

STUDY OF PERFORMANCE COMPARISON OF SHARIA SHARES IN INDONESIA AND MALAYSIA: SHARPE, TREYNOR AND JENSEN MODELS

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ARTICLE INFO		ABSTRACT
Received:	03-01-2022	This study aims to analyze the differences in the performance of Islamic mutual funds using the Sharpe, Trenor and Jensen models on stock types of Islamic mutual funds in Indonesia and Malaysia for the 2017-2018 period. This research is descriptive with a quantitative approach. The sample in this study is sharia equity mutual funds in Indonesia and Malaysia in the 2017 - 2018 period. The data collection techniques used are secondary data, with analysis techniques by measuring performance with the Sharpe Trenor and Jensen models, and comparison with the average difference test technique.-average. Based on the results of the analysis of the two different tests on average, the results of differences in the performance of shariah mutual funds in Indonesia and Malaysia using the Sharpe, Trenor and Jensen models each have a significance value of 0.001 with the Sharpe model, 0.041 with the Trenor model and 0.049 with the Jansen model. This shows the level of difference in the performance of sharia mutual funds types of shares in Indonesia and Malaysia for the 2017-2018 period. And from the test results that the three methods used, the accuracy of the Sharpe model is better than the Trenor model and Jansen model.
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INTRODUCTION

Southeast Asia is one of the countries that has a large Muslim population. Indonesia itself has a very large Muslim population. This existence grows a large enough potential for Islamic investment activities. So that Sharia mutual funds appear and grow in Indonesia and Malaysia. Islamic mutual funds have promising market potential. However, in fact, the growth of Islamic mutual funds in the Indonesian capital market industry has not been able to attract public interest to invest in the mutual funds sector. The development notes that currently, the development of the investment industry, especially Islamic mutual funds, is experiencing a positive trend. There is a positive relationship between mutual fund performance and the country's level of development (Ferreira, Keswani, Miguel, & Ramos, 2013).



Figure 1. Sharia Mutual Fund Development
Source: Financial Services Authority, May 2019

Figure 1 shows that each year the growth is significant. The Financial Services Authority (OJK) estimates that the mutual fund industry will grow significantly this year. mutual funds from previous years.

Within the scope of ASEAN, Indonesia is the center of the economy, where more than 50% of the GDP of the countries involved in ASEAN is Indonesia's GDP. However, in terms of the development of Islamic financial instruments and capital markets, Indonesia is a country that lags behind Malaysia in terms of experience and intensity. The Malaysian Islamic stock exchange has registered more than 800 companies and 550 of them are on the top board, or are included in the more liquid stock category. Malaysia is supported by a political situation that adheres to an Islamic royal system, so that the Islamic equity and bond products are the most supported and developed in this country. Malaysia was also the first to establish an Islamic Capital Market in ASEAN, which began with Islamic instruments that have existed since 1993, and then continued to the establishment of the Islamic Stockbroking Company, BIMB Securities Sdn Bhd. To date, Malaysia has had a lot of progress in the field of Islamic finance compared to Indonesia.

The Malaysian Federation of Investment Managers (FIMM) stated that there were 228 mutual funds in 2019 in Malaysia, the number has increased compared to 2016 with 201 Islamic mutual funds. Whereas in Indonesia, according to the OJK (Financial Services Authority) the number of Islamic mutual funds as of January 2019 in Indonesia was 223, this has increased significantly from 2016 of 136 sharia mutual funds (<https://money.kompas.com>). These statistics show that Malaysian sharia mutual funds are superior in quantity compared to Indonesian sharia mutual funds, but in terms of NAV (fixed asset value) Malaysian sharia mutual funds are inferior to NAV.

The model used to measure mutual fund performance is the Sharpe, Treynor and Jensen model. The Sharpe model shows that mutual fund performance in the future can be predicted using two measures. In contrast to the Treynor model, the performance measurement of mutual funds (mutual funds) uses risk measurement averages. Beta shows return. In contrast to Treynor's Model and Sharpe's mutual fund investment as long as the excess return is positive, Jensen only accepts mutual fund investment if it can produce returns that exceed the expected return or the minimum rate of return. Accept mutual fund investment if it can produce returns that exceed expected. Return that is meant is past average return, while expected return, which is calculated using the capital asset pricing model (CAPM). With this, it will be examined whether there are differences in the performance of Islamic mutual funds using the Sharpe model, Treynor model and Jensen Alpha

for Islamic mutual funds types of shares in Indonesia and Malaysia. Based on this research, the problem will be examined whether there are differences in the performance of Islamic mutual funds using the Sharpe, Treynor and Jensen models in Islamic mutual funds types of shares in Indonesia and Malaysia for the two-year period, 2017-2018.

