Journal of Finance and Islamic Banking
Vol. 4 No. 2 June-December 2021
P-ISSN: 2615-2967 | E-ISSN: 2615-2975

The Performance of the Socially Responsible Investment Index in Indonesia

Bintang Ramadhan Putra
Universitas Airlangga Surabaya
bintang.ramadhan.putra-2018@pasca.unair.ac.id

Reza Faisal Husein
PT. Mutiara Cemerlang Teknologi Sidoarjo
faisalhuseinr@gmail.com

Abstrak
In Indonesia, several stock indices can be used as a reference in investing in stocks, such as the LQ-45, JII, and SRI-KEHATI stock indexes. The SRI-KEHATI stock index emphasizes its attention to sustainable and responsible investment (SRI), which is a manifestation of socially responsible investing, a perspective in investing where attention to ethics, social, and normative views of investors influences investors' decisions in investing. The purpose of the study was to compare the performance of SRI-KEHATI stock indexes against LQ-45 and JII based on risk-adjusted return using Sharpe, Treynor, and Jensen's Alpha ratios with an observation period from January 2015 to December 2019. The results showed that the overall performance of the SRI-KEHATI stock index managed to outperform the performances of LQ-45 and JII. Based on these results, investors can look at the stocks listed in the SRI-KEHATI stock index because, in addition to getting

Keywords: Socially Responsible Investing, Risk-Adjusted Return, SRI-KEHATI.

DOI: 10.22515/jfib.v4i2.4901

Introduction

One form of good financial planning is to set aside some income to invest. Investment is an effort to set aside several funds to get profits in the future (Huda & Nasution, 2007). One's investments can reduce the risk of

eroding the value of money due to inflation (Widiatmojo, 2005). Some investment instruments that can be selected include tangible assets such as land, property, gold, or financial assets such as stocks, mutual funds, bonds (Alam et al., 2021). Investment in financial assets in Indonesia shows positive developments over the past five years, as can be seen in Table 1.

Tabel 1. Investment Data on Financial Assets in Indonesia

Indicator	2015	2016	2017	2018	2019
Composite Stock Price Index (points)	4.593,01	5.296,71	6.355,65	6.194,50	6.299,54
Net Assets Value of Mutual Funds (billion rupiah)	271.969.00	338.749,81	457.506,57	505.390,30	544.950,36
Outstanding Debentures (trillion rupiah)	1.659,00	2.086,00	2.487,00	2.777,21	3.210,57

Source: Capital Market Statistics of the Financial Services Authority, 2020

Stock investment has become one of the financial asset investment instruments that investors can consider because it provides a higher rate of return when compared to other financial asset instruments such as funds and bonds (Martalena & Malinda, 2011). Measuring the performance of existing stocks on the Indonesia Stock Exchange, some indicators can reference the Composite Stock Price Index (JCI). JCI's performance in the last five years in Table 1 recorded a growth in the yield rate of 37.15% year on year, or up by 1706.53 points from the level of 4,593.01 in December 2015 to touch the level of 6,299.54 in December 2019.

In its development, the stock index on the Indonesia Stock Exchange is not only JCI. There are several stock indices such as LQ-45, JII, and SRI-KEHATI. The LQ-45 stock index consists of 45 liquid stocks with a large market capitalization supported by good company fundamental conditions (Pertiwi & Meirinaldi, 2016). The JII stock index consists of 30 liquid Islamic stocks with good financial performance (Harahap et al., 2017; Puspha Sonia, 2017; Widiawati & Raharja, 2012).

In contrast to the LQ-45 stock index and the JII stock index, the SRI-KEHATI stock index consists of 25 stocks based on socially responsible investing. It can be referred to as a sustainable and responsible investment

included in the index based on a company. That has attention and awareness to the environment, social and good corporate governance, and companies that think about the sustainability of the environment and the environment's sustainable development (Zulkafli et al., 2017). The SRI-KEHATI index can be a reference for investors who have the criteria for company stock that is not only based on the company's financial performance but also its sensitivity to the environment and socially supported by good corporate governance (Lakaba & Robiyanto, 2018; Zulkafli et al., 2017).

