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Performance Comparison between Conventional and Sharia Mutual Funds in Indonesia

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Abstract:- The purpose of the research conducted is to determine the differences between the performance of Conventional Mutual Funds and Sharia Mutual Funds for the period of 2018. The performance variables used were mutual fund return, Treynor Ratio, Sharpe Ratio and Alpha Jensen. The method used was the Independent Sample t-Test for normally distributed data and the Mann-Whitney u-Test for data that were not normally distributed. The data normality test was performed using the Kolmogorov Smirnov test which resulted in the conclusions that the mutual fund returns, the Sharpe Ratio and Jensen Alpha had normal distributed data while the Treynor Ratio for existing data was not normally distributed. The significance level in this study used a probability number of 5% with the Initial Hypothesis (Ho) that if the estimated value of probability is above 5% then nothing shows the difference performance between Conventional Mutual Funds and Sharia Mutual Funds. The results of tests conducted in this study produced probability values above 5% in the study conducted with variable returns, Treynor Ratio, Sharpe Ratio and Alpha Jensen. The conclusion from this study is that Ho was accepted and there is no difference between Conventional Mutual Funds and Sharia Mutual Funds.

Keywords:- *Independent Sample t-Test, Mann-Whitney u-Test, Kolmogorov Smirnov Test, Sharia Mutual Funds, Sharpe Ratio.*

I. INTRODUCTION

According to data quoted from the Indonesian Central Securities Depository (KSEI), the number of domestic investors in the Indonesian capital market until the end of 2018 is approximately 882 thousand investors taken based on the number of Single Investor Identification (SID) issued by PT KSEI for investors in country. This number is certainly insignificant and very small compared to the population of Indonesia according to the Central Bureau of Statistics projection data of 265 million inhabitants. From these data, it can be seen that the number of domestic investors in the Indonesian capital market is only 0.33% of the total population of Indonesia. Indonesian people are reluctant to invest in the Indonesian capital market due to several factors, for example limited knowledge of the capital market, limited time to monitor investments, fears of investment risks in the capital market, investment returns that are considered usury by some people or even the presumption that investing in the capital market contains an element of uncertainty and speculation that is considered gambling. So that investment in the capital market is not too popular to be an investment choice for Indonesian people who are mostly Muslim.

Mutual Funds is one investment instrument that is expected to be a solution to overcome all obstacles faced by people in Indonesia in investing in the capital market. To invest in Mutual Funds, one does not need to have in-depth knowledge of the capital market because Mutual Funds are managed by professional Investment Managers in the field of investment in the Capital Market. Investment Managers are institutions that obtain permits from the Financial Services Authority to collect funds from the public to further manage these funds in financial instruments both in the money market and capital market. Because it has been professionally managed by the Investment Manager, investors do not need much time to monitor their investments because the Investment Manager will provide periodic investment value reports to all investors.

Each Mutual Fund Instrument has different characteristics that are adjusted to the risk profile of potential investors, so that the public can invest in accordance with the risk profile, whether they want to invest in mutual funds that have a small risk, moderate risk or high risk which is of course compensated with suitable potential return which is low, medium and high profit potential. For Indonesian people who want to invest in accordance with the principles of Islamic teachings, there are also sharia mutual funds which are expected to be a popular investment choice for Indonesians who are mostly Muslims.

The presence of Sharia mutual funds in Indonesia has not yet had a significant impact on the growth of the number of investors in Indonesia. This is evidenced by the total Net Asset Value (NAV) of the mutual funds which is a reflection of the total funds collected from the public, on which mutual fund instruments until the end of 2018, the total NAV recorded in the data quoted from statistical data information on the Financial Services Authority website was Rp. 505 Trillion in which the total managed funds of Sharia mutual funds are only around Rp. 34 trillion or 6.82% of the total managed funds of the total mutual funds, which means that the remaining 93.18% is still controlled by conventional mutual funds. From the available data, both conventional mutual funds and Islamic mutual funds are still controlled by equity funds which have the highest managed funds.

The small amount of funds managed by sharia mutual funds compared to conventional mutual funds is presumably due to the lower performance of sharia mutual funds compared to conventional mutual fund performance. This can be seen from several studies that have been conducted by several researchers who were looking for the differences between the performance of sharia mutual funds and the performance of conventional mutual funds. One of them is a study conducted by Hilman (2017) whose results show a significant difference between the performance of conventional mutual funds and the performance of sharia mutual funds. While other studies conducted by Agussalim, Limakrisna and Ali (2017) show different results, where the risk measurement and Sharpe Index methods produce the conclusion that there is no difference between the performance of conventional mutual funds and the performance of Islamic mutual funds and while the Treynor Index and Jensen Alpha measurement produced different research conclusions. The results show that there is a significant difference between the performance of conventional mutual funds and the performance of sharia mutual funds.

Similar studies have been conducted by Ratnawati and Khairani (2012). His research used variable of levels of mutual fund returns, risk, Sharpe Index, Treynor Index and Jensen Alpha. The results of the study concluded that there are differences between the performance of conventional mutual funds and Islamic mutual funds, but the difference is not significant. In their research, Ratnawati and Khairani used a sample of fixed income mutual funds and mixed mutual funds. Research on the differences of the performance of stock mutual funds, namely between conventional mutual funds and sharia mutual funds, was conducted by Hamzah and Yohanes (2014) from Mercu Buana University, which examined the performance of Islamic mutual funds and conventional mutual funds in the 2008-2012 period. The research found no significant differences between the two types of mutual funds.

