

**COMPARATIVE ANALYSIS ON THE PERFORMANCE OF  
CONVENTIONAL AND SHARIA EQUITY MUTUAL FUNDS IN JSX  
FOR THE PERIOD OF 2014-2015**

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By:

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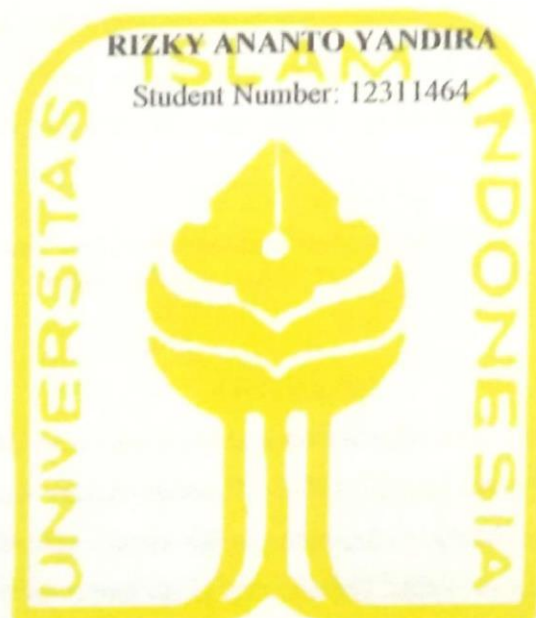
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DEPARTMENT OF MANAGEMENT  
INTERNATIONAL PROGRAM  
FACULTY OF ECONOMICS AND BUSINESS  
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## **ABSTRACT**

The purpose of this research is to analyze the Performance of Conventional and Sharia Equity Mutual Funds in 2014-2015. The mutual funds were listed in the JSX. The methods for measuring the performance in this research were Sharpe method, Jensen method, Treynor method,  $M^2$  method and Miller method. Mutual funds in this research were 44, consisting of 31 conventional mutual funds and 13 sharia mutual funds. The results of this research were the comparison of the performance between conventional and sharia mutual funds. It was found that the results showed no significant difference, and it can be concluded that Miller method is different from the other methods.

**Keywords:** *Mutual Fund Performance, Conventional Mutual Fund, Sharia Mutual Fund, Sharpe, Jensen, Treynor,  $M^2$ , Miller.*

## **ABSTRAKSI**

Tujuan dari penelitian ini adalah untuk menganalisis kinerja Konvensional dan Syariah Reksa Dana Saham ditahun 2014-2015. Reksa Dana yang terdaftar di JSX. Metode untuk mengukur kinerja dalam penelitian ini adalah metode Sharpe, metode Jensen, metode Treynor, metode  $M^2$  dan metode Miller. Jumlah Reksa Dana dalam penelitian ini adalah 44, terdiri dari 31 reksa dana konvensional dan 13 reksa dana syariah. Hasil dari penelitian ini adalah perbandingan kinerja antara reksa dana konvensional dan syariah tidak berbeda secara signifikan, dan dapat disimpulkan bahwa metode Miller berbeda dari metode lainnya.

**Keywords:** *Kinerja Reksa Dana, Reksa Dana Konvensional, Reksa Dana Syariah, Sharpe, Jensen, Treynor,  $M^2$ , Miller.*

## ***1. Introduction***

Capital market is one of the elements for measuring how good a country with its financial performance, while capital markets are markets for buying and selling equity and debt instruments. There are many instruments in capital market, for example stocks and bonds.

Mutual fund is a part of the capital market, but actually in Indonesia mutual fund is not really have high market. The number of mutual fund investors in 2012 was 150 thousand people, and the total funds is IDR 170 trillion. This number is still very small compared to the total amount of customers of banks, where the banks have managed funds that reached to IDR 2,984 trillion. The number of investors' mutual funds in Indonesia if compared to the total population is considered very small. In the United States, the mutual fund has become a part of family lives, where 8 to 10 families have mutual funds (Alexandri, 2015)

A mutual fund is an actively managed investment company that pools money from individuals and institutions that share a common financial goal. Professional money managers build a portfolio of securities that they believe will help investors achieve their objectives. Portfolios typically consist of stocks, bonds and money market instruments, or a combination of the three. (According Franklin Templeton Investment 2007)

Mutual funds can be owned with a minimum capital for investor that do not have much amount of money or do not have much time to control their investment. Mutual funds are made to collect money from many investors for investing in securities such stocks, bonds, and money market. Mutual fund companies will manage investors' money with the investment manager.

