

PERFORMANCE OF INVESTMENT INSTRUMENTS AMIDST THE DEVELOPMENT OF DIGITAL TECHNOLOGY

Yulis Nurul Aini^{1*}, Ludfi Djajanto², Zubaidi Zubaidi³, Veri Hardinansyah Dja'far⁴

Politeknik Negeri Malang, Indonesia

yulismurulaini@polinema.ac.id^{1*}, ludfimg@yahoo.com², zubaidi@polinema.ac.id³,

verihardinansyah@polinema.ac.id⁴

**Correspondence Author*

Received July 30, 2026; Revised August 25, 2026; Accepted August 26, 2026; Published August 31, 2026

ABSTRACT

This study aims to find out the performance of investment instruments amidst the development of digital technology. The data sources were obtained from data published on the Indonesia Stock Exchange. The data used were Sharia stocks (ISSI) including 4 companies with big capital, and LQ45 stocks including 4 companies with big capital for the period 2023-2025. The analysis tools used to measure the performance of Sharia stocks and LQ45 stocks were risk and return rate. Based on the measurement results, it was revealed that Sharia stocks provide a higher return compared to conventional LQ45 stocks. Based on risk using the Sharpe and Jensen approaches, it was revealed that Sharia stocks are riskier than conventional LQ45 stocks. Therefore, the performance of Sharia stocks is more attractive, so it can be considered by investors when choosing them in the digital technology era.

Keywords: Investment, technology, Sharia stocks (ISSI), LQ45 stocks, investment performance.

INTRODUCTION

The capital market continues to develop digital technology aimed at simplifying, expanding access to, and accelerating investment transactions, particularly stocks, bonds, and mutual funds for the public. However, the ease of access and development of digital technology has not been fully followed by an increase in public participation in capital market investment. This condition shows a gap between the increasing ease of access to digital investment services and the public's decision to invest. Therefore, research is needed to identify the factors that influence the public's investment decisions in the digital era. The benefits of investment digitalization technology include digital financial product innovation, large transaction volumes, an increasing number of retail investors, strengthened capital market competitiveness, and other benefits. Digital platforms are the technological foundation driving various types of services and applications, so that operational activities run effectively and transactions become fast and efficient (Astutik & Setiawan, 2025). Digital platforms are able to simplify interaction and transaction processes, thereby saving cost and time (Gawer, 2021).

The forms of investment digitalization on the stock exchange that are easy for novice investors are, first, online trading applications (Astarsari et al., 2024). The features provided are very complete, including issuer financial reports, tax reporting information, stock charts, personal portfolio information, order booking features, IHSG (composite stock price index) information, and others. Second, trading and investment applications



integrated with the Indonesia Stock Exchange. One such application is Stockbit, which provides features such as quick order, education, charting, and others. Many retail investors use Stockbit.

The advantages of digitalization facilities at the IDX (Indonesia Stock Exchange) are as follows: 1) for investors, low cost, financial information transparency and higher stock prices, faster and real-time transactions, and very easy access. 2) For the exchange and regulators, safer data, easier and more effective supervision, and low operational costs. 3) For issuers (companies), improved corporate image as more credible and modern, more efficient stock recording, and an increasing number of investors becoming aware of the company. Digitalization at the IDX provides ease of market access for retail investors, so that investment decisions can be made in a timely, fast, accurate, and efficient manner (Ummah & Sangka, 2025). Technology such as the e-IPO system at the IDX offers ease for investors to participate online in initial public offerings and general meetings (Desiyanti et al., 2023; Saidi et al., 2021). The risk of digitalization is that in the short term it will increase speculation, and novice investors will simply follow trends without paying attention to fundamental analysis (Sanusi, 2024; Yuliani et al., 2022). Risks include signal constraints, device availability, and internet speed in underdeveloped and remote regions (Joedono & Evelyn, 2023).

Capital market, the index serves as an indicator for observing security price movements, so that it can be used by investors to evaluate market conditions (Hartono, 2010). Among the primary indices tracked by the Indonesia Stock Exchange are the Composite Stock Price Index (IHSG), the LQ45 Index, a gauge of highly liquid and large-capitalization equities, and the Jakarta Islamic Index (JII), which selects stocks adhering to sharia law. A share of stock itself constitutes formal evidence of ownership within a given company (Tandelilin, 2017), while a sharia stock is a security that meets sharia principles in accordance with the provisions of the Financial Services Authority (OJK) through OJK Regulation Number 35/POJK.04/2017 and OJK Regulation Number 17/POJK.04/2015.

According to Nanovest Senior Market Analyst Bryan Oskar, the types of investment instruments that are attractive to investors in the era of modernization are stocks, gold, and bitcoin. Bitcoin assets increased significantly, reaching Rp2.11 billion or US\$126 in the third quarter of 2025. Gold, or precious metal prices, also increased in October 2025, reaching US\$4,381, due to global uncertainty. The Composite Stock Price Index (IHSG) showed positive performance, reaching 8,616 points compared to April, which was only 5,987, an increase of around 45 percent. The Indonesian Sharia Stock Index (ISSI) experienced improved performance and was able to compete with global indices. Positive performance in June 2025 was around 81 percent, above the Malaysian FBM EMAS Sharia Index at 11 percent and the S&P OIC at 11.7 percent.

There are various types of investment instruments in the era of technological modernization that investors can choose from, including gold, stocks, bitcoin, mutual funds, sharia stocks, and others. Investors can choose investment instruments according to their preferences, but must pay attention to performance. Performance differentials

between bitcoin, gold, and stocks emerge under the Sharpe, Treynor, and Jensen measures. A similar pattern of divergence obtains when these assets are evaluated through risk-and-return based metrics (Setiawati & Diatmika, 2023).

