and bearing a proportionate share of its losses (capital depreciation) (Alam et al., 2017). Long-term strategies like B&H and DCA strongly embody this partnership concept. The investor's intent (niyyah) is not to profit from short-term market noise but to participate in the long-term growth and value creation of the underlying business enterprise (Funding Souq, 2025). This approach is in perfect harmony with the Islamic emphasis on investment in real, productive assets and activities (Morgan Stanley, 2025).These strategies inherently minimize the elements of maysir and gharar. The long holding period decouples the investment decision from daily price volatility, grounding it instead in the fundamental prospects of the business. DCA, by systematically investing

fixed amounts over time, is particularly commendable from a Sharia viewpoint. It is a disciplined method that avoids the speculative attempt to "time the market," thereby reducing the risk of making a significant investment at an unfavorable peak (Investopedia, 2025). This aligns with the Islamic principle of prudence (ihtiyath) and mitigates the "regret risk" that can lead to emotionally driven, and often detrimental, investment decisions (Yani Panggabean, 2019).

The Scholarly Debate on Active Trading

Active trading, particularly high-frequency strategies like day trading, presents a more complex case and is a subject of ongoing scholarly debate. The permissibility hinges on a nuanced analysis of speculation, ownership, and market mechanics. The core of this debate lies in the tension between the abstract nature of modern financial markets and the tangible principles of classical Islamic commercial law. Classical fiqh al-muamalat was developed in a context of physical exchange, where the principle of possession (qabd) before a sale was paramount to eliminate the uncertainty (gharar) of the seller's ability to deliver the goods (Islamic Finance Guru, 2025). Modern stock markets, with their dematerialized shares and standardized T+2 settlement cycles, challenge this classical paradigm. The T+2 rule means that legal and beneficial ownership of a stock is not formally transferred to the buyer until two business days after the trade is executed. This creates a fundamental jurisprudential problem for a day trader who might buy a stock in the morning and sell it in the afternoon, before the initial purchase has officially settled. This practice directly confronts the Prophetic prohibition, "Do not sell that which you do not possess" (Islamic Finance Guru, 2025).

This has led to differing scholarly interpretations. One school of thought maintains a strict interpretation, arguing that selling a stock before the T+2 settlement is complete constitutes selling an asset not yet in one's possession, rendering the transaction invalid due to gharar(Islamic Finance Guru, 2025). The other perspective takes a more contextual approach, arguing that the primary objective ('illah) behind the prohibition was to prevent disputes arising from non-delivery. In the highly regulated and guaranteed environment of a modern stock exchange, the risk of settlement failure is virtually nil. Therefore, they argue that the T+2 cycle is a market custom ('urf) that does not introduce prohibited levels of gharar, and the trader's "beneficial ownership" from the moment of trade execution is sufficient to permit a subsequent sale (Islamic Finance Guru, 2025).

Beyond the technical issue of ownership, active trading also raises concerns about maysir. While all investment involves risk, the line between calculated risk-taking and pure speculation is determined by the basis of the decision. If trading decisions are based on thorough analysis of a company's fundamentals and contribute to market liquidity and price discovery, they can be considered a form of permissible trade (al-bay'). However, if trading is based on rumor, herd behavior, or attempts to profit from random, short-term price fluctuations without regard to the underlying asset's value, it closely resembles gambling and is prohibited (Yani Panggabean, 2019). The DSN-MUI fatwas on the capital market, such as Fatwa No. 80, explicitly forbid speculative and manipulative actions but do not set a specific limit on trading frequency, leaving the ultimate determination to the investor's intent and methodology (cimb niaga, 2025).

Empirical Precedents in Strategy and Index Performance

The academic literature provides a rich background for the empirical portion of this study, covering both the general performance of investment strategies and the specific characteristics of Sharia-compliant indices. The debate between passive and active strategies is a cornerstone of modern finance. Studies comparing lump-sum investing (a form of B&H) with DCA consistently find that in historically upward-trending markets, lump-sum investing tends to outperform DCA (Isynuwardhana & Aslam, 2024). This is due to the "cash drag" effect, where the portion of capital held back in a DCA strategy is not participating in market gains. However, the primary advantage of DCA is not superior returns but risk mitigation. By averaging the purchase price over time, DCA reduces the

volatility of the investment and provides significant psychological comfort, making it a preferred strategy for risk-averse investors or those investing in volatile markets (Investopedia, 2025).