II. THEORETICAL REVIEW

Article 1 Paragraph 27 of Law Number 8 of 1995 concerning the Capital Market explains that an Investment Fund is a container used to collect funds from the investor community for further investment in the Securities Portfolio by the Investment Manager. Meanwhile according to Filbert (2017), Mutual Funds is a Collective Investment Contract managed by experienced Investment Managers so that it will have an optimal investment return. From the definition of an Investment Fund, it can be explained that an Investment Fund is an investment product in the capital market in the form of a securities portfolio, which is managed by an Investment Manager. So if there is a securities portfolio management, but the one who does it is not the Investment Manager, then the management cannot be called as an Investment Fund. The portfolio itself has meaning as a collection. Meanwhile, according to Hartono (2014), a portfolio is a collection of financial assets in a unit that is held or made by an investor, investment company or financial institution.

According to Lestari (2015, Sharia Mutual Funds is a place used by the public to invest with reference to Islamic Sharia. Whereas according to Iswanaji (2016), Sharia Mutual Funds is a place used to collect funds from the investor community as the owner of the funds (shabul mal) to be subsequently invested in the Securities Portfolio by the Investment Manager as a Representative (Shahibul Mal) according to Islamic sharia principles. So that in managing its portfolio, Sharia Mutual Funds can only invest in Sharia Securities. Syafrida, Aminah and Waluyo (2014) explained in their article that Sharia Securities are contractual effects, the management of the company, as well as the way in which they are issued to meet sharia principles. As for what is meant by sharia principles, they are principles that are based on Islamic teachings and the stipulation is carried out by DSN-MUI through fatwa.

From some of the literature presented earlier, it can be concluded that conventional Mutual Funds are mutual funds that can invest in all types of securities such as stocks, bonds and deposits, with investment restrictions as determined by the Financial Services Authority. Meanwhile, Sharia mutual funds are mutual funds that can only invest in securities that are in accordance with Sharia principles in the capital market and also the investment limits set by the the Financial Services Authority. Sharia Securities are Securities referred to in Act Number 8 of 1995 concerning Capital Market and the regulations of the implementation are the Securities which:

- The contract, method of management and business activities are not in conflict with the Sharia Principles in the Capital Market;
- The assets which become the basis of the contract, method of management, business activities are not in conflict with the Sharia Principles in the Capital Market, and
- The assets related to the intended Securities and their issuers do not conflict with Sharia Principles in the Capital Market.

In addition, issuers whose Securities are included in the category of Sharia Securities:

- Do not conduct activities and types of business that are contrary to Sharia Principles in the Capital Market;
- Do not conduct transactions that are contrary to Sharia Principles in the Capital Market;

- Meet the financial ratios as follows:

- The total interest-based debt compared to total assets is not more than 45% (forty-five percent); and
- Total interest income and other non-halal income compared to total income is not more than 10% (ten percent).

To make a comparison between conventional and Islamic mutual funds, the writer used the performance of the two mutual funds as a comparison. According to Pratomo and Nugraha (2009), the main information source for performance measurement is the Asset Value per Participation Unit or the price per unit that is always published in a business daily news. Changes in the Asset

Value per Participation Unit (NAB/UP) become indicators of investment performance of a mutual fund. The performance of mutual funds to be examined is the performance of conventional funds and sharia mutual funds in the 2018 period. So the the Asset Value per Participation Unit to be used is the the Asset Value per Participation Unit (NAB/UP) as of the end of December 2018 compared to the the Asset Value per Participation Unit (NAB/UP) as of the end of December 2017.

III. METHOD

The type of research conducted in this study is quantitative research, with descriptive approaches and comparative methods with cross section data. The method of approach was carried out with the aim to ensure and provide an overview of the performance of conventional mutual funds and the performance of Sharia mutual funds in Indonesia in 2018 by measuring the level of return, treynor ratio, sharpe ratio and alpha jensen. The data collection method itself is the method of documentation and study of literature. Documentation Method means that the data used is secondary data obtained by collecting data by recording data related to the problem to be examined from other documents owned by a related agency or sites on the internet that provide information needed for research. When using this method as a data collection method, the researcher used the data by simply making a copy of it. While for the Study of Literature method, data collection was done by reading literature, books, scientific works, theses, dissertations, encyclopedias and also using internet media as a support in researching additional information about theories and data needed in this research.

Desiana and Isnurhadi (2012), in their research comparing the performance of conventional mutual funds and sharia mutual funds on the Indonesia Stock Exchange also used performance measurements of the Sharpe Ratio, Treynor Ratio and Alpha Jensen. While Lailiyah, Suhadak and Sulasmiyati (2016) used variables in the form of Sharpe, Treynor, Jensen Ratio and growth of mutual fund managed funds in their research analyzing the comparasiron of the performance of sharia mutual funds and conventional mutual funds.