In choosing an investment instrument, investors do not only consider the rate of return, but also the risk that accompanies it. The profit derived from an investment decision, whether manifest as capital gains or other earnings, is what defines return for the investor (Fahmi, 2015). Return consists of expected return, which is the rate of return expected by investors, and realized return, which is the rate of return that has actually occurred (Hartono, 2010). The uncertainty of future investment receipts constitutes risk, and this uncertainty establishes a positive correlation with return, whereby elevated risk exposure corresponds to an elevated expected rate of return (Tandelilin, 2017). The rate of return or yield is the profit obtained from an investment decision (Fahmi, 2015). This profit can come from capital gains as well as other investment income, such as dividends received periodically by investors (Halim, 2015).

The performance of bitcoin, sharia stocks, LQ45 stocks, and gold shows no difference in performance when measured using the Jensen approach and rate of return. The Sharpe index, the Treynor index, and risk-based return benchmarks reveal statistically meaningful performance variation across sharia stocks, bitcoin, LQ45 stocks, and gold (Adiyono et al., 2021). Return-based metrics reveal no performance distinction among LQ45 stocks, bitcoin, and gold, yet risk, Treynor, and Jensen measures produce significant performance divergence. Bitcoin achieves the highest performance under the Treynor, Sharpe, risk, and return approaches, whereas LQ45 stocks rank first according to the Jensen index. Therefore, investors should choose Bitcoin as their investment instrument (Widiawira & Akbar, 2023).

Various studies have examined the comparison of performance across various investment instruments using the risk-adjusted return approach. An evaluation of various stock indices on the Indonesia Stock Exchange using the Sharpe Index, Treynor Ratio, Jensen Alpha, Adjusted Sharpe Index, Adjusted Jensen Index, and Sortino Ratio showed that several indices had better performance compared to risk-free instruments and the market, while based on the Sortino Ratio, the diversified industrial sector showed the best performance (Robiyanto, 2025). An analysis of financial asset behavior during the Covid-19 pandemic using the GARCH method also revealed that stock price movements in Muslim-majority countries were random, with a tendency toward asset risk convergence, although the movement characteristics of each financial asset differed (Setiawan et al., 2022). In addition, a comparison of investment performance between M-REIT and S-REIT using the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha showed that M-REIT had better performance and a lower total risk level compared to S-REIT (Chan et al., 2024). For other investment instruments, a comparison between cryptocurrency, LQ45 stocks, and gold showed that there was no significant difference in return, but there was a significant difference in terms of risk, Jensen, Treynor, and Sharpe, with Bitcoin as the instrument with the best overall performance (Widiawira & Akbar, 2023).

Previous research has mostly discussed the investment behavior of young generations from the aspects of financial literacy, financial behavior, investment interest, risk tolerance, and risk perception (Anggarani, 2024; Azaria et al., 2024; Yusup & Gunawan, 2024). Other research has also highlighted behavioral factors, such as heuristic behavior, herding bias, and emotional intelligence in influencing the investment decision making of young generations (Oktaviani & Mawaddah, 2024). However, these studies generally focus on the factors that determine investment decisions, while studies that specifically identify and compare relatively safer investment instrument alternatives for young investors who are vulnerable to being influenced by trends, emotions, and behavioral biases are still limited. Therefore, there is still a research opportunity to evaluate investment instrument alternatives not only based on the rate of return, but also based on risk and risk-adjusted performance. This approach can provide more comprehensive information for young investors in determining investment alternatives that suit their risk characteristics and market conditions. Therefore, this study offers a different perspective by identifying alternative investment choices that can be a safer option for young investors. Practically, the results of this study are expected to help young investors in choosing investment instruments based on risk level and more rational considerations, as well as serve as input for financial institutions and investment platforms in providing education and investment choices that suit the characteristics of young investors.

The scope of this research further encompasses a performance comparison of sharia stocks and conventional stocks equipped with digital technology facilities during the 2023–2025 period. In light of the background articulated above, this study aims to evaluate and juxtapose the performance of ISSI sharia equities and LQ45 conventional equities from 2023 to 2025, utilizing return and risk assessments alongside the Sharpe and Jensen indices.

RESEARCH METHOD

This research employs a descriptive quantitative design, a choice predicated on the study's objective to objectively measure, describe, and contrast the performance of ISSI sharia equities and LQ45 conventional equities through quantitative return and risk indicators observed from 2023 to 2025. The empirical data, secondary in nature, were procured from the Indonesia Stock Exchange, while the Sharpe and Jensen measures served as the performance evaluation tools. A quantitative descriptive approach indicates that numerical data informed this study; such data underwent analysis and ultimately supported the resulting inferences. Quantitative descriptive can be implemented to describe the performance of Sharia stocks and Conventional stocks.

Data and Data Sources

The empirical data, secondary in nature and consisting of ISSI sharia stock prices and LQ45 stock prices for 2023–2025, were sourced from Indonesia Stock Exchange publications accessible at www.idx.co.id. All sharia and conventional stocks listed on the

Exchange throughout 2023–2025 constituted the population. Through judgment sampling, which applies criterion-based selection pertinent to research aims, four ISSI firms and four LQ45 firms were selected, with selection criteria including substantial market capitalization, elevated liquidity levels, and uninterrupted price data completeness from 2023 to 2025. The sample criteria taken are as follows.