The question that arises is whether the performance of company stocks included in the SRI-KEHATI index as a stock index based on socially responsible investing has better performance when compared to other stock indices such as the LQ-45 stock index, the JII stock index, or even the JCI stock index both in terms of risk and return yield. Therefore, this study aims to explore the performance of the SRI-KEHATI stock index compared to the LQ-45 stock index, the JII stock index, and the JCI stock index based on risk-adjusted return using the Sharpe ratio, the Teynor ratio, and Jensen's Alpha.

Socially Responsible Investment

"Socially Responsible Investment" (SRI) is a perspective in investing where attention to ethical, social, and normative views of investors influences investors' decisions in investing (Humphrey & Lee, 2011). Attention to environmental and social sensitivity in investing is not new in the world of investment (Raut, 2020). In the 1970s, in the United States, the spirit of investors oriented to social and environmental sensitivities, also referred to as "socially responsible investors," by not investing in companies that were not involved in the Vietnam War and companies with ties to companies in South Africa in the 1980s (Sauer, 1997).

At least the determination of a company that deserves to enter the socially responsible investing category is based on its business lines and social responsibility ethics (Hassan & Lewis, 2007; Oseni & Ali, 2019). Some indicators that can be screened for socially responsible investing are companies whose business lines are not engaged in the tobacco, alcohol, defense, pornography, and gambling industries and care about the environment and human rights (Sparkes, 2002). Some of the world's socially responsible investing-based indices, such as the Domini 400 Social Index, launched in 1990, the FTSE4 Good World Social Index, launched in 2000, and the FTSE4 Good IBEX, which was launched in 2008 (Sauer, 1997). In

Indonesia, the index included in socially responsible investing is the SRI-KEHATI Index, launched in 2009.

SRI-KEHATI Index

On June 8, 2009, the Indonesia Stock Exchange, in collaboration with the Indonesian Biodiversity Foundation (KEHATI), launched the Sustainable and Responsible Investment (SRI) stock index, a manifestation of socially responsible investing under the name SRI-KEHATI index. As for the selection of company shares included in the SRI-KEHATI index through three stages of the selection process, namely core business selection, financial aspects, and fundamental aspects (Yayasan Keanekaragaman Hayati Indonesia, 2019). The flow of the selection stage is shown in Figure 1.

Figure 1. SRI-KEHATI Index Selection Stage

Source: Indonesian Biodiversity Foundation, 2019

In Table 2, the development and growth of the SRI-KEHATI index in 2015-2019 can be seen in Table 2.

Table 2. SRI-KEHATI Index Development Data

Year	SRI-KEHATI Index Value	Growth (*Year on Year* %)
2015	265.16	-11.48%
2016	310.19	16.98%
2017	395.56	27.52%
2018	378.69	-4.26%
2019	400.56	5.78%
Rata-Rata Pertumbuhan 5%		6.91%

Source: Indonesia Stock Exchange (data processed, 2020)

Table 2 shows that the development of the SRI-KEHATI stock index on a year-on-year basis is volatile, with the most significant increase in the value of index growth occurring in 2017 by 27.52%. At the same time, the most significant decline in the value of the SRI-KEHATI stock index occurred in 2015, by -11.48%. In 2019, the SRI-KEHATI stock index recorded an index growth rate of 5.78%. Based on arithmetic averages, the SRI-KEHATI stock index recorded an index value growth of 6.91% from 2015 to 2019.

Performance A Socially Responsible Investment Based on Risk-Adjusted Return

An assessment of SRI's performance based on risk-adjusted return is conducted so that investors can consider investment decisions taking into account risk and the level of returns provided (Zulkafli et al., 2017). Some research that discusses SRI performance based on risk-adjusted return, namely Zulkafli et al., explained that by comparing the performance of the SRI-KEHATI stock index with the IHSG stock index throughout maturation from January 2009 to December 2014 using risk-adjusted return (Zulkafli et al., 2017). Based on the Sharpe ratio, Treynor, and Jensen's Alpha ratio, the SRI-KEHATI stock index has a lower portfolio performance when compared to the JCI stock index (Humphrey & Lee, 2011; Kiymaz, 2019; Zulkafli et al., 2017).