The history of mutual funds in Indonesia according to Wikipedia, everything began in 1976 when PT. Danareksa established by the government. Mutual funds were first published called a Danareksa certificate. Then in 1995, Law number 8 of 1995 about the capital markets was made, some of its contents are about mutual fund regulations. This event was also accompanied by the publication of mutual funds covered by PT. BDNI mutual funds which offer approximately 600 million shares. The amount of funds collected at that time was Rp 300 billion; it is due to one share in the mutual funds equals to Rp 500.

According to the Capital Market Law No. 8 of 1995 Article 1, paragraph (27) "Mutual fund is a place / pool used to collect investors' funds and then the money will be invested in portfolio by the investment manager.

This research was written to know the performance of mutual funds, what is the better performance between sharia and conventional. The researcher used 5 methods, which are Jensen, Treynor, Sharpe, M<sup>2</sup> and Miller. The benefit this research is to provide information for investors and potential investors in making decision when choosing mutual funds.

## **2. Literature Review**

### **2.1. Sharia Mutual Funds**

Mutual funds is an investment instrument, that pools money from investor to achieve financial goals. The portfolio in mutual funds consist of stock, bond, money market or combination. Conventional mutual funds is like regular mutual funds, no Islamic regulations applied. In the conventional mutual funds, the investment manager is free to invest the funds in any types of company.

Sharia mutual funds in the mutual funds follow Islamic principles and avoid that is not allowed in Islam, as what the Islamic National Council has been stated in *fatwa* of Islamic National Council. In the sharia, forbids to invest in companies that conduct a gambling, pornography, prostitution and haram foods or drinks.

### **2.2. Mutual Fund Performance Measurement**

To know the performance of mutual funds, the researcher used 5 methods, the 5 method is:

#### **a. Sharpe Method**

Sharpe method is a measurement using the expected rate of return and predicted variability of risks expressed as the standard deviation of returns.

$$\frac{\text{Average return Portfolio} - \text{Average risk free rate}}{\text{Standard deviation}}$$

- Average return portfolio means the average return of selected equity mutual funds in monthly period.
- Average risk free rate means the average of risk free rate, which in this research used Indonesian Bank certificate.
- Standard deviation:

$$\sqrt{\frac{\sum (R_i - R)^2}{N - 1}}$$

Where:

$R_i$  : Return

$R$  : Average return

$N$  : Number of observation

a. Jensen Method

Jensen method is a measurement method seeking only mutual funds that can generate returns over the expected returns or a minimum rate of returns. The return in Jensen method is an average return in the past, while the minimum rate of returns is the expected return, calculated using capital asset pricing model (CAPM), different between the average return minus the minimum rate of returns called as alpha (Samsul, 2015).

$$\alpha = (R_i - RF) - \text{expected return (CAPM)}$$

$R_i$  : average return on period

$$\text{Expected return} = (\beta(R_m - RF))$$

$\beta$  = Beta

$R_m$  = Expected market return

$RF$  = Risk free rate

b. Treynor Method

There are some terms used with the same name, namely as Treynor's index, Treynor's measure, and Treynor's model. The purpose of Treynor method is a measurement method using the past average return as the expected return and used beta as a risk benchmark. The beta shows the size of change return of mutual funds on changes in market returns (Samsul, 2015).

$$\frac{\text{Average return Portofolio} - \text{average risk free rate}}{\beta \text{ (as the risk benchmark)}}$$

- Average return portfolio means the average return of selected equity mutual funds in monthly period

- Average risk free rate means the average of risk free rate, which in this research used Indonesian Bank certificate