- A. Sharia stock companies (ISSI) and conventional stock companies listed on the Indonesia Stock Exchange and actively issuing financial reports during the 2023-2025 period.
- B. Conventional stock companies listed on the Indonesia Stock Exchange as LQ45 stocks and included among the 4 issuers with big capital in 2023-2025.
- C. Sharia stock companies (ISSI) included among the 4 issuers with big capital in 2023-2025.

Data Analysis Technique

Data analysis proceeds through descriptive statistics, which requires calculating the subsequent indicators.

Rate of Return

The rate of return measurement is:

$$\text{Stock Return} = \frac{P_t - (P_t - 1)}{P_t - 1}$$

Notes:

P_t = Price, the price at time t

P_{t-1} = Price, the price at the previous time

Risk Level

The risk level measurement is:

$$\text{Var}(R_i) = \frac{\sum_{i=1}^n ((R_i - E(R_i))^2)}{n - 1}$$

Notes:

$\text{Var}(R_i)$ = Variance of the investment return rate

$E(R_i)$ = Expected rate of return

R_i = Real rate of return

n = Number of periods during stock transactions

Sharpe Ratio

Employed to determine the surplus return over the risk-free rate, this ratio then divides that figure by the standard deviation of the portfolio. The formula is:

$$\text{Sharpe Ratio} = \frac{R_p - R_f}{\sigma_p}$$

Notes:

R_p = Portfolio Return

Rf = Risk-free rate (Risk-Free Return)

σ_p = Standard Deviation of Portfolio Return

The higher this ratio, the better the portfolio's performance in generating return per unit of total risk.

Treynor Ratio

This ratio functions to calculate systematic risk and is used for diversified portfolios. The formula is:

$$Treynor\ Ratio = \frac{R_p - R_f}{\beta_p}$$

Notes:

Rp = Portfolio Return

Rf = Risk-free rate (Risk-Free Return)

Bp = Beta coefficient of the portfolio reflecting its response to the market.

RESULTS AND DISCUSSION

Results

Data Analysis

Based on the sample criteria, namely Sharia (ISSI) stock companies with big capital that are actively listed on the Indonesia Stock Exchange, these include: 1) PT. DCI Indonesia, Tbk., 2) PT. Chandra Asri Pacific Tbk (TPIA), 3) PT. Dian Swastatika Sentosa Tbk., 4) PT Telkom Indonesia (Persero) Tbk. Conventional LQ45 stock companies include: 1) PT. Bank Central Asia Tbk., 2) PT. Bank Rakyat Indonesia (Persero), Tbk., 3) PT Bayan Resources Tbk., 4) PT. Bank Mandiri, Tbk. The company data analysis is as follows.

Rate of Return

The rate of return measurement was carried out using monthly rate of return data. The realized rate of return was determined by looking at the highest, average, and lowest values for 2023-2025 for Sharia (ISSI) stock companies with big capital. The calculation results are shown in Table 1 below.

Table 1. Calculation Results of the Monthly Rate of Return for Sharia (ISSI) Stock Companies, 2023-2025

Year	Month	Ri	Notes
2023	January to December	77.97%	Highest (December)
		-9.32%	Lowest (May)
		4.20%	Average
2024	January to December	80.31%	Highest (January)
		-20.57%	Lowest (November)
		4.67%	Average
2025	January to December	149.7%	Highest (January)
		-31.31%	Lowest (February)
		9.0%	Average

Source: Processed data (2026)

The highest rate of return received by investors from Sharia stock companies can be seen in Table 1, which shows 149.7 percent in January 2025. The lowest realized monthly rate of return was recorded in February 2025, at -31.31 percent. The average realized rate of return received by investors was 9.0 percent in 2025. Therefore, it can be concluded that based on the average realized rate of return, which shows a positive figure, the performance of ISSI sharia stocks is good.

The calculation results of the highest, average, and lowest realized returns for 2023-2025 for conventional LQ45 stock companies with big capital can be seen in Table 2 below.

Table 2. Calculation Results of the Monthly Rate of Return for Conventional Stock Companies, 2023-2025

Year	Month	Ri	Notes
2023	January to December	28.06%	Highest (July)
		-30.23%	Lowest (May)
		1.09%	Average
2024	January to December	13.81%	Highest (November)
		-18.35%	Lowest (April)
		-0.50%	Average
2025	January to December	20.54%	Highest (March)
		-23.65%	Lowest (March)
		-1.0%	Average

Source: Processed data (2026)

The highest rate of return received by investors from conventional stock companies can be seen in Table 2, which shows 28.06 percent in July 2023. The lowest realized rate of return received by investors was in May 2023, at -30.23 percent. The average realized rate of return received by investors was 1.09 percent in 2023. Therefore, it can be concluded that based on the average realized rate of return, which shows a positive figure, the performance of conventional stocks is good.

Table 3 below presents the performance comparison between ISSI sharia stocks and their conventional counterparts.

Table 3. Comparison of the Monthly Rate of Return for Sharia Stock Companies and Conventional Stock Companies, 2023-2025

Year	Average Ri Sharia Stocks	Ri Conventional Stocks	Performance
2023	4.20%	1.09%	Sharia Stocks
2024	4.67%	-0.50%	Sharia Stocks
2025	9.0%	-1.0%	Sharia Stocks

Source: Processed data (2026)

The highest average rate of return obtained by investors from sharia stocks from 2023 to 2025 was 9.0 percent. The lowest average rate of return received by investors was

-1.0 percent from conventional stocks in 2025. Overall, the average return rate of sharia stocks (ISSI) during the period 2023-2025 was higher than conventional stocks (LQ45). The superior performance of ISSI stocks may be caused by the characteristics of sharia-compliant companies, which undergo a screening process based on financial criteria and business activities, as well as their relatively stronger resilience during the observed period. In addition, differences in market conditions and investor preferences for sharia-compliant investments may also contribute to the higher return rate of ISSI stocks compared to conventional stocks.