Pertiwi & Meirinaldi (2016) compare the performance of the LQ-45 stock index with the SRI-KEHATI stock index with the observation period from January 2010 to December 2014 based on Risk-Adjusted Return with Sharpe ratio, Treynor ratio, and Jensen's Alpha. The results showed that the LQ-45 stock index has a more maximal portfolio performance when compared to the SRI-KEHATI stock index (Pertiwi & Meirinaldi, 2016). Robiyanto (2018) shows different results and compares all stock indices on the Indonesia Stock Exchange with the observation period from January 2011 to July 2017 using Risk-Adjusted Return. The Sharpe ratio, Treynor, and Jensen's Alpha ratio show that the SRI-KEHATI stock index has a maximum portfolio performance than the LQ-45 stock index and JII stock index (Lakaba & Robiyanto, 2018; Robiyanto, 2018).

The SRI Fund's performance comparison of 152 SRI-based financial products in the United States was conducted against several financial indices in the United States. The S& P 500 Index, the Russell 2000 Index, the Russell 1000 Index, the Barclays US Aggregate Bond Index, and the MSCI

World Index, with data ranging from January 1995 to May 2015. The results of the study showed that the SRI Fund provides diverse performance. The SRI Fund's performance is superior to the Russell 2000 Index and MSCI World Index but not the S&P 500 Index, Barclays US Aggregate Bond Index, or Russell 1000 Index (Kiymaz, 2019).

Borgniet (2019) Borgniet (2019) observed several SRI indices' performance against the market reference indexes from each American region, the United Kingdom, Continental Europe, and the World. From 2008 to 2018, the FTSE4Good US 100 Index was compared to the FTSE USA Index for the United States region zone, the FTSE4Good UK 50 Index was compared to the FTSE Local UK Index for the United Kingdom zones, and the FTSE4Good Europe 50 Index was compared to the FTSE Eurotop 100 Index for the European region. The FTSE4Good Global 100 Index is compared to the Global 100 Index for world coverage zones by using the Sharpe ratio as a basis for measuring portfolio performance based on risk-adjusted return, and the result is that all SRI indexes perform better than the market benchmark index in each region (Borgniet, 2019).

Research Method

This study used quantitative research to process monthly yield rate data from the SRI-KEHATI stock index, the LQ45 stock index, and the JII stock index from January 2015 to December 2019. Sixty observational data points are obtained and processed using risk-adjusted return-based portfolio performance measurements based on Sharpe, Treynor, and Jensen's Alpha ratios. The standard of measurement of risk-free asset yields is based on the automatic average of monthly data on Bank Indonesia's interest rate as the central bank in Indonesia, and the standard measurement of stock market yield rates is based on the monthly yield rate of JCI in the period January 2015 to December 2019. After measuring portfolio performance based on risk-adjusted return, the correlation was calculated between the SRI-KEHATI stock index, the LQ45 stock index, the JII stock index, and the JCI stock index. Individual correlation values between indices were obtained.

Risk-Adjusted Return

In addition to paying attention to the level of return on investment assets, an investor also pays attention to the level of risk that must be faced. Calculations of risk-adjusted yield levels as a portfolio performance measuring

instrument can be measured by several measuring ratios, such as the Sharpe ratio, Treynor ratio, and Jansen Alpha ratio (Hermawan & Wiagustini, 2016).

Sharpe Ratio

The Sharpe ratio is the relationship between net portfolio income and the free interest rate for each systematic and nonsystematic risk unit. Portfolio performance will be compared to the capital market line known as the reward to variability ratio (RVAR) through the Sharpe ratio (Sharpe, 1964). A portfolio performs better when it produces a greater Sharpe ratio value when compared to other portfolios than the results of Sharpe ratio calculations (Putri & Worokinasih, 2018). As for the formula for calculating the Sharpe ratio,

$$\text{RVAR} = \frac{\overline{TP_p} - \overline{R_{BR}}}{\sigma_p}$$

RVAR is a Sharpe gauge, $\overline{TP_p}$ is the average total return on the portfolio in a given period, $\overline{R_{BR}}$ is the average return on risk-free assets in a given period, σ_p is the variability measured based on the standard deviation of portfolio returns over a given period (Jogiyanto, 2016).