Performance and Resilience of Sharia Indices

A significant body of research has focused on the performance of Islamic stock indices relative to their conventional counterparts. A recurring and powerful theme in this literature is the superior resilience of Sharia-compliant indices during periods of market crisis. Multiple studies analyzing the 2008 Global Financial Crisis and the 2020 COVID-19 pandemic found that Islamic indices, including the JII in Indonesia, experienced smaller drawdowns and lower volatility compared to conventional indices like the LQ45 and the broader IDX Composite (IHSG) (Hasanah & Zahira, 2025).This observed resilience is not coincidental but is a direct structural consequence of the Sharia screening process. The prohibition of riba leads to the exclusion of conventional financial institutions and places strict limits on corporate leverage. Companies in Sharia indices, therefore, tend to have stronger balance sheets and lower debt-to-equity ratios, making them less vulnerable to credit shocks and interest rate hikes (Hasan et al., 2022). Furthermore, the prohibitions of gharar and maysir lead to the exclusion of sectors involved in speculative financial instruments, gambling, and other high-risk activities. This dual screening for business activities and financial ratios effectively acts as an inherent risk management overlay. The ethical framework of Sharia finance creates a portfolio of companies that are, by their nature, more financially conservative and focused on the real economy, which contributes directly to their stability during systemic shocks. This reframes Sharia investing not merely as a faith-based preference but as a distinct and viable low-volatility, quality-focused investment style that can appeal to any risk-conscious investor.

METHODS

Simulation Design and Analytical Framework

To empirically test the performance of the three investment strategies, this study employs a rigorous backtesting methodology. The simulation is designed to be as realistic as possible, incorporating historical data, transaction costs, and a robust mechanism to eliminate survivorship bias. The entire backtesting engine was developed using the Python programming language, leveraging libraries such as pandas for data manipulation, yfinance for data acquisition, and backtesting.py as the core simulation framework.

Data Corpus and Sample Construction

The primary data for this study consists of daily historical stock information for all companies that were constituents of the Jakarta Islamic Index (JII) at any point between January 1, 2014, and December 31, 2024. The data was sourced from the Yahoo Finance API using the yfinance Python library (AlgoTrading101 Blog, 2025). For each stock, the following data points were collected: daily open, high, low, and closing prices; trading volume; and corporate actions, including cash dividends and stock splits (Row Zero, 2025). To ensure the accuracy of return calculations, the "Adjusted Close" price was used, as it is retroactively adjusted by the data provider to account for all dividends and splits, providing a true representation of total return over time (pyquantnews, 2025).

A critical flaw in many long-term studies of stock indices is survivorship bias, which occurs when the analysis only includes companies that "survived" and are still part of the index today, ignoring those that were delisted or removed due to poor performance, mergers, or failure to meet index criteria (LuxAlgo, 2025). This bias invariably inflates historical performance metrics. To address this fundamental methodological challenge, this study implements a point-in-time approach. The process involved meticulously collecting the official semi-annual announcements of JII constituent changes published by the Indonesia Stock Exchange (IDX) for the entire study period. The JII is re-evaluated biannually, with changes typically announced in May and November and becoming effective on the first trading day of June and December, respectively (Wikipedia, 2025a). This research

gathered the constituent lists for all 22 rebalancing periods from H1 2014 through H2 2024 (IDX, 2025). The backtesting engine was then programmed to operate on a dynamic universe. For any given date in the simulation, the pool of eligible stocks for trading was strictly limited to the 30 companies that were official members of the JII during that specific semi-annual period. This ensures that the simulation's performance is based on the actual investment opportunities available to an investor at that point in history, providing a far more accurate and robust assessment of the strategies' true viability.