Risk

Risk measurement is carried out by determining the standard deviation of the rate of return. The standard deviation is calculated monthly. The results of the standard deviation calculation are the highest, average, and lowest values for 2023-2025. The results of the Sharia Stock (ISSI) risk measurement can be shown in Table 4 below.

Table 4. Calculation Results of the Monthly Risk Level for Sharia (ISSI) Stock Companies, 2023-2025

Year	Month	Standard Deviation	Notes
2023	January to December	2.13%	Highest (July)
		0.45%	Lowest (May)
		1.10%	Average
2024	January to December	2.84%	Highest (November)
		0.57%	Lowest (April)
		1.49%	Average
2025	January to December	5.16%	Highest (March)
		0.56%	Lowest (March)
		2.19%	Average

Source: Processed data (2026)

The monthly standard deviation is used for risk calculation. The table above shows that the lowest risk value occurred in May 2023, at 0.45 percent. The highest risk was 5.16 percent in March 2025. The highest risk value in November 2024 was 2.84 percent. Therefore, the lowest risk for sharia stocks occurred in 2023 compared to 2024 and 2025. The standard deviation values in 2023-2025 show figures between below 1 percent and 5 percent, which can be interpreted as meaning that investment in sharia stocks has low risk because it is below the risk-free value of 6 percent. The results of the Conventional LQ45 Stock risk measurement can be shown in Table 5 below.

Table 5. Calculation Results of the Monthly Risk Level for Conventional LQ45 Stock Companies, 2023-2025

Year	Month	Standard Deviation	Notes
2023	January to December	1.20%	Highest (July)
		0.21%	Lowest (May)
		0.58%	Average
2024	January to December	0.77%	Highest (November)

		0.32%	Lowest (April)
		0.60%	Average
		1.07%	Highest (March)
2025	January to December	0.36%	Lowest (March)
		0.73%	Average

Source: Processed data (2026)

The monthly standard deviation is used for risk calculation. The table above shows that the lowest risk value occurred in May 2023, at 0.21 percent. The highest risk was 1.20 percent in July 2023. The highest risk value in November 2024 was 0.77 percent. The highest risk value in March 2025 was 1.07 percent. Therefore, the lowest risk for conventional stocks occurred in 2023 compared to 2024 and 2025. The standard deviation values in 2023-2025 show figures between below 1 percent and 2 percent, which can be interpreted as meaning that investment in conventional LQ45 stocks has low risk because it is below the risk-free value of 6 percent.

Sharpe Ratio

Employed to compute the surplus return above the risk-free rate relative to portfolio volatility, the Sharpe Index yields results for 2023–2025, with the maximum values for Sharia and Conventional Stocks presented in Table 6.

Table 6. Calculation Results of the Sharpe Index for Sharia (ISSI) Stock Companies and Conventional LQ45 Stock Companies, 2023-2025

Year	Sharia Stock Sharpe Index	Conventional Stock Sharpe Index	Notes
2023	1.12	-4.67	Sharia stock performance is better than Conventional
2024	3.79	-8.81	Sharia stock performance is better than Conventional
2025	3.28	-5.60	Sharia stock performance is better than Conventional

Source: Processed data (2026)

The calculation results of the Sharpe Index in the table above show that the highest value for sharia stocks occurred in 2024, at 3.79, while for conventional stocks the highest value occurred in 2023, at -4.67. The lowest Sharpe Index value for sharia stocks occurred in 2023, at 1.12, while for conventional stocks it occurred in 2024, at -8.81. Because a higher Sharpe Index value indicates better performance after taking risk into account, these results show that sharia stocks (ISSI) have better performance compared to conventional stocks (LQ45) during the 2023-2025 period.

Jensen Ratio

This index functions to calculate systematic risk and is used for diversified portfolios. A positive Jensen index value can be interpreted as meaning that stock performance is positive. A negative Jensen index value can be interpreted as meaning that

the stock portfolio's performance is below expectations. The results of the Jensen Index calculation, the highest value for 2023-2025 for Sharia and Conventional Stocks, can be shown in Table 7 below.

Table 7. Calculation Results of the Jensen Index for Sharia and Conventional Stock Companies, 2023-2025

Year	Sharia Stock Jensen Index	Conventional Stock Jensen Index	Notes
2023	0.015	-0.084	Sharia stock performance is better than Conventional
2024	0.046	0.009	Sharia stock performance is better than Conventional
2025	0.148	-0.117	Sharia stock performance is better than Conventional

Source: Processed data (2026)

The results of the Jensen index calculation in the table above show that the highest value for sharia stocks occurred in 2025, at 0.148 percent, while for conventional stocks the highest was in 2024, at 0.009 percent. The lowest Jensen index value for sharia stocks was in 2023, at 0.015 percent, while for conventional LQ45 stocks it was in 2025, at -0.117. Therefore, it can be concluded that the performance of Sharia (ISSI) stocks is better than the performance of Conventional LQ45 stocks.