$\beta$  = Beta, and the formula is:

$$\beta_{il} = \frac{\sigma_{il}}{\sigma_{2l}}$$

- c. Modigliani and Modigliani ( $M^2$ ) Method  
 Franco modigliani and Leah modigliani ( $M^2$ ) method is a measurement using the minimum benchmark return. It is the performance of the market which is the ratio between the market return and market risk. Performance of the market used as benchmark and all of the performance portfolios are adjusted proportionally to the performance of the market (Samsul, 2015).

$$M^2 = r_p^* - r_m$$

$r_p^*$  : portfolio return

$r_m$  : market return

- d. Miller Method  
 Miller modified an appraisal ratio formula into alpha individual divided by portfolio's specific risks which is variance on error.  
 Miller method is a measurement using a variance from residual as the benchmark of risks.

$$\text{Appraisal ratio} = \alpha_p / \sigma(e_p)^2$$

Where:

$\alpha_p$  = Alpha of individual stock

$\sigma(e_p)^2$  = Specific risk portfolio, variance on error

### 2.3. Performance of Sharia and Conventional Mutual Funds

Before doing a data analysis, the hypothesis must be created as a presumption and must be proven the truth. Because based on the previous research, Desiana and Isnurhadi (2012), Hayati and Haruman (2006), Ramadya and Isyuardhana, (2012), Saputra (2009), Febriyanto (2011), some researchers said that conventional equity mutual funds have better performance, and some said sharia equity mutual funds have better performance, the researcher conducts this research to prove the different performances of conventional and sharia equity mutual funds in the 2014-2015 with the hypothesis as follows:

H1 : There is a difference in the performances of conventional equity mutual funds and sharia equity mutual funds.

#### Comparison among Mutual Funds Performance

In addition, this research aims to prove whether Miller method is having the same ranking of performance as the other method or not. The hypothesis is as follows:

H2 : There is a difference rank in the performance between Miller method and Treynor, Jensen, Sharpe and  $M^2$  methods.

### 3. Research Method

The research used population from several investment companies that have conventional and sharia mutual fund products. Mutual fund products used for the comparison of equity mutual funds and the samples for this research are equity mutual funds from 2014-2015.

For this research, the type of data was secondary data. It means that obtained were from sources related to this research, which are conventional and sharia mutual funds from 2014-2015.

Types of data used in this research are such as:

- a. NAV (Net Asset Value) published monthly from the selected equity mutual funds.
- b. Return data from the equity mutual funds.



- c. Risk free rate using the certificate of Bank Indonesia.
- d. Return data from IHSG as the market index.

To know the result of H1, the researcher compared the mutual funds per method.

1. Conventional equity mutual funds using Sharpe were compared with sharia equity mutual funds using Sharpe.
2. Conventional equity mutual funds using Treynor were compared with sharia equity mutual funds using Treynor
3. Conventional equity mutual funds using Jensen were compared with sharia equity mutual funds using Jensen
4. Conventional equity mutual funds using  $M^2$  were compared with sharia equity mutual funds using  $M^2$
5. Conventional equity mutual funds using Miller were compared with sharia equity mutual funds using Miller

To know the result of H2, the researcher compared the Miller method with the other methods one by one:

1. Miller method compared with Sharpe in conventional equity mutual funds.
2. Miller method compared with Sharpe in sharia equity mutual funds.
3. Miller method compared with Jensen in conventional equity mutual funds.
4. Miller method compared with Jensen in sharia equity mutual funds.
5. Miller method compared with Treynor in conventional equity mutual funds.
6. Miller method compared with Treynor in sharia equity mutual funds.
7. Miller method compared with  $M^2$  in conventional equity mutual funds.
8. Miller method compared with  $M^2$  in sharia equity mutual funds.