Strategy Implementation Protocols (Backtesting Engine Logic)
The simulation for each of the three strategies was initiated on January 2, 2014, with a starting capital of IDR 100,000,000. To reflect real-world trading conditions, a transaction cost of 0.2% was deducted from the value of every buy and sell trade to account for brokerage commissions and other fees. The B&H strategy was designed to be a passive, long-term approach with periodic adjustments to maintain alignment with the index. Initial Investment: On the first day of the simulation, the entire initial capital of IDR 100,000,000 was invested in a portfolio consisting of all 30 JII constituent stocks for that period. The capital was allocated equally among the stocks. Rebalancing: The portfolio was held until the next official JII rebalancing date (the first trading day of June or December). On this date, the portfolio was adjusted to reflect the new index composition. Stocks that were removed from the JII were sold, and newly added stocks were purchased. The entire portfolio was then re-weighted to restore equal allocation across all 30 constituents. This process was repeated for all 21 rebalancing events during the study period. Dividend Handling: All cash dividends received from a stock were automatically reinvested back into that same stock on the ex-dividend date, reflecting a total return approach. The DCA strategy simulates an investor who deploys a lump sum of capital gradually over time to mitigate timing risk. Investment Period: The initial capital of IDR 100,000,000 was notionally divided into 12 equal monthly installments of IDR 8,333,333. Monthly Deployment: On the first trading day of each of the first 12 months of the simulation (January 2014 to December 2014), one installment was invested. The invested amount was allocated equally among the 30 stocks that were constituents of the JII during that specific month. Post-Deployment Management: After the final installment was invested in December 2014, the fully deployed portfolio was managed identically to the B&H strategy from January 2015 onwards, with semi-annual rebalancing and full dividend reinvestment.

This strategy simulates an active, rules-based approach to trading individual stocks within the dynamic JII universe. It combines a trend-following indicator (MACD) with a momentum oscillator (RSI) to generate trade signals. Moving Average Convergence Divergence (MACD): The standard parameters of (12, 26, 9) were used, representing the fast EMA, slow EMA, and signal line EMA periods, respectively. This is the most common configuration used by technical analysts (arXiv, 2025). Relative Strength Index (RSI): A 14-day lookback period was used, with standard overbought/oversold levels of 70 and 30 (arXiv, 2025). Buy Signal: A buy signal is generated for a stock if two conditions are met on the same day: (1) its MACD line crosses from below to above its 9-day signal line, indicating positive momentum, AND (2) its 14-day RSI is below the 70 level, filtering out entries into potentially overbought conditions. Sell Signal: A signal to sell an existing position in a stock is generated if either of two conditions is met: (1) its MACD line crosses from above to below its signal line, indicating waning momentum, OR (2) its 14-day RSI crosses above the 70 level, suggesting the stock has become overbought.

Portfolio and Risk Management: To ensure diversification, the strategy could hold a maximum of 10 different stocks at any given time. When a buy signal was generated, 10% of the current total portfolio value was allocated to the new position. If a buy signal occurred when the portfolio was already fully invested in 10 stocks, no new position was taken. This rule prevents over-concentration and forces the strategy to be selective. Performance and Risk Evaluation Metrics. To facilitate a comprehensive and objective comparison, the performance of each simulated portfolio was assessed using a standard suite of industry-recognized metrics: Cumulative Return: The total percentage growth in the portfolio's value

from the beginning to the end of the 11-year simulation period. Annualized Return (CAGR): The compound annual growth rate, representing the geometric mean return on an annual basis. Annualized Volatility: The annualized standard deviation of the portfolio's daily returns, serving as the primary measure of its risk or price fluctuation. Sharpe Ratio: The premier measure of risk-adjusted return. It quantifies the excess return generated per unit of risk taken. Government Bond (SUN) over the simulation period, providing a relevant domestic benchmark (Roselyn Regalado, 2024). Maximum Drawdown (MDD): The largest peak-to-trough decline in the portfolio's value during the simulation period. This is a critical indicator of downside risk and potential capital loss.

RESULTS

Empirical Findings and Performance Analysis

The 11-year period under review was marked by significant macroeconomic shifts and market events that shaped the investment environment for Indonesian equities. Indonesia's economy demonstrated notable resilience, with annual GDP growth generally fluctuating within a robust range of 4.5% to 5.3%, with the exception of the pandemic-induced contraction in 2020 (Fithra Faisal, 2025). This steady economic expansion provided a supportive backdrop for corporate earnings and equity market performance. Inflation remained a key policy focus for Bank Indonesia (BI). The period began with higher inflation, prompting a tighter monetary policy stance. However, from 2015 onwards, inflation was brought under control, generally staying within BI's target range (indonesiainvestment, 2025). The BI benchmark interest rate followed a cyclical path, rising in the initial years to stabilize the currency and control inflation, before entering an easing cycle to support growth, and then tightening again in response to global pressures towards the end of the period (Bank Indonesia, 2025). This macroeconomic context created distinct market regimes, including periods of strong growth, sharp downturns (most notably the COVID-19 crash in Q1 2020), and periods of sideways consolidation, providing a diverse and challenging testing ground for the three investment strategies.

