The Effect Of Fund Cash Flow, Fund Size, Expense Ratio And Turnover Ratio On Mutual Fund Performance

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Abstract.
The purpose of this study was to analyze the effect of fund cash flow, fund size, expense ratio and turnover ratio on mutual fund performance. The sample used is thirty stock mutual fund companies. The data used in this study were obtained from the 2015-2017 annual financial statements of equity funds. The sample selection method used in this study was purposive sampling method, the analytical technique used in this study was panel data regression and processed using the Eviews version 9. After several tests were carried out, namely the Chow, Hausman and Lagrange multiplier tests, the best regression model was obtained, namely the random effect model. The results showed that only fund cash flow had a significant positive effect on mutual fund performance, while The other three variables, namely fund size, expense ratio and turnover ratio, showed contradictory results, namely that they had no effect on mutual fund performance.

Keywords: *Fund cash flow, fund size, expense ratio, turnover ratio, Sharpe ratio.*

I. INTRODUCTION

Mutual funds have been introduced in Indonesia since 1976, issued by PT. Danareksa, which is a mutual fund certificate and then in 1995 a law was made that regulates the capital market and partly discussed mutual funds, namely Law no. 8 of 1995. The enactment of the law also became a momentum for the emergence of mutual funds in Indonesia, which began with the issuance of closed mutual funds by PT. BDNI Mutual Funds (Sukmaningrum, 2016) Since being introduced in 1976 and enacted into law in 1995, mutual funds have experienced rapid growth, as shown in the table below.

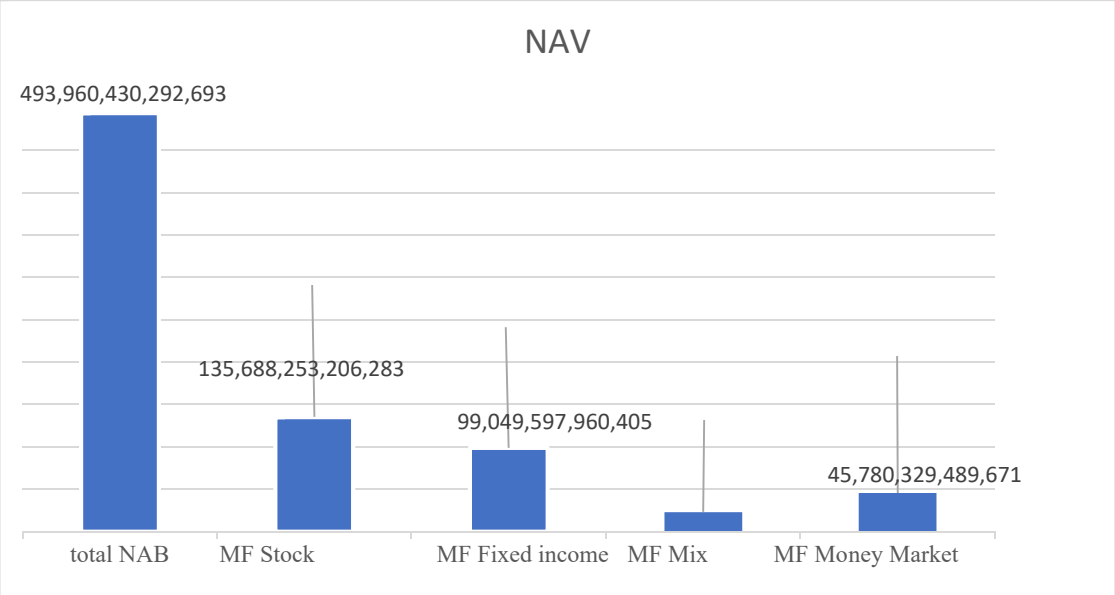
Table 1. The Development of the Mutual Fund Industry for the Period 1996-201

YEAR	MUTUAL FUND AMOUNT	Total INVESTMENT unit (Million)
1996	25	2.942,24
1997	77	6.007,38
1998	81	3.680,90
1999	81	4.349,96
2000	94	5.006,05
2001	108	7.303,78
2002	131	41.665,53
2003	186	60.020,75
2004	246	84.700,70
2005	328	21.262,15
2006	403	36.140,10
2007	567	53.589,97
2008	568	60.976,09
2009	605	69.985,51
2010	616	82.079,77
2011	671	98.982,08
2012	754	113.714,30
2013	794	120.886,85
2014	894	142.728,46
2015	1091	182.980,30
2016	1248	240.711,44
2017	1579	323.810,48
2018	1693	371.308,85

Source: Bareksa, OJK

The purpose of investing in mutual funds is to get high investment returns or returns. In achieving these goals, mutual funds cannot be separated from the influence of performance in carrying out their activities to achieve high returns. The return from a mutual fund is known as the net asset value (NAV) which is the key to assessing the performance of a mutual fund.(Agung & Wirasedana, 2014). To compare the performance of equity, fixed income, money market, and mixed mutual funds, it can be seen from the total net asset value, the following is a comparison of the net asset value resulting from each mutual fund which is shown in the graph below.