METHODS

The research method uses a descriptive method with a quantitative approach. And based on the data source, the data used is secondary data, namely Islamic mutual funds types of stocks in Indonesia and Islamic mutual funds types of shares in Malaysia during the 2017 to 2018 period using purposive sampling technique. The analysis used in this study is as follows: statistics descriptive, work measurement, and two difference test means. The initial step in analyzing the data is as follows, namely calculating the Average Monthly Return of the Equity Fund. The return from each mutual fund is calculated based on the Net Asset Value (NAV). The first step used to calculate the average monthly return is to calculate the return on Net Asset Value. the formula used is as follows:

$$R_D = \frac{P_t - P_{t-1}}{P_{t-1}}$$

Where :

R_D = Mutual fund profit / return
 P_t = TLV in the measurement period
 P_{t-1} = TLV in the period before measurement

The second step is to calculate the stock mutual fund's average monthly return. The way to calculate it is by dividing the number of accumulated returns during the observation period by the number of observation periods. The formula used is as follows:

$$\bar{R}_d = \frac{\sum R_d}{n}$$

Where :

$\bar{R}_d$ = average monthly return of equity funds
 $\sum R_d$ = total monthly return on equity funds for a period
 n = number of calculation periods

Then by calculating the average monthly return of stock mutual funds, the IHSG average monthly return. The JCI average return index in this study serves as a comparison to state mutual fund performance. The following is the formula and calculation of the JCI monthly return:

$$R_{p1} = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

Where :

R_{p1} = JCI market profit
 $IHSG_t$ = JCI in the measurement period
 $IHSG_{t-1}$ = IHSG in the period before measurement

then calculate the Average Monthly BI rate. The BI rate is determined by Bank Indonesia, in this study the BI rate has a function as a risk free rate.

Continued to calculate the performance with the Sharpe Model to connect the amount of reward and the amount of risk. The comparison between reward and risk is called the reward to variability ratio (R / V).

$$S_{RD} = \frac{\bar{R}_p - \bar{R}_f}{\sigma_p}$$

S_{RD} = Value Sharpe Ratio
 $\bar{R}_p$ = Average Mutual Fund return
 $\bar{R}_f$ = Average risk-free investment return
 σ_p = Standard deviation

Then proceed by calculating mutual fund performance using the Treynor model using the following formula:

The Treynor model is stated as follows:

$$T_{RD} = \frac{\bar{R}_p - \bar{R}_f}{\beta_p}$$

Information:

- TRD = Mutual Fund Treynor Ratio Value
- R_p = Average return of the Mutual Fund for period t
- R_f = Average risk-free investment return period t
- β_p = Beta equation of multiple linear regression lines

Calculating mutual fund performance using the Jensen model, namely by Jensen as follows:

$$\alpha = (\bar{R}_p - \bar{R}_f) - \beta_p(\bar{R}_m - \bar{R}_f)$$

Information:

- α = Jensen's intersection value
- R_p = average return of mutual funds
- R_f = Average risk-free investment return
- R_m = Average market return (IHSG)

Expected return, in this case is the minimum return expected by investors on stockj, because according to Jensen this formula can be used for both portfolios and individual stocks. The term minimum rate of return is used here to distinguish the term expected return which means the same as the avarage return in the Treynor model and the Sharpe model. Mutual fund returns based on NAV / unit are as follows:

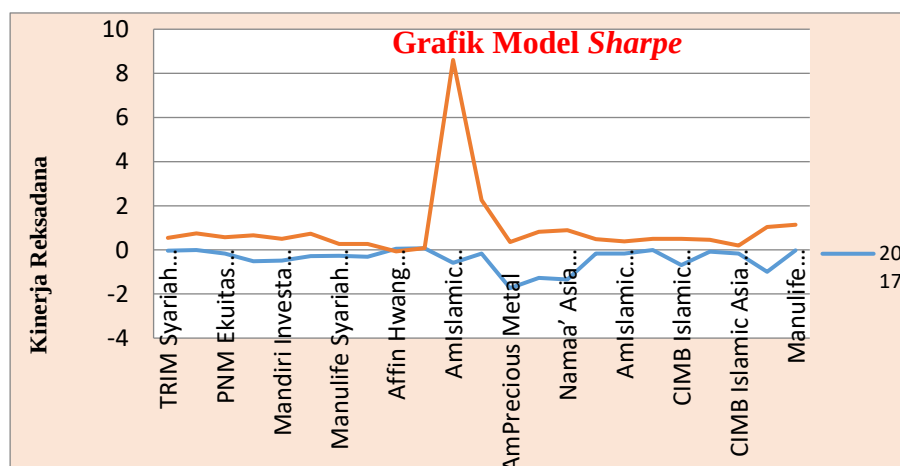
$$R_p = (NAB_{sell} - NAB_{buy}) + \text{dividen} / NAB_{buy}$$

Information:

- R_p = Mutual fund return
- Selling NAV = Net Asset Value when selling (selling price)
- Purchase NAB = Net Asset Value when purchased (purchase price)
- Dividend = Share of profits received in cash

RESULT

From the results of calculating the performance using the Sharpe method for the period 2017 - 2018 it can be seen and illustrated in the following graph:

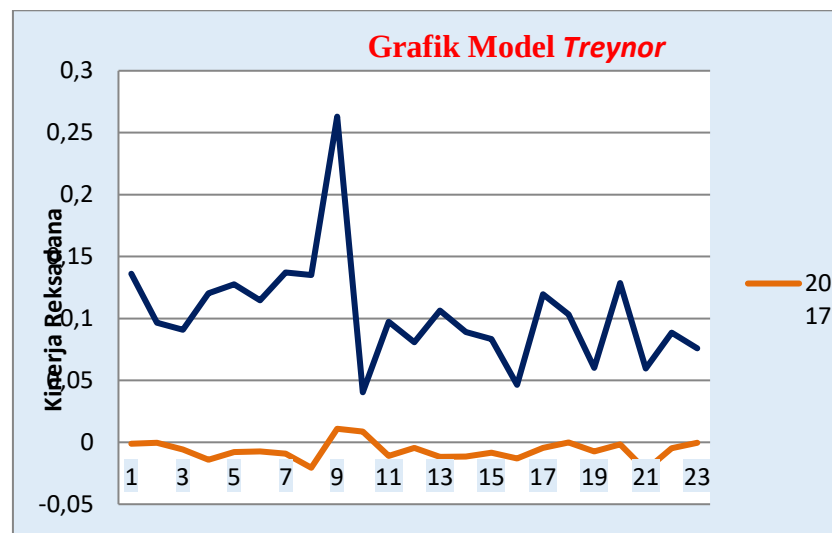


Graph 1

Sharpe Model 2017 - 2018

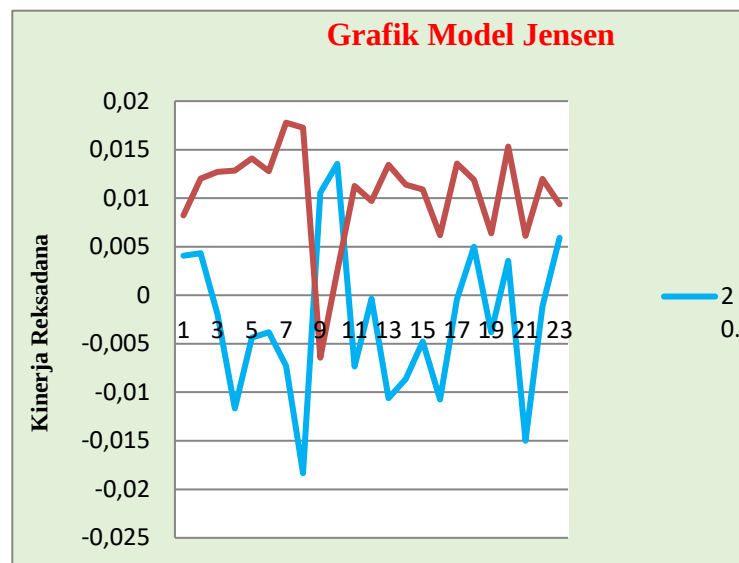
From the graph above, it can be seen that the performance of mutual funds using the Sharpe method in 2017. The performance of the highest Shariah equity funds using the Sharpe method in 2017 was 0.07137, the lowest was -1.73547 and the average mutual fund performance was Sharpe in 2017 amounted to -0.40744. As attached to the list attached to table 1 Meanwhile for the 2018 period it can be seen that the performance of mutual funds using the Sharpe method in 2018. The highest mutual fund performance using the Sharpe method in 2018 was 8,60764 the lowest was -0.06936 and the average mutual fund performance using the Sharpe method in 2018 was 0.95170. Can be seen in the attachment table 2

Performance with the Treynor method can be shown by looking at the chart below



Graph 2
Trend Model for the 2017 - 2018 Period

From the graph above it can be seen that the performance of mutual funds using the Teynor method in 2017. The highest mutual fund performance using the Teynor method in 2017 was 0.01091, the lowest was -0.02251 and the average mutual fund performance using the Teynor method was in 2017 amounted to - 0.00644. as attached in table 3. And it can be explained that the highest mutual fund performance using the Teynor method in 2018 was 0.26297, the lowest was 0.04038 and the average mutual fund performance using the Teynor method in 2018 was 0.10437. Can be seen in the attachment table 4. Whereas with the Jensen Model can be seen from Figure 3 below