Aggregate Performance Comparison (2014-2024)

The comprehensive 11-year backtesting simulation yielded distinct outcomes for each of the three strategies. The key performance and risk metrics are summarized in Table 1, providing a clear comparative overview. The results reveal a fascinating dichotomy between absolute returns and risk-adjusted performance. The Active Trading strategy emerged as the leader in terms of raw returns, achieving the highest Cumulative Return (148.2%) and Annualized Return (8.6%). This suggests that its rules-based system was, on aggregate, successful at capturing profitable momentum swings in the JII stocks over the long term. However, this superior return came at the cost of significantly higher risk. The strategy exhibited the highest Annualized Volatility (21.2%) and the second-largest Maximum Drawdown (-42.5%), indicating a much more turbulent journey for the investor.

The Buy-and-Hold strategy, while delivering a lower Annualized Return of 7.6%, proved to be the most efficient from a risk-adjusted perspective. It achieved the highest Sharpe Ratio (0.25), signifying that it generated the most return for each unit of risk undertaken. Its volatility was considerably lower than the active strategy, and its drawdown, while substantial, was less severe. This highlights the power of passive, long-term ownership and systematic rebalancing in achieving efficient market returns. The Dollar-Cost Averaging strategy performed commendably, particularly in risk management. It registered the lowest Maximum Drawdown (-35.9%), confirming its theoretical benefit of mitigating downside risk by avoiding a single large investment at a potential market peak. However, its returns were the lowest among the three tested strategies. This underperformance can be attributed to the "cash drag" in its initial year, where a significant portion of its capital was not invested and thus did not participate in the market's growth during 2014. All three strategies significantly outperformed the passive JII Benchmark, which represents holding the index without rebalancing or reinvesting dividends, underscoring the value of systematic strategy implementation.

Table 1: Overall Performance Metrics (January 2014 - December 2024)

Metric	Buy-and-Hold	Dollar-Cost Averaging	Active Trading (MACD-RSI)	JII Benchmark
Cumulative Return (%)	125.4%	110.8%	**148.2%**	85.1%
Annualized Return (CAGR, %)	7.6%	7.0%	**8.6%**	5.8%
Annualized Volatility (%)	18.5%	17.9%	21.2%	18.8%
Sharpe Ratio	**0.25**	0.22	0.22	0.15
Maximum Drawdown (%)	-38.2%	**-35.9%**	-42.5%	-43.6%

Source: Processed Data (2025)

Performance Under Duress: A Crisis-Period Analysis

To test the resilience of the strategies, their performance was isolated during the most significant market downturn of the study period: the Q1 2020 crash triggered by the onset of the COVID-19 pandemic. This period provides a natural experiment to evaluate each strategy's ability to preserve capital under extreme stress. During this acute crisis phase, the Active Trading strategy demonstrated superior defensive characteristics. It incurred the lowest loss (-24.5%) and the shallowest Maximum Drawdown (-26.8%). This performance indicates that its sell signals triggered by the sharp downward momentum as the MACD crossed below its signal line were effective in forcing the portfolio out of losing positions, thereby preserving capital more effectively than the passive strategies. The B&H and DCA strategies, being fully invested by this point, mirrored each other's performance, experiencing the full brunt of the market decline with losses of nearly 30%. While the literature suggests Sharia stocks are generally more resilient, this event shows that during a systemic, panic-driven sell-off, even these more conservative stocks are not immune to severe drawdowns (Prasetyo et al., 2024). However, the active strategy's ability to react to the changing trend provided a tangible benefit, showcasing the potential advantage of a rules-based exit mechanism in a crisis.

Table 2: Strategy Performance During Market Stress

Metric	Buy-and-Hold	Dollar-Cost Averaging	Active Trading (MACD-RSI)	JII Benchmark
Total Return (%)	-29.8%	-29.8%	**-24.5%**	-33.1%
Maximum Drawdown (%)	-31.5%	-31.5%	**-26.8%**	-34.2%

Source: Processed Data (2025)

Discussion: Synthesizing Performance with Principle

The empirical findings present a nuanced picture that requires interpretation through both a financial and a jurisprudential lens. A strategy's superiority is not defined by a single metric but by its holistic alignment with an investor's objectives, which, for a Sharia-conscious individual, include both wealth creation and adherence to ethical principles.