Fig 1. Mutual fund NAV composition as of October 2018 (in trillions)



Sumber: Bareksa, OJK

Based on the data from graph 1.1 above, it can be seen that the composition of the net asset value of mutual funds in Indonesia obtained from the financial services authority as of October 2018 was dominated by equity funds of Rp. 135,688,253,206,283.00 trillion, the amount was 27,47 percent of the total net asset value. Followed by fixed income mutual funds with a net asset value of Rp. 99,049,597,960,405.00 trillion, which accounts for 20.05 percent of the total net asset value. Money market mutual funds are in the third position with a net asset value of Rp 45,780,329,489,671.00 trillion, with a proportion of 9.27 percent. And the smallest proportion is a mixed mutual fund with a net asset value of Rp. 23,398,256,553,292.00, which is 4.7 percent of the total net asset value. And as much as 37.41 percent of the composition that is not described in the graph is occupied by Islamic mutual funds, collectives and indexes. Based on the data on the composition of the net asset value above, the composition is dominated by equity mutual funds, which means that it reflects high investment growth in equity mutual funds. In this study, the object chosen was equity mutual funds, because in addition to having more interest, the net asset value also tends to increase every year which shows the performance of stock mutual funds is good, thus making researchers interested in observing the performance of these stock mutual funds. Mutual fund performance is an indicator of the success of investment managers in managing their customers' funds. The measurement of the performance of these mutual funds can be measured using the Sharpe, Treynor and Jensen methods. In this study, the method used is the Sharpe method, namely by evaluating portfolio managers based on the rate of return and diversification (such as considering the total portfolio risk as measured by the standard deviation of the denominator).

There are many factors that can be used to analyze the performance of a mutual fund. This study uses four factors, namely fund cash flow, fund size, expense ratio, and turnover ratio. There have been many studies conducted on the performance of mutual funds, but there is still a research gap from the research conducted. The difference is found in the four factors above. Fund cash flow is the movement of cash inflows and outflows which ultimately affects portfolio beta and mutual fund performance. Research on fund cash flow on mutual fund performance conducted by (Sukmaningrum, 2016) stated that fund cash flow had

an insignificant effect while research by (Bitomo & Muharam, 2016) stated that fund cash flow had a significant positive effect on mutual fund performance. Fund size is a measure of the size of a mutual fund that will affect the market capitalization level of the mutual fund. Differences in research results were also found in the fund size variable, according to (Hermawan & Wiagustini, 2016), the fund size has an insignificant effect on the performance of mutual funds. Meanwhile, according to research conducted by Agung & Wirasedana (2014) states that fund size has a positive and significant effect on mutual fund performance. Expense ratio is a mutual fund's annual operating cost which is shown in the ratio. Different results were also found in research on the effect of the expense ratio on mutual fund performance. Like the research of Sukmaningrum, (2016) , the expense ratio has a significant and negative effect on the performance of mutual funds, while the research of Pambudi,(2016) states that the expense ratio has a significant positive effect on the performance of mutual funds. Turnover ratio is a ratio that describes changes in the contents of the mutual fund portfolio. In previous studies showing differences, namely Sukmaningrum (2016) stated that the turnover ratio has no significant effect on the performance of mutual funds. While research Dana K. (2016) states that the turnover ratio has a significant effect on the performance of mutual funds.

II. METHODS

In this study, multiple linear regression tests were conducted. This model examines the effect of two or more independent variables on the dependent variable with an interval or ratio measurement scale in a linear equation Supomo & Indriantoro, (2002: 202). With this test, it can be seen the positive or negative effect of the independent variable on the dependent. The regression equation is:

$$Y = \alpha + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \varepsilon$$

Information:

Y	= equity Mutual fund Performance(Dana K, 2016)
α	= constant
b_1, b_2, b_3, b_4	= regression cofficient
X_1	= *Fund* cash flow
X2	= *Fund size*
X_3	= *Expense ratio*
X_4	= *Turnover ratio*
ε	= Standar error

All data processing was carried out using Microsoft Excel 2010 and Eviews 9 software.