Treynor Ratio

The Treynor ratio measures portfolio performance based on systematic risk (volatility) based on large portfolio betas (Rahman et al., 2012). A portfolio performs better when it produces a greater Treynor ratio value when compared to other portfolios than the results of the calculation of Treynor ratios (Putri & Worokinasih, 2018). As for the formula for calculating the Treynor ratio,

$$\text{RVOL} = \frac{\overline{TR_p} - \overline{R_{BR}}}{\beta_p}$$

RVOL is the Treynor gauge, $\overline{TP_p}$ is the average total return on the portfolio in a given period, $\overline{R_{BR}}$ is the average return on risk-free assets in a given period, β_p Volatility is measured based on the large beta of the portfolio in a given period (Jogiyanto, 2016).

Jensen's Alpha

In contrast to the Sharpe and Treynor ratios that use the slope angle of the capital market line, Jensen's Alpha emphasizes portfolio calculations based on intercepts formed (Jogiyanto, 2016). Jensen's Alpha can be used to determine the extent of investment performance compared to market performance and risks faced (Lakaba & Robiyanto, 2018) and aims to measure the level of portfolio results to get results above average (Esterhuyse, 2019).

As for the formula in calculating *Jensen's alpha ratio:*

$\alpha_p = \left(\overline{TR}_p - \overline{R_{BR}}\right) - \beta_p(\overline{R_m} - \overline{R_{BR}})$

α_p Jensen's Alpha notes it, $\overline{TR}_p - \overline{R_{BR}}$ it is the average premium risk, β_p Its volatility, $\overline{R_m} - \overline{R_{BR}}$ It is the average market premium risk (Jogiyanto, 2016).

Result and Discussion

Sharpe's ratio calculation results are shown in Table 3 to determine the ratio between the portfolio's net yield and the free interest rate for each systematic and nonsystematic risk unit.

Table 3. Sharpe Ratio Calculation

Year	SRI-KEHATI	LQ-45	JII
2015	-0.2533[1]	-0.2641[2]	-0.3225[3]
2016	0.2176[1]	0.1395[3]	0.1989[2]
2017	0.6558[1]	0.2189[2]	0.0742[3]
2018	-0.2095[1]	-0.2966[2]	-0.3621[3]
2019	0.0169[1]	-0.0435[2]	-0.0764[3]
2015-2019	0.1156[1]	0.0466[2]	-0.0033[3]

Source: processed data, 2020

Table 3 shows that the SRI-KEHATI stock index from 2015 to 2019 always recorded a better performance when compared to the LQ-45 stock index and JII stock index. In 2015 and 2018, all stock indexes performed negatively according to Sharpe's ratio. It is in line with the weakening of the JCI index, which experienced a decrease in yields in the year. From 2015 to 2019, the JII stock index performed not much better than the LQ-45 stock index. Jii stock index performance outperformed the LQ-45 stock index only in 2016.

Based on the results of calculations according to Treynor ratios, in Table 4, calculations are described to measure portfolio performance based on its systematic risk (volatility) based on the large portfolio beta.

Table 4. Calculation of Treynor Ratio

Year	SRI-KEHATI	LQ-45	JII
2015	-0.01172[1]	-0.01209[2]	-0.01486[3]
2016	0.00620[1]	0.00380[3]	0.00554[2]
2017	0.01388[1]	0.01055[2]	0.00359[3]
2018	-0.00726[1]	-0.00944[2]	-0.01274[3]
2019	0.00040[1]	-0.00113[2]	-0.00208[3]
2015-2019	0.00389[1]	0.00152[2]	-0.00011[3]

Source: processed data, 2020

Similar to the Sharpe ratio, the results of the Treynor ratio in Table 4 also showed that the SRI-KEHATI stock index performed better than the LQ-45 stock index and the JII stock index, wherein in 2015 and 2018, all indices recorded negative performance according to the Treynor ratio. From 2015 to 2019, the JII stock index performed not much better than the LQ-45 stock index. In 2016, the JII stock index outperformed the LQ-45 stock index.

Based on the calculations according to Jensen's Alpha, the obtained results are in Table 5.