The level of Return on Mutual Funds in this study is the level of performance of an Investment Fund during a certain period. In their article, Huda, Nazwirman and Hudori (2017) explained that Return is the Price of Net Asset Value Per Unit Participation of a certain period (t1) minus the price of Net Asset Value in the previous period (t0). The equation of the mutual fund return rate itself can be seen in the following formulation:

$$R_\rho = \frac{NAB/UP\ t}{NAB/UP\ i} - 1$$

Description:
R_ρ : Return of a mutual fund portfolio in one period
NAB/ UP$_t$: Net Asset Value per Participation Unit at the end of the period
NAB/ UPi : Net Asset Value per Participation Unit at the beginning of the period

Meanwhile Treynor Ratio was developed by Jack Treynor who is an economist from the United States. In an article written by Basuki and Khoirudin (2018), the Treynor Index measures portfolio performance with systematic risk, which in this case is calculated using portfolio beta as an indicator. The purpose of Treynor is to find performance measures that can be applied to all investors, regardless of personal risk preferences. Treynor suggests that there are risk components that are risks that result from fluctuations in the market and risks that arise from fluctuations in individual securities. Following is the equation of the Treynor Ratio :

$$TR = \frac{R_\rho - R_f}{\beta_p}$$

Description:
TR : *Treynor Ratio*
R_ρ : Return of portfolio during the observation period
R_f : The level of return of the risk-free instrument during the observation period
β_p : *Beta Portfolio*

Other Mutual Fund Performance Measurement used in this study was the Sharpe Ratio. The Sharpe Ratio was developed by one of the Nobel Winners, William F. Sharpe which purpose is to assist investors in understanding the rate of return on their investment compared to the level of risk. Ahmad et al. (2015) explained that the Sharpe Ratio can show performance that is adjusted to the risk of all variables in a sample. The way to calculate or measure sharpe ratios is basically almost the same as the measurement using treynor ratios, but the risk measured by Beta Portfolio on treynor ratios is replaced with standard deviations. To calculate the Sharpe Ratio, the following equation can be used:

$$SR = \frac{R_\rho - R_f}{\sigma_p}$$

Description :
SR : *Sharpe Ratio*
R_ρ : Return of portfolio during the observation period
R_f : The level of return of the risk-free instrument during the observation period
σ_p : Standard deviation of portfolio return during the observation period

The last measurement on the performance of mutual funds used in this study using the Jensen Alpha method. According to Tandelilin (2010), the Jensen Index is an index that shows the difference between the actual rate of return obtained by the portfolio and the expected rate of return if the portfolio is on the capital market line. The Jensen index is the excess return above or below the security market line. In other words, the Jensen Index can be interpreted as a measure of how much a portfolio can "beat the market". If the resulting Alpha is positive, portfolio performance is considered higher than the market performance, whereas if the resulting Alpha is negative, portfolio performance is considered lower than the market performance. Then, if the resulting Alpha is zero, the portfolio performance is valued to be the same as market performance (Tulasmi and Trihariyanto, 2016). The formulation of Jensen Alpha can be seen in the equation below:

$$\text{JA} = R_\rho - [\, R_f + (\beta\, (R_m - R_f\ ))]$$

Description :
JA : *Jensen's Alpha*
R_ρ : The level of portfolio return during the observation period
R_f : The level of return of risk-free instrument during the observation period
R_m : The rate of return from the market as a benchmark for the portfolio
β : Beta of Portfolio

The types of mutual funds studied were the equity mutual funds, both conventional equity mutual funds and sharia equity mutual funds. In choosing the types of mutual funds that were used as research samples, the author used purposive sampling technique or often also called as Judgment Sampling or Selected Sampling, in which the selection of elements to become sample members is based on non-random considerations. It is usually very subjective. This technique produces a good estimate value if done by people who are experienced or very skilled in their fields (Supranto, 2007).

Based on data published by the Financial Services Authority (OJK), there are 1,875 types of conventional mutual funds and 224 types of Islamic mutual funds at the end of December 2018. However, only one type of equity mutual fund was sampled, with 316 equity funds, consisting of 316 mutual funds. out of 65 sharia equity funds and 251 conventional equity funds. Furthermore, the sample selection method itself used a purposive sampling method by selecting samples with certain criteria. To be in accordance with the research carried out, the criteria of the sample used are:

1. Conventional mutual funds and sharia mutual funds which have been launched since at least December 2017.
2. Conventional mutual funds and sharia mutual funds which are managed using Rupiah denominations.
3. Conventional mutual funds and sharia mutual funds which in December 2017 had managed funds above or equal to Rp. 100 billion.
4. Conventional mutual funds and sharia mutual funds which in December 2017 had managed funds under or equal to Rp. 500 billion.

After a purposive sampling process of 316 stock mutual funds, 77 stock mutual funds were selected to be used as research samples in which 65 selected samples were conventional mutual funds and the remaining 12 samples were selected for sharia mutual funds.

The data used in this research was quantitative data which means that the data analyzed was in the form of numbers that needed to be reprocessed. In processing data, the author used SPSS version 16.0 and used Microsoft Excel to prepare data that were obtained by the SPSS Program. To find out whether there was a difference between the performance variables of conventional mutual funds and sharia mutual funds, the author conducted a normality test in advance of the data collected.

In this study, the authors used the Normality Test with the Kolmogorov Smirnov statistical test with the help of the SPSS program version 16.0. The Kolmogorov-Smirnov test is a normality test that is widely used, especially after the existence of many statistical programs. The advantage of this test is simple and does not cause differences in perception between one observer and another observer, which often occurs in normality tests using graphs (Hidayat, 2012). The initial hypothesis of this study is that the data is normally distributed (Ho) with the alternative hypothesis is that the data is not normally distributed (H1). Data can be categorized as normal distribution if the calculated Kolmogorov-Smirnov value (KS Calculate) is smaller or equal to the Kolmogorov-Smirnov table value (KS Table) or in other words if KS Calculate ≤ KS Table then Ho is accepted and the data is normally distributed.