Discussion

The results of the rate of return measurement show that sharia stocks, represented by the Indonesian Sharia Stock Index (ISSI), obtained a return of 9.0 percent, while conventional stocks, represented by the LQ45 index, recorded a return of -1.0 percent. These findings imply that during the study period, ISSI was able to provide better investment performance than LQ45. This result is in line with recent studies showing that sharia stocks can demonstrate competitive investment performance due to their compliance with sharia principles, financial screening requirements, and different risk characteristics compared to conventional stocks (Fikri & Meylianingrum, 2024; Hidayah & Swastika, 2022). These characteristics may contribute to the resilience and performance of sharia stocks amid ever-changing market conditions. This phenomenon can theoretically be explained through the characteristics of sharia screening, which filters issuers based on debt ratios, business activities, and certain liquidity levels, so that stocks that pass the selection tend to have more conservative financial fundamentals and are not dependent on interest-based leverage instruments. This condition makes ISSI relatively more resistant to market pressure compared to the conventional index, whose composition is more heterogeneous and not limited by sharia financial filters. This result is in line with the findings of Robiyanto (2025), which show that the Jakarta Islamic Index (JII) demonstrates enhanced performance against risk-free instruments and stock market benchmarks when assessed via the Sharpe Index, Treynor Ratio, and Jensen's Alpha. This similarity in findings indicates that the sharia stock index has the potential to provide

competitive return performance after considering risk. However, this similarity in results does not necessarily indicate that sharia stocks always provide superior performance compared to conventional instruments, because index performance can be influenced by the observation period, market conditions, and the characteristics of the index used. Thus, the results of this study reinforce previous findings regarding the potential competitive performance of sharia stocks, while also showing that performance superiority needs to be understood within the context of specific market conditions and study periods. This finding also reinforces the results of Shear & Ashraf (2022) which compared the performance of sharia and conventional stocks and concluded that sharia stocks tend to show more stable return resilience under depressed market conditions.

This difference in the rate of return shows a difference in characteristics between the sharia stock index and the conventional stock index in responding to market dynamics. The sharia screening process applied to ISSI issuers covers criteria for business activities and certain financial ratios, including restrictions on the use of interest-based debt. These characteristics can shape the composition of issuers with a relatively different financial structure compared to the conventional index. Under conditions of market pressure, these differences in characteristics have the potential to affect the sensitivity of each index to changes in economic and financial market conditions. Therefore, the positive rate of return of ISSI during the research period can be understood not only based on the magnitude of the return generated, but also based on the fundamental characteristics and composition of the issuers that form the index.

Based on risk measurement, sharia stocks (ISSI) have a risk level of 5.16 percent, far higher than conventional stocks (LQ45), which is only 1.20 percent. This volatility difference cannot be explained by the limited number of ISSI issuers compared to LQ45, because ISSI is an index that includes stocks meeting Sharia criteria and listed in the Sharia Securities List. Therefore, the risk difference is more appropriately associated with the characteristics and composition of the observed stocks, including differences in sectoral exposure to market conditions and economic factors. In this study, observation was also limited to four issuers with large capitalization from each group, so that the volatility results reflect the characteristics of the sample and do not fully describe the overall diversification of ISSI and LQ45. The findings regarding the difference in risk level between Sharia and conventional stocks are in line with Indarningsih (2022) as well as Lestari and Erdiana (2021), which found differences in risk and return between Sharia and conventional stocks on the Indonesia Stock Exchange.

In addition, sharia stocks are generally more concentrated in certain sectors, such as mining, energy, and primary consumer goods, which are sensitive to fluctuations in global commodity prices, so their price movements tend to be more volatile. This result is consistent with the findings of Setiawan et al. (2022), which reveal that stock prices in the capital markets of Muslim-majority countries move randomly, with asset risk characteristics tending to converge (Rezeki et al., 2023). Similar findings were also reported by Lestari and Erdiana (2021), who found a significant difference between the risk level of sharia stocks and conventional stocks on the Indonesia Stock Exchange, with

sharia stocks tending to show greater return variability due to a narrower sectoral concentration.

The higher risk level of ISSI needs to be interpreted proportionally with the rate of return generated. From the perspective of portfolio theory, investment risk cannot be assessed separately from return, because an increase in risk is fundamentally related to the demand for higher return compensation. Therefore, the difference in risk between ISSI and LQ45 cannot yet be used as a basis for determining which index has better performance. A more comprehensive evaluation requires risk-adjusted performance measurement, so that it can be determined the extent to which the return obtained is able to compensate for the risk borne by investors.

Although it has a higher risk level, the results of the risk-based performance measurement show that ISSI still provides superior investment performance compared to LQ45. This is reflected in the ISSI Sharpe Index value of 3.79, far higher than LQ45's value of -8.81, indicating that sharia stocks are able to generate a much greater excess return per unit of risk compared to conventional stocks. The negative Sharpe value for LQ45 indicates that investors in the conventional index actually bear risk without obtaining adequate return compensation, with the return obtained even below the risk-free asset rate of return. Similarly, based on the Jensen Index approach, ISSI obtained an alpha value of 0.148, higher than LQ45, which was only 0.009, indicating that sharia stocks are able to generate a greater abnormal return after accounting for systematic risk (beta) against the market. The higher positive alpha for ISSI shows that the index's actual performance exceeds the expected return based on the Capital Asset Pricing Model (CAPM), indicating better risk management efficiency in the sharia stock portfolio during the research period. This finding is in line with the result of Ruma & Tawe (2023) which show that the Sharpe, Treynor, and Jensen methods are consistently able to identify the performance advantage of a portfolio based on certain principles compared to a comparison portfolio during periods of market pressure.

The consistency of the measurement results through the Sharpe Index and the Jensen Index indicates that ISSI's performance advantage is reflected not only in the absolute rate of return, but also in its ability to generate return after taking risk into account. The Sharpe Index evaluates excess return against total risk, represented by return volatility, while the Jensen Index measures abnormal return by taking systematic risk into account through beta. ISSI's advantage on both indicators shows that the performance of the sharia stock index remains relatively better when evaluated from different risk perspectives. Therefore, ISSI's positive return cannot merely be attributed to a higher level of volatility, but also shows relatively greater return compensation compared to the risk borne during the research period.