Table 5. Calculation of Jensen's Alpha Ratio

Year	SRI-KEHATI	LQ-45	JII
2015	0.0055 [Superior]	0.0049 [Superior]	0.0013 [Superior]
2016	-0.0016 [Inferior]	-0.0044 [Inferior]	-0.0023 [Inferior]
2017	0.0027 [Superior]	-0.0014 [Inferior]	-0.0089 [Inferior]
2018	-0.0013 [Inferior]	-0.0042 [Inferior]	-0.0065 [Inferior]

2019	0.0050 [Superior]	0.0023 [Superior]	0.0010 [Superior]
2015-2019	0.0015 [Superior]	-0.0014 [Inferior]	-0.0030 [Inferior]

Source: processed data, 2020

Table 5 shows, the SRI-KEHATI stock index provided superior performance in 2015, 2017, 2019. On the other hand, the LQ-45 and JII stock indices provided superior performance in 2015 and 2019. Overall, from 2015 to 2019, the SRI-KEHATI stock index provided superior performance to the performance of market yield levels according to Jensen's Alpha, while the LQ-45 stock index and JII stock index provided an inferior performance to market yield levels.

Based on these results, by investing in stocks listed in the SRI-KEHATI index, investors, in addition to getting good performance from their investment, also participate in investments that support sustainability, environmental awareness, social responsibility, and the creation of good corporate governance. On the other hand, there was a difference in performance in the SRI-KEHATI stock index before 2015 and after 2015. Before 2015, the SRI-KEHATI stock index had performance below the JCI stock index and LQ-45 stock index (Pertiwi & Meirinaldi, 2016; Zulkafli et al., 2017)(Pertiwi & Meirinaldi, 2016). However, after 2015, the SRI-KEHATI stock index could record better performance.

Conclusion

Investment is one of the financial planning efforts by setting aside several funds to profit in the future. Stock investment has become one of the most promising investment instruments because it can provide a higher rate of return on profits than other financial investment products, such as deposits and mutual funds. However, the high potential return on profits invested in stocks is in line with the high potential risks that come with it. Therefore, a reduction is needed in adjusting between the level of return and the level of risk by using risk-adjusted return, which uses the Sharpe ratio, Treynor ratio, and Jensen's Alpha.

In Indonesia, several stock indices can be used as a reference for investors, such as the JCI stock index, LQ-45 stock index, JII stock index, and SRI-KEHATI stock index. The existence of the SRI-KEHATI stock index as a stock index based on socially responsible investing is considered by investors because it is based on risk-adjusted return results using the Sharpe ratio, Treynor ratio, and Jensen's Alpha. It is known that the performance of the SRI-KEHATI stock index has better performance when compared to the LQ-45 stock index and the JII stock index in the last five years.

References

Alam, N., Ali, S. N., Habib, F., Abdelkader O. El Alaoui, A. D., Asutay, M., Amri, M. C. El, Mohammed, M. O., Sabirzyanov, R., Ashfaq, M., Zada, N., Gupta, L., Zameni, A., Alam, N., Tok, E., Muda, R., Lateff, M. S. M., Arshad, R., Rashdan, A. A., Oladapo, I. A., … Gulrez, T. (2021). *Fintech, Digital Currency and the Future of Islamic Finance* (N. Alam & S. Nazim Ali (eds.)). Springer International Publishing. https://doi.org/10.1007/978-3-030-49248-9

Borgniet, T. (2019). *Socially Responsible Investments : Performance analysis between a SRI and a conventional index FTSE4Good compared to FTSE index*. Université catholique de Louvain.

Esterhuyse, L. (2019). Towards corporate transparency: The link between inclusion in a socially responsible investment index and investor relations practices. *Bottom Line*, *32*(4), 290–307. https://doi.org/10.1108/BL-03-2019-0081

Harahap, N., Harmain, H., Siregar, S., & Maharani, N. (2017). Pengaruh Islamic Social Reporting, Umur Perusahaan, dan Kepemilikan Saham Publik Terhadap Profitabilitas (ROA) pada Perusahaan yang terdaftar di Jakarta Islamic Index (JII) tahun 2010-2014. Jurnal Akuntansi dan Keuangan Syariah Volume 1. No. 1 Januari-Jun. *KITABAH: Journal of Accounting and Islamic Financing*, *5*(564), 69–91.

Hassan, M. K., & Lewis, M. K. (2007). Handbook of Islamic banking. In *Edward Elgar Publishing Limited*. Edward Elgar Publishing, Inc.