In this study, the authors used a probability (significance) of 5% or 0.05 with the number of research samples of 65 Conventional Mutual Funds and 12 Sharia Mutual Funds. Therefore, the Kolmogorov-Smirnov Table Value can be directly calculated and determined as a critical value point to be compared with the Kolmogorov-Smirnov Value (KS Calculate) to find out whether the data used was normally distributed or not normally distributed. The KS table values in this study can be seen in table 1.

Type of Mutual Fund	Probability	Number of Samples	KS Table
Conventional Mutual Funds	5%	65	0.16869
Sharia Mutual Fund	5%	12	0.39260

Table 1:- Critical Value of Normality Test (KS Table)

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Based on the information and table above, the test criteria for conventional mutual fund samples are:

- KS Calculate ≤ 0.16869, Ho is accepted or the data is normally distributed.
- KS Calculate > 0.16869, Ho is rejected or the data is not normally distributed.

The Normality Test with the Kolmogorov-Smirnov Test was also used by Wakhyuni and Herawati (2019) in their research on the difference in cost effectiveness of Diabetes Mellitus patients in *BPJS Kesehatan* between patients who took the Chronic Disease Management Program (Prolanis) and those who did not participate in the Prolanis Program. The results of the normality test show that data was not normally distributed so that the comparative test used the non-parametric statistical test of Mann-Whitney u-Test.

Meanwhile the test criteria for the sample of Sharia Mutual Funds are :

- KS Calculate ≤ 0.39260, Ho is accepted or the data is normally distributed, or
- KS Calculate > 0.39260, Ho rejected or the data is not normally distributed.

The next step was conducting a comparison test.Comparison test was meant to test the population parameters in the form of comparisons through sample sizes which are also in the form of comparisons. This research was conducted with the method of Independent Sample t-Test analysis for normally distributed data, while for non-normally distributed data used non-parameteric statistics where the type of testing conducted in this study was Mann-Whitney u-Test. In conducting this comparison test, the hypotheses used were:

- Ho: $\mu_1 = \mu_2$ There is no difference between the performance of conventional mutual funds and Sharia mutual funds.
- H1: $\mu_1 \neq \mu_2$ There is a difference between the performance of conventional mutual funds and the performance of Sharia mutual funds.

In the Independent sample t-Test, the basis for determining the hypothesis is to compare the T value from the calculation of the Independent Sample t-Test with the critical value that can be seen from Table T. The hypotheses in this study using the method Independent Sample t-Test are showed below:

- If the T-Calculate value ≤ 1.9921, Ho is accepted and H1 is rejected, which means there is no difference in performance of Conventional Mutual Funds and Sharia Mutual Funds.
- If the T-Calculation value> 1.9921, Ho is rejected and H1 is accepted, which means there is a difference in the performance of Conventional Mutual Funds and Sharia Mutual Funds.

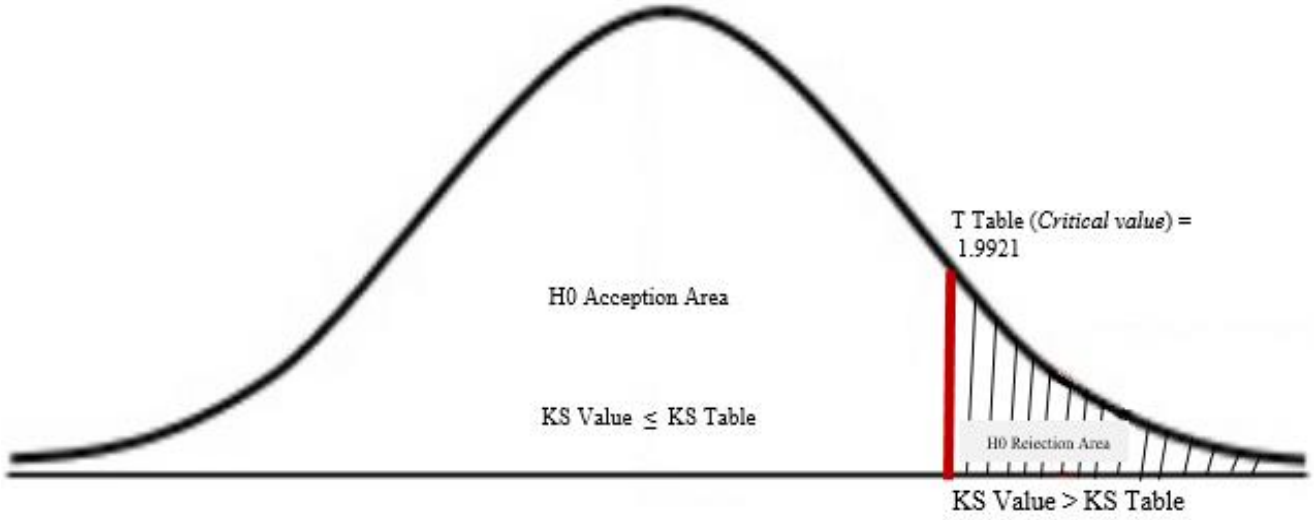

Fig. 1:- Independent Sample t-Test for Mutual Funds

The T value in this study can be seen in the SPSS output by looking at the T value which has a deg_freedom value of 75. While the T-count value is calculated manually can using the formulation provided below:

$$\text{T calculate} = \frac{x_1 - x_2}{\sqrt{\frac{(n,-1)stdevi+(n_2-1)stdevi}{n_1+n_2-2}\left(\frac{1}{n_1}+\frac{1}{n_2}\right)}}$$