#### **4. Analysis Data and Discussion**

The results of the analysis of sharia equity mutual fund's performance in this research are as follows:

**Table 1**  
**Sharia Equity Mutual Fund's Performance Result**

Mutual Funds	Sharpe	Jensen	Teynor	M2	Model Miller
Avrist Equity-Amar Syariah	-1,531	0,012	-0,063	0,017	-6,711
BNP Paribas Pesona Syariah	-2,195	-0,049	-0,145	-0,008	-18,235
Cipta Syariah Security	-0,710	-0,052	-0,596	0,047	1,845
Mandiri Investa Atrakti Syariah	-0,437	0,037	-0,040	0,057	3,299
Mandiri Investa Ekuitas Syariah	0,200	0,034	-0,104	0,080	0,576
Manulife Syariah Equity Amanah	-0,883	-0,050	-0,178	0,041	-1,299
MNC Dana syariah ekuitas	-0,927	-0,114	2,996	0,039	-2,664
OSO Syariah Equity Fund	-0,904	-0,052	-0,202	0,040	-1,019
Panin Dana Syariah Saham	-0,401	0,114	-0,023	0,058	1,941
PNM Ekuitas Syariah	-1,945	-0,030	-0,104	0,002	-19,889
SAM Sharia Equity Fund	-0,308	0,056	-0,034	0,062	1,090
Sucorinvest Sharia Equity Fund	-0,961	-0,010	-0,083	0,038	-1,572
TRIM Syariah Saham	0,008	0,046	0,002	0,073	2,342
<b>Mean</b>	<b>-0,8457</b>	<b>-0,0045</b>	<b>0,1097</b>	<b>0,0420</b>	<b>-3,0997</b>
<b>Std. Dev</b>	<b>0,708</b>	<b>0,061</b>	<b>0,880</b>	<b>0,026</b>	<b>7,558</b>
<b>Max</b>	<b>0,200</b>	<b>0,114</b>	<b>2,996</b>	<b>0,080</b>	<b>3,299</b>
<b>Min</b>	<b>-2,195</b>	<b>-0,114</b>	<b>-0,596</b>	<b>-0,008</b>	<b>-19,889</b>

**Source: Data processed**

The mean score of Sharpe index in 2014-2015 is -0,8457 with the standard deviations of 0,708. The mean score is -0,8457 which can be concluded that the performance level of mutual funds based on Sharpe index is still relatively low. From the analysis of Sharpe index, it can be concluded that there are 11 sharia equity mutual funds that are not worth buying because it has a negative performance value. While there are 2 sharia equity mutual funds which are worth buying because of having positive performance values.

The mean score of Jensen index in year 2014-2015 is -0,0045 with standard deviations of 0.061. The mean score of -0,0045 can be concluded that

the performance level of mutual funds based on Jensen index is still low. From the analysis of Jensen index, it can be concluded that there are 7 sharia equity mutual funds which are not worth buying because it has a negative performance value. While there are 6 sharia equity mutual funds which are worth buying because of having positive performance values.

The mean score of Treynor index in 2014-2015 is 0,1097 with the standard deviations of 0,880. The mean score of 0,1097 can be concluded that the performance level of mutual funds based on Treynor index is classified as good. From the analysis of Treynor index, it can be concluded that there are 11 sharia equity mutual funds which are not worth buying because it has a negative performance value, while 2 sharia equity mutual funds are considered as worth buying because of having positive performance values.

The mean score of  $M^2$  index in 2014-2015 is 0,0420 with the standard deviation of 0,026. The mean score of 0,0420 can be concluded that the level of mutual fund performance based on  $M^2$  index is classified as good. From the analysis of  $M^2$  index, it can be concluded that there is 1 sharia equity mutual fund which is not worth buying because it has a negative performance value, while the other 12 sharia equity mutual funds are worth buying because of having positive performance values.

The mean score of Miller index in 2014-2015 is -3,0997 with the standard deviations of 7,558. The mean score of -3,0997 can be concluded that the level of mutual fund performance based on Miller index is classified as bad. From the analysis of Miller index, it can be concluded that there are 7 sharia equity mutual funds which are not worth buying because of having negative performance value, while the other 6 sharia equity mutual funds are worth buying because they show positive performance values.