Table 2. Variable Operational Definition

No	Variable	Definition	Scale	Measurement
1.	Mutual fund performance (Y)	.The rate of return of mutual funds to its investors	*Ratio*	$SRD = \left(\frac{Kinerja_{RD} - Kinerja_{RF}}{\sigma}\right)$
2.	*Fund* cash flow (X1)	Net amount of cash fund from sources of funds and use of funds	*Ratio*	$NCF = \frac{(TNA_{p,t} - TNA_{p,t-1}(1 + R_{pt})}{TNA_{p,t-1}}$
3.	*Fund size*	Presentation of the amount of capital managed by mutual funds.	*Ratio*	NAB = *Total Aktiva – Kewajiban* Ukuran (*size*) = LN (Total Net Asset)
4.	*Expense ratio*	Comparison between Mutual Fund operating costs to total managed funds.	*Ratio*	$Expense\ Ratio = \left(\sum_{i=1}^{n} \frac{TB_t}{AB_t}\right)$

5.	*Turnover ratio*	The comparison between the sale or purchase which is smaller to the total assets owned by mutual funds.	*Ratio*	Taken from financial statements

Source: Author, 2019.

In this study the authors took the following criteria:

1. Equity mutual funds active in Bareksa from January 2016 to December 2017.
2. Conventional equity mutual funds denominated in rupiah.
3. Mutual funds that issue prospectuses successively in the study period.
4. Mutual funds that have an average return greater than risk free

Table 3. Sample Selection Process

No.	Criteria	Quantity
1.	Equity mutual funds active in Bareksa from January 2016 to December 2017.	185
2.	Conventional equity mutual funds denominated in rupiah	157
3.	Mutual funds that issue prospectuses successively in the study period	36
4.	Mutual funds that have an average return greater than risk free	30

Source: Author, 2019.

There are 30 mutual funds that meet these criteria, with a list as follows:

Table 4. Sample list

No	Mutual Fund Name
1	Ashmore Dana Ekuitas Nusantara
2	Ashmore Dana Progresif Nusantara
3	Bni-am Dana Berkembang
4	Bnp Paribas Equitas
5	Bnp Paribas Infrastruktur Plus
6	Bnp Paribas Pesona
7	Bnp Paribas Star
8	Bnp Paribas Solaris
9	Bahana Dana Prima
10	Bahana Primavera Fund 99
11	Bahana Trailblazer Fund
12	Batavia Dana Saham
13	Batavia Dana Saham Optimal
14	CIMB Principal Total *Return* Equity Fund
15	CIMB Principal Indo Domestic Equity Fund
16	CIMB Principal Smart Equity Fund
17	Dana Ekuitas Andalan
18	Eastspring Investments Alpha Navigator
19	First State Indoequity Value Select Fund
20	First State Indoequity Dividend Yield Fund
21	Mandiri Investa Cerdas Bangsa
22	Mandiri Investa Equity ASEAN 5 Plus

23	Manulife Dana Saham
24	Manulife Institutional Equity Fund
25	Manulife Saham Andalan
26	Prospera Bijak
27	Rencana Cerdas
28	Schroder Dana Prestasi
29	Simas Danamas Saham
30	Simas Saham Unggulan

Source: Bareksa.com

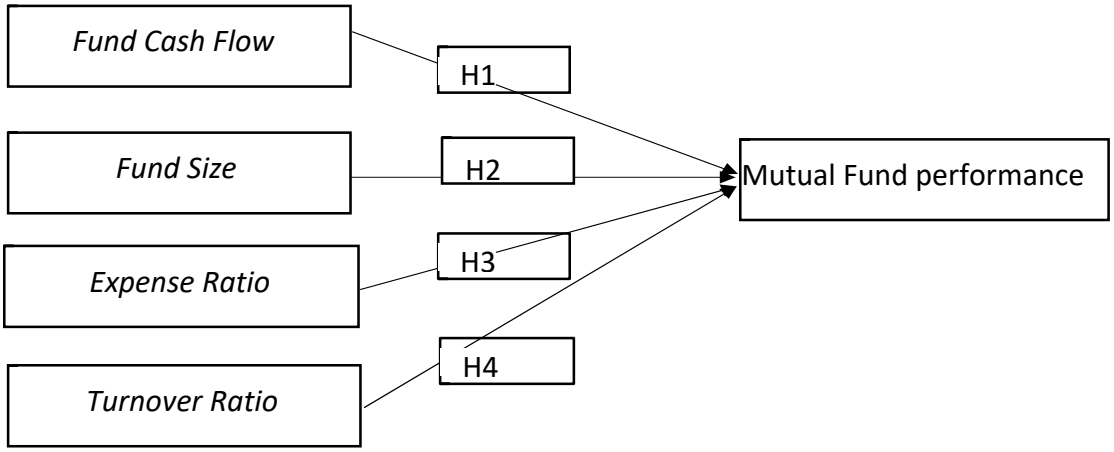


Fig 1. Framework

Source: Author, 2019.