Description:

Xi : Average value of group i
n_i : Number of samples of group i
$s_{tdev}i$: Standard deviation of group i

The basis for making decisions on the Independent Sample t-Test can also use a comparison between p-values and probability values. In this study, the p-value can be seen in the SPSS output with the description of Sig. value (2 tailed) on which the basis of decision making is as described below:

- If the significance value (2-tailed) ≥ 0.05, it indicates that there is no difference in mean between the groups of study subjects or Ho is accepted.
- If the significance value (2-tailed) <0.05, it indicates that there is an average difference between the groups of study subjects or Ho is rejected and H1 is accepted.

In addition to using the Independent Sample t-Test method, this study also used the Mann-Whitney u-Test method for data which normality test was not met. The Mann Whitney u-Test test examines the difference in rank so as to produce a U value which can then be converted to a Z value. In making statistical decisions in the Mann-Whitney u-Test, according to Zulfikar & Budiantara (2012: 262) Ho must be rejected if U statistical test ≤ the critical value. So in this study, the hypothesis that can be made from the Mann-Whitney test is as follows:

- If U statistical test value > Critical Value, it means that Ho is accepted or there is no average difference between the performance of Conventional Mutual Funds and Sharia Mutual Funds.
- If U statistical test value ≤ Critical Value, it means that Ho is not accepted or there is an average difference between the performance of Conventional Mutual Funds and Sharia Mutual Funds.

U value in the SPSS output can be seen with the information of sig. (2-tailed) and the critical value in this study used a probability of 5% or 0.05, which means that the hypothesis from this study can also be as below:

- If the value of sig. (2-tailed)> 0.05, it means that Ho is accepted and H1 is rejected, which shows that there is no average difference between the performance of Conventional Mutual Funds and Sharia Mutual Funds.
- If the value of sig. (2-tailed) ≤ 0.05, it means that Ho is rejected and H1 is accepted or it means that there is an average difference between the performance of Conventional Mutual Funds and Sharia Mutual Funds.

For the decision making in the Mann-Whitney u-Test, Z (Z-Score) value of the research results was compared with the critical value in the Mann-Whitney U-table if the number of samples is not more than 20. If the number of samples is more than 20 samples, the Mann-Whitney u-Test decision making is obtained by comparing the value of Z with the critical value in Table-Z (2-tailed). At a probability of 5%, the Critical Value of Table Z in this study was -1.96. From the information above, it can be concluded that the comparative test with the Mann-Whitney u-Test can also use the following hypothesis in drawing conclusions.

- If the value of Z> -1.96, it means that Ho is accepted or there is no average difference between the performance of Conventional Mutual Funds and Sharia Mutual Funds.
- If the Z value is ≤ -1.96, it means that Ho is not accepted or there is an average difference between the performance of Conventional Mutual Funds and Sharia Mutual Funds.

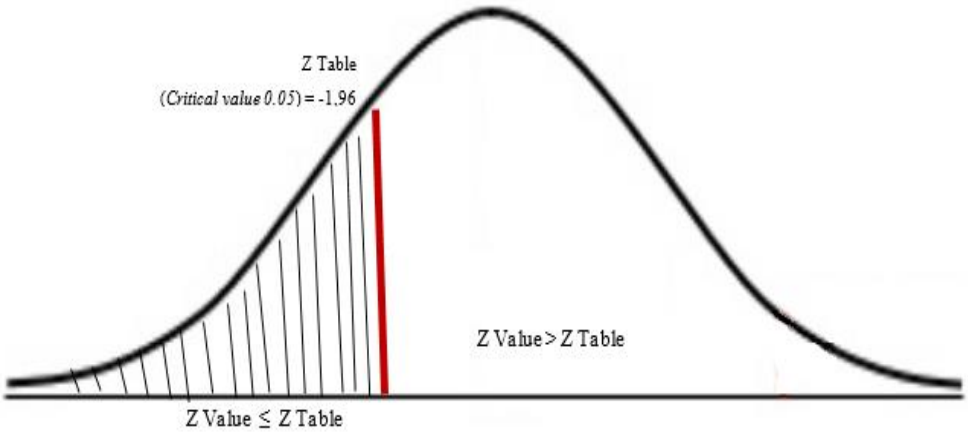

Fig. 2 - Mann Whitney U-Test for Equity Mutual Fund

To find the Z value, U value must be obtained first. After obtaining the U value for sample 1 (sample of Conventional Mutual Funds) and U value for sample 2 (sample of Sharia Mutual Funds), the U value that will be used is the smallest U value which will then be used to find the Z Value. To calculate U value, the formulation used is given below :

$$Ui = n_1 n_2 + \frac{n_i(n_i+1)}{2} - \sum \text{avgrank}\, n_i$$

Description:

Ui : U value (sample 1 or sample 2)
n_1 : Number of sample 1
n_2 : Number of sample 2
n_i : Sample 1 (to find U1 value) or Sample 2 (to find U2 value)
$\sum \text{rank}\, n_i$: The Addition of Average Ranking of Sample 1 or Sample 2 values

After finding the U value which is the smallest U value from the U value of sample 1 and the U value of sample 2, then Z value is calculated to be compared with the critical value in table Z to make conclusions from the Comparative Test of measurement of the Treynor Ratio on Conventional Mutual Funds and Sharia Mutual Fund. The formulation for calculating Z Value is:

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$$Z = \frac{u - \frac{n_1 n_2}{2}}{\sqrt{\frac{n_1 n_2 (n_1 + n_2 + 1)}{12}}}$$

Information:
Z : Z value
u : U value (smallest U value of sample 1 and U sample 2)
n_1 : Number of sample 1
n_2 : Number of sample 2

IV. RESULT AND DISCUSSION

Research conducted on 65 samples of Conventional Mutual Funds and 12 Sharia Mutual Funds begins with a data normality test for each Mutual Fund performance variable, namely the Return, Treynor Ratio, Sharpe Ratio and Jensen Alpha Ratio of each type of Mutual Fund. The results of the Normality Test in Conventional Mutual Funds can be read in table 2.

Type of Mutual Funds	Kolmogorov Smirnov Value	Probability Value	Description
Critical Value of Normality Test	0.16869	0.05	*Critical Value*
Portfolio Return of Mutual Funds	0.13236	0.20	Data is normally distributed
Treynor Ratio	0.32665	0.00	Data is not normally distributed
Sharpe Ratio	0.08500	0.49	Data is normally distributed
Alpha Jensen	0.11007	0.41	Data is normally distributed

Table 2 :- Normality Test Result of Conventional Mutual Funds

The hypothesis of this study is that if the Kolmogorov Smirnov (KS) value of each Performance Variable is smaller than the Critical Value of the Normality Test, then Ho is accepted and H1 is rejected or the data is normally distributed. Therefore, from the results of the normality test that has been carried out on the performance variables of Conventional Mutual Funds, it produces 1 variable that has data that are not normally distributed, namely the Treynor Ratio while the others have data that are normally distributed. The results of the normality test in this study can be seen in Figure 3.

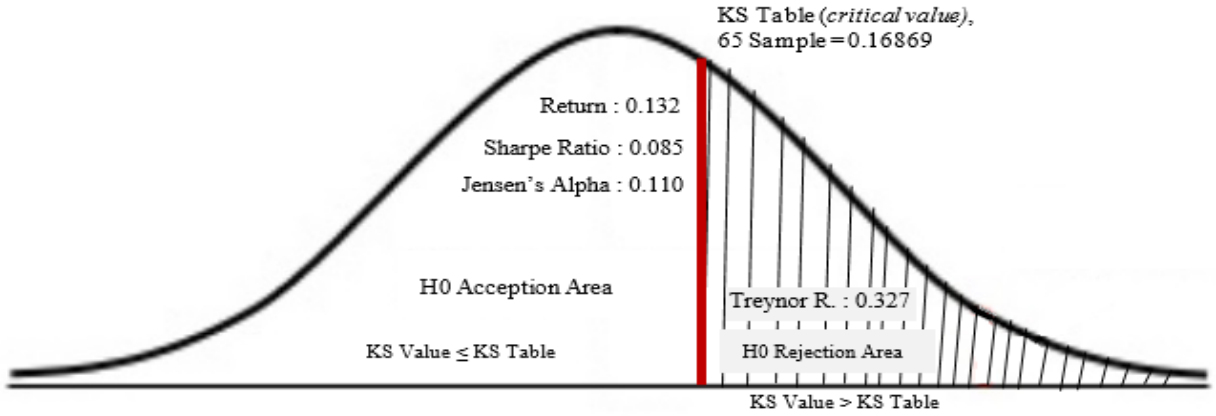

Fig. 3:- Conventional Mutual Fund normality test results

While in table 3, it can be seen the results of the normality test on the performance variable for Sharia Mutual Funds with a critical value of 0.39260 which means that every time there is a KS value of the Sharia Mutual Fund performance variable which is below the critical value, it means that the data of the variable have normal distribution and vice versa.

Type of Mutual Funds	Kolmogorov Smirnov Value	Probability Value	Description
Critical Value of Normality Test	0,39260	0,05	*Critical Value*
Portfolio Return of Mutual Funds	0,21798	0,62	Data is normally distributed
Treynor Ration	0,44192	0,18	Data is not normally distributed
Sharpe Ratio	0,20984	0,66	Data is normally distributed
Alpha Jensen	0,15392	0,76	Data is normally distributed

Table 3:- Normality Test Result of Sharia Mutual Funds

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Normality Test Results for Sharia Mutual Fund Performance Variables are not much different from the results of Conventional Mutual Funds. For Treynor Ratio, the test result shows that the data was not normally distributed, while for others it has data that were normally distributed. The results of Sharia Mutual Funds normality test results can be seen in Figure 4.