The results of the performance analysis of conventional equity mutual funds in this research are as follows:

**Table 2****Conventional Equity Mutual Funds Performance Results**

Reksadana Saham	Sharpe	Jensen	Teynor	M2	Model Miller
Avrist Equity-Cross Sectoral	-1,555	-0,169	-0,061	0,073	1,876
Aberden Indonesia Equit Fund	-0,919	-0,074	-1,993	0,037	-984,545
Archipelago Equity Growth	-0,329	-0,172	-0,033	0,056	-5,506
Ashmore dana ekuitas nusantara	0,108	-0,113	0,009	0,054	-21,296
Bahana dana prima	-0,379	-0,088	-0,165	0,056	-65,351
Batavia dana saham	-0,740	-0,132	-0,060	0,039	-10,306
BNP Paribas Ekuitas	-1,027	-0,133	-0,120	0,039	16,123
CIMB-Principal Equity Aggresive	-0,131	-0,167	-0,013	0,058	-9,423
Dana Ekuitas Prima	-0,498	-0,059	0,248	0,056	67,523
Dana Reksa Mawar	-1,529	-0,149	-0,087	0,021	7,093
Eastspring investments alpha navigator	-0,539	-0,137	-0,132	0,056	25,946
Emco Growth Fund	-1,074	-0,128	-0,218	0,042	89,456
First state indoequity value select fund	-0,804	-0,199	-0,099	0,054	23,229
GAP Equity Fund	-0,488	-0,060	0,137	0,062	47,035
Grow 2 Prosper	-0,150	-0,101	-0,135	0,067	-21,888
Jisawi Progresif	0,153	-0,245	0,029	0,070	-5,622
MNC-Dana Equitas	-1,207	-0,275	-0,081	0,050	16,917
Mandiri Investa cerdas bangsa	0,161	-0,008	0,068	0,069	-47,879
Manuliffe Dana Saham	-1,127	-0,107	-0,816	0,041	1305,753
Maybank dana ekuitas	-1,829	-0,169	-0,090	0,019	14,003
Mega Asset greater infrastruktur	-0,726	-0,080	-0,125	0,033	-100,944
Millenium Equity	0,035	-0,341	0,005	0,069	-2,864
Panin Dana Maksima	-1,301	-0,173	-0,067	0,030	4,778
Pacific Equity Fund	0,158	0,851	-0,017	0,070	-1,983
Pratama Equity	-0,090	-0,132	-0,011	0,058	-16,702
Rencana Cerdas	-0,248	-0,120	-0,027	0,052	-20,973
Simas Danamas saham	-0,796	-0,115	-0,187	0,046	38,718
Syailendra Equity Oppportunity Fund	-1,530	-0,165	-0,158	0,036	58,821
Sucorinvest Equity und	-0,260	-0,093	-0,133	0,061	-45,204
Tram consumption plus	-0,214	-0,108	-0,039	0,057	-28,021
TRIM kapital	-0,549	-0,095	-0,091	0,044	-44,298
<b>Mean</b>	<b>-0,6266</b>	<b>-0,1050</b>	<b>-0,1439</b>	<b>0,0508</b>	<b>9,1763</b>

<b>Std. Dev</b>	<b>0,570</b>	<b>0,189</b>	<b>0,381</b>	<b>0,014</b>	<b>300,940</b>
<b>Max</b>	<b>0,161</b>	<b>0,851</b>	<b>0,248</b>	<b>0,073</b>	<b>1305,753</b>
<b>Min</b>	<b>-1,829</b>	<b>-0,341</b>	<b>-1,993</b>	<b>0,019</b>	<b>-984,545</b>

**Source: Data processed**

The mean score of Sharpe index in 2014-2015 is -0,6266 with the standard deviation of 0,570. The mean score of -0,6266 can be concluded that the level of mutual fund performance based on Sharpe index is still relatively low. From the analysis of Sharpe index, it can be concluded that there are 26 sharia equity mutual funds which are not worth buying because they have negative performance values, while there are 5 sharia equity mutual funds which are worth buying because of having positive performance values.

The mean score of Jensen index in 2014-2015 is -0,1050 with the standard deviation is 0,189. The mean score of -0,1050 can be concluded that the level of mutual funds performance based on Jensen index is still low. From the analysis of Jensen index, it can be concluded that there are 30 conventional equity mutual funds which are not worth buying because they have negative performance values, while there is 1 conventional equity mutual fund which is worth buying because it has a value of positive performance.