The findings of this study are also supported by Abidah et al. (2024), which shows that investment instruments with certain characteristics are able to generate better performance based on the Sharpe Ratio, Treynor Ratio, and Jensen's Alpha. Furthermore, the results of this study reinforce the concept of the relationship between risk and rate of return put forward by Tandelilin (2017), namely the existence of a linear high risk-high

return relationship, in which an increase in the level of risk will be followed by an opportunity to obtain a higher rate of return. This principle is relevant to the research findings, because although ISSI bears a risk of 5.16 percent, far exceeding the risk of LQ45, the return compensation and risk-based performance (Sharpe and Jensen) obtained are far higher, so that the risk premium received by ISSI investors is proportional and even exceeds the additional risk borne. This condition is also in line with the view of Tanama and Widjaja (2023) who found that sharia equity mutual funds tend to outperform conventional equity mutual funds during periods of market pressure due to the Covid-19 pandemic, despite being accompanied by higher risk fluctuations.

From the perspective of the Capital Asset Pricing Model (CAPM), the positive Jensen Alpha value for ISSI shows that the actual return generated is above the expected return based on its systematic risk level. This condition indicates the existence of a positive abnormal return after accounting for the influence of market risk. Therefore, ISSI's advantage in the Jensen measurement not only shows the magnitude of the return obtained, but also reflects the index's ability to generate a relatively higher return compared to the required rate of return based on systematic risk. This finding reinforces the importance of using a risk-adjusted performance approach in evaluating investment performance, because nominal return alone cannot yet provide a comprehensive picture of the quality of an investment.

Academically, the findings of this study broaden the discussion on the performance differences between sharia and conventional stock indices in Indonesia. The superiority of ISSI based on rate of return, Sharpe Index, and Jensen's Alpha shows that sharia investment is relevant not only from the aspect of compliance with sharia principles, but also from the perspective of risk-adjusted performance. The use of several indicators provides a more comprehensive assessment of index performance based on return, total risk, and systematic risk.

A comparative approach evaluating both the Indonesia Sharia Stock Index (ISSI) and the LQ45 conventional index during 2023–2025 constitutes the research novelty, utilizing return rates, the Sharpe Index, and Jensen's Alpha in tandem. Previous research has compared the performance of Sharia and conventional stocks, but generally used the Jakarta Islamic Index (JII) as the representation of Sharia stocks. Mustafidah and Khakim (2023) compared the risk and return of JII30 and LQ45 during the 2020-2022 period, while Listyawati & Nurchayati (2020) analyzed the comparison of risk and return of JII and LQ45 in the 2016-2019 period. Fikri and Meylianingrum (2024) by contrast, conducted a performance comparison between conventional and Sharia equities over 2019–2023, employing the Sharpe, Treynor, and Jensen indices with LQ45 and JII serving as respective proxies. Different from those studies, this research uses ISSI and LQ45 with a more up to date observation period, namely 2023-2025, and combines the measurement of return, total risk through the Sharpe Index, and systematic risk through Jensen's Alpha. Thus, this research provides more current empirical evidence regarding the comparison of the performance of Sharia and conventional stocks in Indonesia and provides an investment performance evaluation based on several dimensions of risk and

return.

Therefore, this finding implies that the use of the Sharpe Index and Jensen Index as risk-based performance measurement tools is better able to reflect investment advantages comprehensively compared to simply comparing raw return values, because both indices take volatility and systematic risk into account in their assessment. For investors, the findings of this study indicate that ISSI can be an attractive investment alternative during periods of market pressure, with the note that investors need to have a higher risk tolerance because ISSI shows greater volatility compared to LQ45. This is in line with Rinaldi & Yasmin (2026) which shows that the volatility of Sharia and conventional stocks in Indonesia has different patterns in responding to market turbulence conditions, so that risk characteristics need to be a consideration for investors in determining investment choices. From a global perspective, these findings indicate that Sharia stock indices can be a relevant alternative for investors seeking investment instruments that comply with Sharia principles while having competitive performance after considering risk. Research on the Sharia stock market in Indonesia also shows that the volatility characteristics of Sharia stocks need to be considered in risk management and investment decision making (Alghifary et al., 2023; Danila, 2023). These findings also indicate that the performance characteristics of Sharia stocks in developing countries such as Indonesia can be a consideration for international investors in diversifying portfolios across various market segments. However, the application of these findings to other countries needs to be done carefully because each Sharia stock market has different market structure, regulation, economic conditions, and level of market development.

CONCLUSION

Based on the discussion results, first, the rate of return for sharia stocks is higher than that of conventional LQ45 stocks. Second, risk-adjusted performance using the Sharpe Ratio approach shows a difference in performance between the two stock groups, where Sharia stocks have a higher Sharpe Ratio value compared to conventional LQ45 stocks. This shows that Sharia stocks are able to generate better excess return compared to the total risk borne by investors. The Jensen ratio value also shows sharia stocks higher than conventional LQ45 stocks, so that the performance of sharia stocks is better than conventional stocks. Given that the rate of return and risk provided by sharia stocks are higher, this can be considered by investors in choosing investment instruments amid the development of digital technology.

REFERENCES

- Abidah, A. N., Pratiwi, P. H., Oftafiana, T., & Aswad, M. (2024). Comparison of Stock Portfolio Performance of Conventional Banks and Islamic Banks Using Sharpe Ratio, Treynor Ratio, and Jensen Ratio (2021-2023). *Jurnal Ilmu Ekonomi Terapan*, 9(2), 295–311. <https://doi.org/10.20473/jiet.v9i2.59272>
- Adiyono, M., Suryaputri, R. V, Efan, E., & Kumala, H. (2021). Analisis Alternatif Pilihan Investasi pada Era Digitalisasi. *Jurnal Akuntansi Trisakti*, 8(2), 227–248.