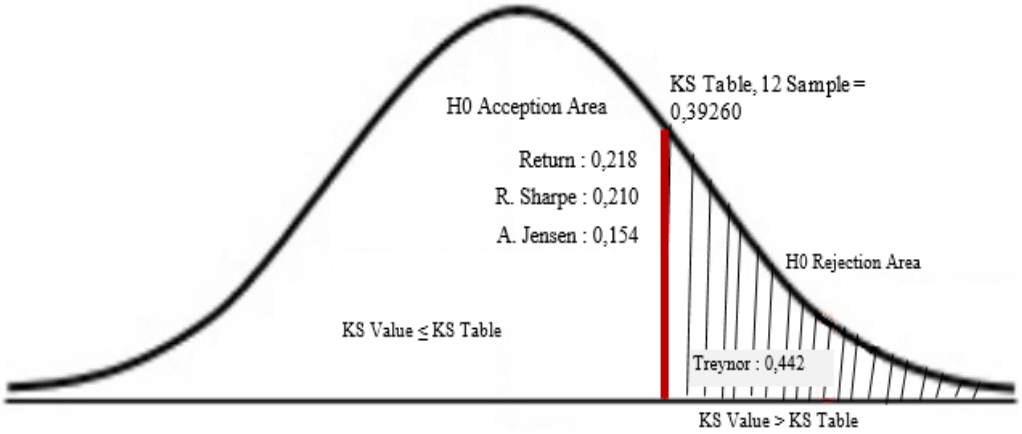

Fig. 4 - Sharia Mutual Fund normality test results

This study conducted a comparative test using the Independent Sample t-Test method for Return, Sharpe ratio and Jensen Alpha performance variables, while for the Treynor Ratio, a comparative test was carried out with the Mann-Whitney u-Test test method. After the researcher calculated the level of Return of Conventional Mutual Funds and Sharia Mutual Funds for the period 2018, the next step was conducting a comparison test to compare the performance of returns of Conventional Mutual Funds with Sharia Mutual Fund Returns. The comparison test results of the Mutual Fund Return can be seen in table 4.

	Type of Mutual Funds	**N**	**Sig. Levene's Test**	**Mean**	**Mean Diff.**	**Std. Dev.**	**t**	**df**	**Sig. (2-*tailed*)**
Return	Conventional Mutual Funds	65	0.95	-0.03	0.02	0.06	1.18	75.00	0.24
	Sharia Mutual Funds	12		-0.05	0.02	0.06	1.13	14.75	0.28

Table 4 – Independent Sample t-Test Result of Equity Mutual Funds Return

The table above shows that there are 65 samples of Conventional Mutial Funds and 12 samples of Sharia Mutual Funds. Sig. Levene's Test is a data homogeneity test value that shows data coming from populations that have the same variance (homogeneous) because it has a value of 0.95 or above 0.05. To see the results of the comparison test itself, we can immediately see the column of t-count value which has a degree of freedom (df) of the total sample minus 2 (total N -2) in which in this study the df value was 75, so the t value in use was 1.18. The critical value of the Independent Sample t-Test of the comparison test here is 1.99 which, when viewed from the hypothesis of this study, it shows that the value of t-count is smaller than the critical value. It was concluded that Ho was accepted and H1 was rejected which means there was no difference in performance between Conventional Mutual Funds and Sharia Mutual Funds which were measured by the level of the Mutual Fund Return.

Meanwhile, the comparison test with Sharpe Ratio in Conventional Mutual Funds and Sharia Mutual Funds produced a t-value of 1.59 which means that the t value is less than the critical value of the T table of 1.99 which was used as a comparison and the conclusion is there is no difference in performance between Conventional Mutual Funds and Sharia Mutual Funds with Sharpe Ratio performance measurement. This is similar to the results of research conducted by Zamzany and Setiawan (2018) who conducted a comparative study of the performance of conventional and sharia mutual funds in Indonesia and also used Sharpe Ratio performance measurement. The result is that there is no significant difference between the performance of conventional and sharia mutual funds. The results of the Independent-Sample t-Test of Sharpe Ratio of Conventional Mutual Funds and Sharia Mutual Funds are shown in table 5.

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	Mutual Funds Type	N	Sig. Levene's Test	Mean	Mean Diff.	Std. Dev.	t	Df	Sig. (2-*tailed*)
Sharpe Ratio	Conventional Mutual Funds	65	0,15	-1,35	0,56	1,06	1,59	75	0,116
	Sharia Mutual Funds	12		-1,92	0,56	1,48	1,27	13,16	0,228

Table 5 - Independent Sample t-Test Result of Equity Mutual Funds Sharpe Ratio

The results of this study are also strengthened by the resulting significance value that is equal to 0.116 which is greater than the probability value of 0.05 and also means that Ho is accepted and H1 is rejected. So that the resulting conclusions are the same, namely there is no significant difference between the performance of Conventional Mutual Funds and Sharia Mutual Funds.

In the comparison test with the measurement of the performance of Jensen Alpha Conventional Mutual Funds and Sharia Mutual Funds, it also showed no difference in performance between the two. This can be seen from the value of t obtained from the test carried out having a value of 1.89 which is still smaller when compared with the critical value or the value of T table of 1.99. Therefore, based on the existing hypothesis, it is concluded that Ho is accepted and H1 is rejected which means there is no difference in performance between the two.