Ha1: Fund cash flow has a significant positive effect on the performance of equity funds.
Ha2: Fund size has a significant positive effect on the performance of equity funds.
Ha3: Expense ratio has a significant negative effect on the performance of equity mutual funds.
Ha4: Turnover ratio has a significant positive effect on the performance of equity mutual funds.

III. RESULT AND DISCUSSION

RESULT.

Mutual Fund Performance

The starting point for assessing portfolio performance is to calculate the portfolio's rate of return Manurung, (2007: 125)). In this study, the method used to measure the performance of mutual funds is the Sharpe method, the measurement of portfolio performance with the Sharpe ratio is carried out by including the element of risk and basing the calculation on the concept of the capital market line as a parameter. The following is a list of the performance of equity mutual funds for the 2016-2017 period:

Table 5. Sharpe Ratio Value of Equity Mutual Funds Period 2016-2017

No	Mutual Fund Name	2016	2017
1	Ashmore Dana Ekuitas Nusantara	0.1831	0.4245
2	Ashmore Dana Progresif Nusantara	0.2704	0.0968
3	Bni-am Dana Berkembang	0.0607	0.2395
4	Bnp Paribas Equitas	0.0022	0.3522
5	Bnp Paribas Infrastruktur Plus	0.1241	0.4639
6	Bnp Paribas Pesona	0.0882	0.3184
7	Bnp Paribas Star	0.0685	0.3428
8	Bnp Paribas Solaris	0.1399	0.1259
9	Bahana Dana Prima	0.1297	0.5103
10	Bahana Primavera Fund 99	0.1527	0.4547

11	Bahana Trailblazer Fund	0.0946	0.4459
12	Batavia Dana Saham	0.1012	0.5480
13	Batavia Dana Saham Optimal	0.0923	0.4329
14	CIMB Principal Total *Return* Equity Fund	0.2102	0.4916
15	CIMB Principal Indo Domestic Equity Fund	0.0630	0.1686
16	CIMB Principal Smart Equity Fund	0.1542	0.2075
17	Dana Ekuitas Andalan	0.1775	0.2716
18	Eastspring Investments Alpha Navigator	0.0574	0.5225
19	First State Indoequity Value Select Fund	0.0047	0.1342
20	First State Indoequity Dividend Yield Fund	0.0406	0.4394
21	Mandiri Investa Cerdas Bangsa	0.1374	0.2581
22	Mandiri Investa Equity ASEAN 5 Plus	0.0058	0.5156
23	Manulife Dana Saham	0.0986	0.0898
24	Manulife Institutional Equity Fund	0.1950	0.2153
25	Manulife Saham Andalan	0.1738	0.0098
26	Prospera Bijak	0.1445	0.1854
27	Rencana Cerdas	0.1931	0.2397
28	Schroder Dana Prestasi	0.1734	0.2875
29	Simas Danamas Saham	0.2066	0.2765
30	Simas Saham Unggulan	0.2135	0.0107

Source: Data processed, 2019.

Table 5 shows the Sharpe ratio value used to measure mutual fund performance, it can be seen in the table that the Sharpe ratio value of each stock mutual fund varies, but even so the Sharpe ratio value in the sample does not have a negative value. A good mutual fund performance can be seen from the high Sharpe ratio value, therefore the higher the Sharpe ratio value, the better the performance of the mutual fund. Factors that influence the level of Sharpe ratio can be internal such as the performance of investment managers in managing portfolios and external factors which can be market conditions.

Data analysis

The variables that will be discussed in this study are fund cash flow, fund size, expense ratio and turnover ratio as independent variables, and mutual fund performance which is calculated using the Sharpe ratio method as the dependent variable. In this study the data used is panel data. The following are descriptive statistical results from 30 sample mutual funds data for the 2016-2017 period:

Table 6. Descriptive Research Variables

Date: 04/19/19
Time: 11:15
Sample: 2016 2017

	Y_MF Performance_	X1_FUND_CASH_FLOW	X2_FUND_SIZE	X3_EXPENSE_RATIO	X4_TURNOVER_RATIO
Mean	0.213942	0.013843	26.60874	0.108412	1.564667
Median	0.180300	0.168400	26.81910	0.041000	0.920000
Maximum	0.548000	2.406400	29.45360	3.254600	5.320000
Minimum	0.002200	0.998700	20.81740	0.015000	0.010000
Std. Dev.	0.150973	0.614086	1.725041	0.421194	1.416248
Skewness	0.704075	1.838071	0.951285	7.159016	0.970334
Kurtosis	2.499670	7.139037	4.199940	53.71459	2.731812
Jarque-Bera	5.583037	76.61413	12.64907	6942.440	9.595284
Probability	0.061328	0.000000	0.001792	0.000000	0.008249
Sum	12.83650	0.830600	1596.525	6.504700	93.88000

Sum Sq. Dev.	1.344776	22.24901	175.5701	10.46684	118.3397
Observations	60	60	60	60	60

Source: Data processed, 2019.

1. Mutual Fund Performance

Mutual fund performance has an average of 0.213942 and a median value of 0.180300 with a standard deviation of 0.150973 and the highest value of 0.548000 is owned by the Batavia Dana Saham mutual fund and the lowest value is 0.002200 which is owned by mutual funds BNP Paribas Equity.

2. Fund Cash Flow

Fund cash flow has an average of 0.013843 with a median value of -0.168400 and a standard deviation of 0.614086, the highest value is owned by the Bahana Dana Prima mutual fund with a value of 2.406400 and the lowest value is owned by the Mandiri Investa Equity mutual fund. ASEAN 5 Plus with a value of -0.998700.

3. Fund Size

Fund size has an average value of 26,60874 and a median value of 26,81910 with a standard deviation of 1,725041, the highest value of 29.45360 owned by mutual fund Schroder Dana Prestasi and the lowest value of 20,81740 owned by mutual fund Mandiri Investa Equity ASEAN 5 Plus.

4. Expense Ratio

The expense ratio has an average value of 0.108412 with a median value of 0.041000 and a standard deviation of 0.421194, the highest value is owned by Mandiri Investa Equity ASEAN 5 Plus mutual funds with a value of 3.254600 and the lowest value is owned by mutual funds Bahana Primavera Fund 99 with a value of 0.015000.

5. Turnover Ratio

The turnover ratio has an average value of 1.564667 and a median value of 0.920000 with a standard deviation of 1.416248, the highest value is owned by Mandiri Investa Equity ASEAN 5 Plus mutual fund with a value of 5.320000 and the lowest value is owned by the Bahana Trailblazer mutual fund. Fund with a value of 0.010000.

Panel Data Regression Model Approach Method

The panel data regression model approach method is carried out with three models, namely common effect, fixed effect, and random effect. This is done to find out which model is suitable for research. To find out which model is suitable for research, the Chow test, Hausman test and the lagrange multiplier test are carried out. The test was carried out to determine between the common effect model, fixed effect model, or random effect model which was selected as the best regression model in this panel data. The following are the test results used to determine the right model.

Panel Data Regression Model Selection Results

After doing some of the tests above, namely the Chow, Hausman and Lagrange multiplier tests, the best regression model is obtained, namely the random effect model. The following is the regression model equation as follows:

Table 7. Panel Data Regression Results

Dependen Variable: MUTUAL _FUND_ PERFORMANCE
Method: Panel EGLS (Cross-section random effects)
Date: 04/24/19 Time: 11:45
Sample: 2016 2017
Periods included: 2
Cross-sections included: 30
Total panel (balanced) observations: 60
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistik	Prob.

C	0.274564	0.432565	0.634733	0.5282
FUND_CASH_FLOW	0.102745	0.039822	2.580129	0.0126
FUND_SIZE	-0.001775	0.015870	-0.111840	0.9114
EXPENSE_RATIO	-0.020794	0.065504	-0.317441	0.7521
TURNOVER_RATIO	-0.008029	0.018068	-0.444397	0.6585

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	0.176367	1.0000

Weighted Statistiks

R-squared	0.174621	Mean dependen var	0.213942
Adjusted R-squared	0.114594	S.D. dependen var	0.150973
S.E. of regression	0.142059	Sum squared resid	1.109949
F-statistik	2.909021	Durbin-Watson stat	3.032170
Prob(F-statistik)	0.029617		

Source: Data processed, 2019.