Hermawan, D., & Wiagustini, N. (2016). Pengaruh Inflasi, Suku Bunga, Ukuran Reksa Dana, Dan Umur Reksa Dana Terhadap Kinerja Reksa Dana. *E-Jurnal Manajemen Universitas Udayana*, *5*(5), 252342.

Huda, N., & Nasution, M. E. (2007). *Investasi Pada Pasar Modal Syariah*. Kencana.

Humphrey, J. E., & Lee, D. D. (2011). Australian Socially Responsible Funds: Performance, Risk and Screening Intensity. *Journal of Business Ethics*, *102*(4), 519–535. https://doi.org/10.1007/s10551-011-0836-7

Jogiyanto. (2016). *Teori Portofolio dan Analisis Investasi* (10th Editi). BPFE-YOGYAKARTA.

Kiymaz, H. (2019). Factors influencing SRI fund performance. *Journal of Capital Markets Studies*, *3*(1), 68–81. https://doi.org/10.1108/jcms-04-2019-0016

Lakaba, A., & Robiyanto, R. (2018). Evaluasi Kinerja Saham Bertanggungjawab Sosial (Studi Pada Saham-Saham Yang Masuk Perhitungan Indeks Sri-Kehati). *Jurnal Organisasi Dan Manajemen*, *14*(2), 95–107. https://doi.org/10.33830/jom.v14i2.155.2018

Martalena, & Malinda, M. (2011). *Pengantar Pasar Modal*. Andi.

Oseni, U. A., & Ali, S. N. (2019). *Fintech in Islamic FinanceTheory and Practice*. Routledge.

Pertiwi, D. N., & Meirinaldi. (2016). Analisis Perbedaan Kinerja Portofolio Optimal Indeks Sri Kehati dan LQ45 Periode 2010-2014. *Jurnal Ekonomi*, *18*(3), 311–333.

Puspha Sonia, E. N. D. dan E. S. (2017). Pengaruh Pembiayaan, Kas, dan Ukuran Perusahaan terhadap Islamic Social Reporting (ISR) dengan Profitabilitas sebagai Variabel Intervening. *Jurnal Ekonomi*, *25*(1), 16–31.

Putri, D. T. H., & Worokinasih, S. (2018). Analisis Kinerja Investasi Reksa Dana Syariah Di Indonesia. *Jurnal Administrasi Bisnis (JAB)|Vol*, *59*(1), 134–143.

Rahman, A. B. M. M., Fang, P., & Suborna, Q. (2012). Mutual Fund Performance : An Analysis of Monthly Returns of an Emerging Market. *Research Journal of Finance and Accounting*, *3*(4), 34–47.

Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets*, *15*(6), 1243–1263. https://doi.org/10.1108/IJOEM-07-2018-0379

Robiyanto, R. (2018). 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

Sauer, D. A. (1997). The impact of social-responsibility screens on investment performance: Evidence from the Domini 400 social index and Domini Equity Mutual Fund. *Review of Financial Economics*, *6*(2), 137–149. https://doi.org/10.1016/s1058-3300(97)90002-1

Sharpe, W. F. (1964). Capital Asset Prices: a Theory of Market Equilibrium Under Conditions of Risk. *The Journal of Finance*, *19*(3), 425–442. https://doi.org/10.1111/j.1540-6261.1964.tb02865.x

Sparkes, R. (2002). *Socially Responsible Investment*. John Wiley & Sons, Ltd.

Widiatmojo, S. (2005). *Cara Sehat Investasi di Pasar Modal*. PT. Elex Media Komputindo.

Widiawati, S., & Raharja, S. (2012). Islamic Social Reporting Perusahaan Perusahaan Yang Terdapat Pada Daftar Efek Syariah. *Diponegoro Journal of Accounting*, *1*(2), 248–262.

Yayasan Keanekaragaman Hayati Indonesia. (2019). *SRI-KEHATI INDEX*.

Zulkafli, A. H., Ahmad, Z., & Eky Ermal, M. (2017). The performance of socially responsible investments in Indonesia: A study of the Sri Kehati Index (SKI). *Gadjah Mada International Journal of Business*, *19*(1), 59–76. https://doi.org/10.22146/gamaijb.17959