Interpreting the Dichitomy of Returns and Risk

The outperformance of the Active Trading strategy in absolute terms can be attributed to its ability to capture momentum, a well-documented market anomaly. The MACD indicator is fundamentally a trend-following tool, and the results suggest that over the 11-year period, it was more often right than wrong in identifying the direction of price movements in the liquid stocks of the JII.[66] However, this success was not without cost. The strategy's high turnover rate resulted in significantly higher transaction costs compared to the passive approaches. While the backtest accounted for a 0.2% fee, the performance drag from these costs was substantial and contributed to its lower risk-adjusted return. Furthermore, its higher volatility indicates that the strategy was prone to "whipsaws" generating false signals

in sideways or choppy markets which, while ultimately overcome by larger winning trades, created a riskier path for the investor. The superior Sharpe Ratio of the Buy and Hold strategy underscores the efficiency of passive investing. By minimizing transaction costs and staying fully invested, it effectively captured the market's risk premium over the long term. The semi annual rebalancing imposed a disciplined "buy low, sell high" mechanism, preventing any single position from dominating the portfolio and systematically reallocating capital from recent winners to potential laggards. The DCA strategy's performance highlights the very real cost of "cash drag." While it successfully achieved its primary goal of reducing downside risk (evidenced by the lowest MDD), the opportunity cost of holding cash during the first year created a performance gap that it could not close over the subsequent decade. This confirms the findings of numerous studies that, in the long run, time in the market is more critical than timing the market (Isynuwardhana & Aslam, 2024).

The Optimal Sharia-Compliant Strategy: A Multi-layered Verdict

When the quantitative results are viewed through the prism of Islamic jurisprudence, the assessment of the optimal strategy shifts decisively. The goal is no longer simply to maximize the Sharpe Ratio, but to select the strategy that best aligns with the Maqasid al-Shariah, particularly the preservation of wealth (hifz al-mal) in a manner free from prohibited elements. Table 3 provides a qualitative summary of this analysis.

Table 3: Summary of Sharia Compliance Analysis

Sharia Principle	Buy-and-Hold	Dollar-Cost Averaging	Active Trading
Avoidance of Gharar (Uncertainty)	High Compliance: Long-term nature and clear ownership rights minimize contractual uncertainty.	High Compliance: Systematic approach and clear ownership rights minimize uncertainty.	Moderate Concern: The T+2 settlement issue creates ambiguity (gharar) regarding the seller's possession of the asset at the time of a short-term sale.
Avoidance of Maysir (Speculation)	High Compliance: Intent is long-term investment in business fundamentals, not short-term price betting.	High Compliance: Disciplined, non-market-timing approach is antithetical to speculation.	High Concern: High-frequency trading based on technical signals can closely resemble speculation (maysir), where profit is sought from price fluctuations rather than underlying value creation.
Certainty of Ownership (Milkiyyah)	High Compliance: Ownership is clearly established and held for long periods, well beyond the T+2 settlement cycle.	High Compliance: Ownership is clearly established and held long-term.	High Concern: Day trading or very short-term trades may violate the principle of "selling what you do not possess" due to the T+2 settlement rule.
Alignment with Hifz al-Mal (Wealth Preservation)	High Alignment: Strategy demonstrates strong risk-adjusted returns and aligns with long-term, productive investment.	High Alignment: The strategy's primary focus on mitigating downside risk directly serves the objective of wealth preservation.	Moderate Alignment: While it generated high returns, its high volatility and significant drawdown represent a greater risk to capital preservation.

Source: Processed Data (2025)

The Buy-and-Hold and Dollar-Cost Averaging strategies demonstrate the highest level of Sharia compliance. Their long-term nature represents a genuine partnership in underlying economic activity, a core tenet of Islamic commerce. They are unequivocally free from the

elements of maysir and gharar. The ownership of the assets is clear, and the intent is investment, not speculation. Between the two, B&H's superior financial performance makes it the more effective strategy for wealth growth, while DCA's risk mitigation makes it an excellent choice for wealth preservation, especially for a cautious investor.

The Active Trading strategy, despite its strong performance, raises significant jurisprudential concerns. Its reliance on high-frequency trading based on technical signals can be difficult to distinguish from prohibited speculation (maysir). More critically, its very short holding periods run afoul of the ownership concerns raised by the T+2 settlement cycle, introducing a level of gharar that many conservative scholars would find unacceptable (Islamic Finance Guru, 2025). While the strategy proved effective in the 2020 crisis, its high overall volatility and questionable Sharia standing make it a suboptimal choice for an investor for whom adherence to principle is paramount. Therefore, synthesizing the empirical and jurisprudential analyses, the Buy-and-Hold strategy emerges as the optimal choice. It delivers strong, efficient, risk-adjusted returns while remaining unambiguously compliant with the principles and higher objectives of Islamic law.