Based on the data above, the panel data regression model equation is as follows:

MF PERF = 0.274564 + 0.102745 FCF – 0.001775 FS – 0.020794 ER – 0.008029 TR

Partial Test (T-Statistic Test)

Table 8. T-Statistic Test Results

Dependen Variable: MUTUAL FUND PERFORMANCE
Method: Panel EGLS (Cross-section random effects)
Date: 04/24/19 Time: 11:45
Sample: 2016 2017
Periods included: 2
Cross-sections included: 30
Total panel (balanced) observations: 60
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistik	Prob.
C	0.274564	0.432565	0.634733	0.5282
FUND_CASH_FLOW	0.102745	0.039822	2.580129	0.0126
FUND_SIZE	-0.001775	0.015870	-0.111840	0.9114
EXPENSE_RATIO	-0.020794	0.065504	-0.317441	0.7521
TURNOVER_RATIO	-0.008029	0.018068	-0.444397	0.6585

Source: Data processed, 2019.

1. The t-statistic value of fund cash flow is 2.580129 with a probability of 0.0126 less than the significance level (α = 0.05). This means that H0 is rejected and Ha is accepted, so there is a significant effect. So it can be explained that fund cash flow has a significant effect on the performance of mutual funds.

2. The t-statistic value of the fund size is -0.111840 with a probability of 0.9114 greater than the significance level (α = 0.05). This means that H0 is accepted and Ha is rejected so that there is no significant effect. So it can be explained that fund size has no significant effect on mutual fund performance.

3. The t-statistical expense ratio value is -0.317441 with a probability of 0.7521 greater than the significance level (α = 0.05). This means that H0 is accepted and Ha is rejected so that there is no significant effect. So it can be explained that the expense ratio has no significant effect on the performance of mutual funds.

4. The t-statistical value of the turnover ratio is -0.444397 with a probability of 0.6585 which is smaller than the significance level (α = 0.05). This means that H0 is accepted and Ha is rejected, so there is no significant effect. So it can be explained that the turnover ratio has no significant effect on the performance of mutual funds.

Model Feasibility Test (F-statistical Test)

This test was conducted to determine the feasibility of the model used to explain the independent variables, namely fund cash flow, fund size, expense ratio, and turnover ratio to the independent variable, namely the performance of mutual funds. The following is a table of model feasibility test results:

Table 9. Model Feasibility Test Results (F-statistical Test)

R-squared	0.174621	Mean dependen var	0.213942
Adjusted R-squared	0.114594	S.D. dependen var	0.150973
S.E. of regression	0.142059	Sum squared resid	1.109949
F-statistik	2.909021	Durbin-Watson stat	3.032170
Prob(F-statistik)	0.029617		

Source: Data processed, 2019.

Based on the data in table 4.16, it can be seen that the prob value (F-statistics) is 0.029617 which is smaller than (α = 0.05) so it can be concluded that this research is worthy of further research.

Coefficient of Determination Test (R^2)

This test was conducted to determine the extent to which the independent variable can explain the dependent variable. This test can be done by looking at the Adjusted R-squared value. The following are the results of the coefficient of determination (R^2):

Based on the data obtained from table 10, it can be seen that the Adjusted R-squared value of 0.114594 which means that 11.46 percent of the mutual fund performance (dependent variable) can be explained by the independent variables, namely fund cash flow, fund size, expense ratio and turnover. ratio. While the remaining 88.54 percent is explained by other variables not explained in this study.

Result Interpretation

Panel data regression analysis aims to determine whether or not there is an effect of fund cash flow, fund size, expense ratio and turnover ratio on mutual fund performance, see Table 8. Based on the t-test on the panel data regression coefficient, the hypothesis can be proven, while the interpretation of the regression coefficient (slope) of each independent variable is as follows:

Effect of Fund Cash Flow on Mutual Fund Performance

The first hypothesis in this study states that fund cash flow has a significant effect on the performance of accepted mutual funds, as evidenced in the log regression coefficient t-test (PMH). This indicates that the log regression coefficient (PMH) which is 2.580129 has an interpretable meaning. A positive value indicates that fund cash flow has a positive effect on mutual fund performance. When fund cash flow increases, the performance of mutual funds also increases. Similarly, when the fund's cash flow decreases, the performance of the mutual fund also decreases.

The elasticity of the effect of fund cash flow growth on mutual fund performance is shown by the value of the fund cash flow regression coefficient. When there is a 1 percent increase in fund cash flow, the performance of mutual funds will increase by 25.80 percent. And conversely, when the fund's cash flow decreases by 1 percent, the performance of the mutual fund will decrease by 25.80. This empirical finding is in line with the first hypothesis which states that fund cash flow has a significant effect on mutual fund performance.