<https://doi.org/10.25105/jat.v8i2.9678>

- Alghifary, M. S., Kadji, D., & Hafizah, I. (2023). Indonesian Stocks' Volatility during COVID-19 Waves: Comparison between IHSG and ISSI. *International Journal of Islamic Economics and Finance (IJIEF)*, 6(1), 105–132. <https://doi.org/10.18196/ijief.v6i1.14838>
- Anggarani, N. (2024). Financial literacy, risk tolerance, return, and interest in student investment decisions. *Transekonomika Akuntansi, Bisnis Dan Keuangan*, 4(6), 1026–1040. <https://doi.org/10.55047/transekonomika.v4i6.755>
- Astasari, A. W., Oetomo, W., & Sajiyo, S. (2024). Investment Sensitivity and Service Levy Tariff Scheme: Case Study of East Surabaya Hospital. *International Journal On Advanced Technology, Engineering, And Information System*, 3(3), 331–342. <https://doi.org/10.55047/ijateis.v3i3.1172>
- Astutik, N. J., & Setiawan, R. (2025). Investor Preferences in Choosing Digital Investment Applications: A Study on Banking and Non-Banking Securities Platforms. *Transekonomika: Akuntansi, Bisnis dan Keuangan*, 5(4), 909–925. <https://doi.org/10.55047/transekonomika.v5i4.934>
- Azaria, M. J. F., Tubastuvi, N., Purwianti, W., & Aryoko, Y. P. (2024). Gen Z investment decision: Role of financial literacy, financial behaviour, financial experience and risk tolerance. *Airlangga Journal of Innovation Management*, 5(4), 721–739. <https://doi.org/10.20473/ajim.v5i4.61315>
- Chan, L.-F., Cheong, C. W. H., & Bany-Arifin, A. N. (2024). Corporate Diversification of Real Estate Investment Trusts (REITs) In A Post-Pandemic World: Lessons from Malaysia and Singapore. *Capital Markets Review*, 32(2), 49–68. <https://doi.org/10.66674/9q4wbn22>
- Danila, N. (2023). Revisiting financial volatility in the Indonesian Islamic stock market: GARCH–MIDAS approach. *Journal of Indonesian Economy and Business*, 38(2), 166–177. <https://doi.org/10.22146/jieb.v38i2.5704>
- Desiyanti, R., Hanum, M., Chrismondari, & Yuliza, M. (2023). The Effect of Firm Characteristics on The Underpricing of IPO Stock. *Journal of Management, Accounting, General Finance and International Economic Issues*, 2(4), 1037–1049. <https://doi.org/10.55047/marginal.v2i4.814>
- Fahmi, I. (2015). *Pengantar Teori Portofolio dan Analisis Investasi*. Alfabeta.
- Fikri, U. A., & Meylianingrum, K. (2024). Evaluation Of Conventional And Sharia Stock Performance Based On Sharpe, Treynor, And Jensen Indeces. *I-Finance: A Research Journal on Islamic Finance*, 10(2), 465–485. <https://doi.org/10.19109/qf5nvn96>
- Gawer, A. (2021). Digital platforms' boundaries: The interplay of firm scope, platform sides, and digital interfaces. *Long Range Planning*, 54(5), 102045. <https://doi.org/10.1016/j.lrp.2020.102045>
- Halim, A. (2015). *Analisis Investasi dan Aplikasinya : Dalam Aset Keuangan dan Aset Riil*. Salemba Empat.
- Hartono, J. (2010). *Teori portofolio dan analisis investasi*. UGM Press.