The mean score of Treynor index in 2014-2015 is -0,1439 with the standard deviation is 0,381. The mean score of -0,1439 can be concluded that the level of mutual fund performance based on Treynor index is classified as bad. From the analysis of Treynor index, it can be concluded that there are 25 conventional equity mutual funds which are not worth buying because they have negative performance values, while there are 6 conventional equity mutual funds which are worth buying because of having positive performance values.

The mean score of M<sup>2</sup> index in 2014-2015 is 0,0508 with the standard deviation is 0,014. The mean score of 0,0508 can be concluded that the level of mutual fund performance based on Treynor index is classified as good. From the analysis of the M2 index, it can be concluded that the entire equity mutual funds are worth buying because of having positive performance values.

The mean score of Miller index in 2014-2015 is 9,1763 with the standard deviation is 300,940. The mean score of 9,1763 can be concluded that the level of mutual fund performance based on Miller index is classified as good. From the analysis of Miller index, it can be concluded that there are 17

conventional equity mutual funds which are not worth buying because they have negative performance values, while there are 14 conventional equity mutual funds which are worth buying because of having positive performance values.

Comparison between Conventional and Sharia Equity Mutual Funds

**Table 3**

	Equity Mutual Fund	N	Mean
Sharpe	Sharia	13	-,8457
	Conventional	31	-,6266
Jensen	Sharia	13	-,0045
	Conventional	31	-,1050
Treyndor	Sharia	13	,1097
	Conventional	31	-,1439
M2	Sharia	13	,0420
	Conventional	31	,0508
Miller	Sharia	13	-3,0997
	Conventional	31	9,1763

**Table 4**

Independent Samples Test					
		t-test for Equality of Means			
		t	df	Sig. (2tailed)	Mean Difference
Sharpe	Equal variances assumed	-1,083	42	,285	-,21911

	Equal variances not assumed	-,989	18,843	,335	-,21911
Jensen	Equal variances assumed	1,865	42	,069	,10057
	Equal variances not assumed	2,648	40,534	,011	,10057
Treydor	Equal variances assumed	1,346	42	,186	,25363
	Equal variances not assumed	1,000	13,924	,334	,25363
M2	Equal variances assumed	-1,444	42	,156	-,00881
	Equal variances not assumed	-1,152	15,212	,267	-,00881
Miller	Equal variances assumed	-,146	42	,885	-12,27601
	Equal variances not assumed	-,227	30,090	,822	-12,27601

### Sharpe Index

The average means of Sharpe index are -0,8457 for Sharia and -0,6266 for Conventional with the mean difference of -0,21911. By using the t-test, that the test value of independent samples based on equal variance assumed is -1,083 with the significance value is 0,285 which is larger than a standard probability of 0.1 Thus, it can be concluded that there is no significant difference between the performance of conventional equity mutual fund and sharia equity mutual fund based on the Sharpe index.

### Jensen Index

The average means of Jensen are -0,0045 for Sharia and -0,1051 for Conventional with the mean difference of 0,10057. By using t-test, that the test value of independent samples based on the equal variance assumed is 1,865 with the significane value of 0,069. This is smaller than the standard probability of 0.1 so that it can be concluded that there is a significant difference between

the performance of conventional and sharia equity mutual funds based on Jensen index.

**Treynor Index**

The average means of Treynor are 0,1097 for Sharia and -0,1439 for Conventional with the mean difference of 0,25363. By using t-test, the test value of independent samples based on the equal variance assumed is 1,346 with the significance value of 0,186 which is larger than the standard probability of 0.1. Thus, it can be concluded that there is no significant difference between the performance of conventional and sharia equity mutual funds based on Treynor index.

**M<sup>2</sup> Method**

The average mean of M<sup>2</sup> are 0,0419 for Sharia and -0,0508 for Conventional with the mean difference of -0,00881. By using t-test, the test value of independent samples based on the equal variance assumed is -1,444 with the significance value is 0,156 which is larger than the standard probability of 0.1 Thus, it can be concluded that there is no significant difference between the performance of conventional and sharia equity mutual funds based on M<sup>2</sup> index.