	Type of Mutual Funds	N	Sig. Levene's Test	Mean	Mean Diff.	Std. Dev.	t	Df	Sig. (2-*tailed*)
Jensen Alpha	Conventional Mutual Funds	65	0,33	-0,014	0,033	0,059	1,89	75	0,063
	Sharia Mutual Funds	12		-0,047	0,033	0,043	2,34	19,49	0,030

Table 6:- Independent Sample t-Test Result of Equity Mutual Funds Jensen's Alpha

The difference in the mean values (mean diff.) was 0.033. It indicates no significant difference between the two types of Mutual Funds. A probability value of 0.063 also strengthens the results of this comparison test because it has a probability value above 0.05, which means there is no difference between the performance of Conventional Mutual Funds and Sharia Mutual Funds performance with Alpha Jensen's performance measurement. The summary results from Independent Sample t-Test are shown in figure 5.

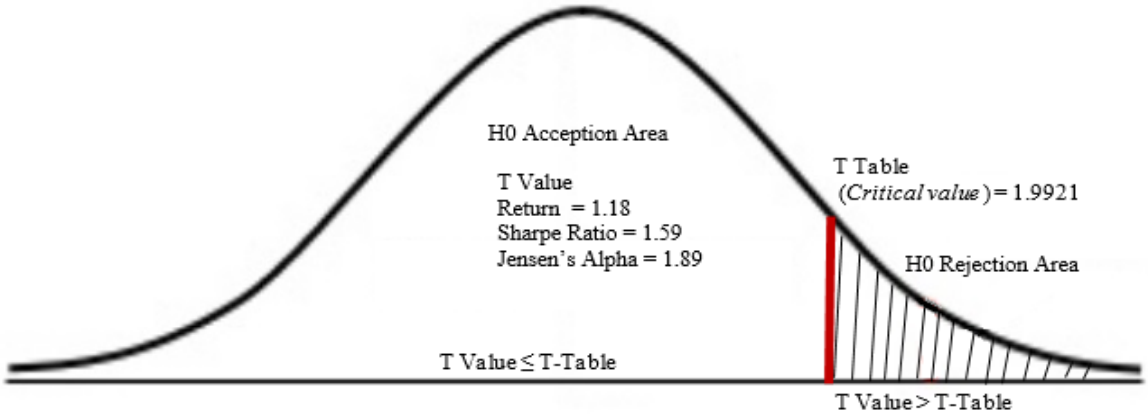

Fig. 5:- Independent Sample t-Test Result summary

Treynor Ratio Comparison Test conducted with the Mann-Whitney u-Test shows the same conclusions with the mutual fund return variable which the result is that there was no difference in performance between Conventional Mutual Funds and Sharia Mutual Funds Performance in 2018. Comparison Test Results of the Treynor Ratio can be read in table 7 which was the output of the Mann-Whitney u-Test using SPSS version 16.

	Type of Mutual Funds	N	Sig. Levene's Test	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Sig. (2-*tailed*)
Treynor ratio	Conventional Mutual Funds	65	0,10	41,03	2.667	258	-1,85	0,064
	Sharia Mutual Funds	12		28,00	336	258	-1,85	0,064

Table 7 - Mann Whitney u-Test Result of Equity Mutual Funds Treynor Ratio

In the previous hypothesis, it has been stated that in the Mann-Whitney u-Test, a comparison between the Z value and the critical value in table Z was done. The critical value in table Z was known to be equal to -1.96, and if the Z value > -1.96, it means that Ho is accepted. In the table above, it can be concluded that the value of Z is equal to -1.85, which means it is greater than -1.96 so that Ho is accepted and H1 is rejected or there is no difference in performance between Conventional Equity Funds and Sharia Mutual Fund Performance with performance measurement of Treynor Ratio. This is also reinforced by other hypotheses that if the research probability value is greater than 0.05, Ho is accepted, and in the table above, the probability value in this study is 0.064, which means that it produces the same conclusion when using the Z value as a basis for decision making of the research result.

V. CONCLUSION

The conclusion of the comparison test research on the performance of Conventional Mutual Funds with the performance of Sharia Mutual Funds in Indonesia in 2018 shows that there was no differences in performance between the two types of Mutual Funds in 2018, either by measuring the Mutual Funds performance of Return on Mutual Funds, Treynor Ratio, The Sharpe Ratio or the Alpha Jensen. The results of this study are in line with research conducted by Esha, Heykal and Indrawati (2014) which examined the comparison of the performance of conventional mutual funds with sharia mutual funds for the period 2009-2012 and. The research concluded that there was no difference in performance between conventional mutual funds and sharia mutual funds. However, the results of this study are also not the same as the research conducted by Faridayani and Azib (2018), who conducted a comparative study of the performance of sharia mutual funds and conventional mutual funds for the period of 2013 - 2017. The research result shows there is a difference between the two types of mutual funds.

The results of this study also show that the low level of funds under management of Sharia Mutual Funds in Indonesia was not caused by the performance of Sharia Mutual Funds which was lower than the performance of Conventional Mutual Funds but was caused by other factors that need to be further investigated. Therefore, for researchers who want to conduct research on the low level of managed funds in Indonesia compared to Conventional Mutual Fund managed funds need to look for other factors used in addition to the performance factor of mutual funds.

For potential investors, especially the Indonesian people who want to invest, it is advisable to invest in mutual funds, either conventional mutual funds or sharia mutual funds because the two types of mutual funds do not have differences in performance, based on the research conducted by the researcher. Meanwhile, for Investment Managers as Investment Fund Managers, it is recommended to further improve the performance of mutual funds so that more Indonesian people are interested in investing in Mutual Funds. They also need to provide education and outreach to the public about Mutual Funds.

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