- Hidayah, N., & Swastika, P. (2022). Performance of Conventional, Islamic, and Socially Responsible Investment (SRI) Indices during COVID-19: A Study of Indonesian Stock Market. *Journal of Islamic Monetary Economics and Finance*, 8(4), 517–534. <https://doi.org/10.21098/jimf.v8i4.1483>
- Indarningsih, N. A. (2022). Analisis Perbandingan Risiko Volatilitas Indeks Harga Saham Syariah dan Konvensional (Jakarta Islamic Indeks dan Indeks LQ45). *Jurnal Ekonomi Syariah Teori Dan Terapan*, 9(5), 694–709. <https://doi.org/10.20473/vol9iss20225pp694-709>
- Joedono, D. A., & Evelyn. (2023). Literature Review: Pengaruh Bias terhadap Keputusan Investor dalam Berinvestasi Saham. *Jurnal Bisnis, Manajemen & Ekonomi*, 21(1), 799–810. <https://doi.org/10.33197/jbme.vol21.iss1.2023.1049>
- Lestari, L., & Erdiana, A. (2021). Analisis Perbedaan Risk dan Return antara Saham Syariah dan Konvensional di Bursa Efek Indonesia. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, 10(2), 227–241. <https://doi.org/10.30588/jmp.v10i2.727>
- Listyawati, L., & Nurchayati, N. (2020). Analisa Perbandingan Risk Dan Return Pada Investasi Saham Syariah Dan Konvensional (Studi pada Jakarta Islamic Index (JII) dan Indeks LQ45 Periode 2016-2019). *Serat Acitya*, 9(1), 1–12. <https://doi.org/10.56444/sa.v9i1.1508>
- Mustafidah, W., & Khakim, A. (2023). Analisis perbandingan risk dan return saham syariah dan konvensional pada Jakarta Islamic Index (JII30) dan Indeks LQ45 periode tahun 2020-2022. *Jurnal Ekonomi Syariah Darussalam*, 4(2), 88–100. <https://doi.org/10.30739/jesdar.v4i2.2437>
- Oktaviani, A., & Mawaddah, N. (2024). Young Investor's Investment Decision Making: The Influence of Heuristic Behavior, Risk Perception, and Herding Bias. *Jurnal Akuntansi Aktual*, 11(1), 58–72. <https://doi.org/10.17977/um004v11i12024p058>
- Rezeki, S. G., Ferdiansyah, V., Adisa, Y., Ginting, D. C. A., & Amelia, R. (2023). Fair Wealth Distribution through Instruments in Islamic Economics. *Cashflow : Current Advanced Research On Sharia Finance And Economic Worldwide*, 2(3), 439–445. <https://doi.org/10.55047/cashflow.v2i3.657>
- Rinaldi, A. G., & Yasmin, Y. (2026). Volatility Dynamics of Islamic and Conventional Stocks in Indonesia: Evidence From Garch Models. *Shacral: Shari'ah Economics Review Journal*, 2(3), 422–433. <https://doi.org/10.62952/shacral.v2i3.95>
- Robiyanto, R. (2025). Performance Evaluation of Stock Price Indexes in the Indonesia Stock Exchange. *International Research Journal of Business Studies*, 10(3), 173–182. <https://doi.org/10.21632/irjbs.10.3.173-182>
- Ruma, Z., & Tawe, A. (2023). Analisis Kinerja Portofolio Saham Menggunakan Metode Sharpe, Treynor dan Jensen: Studi Kasus Indeks LQ45 Di Bursa Efek Indonesia Periode 2019-2022. *Sinomika Journal: Publikasi Ilmiah Bidang Ekonomi Dan Akuntansi*, 1(6), 1679–1690. <https://doi.org/10.54443/sinomika.v1i6.966>
- Saidi, L. O., Muthalib, A. A., Adam, P., Rumbia, W. A., & Sani, L. O. A. (2021). Exchange Rate, Exchange Rate Volatility and Stock Prices: An Analysis of the Symmetric and Asymmetric Effect Using ardl and nardl Models. *Australasian*

Business, Accounting and Finance Journal, 15(4), 179–190.
<https://doi.org/10.14453/aabfj.v15i4.11>

- Sanusi, S. (2024). Legal Protection of Consumers in E-Commerce Transactions: A Review of Civil Law in the Digital Era. *Policy, Law, Notary and Regulatory Issues*, 3(3), 406–417. <https://doi.org/10.55047/polri.v3i3.1348>
- Setiawan, B., Afin, R., Wikurendra, E. A., Nathan, R. J., & Fekete-Farkas, M. (2022). Covid-19 pandemic, asset prices, risks, and their convergence: A survey of Islamic and G7 stock market, and alternative assets. *Borsa Istanbul Review*, 22, 47–59. <https://doi.org/10.1016/j.bir.2022.11.011>
- Setiawati, N. L. A., & Diatmika, I. P. G. (2023). Analisis Perbandingan Kinerja Cryptocurrency Bitcoin, Saham, Dan Emas Sebagai Alternatif Investasi. *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Undiksha*, 14(4), 1144–1155. <https://doi.org/10.23887/jimat.v14i04.53379>
- Shear, F., & Ashraf, B. N. (2022). The performance of Islamic versus conventional stocks during the COVID-19 shock: Evidence from firm-level data. *Research in International Business and Finance*, 60, 1–10. <https://doi.org/10.1016/j.ribaf.2022.101622>
- Tanama, L. L., & Widjaja, I. (2023). Analisis perbandingan kinerja reksa dana saham konvensional dan reksa dana saham syariah dalam aplikasi Bibit berdasarkan metode Sharpe, Treynor, dan Jensen selama masa pandemi Covid-19 periode 2020–2021. *Jurnal Manajemen Bisnis Dan Kewirausahaan*, 7(1), 1–14. <https://doi.org/10.24912/jmbk.v7i1.22465>
- Tandelilin, E. (2017). *Pasar Modal: Manajemen Portofolio dan Investasi*. Yogyakarta: Kanisius.
- Ummah, K., & Sangka, K. B. (2025). Pengaruh perceived usefulness, perceived ease of use, dan literasi keuangan terhadap keputusan penggunaan aplikasi investasi. *Promosi: Jurnal Program Studi Pendidikan Ekonomi*, 13(1), 251–259. <https://doi.org/10.24127/jp.v13i1.11141>
- Widiawira, B. Y., & Akbar, F. S. (2023). Analisis Perbandingan Kinerja Pada Aset Cryptocurrency, Saham LQ 45, Dan Emas Sebagai Instrumen Investasi. *SUSTAINABLE*, 3(1), 151–181. <https://doi.org/10.30651/stb.v3i1.18400>
- Yuliani, R., Fatihat, G. G., & Padmanegara, O. H. (2022). Pengaruh Perdagangan Monday dan Friday Effect terhadap Return Saham (Studi Kasus Saham LQ45 di Bursa Efek Indonesia). *Jurnal Ekonomi Bisnis dan Akuntansi*, 2(3), 267–276. <https://doi.org/10.55606/jebaku.v2i3.800>
- Yusup, A. K., & Gunawan, K. (2024). Gen Z investment decision: Role of financial literacy, interest and risk tolerance using logistic regression. *Ultima Management: Jurnal Ilmu Manajemen*, 16(1), 136–149. <https://doi.org/10.31937/manajemen.v16i1.3667>