**Miller Method**

The average mean of Miller index are -3,0997 for Sharia and 9,1763 for Conventional with the mean difference of -12,27601. By using the t-test, the test value of independent samples based on the equal variance assumed is -0,146 with the significance value is 0,885 which is larger than the standard probability of 0.1 Thus, it can be concluded that there is no significant difference between the performance of conventional and sharia equity mutual funds based on Miller index.

**The results of the comparison ranking between Miller method and the other methods are as follows:**

**Tabel 5  
Comparison Ranking of Overall Mutual Fund Performance**

Mutual Funds	Model Miller	Sharpe	Jensen	Teynor	M2
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Manuliffe Dana Saham	1	35	23	43	29
Emco Growth Fund	2	34	29	41	28
Dana Ekuitas Prima	3	20	15	2	17
Syailendra Equity Opportunity Fund	4	39	35	36	37
GAP Equity Fund	5	19	16	3	9
Simas Danamas saham	6	26	27	39	26
Eastspring investments alpha navigator	7	21	33	32	18
First state indoequity value select fund	8	27	41	27	22
MNC-Dana Ekuitas	9	36	43	22	24
BNP Paribas Ekuitas	10	33	32	30	33
Maybank dana ekuitas	11	42	37	25	41
Dana Reksa Mawar	12	38	34	24	40
Panin Dana Maksima	13	37	40	21	39
Mandiri Investa Atrakti Syariah	14	18	5	17	16
TRIM Syariah Saham	15	7	4	8	2
Panin Dana Syariah Saham	16	17	2	12	12
Avrist Equity-Cross Sectoral	17	41	38	19	3
Cipta Syariah Security	18	23	14	42	25
SAM Sharia Equity Fund	19	14	3	15	10
Mandiri Investa Ekuitas Syariah	20	1	6	29	1
OSO Syariah Equity Fund	21	29	13	40	31
Manulife Syariah Equity Amanah	22	28	12	38	30
Sucorinvest Sharia Equity Fund	23	32	9	23	35
Pacific Equit Fund	24	3	1	11	4
MNC Dana syariah ekuitas	25	31	26	1	32
Millenium Equity	26	6	44	7	7
Archipelago Equity Growth	27	15	39	14	19
Jisawi Progresif	28	4	42	5	5
Avrist Equity-Amar Syariah	29	40	7	20	42
CIMB-Principal Equity Aggressive	30	9	36	10	14
Batavia dana saham	31	25	30	18	34
Pratama Equity	32	8	31	9	13
BNP Paribas Pesona Syariah	33	44	11	35	44
PNM Ekuitas Syariah	34	43	10	28	43
Rencana Cerdas	35	12	28	13	23

Ashmore dana ekuitas nusantara	36	5	25	6	21
Grow 2 Prosper	37	10	22	34	8
Tram consumption plus	38	11	24	16	15
TRIM kapital	39	22	21	26	27
Sucorinvest Equity und	40	13	20	33	11
Mandiri Investa cerdas bangsa	41	2	8	4	6
Bahana dana prima	42	16	19	37	20
Mega Asset greater infrastruktur	43	24	18	31	38
Abeerden Indonesia Equit Fund	44	30	17	44	36

From the 44 Sharia and Conventional Equity mutual funds, there are only 2 mutual funds from Miller that are the same as the other method ranks. Sucorinvest Sharia Equity Fund (23) is the same as Treynor rank, and Abeerden Indonesia Equit Fund (44) is the same as Treynor rank. While 42 mutual fund rankings between Miller and the other method ranks are totally different.