Effect of Fund Size on Mutual Fund Performance

The second hypothesis in this study states that fund size has a significant effect on the performance of rejected mutual funds, as evidenced in the log regression coefficient t-test (PMH). This indicates that the log regression coefficient (PMH) with a value of -0.111840 has an interpretable meaning. A negative value can be interpreted when the fund size increases it will reduce the performance of the mutual fund, and vice versa. However, because the probability of the t-statistic is 0.9114 > = 0.05, it can be said that fund size has no significant effect on mutual fund performance.The elasticity of the effect of fund size on mutual fund performance is shown through the fund size regression coefficient. When the fund size increases by 1 percent, the performance of the mutual fund decreases by 11.18 percent, and vice versa if the fund size

decreases by 1 percent, the performance of the mutual fund increases by 11.18 percent. This empirical research contradicts the second hypothesis which states that fund size has a significant effect on mutual fund performance.

Effect of Expense Ratio on Mutual Fund Performance

The third hypothesis in this study that the expense ratio has a significant effect on mutual fund performance is rejected, as evidenced in the log regression coefficient t-test (PMH). This indicates that the log regression coefficient (PMH) which is -0.317441 has a meaning that can be interpreted. A negative value indicates that when the expense ratio increases, the performance of the mutual fund decreases, the same as when the expense ratio decreases, the performance of the mutual fund increases. However, with a probability of 0.7521 > = 0.05, it can be interpreted that the expense ratio has no significant effect on mutual fund performance.

The elasticity of the effect of the expense ratio on the performance of the mutual fund can be shown through the regression coefficient value of the expense ratio. When the expense ratio increases by 1 percent, the performance of the mutual fund will decrease by 31.74 percent. And conversely, if the expense ratio decreases by 1 percent, the performance of the mutual fund will increase by 31.74 percent. This empirical research is not in line with the third hypothesis which states that the expense ratio has a significant effect on mutual fund performance.

The Effect of Turnover Ratio on Mutual Fund Performance

The fourth hypothesis in this study states that the turnover ratio has a significant effect on the performance of rejected mutual funds. As evidenced in the t-test of the log regression coefficient (PMH). This indicates that the log regression coefficient (PMH) with a value of -0.444397 with a probability of 0.6585 > = 0.05 has a meaning that can be interpreted. A negative value indicates that the higher the turnover ratio, the lower the performance of the mutual fund. Likewise, when the turnover ratio is low, the performance of the mutual fund increases. However, with a probability greater than the significance value, the effect is not significant.

The elasticity of the effect of the turnover ratio on the performance of mutual funds can be shown through the regression coefficient of the turnover ratio when the turnover ratio increases by 1 percent, the performance of the mutual fund will decrease by 44.43 percent. And conversely, when the turnover ratio decreases by 1 percent, the performance of the mutual fund will increase by 44.43 percent. This empirical finding is in line with the fourth hypothesis which states that the turnover ratio has a significant effect on the performance of mutual funds.

DISCUSSION

This section describes the analysis of the research results by comparing, contrasting, contrasting and discussing the results with the theory used and the results of previous studies used as references.

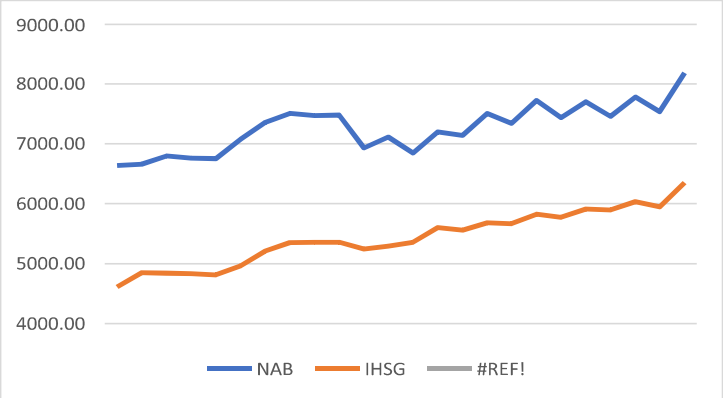
Effect of Fund Cash Flow on Mutual Fund Performance

The results of this study indicate that fund cash flow has a significant positive effect on mutual fund performance. These results are in line with the theory which states that the higher the cash flow from the fund, the higher the performance of the mutual fund. The results of this study are corroborated by previous research conducted by Bitomo & Muharam, (2016) that fund cash flow has a significant positive effect on mutual fund performance. However, this is contrary to the results of the discussion (Sukmaningrum, 2016) which found that fund cash flow did not have a significant effect on mutual fund performance.