Graph 3

Jensen Model 2017 – 2018 period

From the graph above it can be explained that from the data above, it can be seen that the performance of mutual funds using the Jensen method in 2017. The highest performance of the Shariah equity funds using the Jensen method in 2017 was 0.01354, the lowest was -0.01835 and the average The average performance of mutual funds using the Jensen method in 2017 was -0.00276. And from the data above, it can be seen that the performance of mutual funds using the Jensen method in 2018. The highest mutual fund performance using the Jensen method in 2018 was 0.01778, the lowest was -0.00644 and the average performance of the sharia stock mutual funds with the Jensen method in 2018 amounted to 0.01049. While the results of the two-difference test for the performance of Islamic equity mutual funds are as follows:

Table 1

Differences in the Performance of Sharia Mutual Funds Using the Sharpe Model

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Sharpe_Indonesia	,12954733	15	,461045856	,11904153
	Sharpe_Malaysia	-,486891	15	,587441536	,15167675

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Sharpe_Indonesia - Sharpe_Malaysia	,616438000	,600126434	,154951979	,28409906	,948776942	3,978	14	,001

From the data above, it can be seen that the average performance of sharia mutual funds using the Sharpe model in Indonesia in 2017-2018 is 0.12954733. Meanwhile, the average performance of share types of Islamic mutual funds using the Sharpe model in share types of

Islamic mutual funds in Malaysia in 2017-2018 is -0.486891. Based on the results of the two-difference test analysis using SPSS, the significance value was obtained of $0.001 < 0.05$. By using the Sharpe model in Islamic mutual funds for the 2017-2018 period.

Table 2

Sharia Mutual Fund Performance Differences Using the Treynor Model

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Treynor_Indonesia	,05577000	16	,067420741	,016855185
	Treynor_Malaysia	,01131500	16	,067606175	,016901544

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Treynor_Indonesia - Treynor_Malaysia	,044455000	,079413975	,019853494	,002138280	,08677172	2,239	15	,041

From the data above, it can be seen that the average performance of Islamic mutual funds using the Treynor model in Indonesia in 2017-2018 is 0.05577000. Meanwhile, the average performance of share types of Islamic mutual funds using the Treynor model in Islamic mutual funds for stocks in Malaysia in 2017-2018 is 0.01131500. Based on the results of the two-difference test analysis using SPSS, it was obtained a significance value of $0.041 < 0.05$. By using the treynor model in Islamic mutual funds for the 2017-2018 period

Table 3

Differences in Sharia Mutual Fund Performance Using the Jensen Model

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Jensen_Indonesia	,00428625	16	,011013289	,002753322
	Jensen_Malaysia	-,001919	16	,008042122	,002010531

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Jensen_Indonesia - Jensen_Malaysia	,006205000	,011603873	,002900968	,000021733	,01238827	2,139	15	,049

From the data above, it can be seen that the average performance of Islamic mutual funds using the jensen model in stock type Islamic mutual funds in Indonesia in 2017-2018 is 0.00428625. Meanwhile, using the jensen model in Islamic mutual funds, the type of shares in

Malaysia in 2017-2018 is -0.001919. Based on the results of the analysis using SPSS, it was obtained a significance value of 0.049 <0.05. By using the Jensen model in Islamic mutual funds for the 2017-2018 period.

CONCLUSION

Based on the research results, several conclusions can be drawn: Based on the results of the analysis, a significance value of 0.001 <0.05 is obtained. By using the Sharpe model, a significance value of 0.041 <0.05 was obtained using the Treynor model and a significance value of 0.049 <0.05 was obtained using the Jensen model in the type of Islamic mutual funds. From the results of the different test above, it can be concluded that the Sharpe model has the difference in performance is more significant compared to the Treynor model and Jensen model, although all three are still in the significant category because there are differences in performance.

So it can be concluded that all three models can measure mutual funds performance, but for mutual funds performance as measured by Sharpe model has the highest level of significance when compared to the Treynor Model and Jensen Model. The results of this study are in accordance with research conducted by (Basuki & Khoiruddin, 2018) which proves that the performance of Islamic mutual funds in Indonesian stocks is superior to Malaysia, but is not in accordance with research conducted by (Putra & Mawardi, 2016), (Huda, Nazwirman, & Hudori, 2017) which proves that No There is a significant difference in the return of Islamic equity funds.

Further research is suggested to invest in Islamic mutual fund companies, the coverage of Islamic mutual funds is very broad, especially with the Indonesian economy which is not completely based on finance. Therefore, companies need to develop a strategy that is broader in scope in increasing the value of the mutual fund products themselves, so that they can compete with financial companies in Southeast Asia in the field of Islamic investment.

Investors who want to invest in mutual funds should first consider the past performance of the mutual funds and should understand well the prospects for mutual funds to maximize the expected return. It is also hoped that other models can be added to the calculation of mutual fund performance, such as the *M2* method and the Information Ratio, so that it can be compared with. Future researchers can also replace existing benchmarks with others such as the LQ-45 and JII indices to produce more accurate ones.

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