The comparison between the Miller method and the other performance calculation methods. The second hypothesis testing results can be summarized as follows:

**Table 6**  
**Correlation Coefficient of the Performance Method**

Method	Sharpe	Jensen	Treynor	M2	Miller
Sharpe	1	,221	,029	,847	-,082
Jensen	,221	1	,273	,141	-,032
Treynor	,029	,273	1	-,009	-,013
M2	,847	,141	-,009	1	,009
Miller	-,082	-,032	-,013	,009	1

Source: Data processed, 2016

From the test results of the comparison between Miller method and the other methods, the first rank is the comparison of Miller -M2 with the correlation value of 0,009. The second rank is the comparison between Miller -Treynor with the correlation value of 0.013. The third rank is the comparison between Miller -Jensen, the correlation value of -0.032. And, the last rank is the comparison between Miller -Sharpe with the correlation value of -0.083.

## **Discussion**

### **Comparison between Conventional and Sharia Mutual Fund**

The results of this research proved that the overall performances of Sharia and Conventional Equity Mutual Funds are not significantly different. by using Treynor, Sharpe, Miller and  $M^2$ . It can be seen from the hypothesis testing that tested do not have any significant difference in the performance of mutual funds. And for Jensen there is a significant difference in the performance of mutual funds.

In the Table 4.4 for the hypothesis testing of Sharpe index, the equal variance assumed is -1,083 with the significance value is  $0,285 > 0,1$  so that there is no significant different in Sharpe method.

In the Table 4.5, for the hypothesis testing of Jensen index, the equal variance assumed is 1,865 with the significance value is  $0,069 < 0,1$  so that there is significant different in Jensen method.

In the Table 4.6, for the hypothesis testing of Treynor index, the equal variance assumed is 1,346 with the significance value of  $0,186 > 0,1$  so that there is no significant different in Treynor method.

In the Table 4.7, for the hypothesis testing of  $M^2$ , the equal variance assumed is -1,444 with the significance value is  $0,156 > 0,1$  so that there is no significant different in  $M^2$  method.

In the table 4.8, for the hypothesis testing of Miller, the equal variance assumed is -0,146 with the significance value is  $0,885 > 0,1$  so that there is no significant different in Miller method.

### **Comparison between Miller and Other Methods**

The ranking of Miller method and the other methods is different. In the Table 4.9, all the sharia and conventional equity mutual funds, comparing between Miller with Sharpe, Jensen, Treynor, and  $M^2$  were ranked by using excel, and the results are presented in the table. From the 44 sharia and conventional equity mutual funds, only 2 of Miller rank which are the same as the other method ranks.

## **5. Conclusions**

Based on the data analysis in the previous chapter, the research results conclusions can be summed up as follows:

The performance of conventional mutual funds are not conclusive because using some methods of the performance are good, but using the other methods of the performance is not good. From the research, it can be concluded that Sharpe, Jensen and Treynor's levels of performance for conventional equity mutual funds are not good. While for the  $M^2$  and Miller levels of performance for conventional equity mutual funds are classified as good.

The performance of sharia mutual funds are not conclusive because using some methods the performance are good, but using the other methods make the performance bad. From the research, it can be concluded that Sharpe, Jensen and Miller's levels of performances for Sharia equity mutual funds is not good. While for the Treynor and  $M^2$  levels of performance for Sharia equity mutual funds are classified as good.

The comparison of the performance between conventional and sharia mutual funds are not significantly different. In Sharpe index, it can be concluded that there is no significant difference between the performance of conventional and sharia equity mutual funds, resulting that both conventional and sharia performances are not good.

In Jensen index, it can be concluded that there is a significant difference between the performance of conventional and sharia equity mutual funds, that both conventional and sharia performances are not good.

In Treynor index, it can be concluded that there is no significant difference between the performance of conventional and sharia equity mutual funds, resulting that the conventional performance is not good while the sharia performance is good.

In  $M^2$  index, it can be concluded that there is no significant difference between the performance of conventional and sharia equity mutual fund, resulting that both conventional and sharia performances are good.

In Miller index, it can be concluded that there is no significant difference between the performance of conventional and sharia equity mutual funds, resulting that conventional performance is good while the sharia performance is not good.

Based on the coefficient correlation and ranking comparison between Miller method and Sharpe, Jensen, Treynor and  $M^2$  it can be concluded that Miller method is different from the other methods and the coefficient correlation is considered low. It is because from the ranking of mutual funds

performance from the total of 44 equity mutual funds, only 2 that have the same ranking.

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