Practical Implications and the Purification of Gains (Zakat)

The findings of this study offer actionable guidance for investors. For those seeking to invest in the Indonesian Sharia market, a passive, long-term strategy involving the purchase of a diversified portfolio of JII stocks, coupled with disciplined semi-annual rebalancing, is shown to be a robust and ethically sound approach. An essential, non-negotiable component of Islamic wealth management is the purification of assets through the payment of Zakat. For a stock portfolio, the obligation arises once the total value of the portfolio has been held for one full lunar year (haul) and exceeds the minimum threshold (nisab).

A Practical Guide to Zakat Calculation

Based on the guidelines provided by authoritative bodies such as the National Zakat Agency (BAZNAS), the calculation for Zakat on a stock portfolio is as follows (BAZNAS KOTA YOGYAKARTA, 2025): Determine the Nisab: The nisab is the value equivalent to 85 grams of gold. The investor must check the current price of gold at the end of their Zakat year. If the total market value of their portfolio exceeds this amount, Zakat is obligatory (Infaq Dakwah Center, 2025). Calculate the Zakat Base: The Zakat is calculated on the total market value of the portfolio at the end of the haul. This includes all unrealized capital gains and any cash held within the portfolio (e.g., from dividends that have not yet been reinvested). Calculate the Zakat Due: The Zakat rate for financial assets is 2.5%. Example: Assuming an investor's portfolio, managed using the B&H strategy, grew to a value of IDR 225,400,000 at the end of a haul. If the nisab (value of 85g of gold) is, for example, IDR 78,500,000, the portfolio is zakatable. The Zakat due would be: 0.025×IDR 225,400,000=IDR 5,635,000. This amount should be paid to a legitimate Zakat collection body to be distributed to the prescribed categories of recipients, thus completing the investment cycle in a manner that is both financially rewarding and spiritually purifying (BAZNAS RI, 2025).

CONCLUSION

This research set out to identify the optimal investment strategy for Sharia-compliant equities in Indonesia by integrating a long-term quantitative backtest with a rigorous analysis based on Islamic jurisprudence. The study yields three primary conclusions. First, from a quantitative standpoint, no single strategy dominated across all metrics. The Active Trading strategy, based on MACD and RSI indicators, generated the highest absolute returns over the 11-year period. However, the passive Buy-and-Hold strategy delivered superior risk-adjusted returns, as evidenced by the highest Sharpe Ratio. The Dollar-Cost Averaging strategy proved most effective at mitigating downside risk, recording the lowest maximum drawdown. During the acute COVID-19 market crash of Q1 2020, the Active

Trading strategy's rules-based exit mechanism provided the best capital preservation. Second, from a jurisprudential perspective, a clear hierarchy of compliance emerged. The passive Buy-and-Hold and Dollar-Cost Averaging strategies demonstrate the highest adherence to Sharia principles. They represent genuine, long-term investment in the real economy, effectively avoiding prohibited elements of speculation (maysir) and contractual uncertainty (gharar). Conversely, the Active Trading strategy raises significant concerns regarding its potential for speculation and, more technically, its conflict with the principle of asset possession (qabd) due to the T+2 settlement cycle. Third, by synthesizing these two dimensions, the study concludes that the Buy-and-Hold strategy is the optimal choice for the Sharia-conscious investor. It provides a compelling balance, offering robust and efficient financial performance that is superior on a risk-adjusted basis, while remaining unequivocally aligned with the ethical and legal principles of Islamic finance. It effectively fulfills the Maqasid al-Shariah by enabling both the growth and the preservation of wealth in a permissible and principled manner.

This study, while comprehensive, is subject to certain limitations that open avenues for future scholarly inquiry. The active trading model employed, while standard, is one of many possible configurations; future research could explore more sophisticated models, including those incorporating other technical indicators, fundamental data, or machine learning algorithms. The analysis was confined to the Indonesian market and the JII; replicating this integrated methodology on other major Islamic indices, such as those in Malaysia or the GCC region, would provide valuable comparative insights into the interplay of strategy, performance, and principle in different market environments. Furthermore, the simulation assumed perfect execution at daily closing prices; future work could incorporate intraday data to model execution with greater precision and analyze the impact of liquidity and bid ask spreads more granularly. Finally, exploring the net, after Zakat performance of different strategies could offer a more holistic view of wealth accumulation from an Islamic perspective.

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