Fund cash flow has a significant positive effect on mutual fund performance. The higher the net flow of funds, the better the performance of the mutual fund, and vice versa. This is possible because fund cash flow is a net flow of funds from sources and uses of funds. If the inflow of funds is high, it will affect the funds distributed, resulting in a positive flow of funds. This positive flow of funds is a good opportunity for mutual fund companies and in creating demand for securities such as stocks and bonds, as well as diversifying their fund allocation. Varied allocation of funds will create greater opportunities to increase mutual fund returns than the allocation of funds to one portfolio. The increase in mutual fund returns reflects the mutual fund's good performance.In the research period taken by the author, the performance of the stock

mutual funds that became the research sample can be concluded to have a positive performance. This can be concluded because of the comparison between NAV and JCI as the reference index.

Fig 2. Comparison of NAV with JCI



Source: kontan.co.id

It can be seen in Figure 4.2 that the NAV of mutual funds is superior to the JCI, although the difference is very slight, the NAV of mutual funds is still superior to the JCI as the reference index. The value of the BI Rate at the end of 2015 which decreased from 7.5 percent to 6.5 percent is likely to cause a shift in investment to mutual funds, especially in equity funds that are able to provide returns between 18-25 percent, mixed mutual funds 13.5-15 percent, bond mutual funds 7-12 percent,

while money market mutual funds are 4-5 percent. so that in 2016 the value of NAV increased to 339 trillion. In 2017, the performance of equity mutual funds increased due to the increase in the JCI by 73.91 points or by 6,335. The NAV value shows the amount of funds managed by the investment manager, if the amount of positive flow of funds will result in a good NAV value, so that the NAV value is not below the reference index. The NAV value which is greater than the JCI reflects the good performance of the mutual fund.

Effect of Fund Size on Mutual Fund Performance

The results of this study indicate that fund size has no effect on mutual fund performance. This result is contrary to the theory which states that the larger the size of the mutual fund company, the better the performance of the mutual fund. This finding is supported by previous research Sukmaningrum, (2016), Hermawan & Wiagustini,(2016) that fund size has no effect on mutual fund performance. However, this contradicts the findings (Agung & Wirasedana, (2014 : 250) which state that fund size has a significant positive effect on mutual fund performance.Fund size has no effect on mutual fund performance, and contradicts the theory which states that the larger the size of the mutual fund company, the better the performance. This is possible because in reality the size of the company is denoted by total net assets or AUM (assets under management).

High total net assets reflect a large company size and vice versa. However, it can be emphasized that the amount of net assets can be generated from the trading volume in the market and the optimal investment manager strategy in asset allocation. So it can be concluded that the high total asset value is obtained from the credibility of the investment manager.In addition, based on the performance data of mutual funds using the Sharpe ratio method in this study, the difference between yield and risk free is also not too high. This slight difference means that no matter how large the total assets invested, it does not give too big a return. This is supported by a high standard deviation value, causing high return fluctuations. The standard deviation value reflects the level of risk faced by investors. A high standard deviation value will have an impact on investors in entrusting their funds. So, what has an influence on the performance of the mutual fund is the optimal performance of the investment manager and risk analysis, not the size of the mutual fund.

Effect of Expense Ratio on Mutual Fund Performance

The results of this study indicate that the expense ratio has no effect on mutual fund performance, this is contrary to the theory that the more expensive the operating costs incurred, the better the mutual fund performance. This research is supported by previous research (Sukmaningrum, 2016), (Nursyabani, 2016)

which states that the expense ratio has no effect on mutual fund performance. However, this study contradicts research(Pambudi, 2016) ,(Bitomo & Muharam, 2016) which states that the expense ratio has a significant positive effect on mutual fund performance.

The expense ratio has no effect on the performance of mutual funds and is contrary to the theory which states that the higher the costs incurred for operations, the better the performance. This may be because the cost that most influences the performance of a mutual fund is the investment manager's fee. This fee is paid to the investment manager in return for doing his job of market research and analysis so that the data determine some of the higher portfolio returns. The amount of fees that must be paid to the investment manager depends on the cost of research and portfolio analysis used as a reference in making strategies by the investment manager. So that what makes the performance of a mutual fund better or worse is the strategy carried out by the investment manager. And directly the cost only affects the strategy made by the investment manager.

The Effect of Turnover Ratio on Mutual Fund Performance

The results of this study indicate that the turnover ratio has no significant effect on the performance of mutual funds, and is contrary to the theory which states that the higher the activity ratio, the better the performance of mutual funds. This is supported by research Lidyah, (2017), Sukmaningrum, (2016), which states that the turnover ratio has no effect on mutual fund performance, but this is contrary to research Dana K (2016) and Ahmad et al., (2017) which show that the turnover ratio has a significant positive effect on the performance of mutual funds.

Turnover ratio is a comparison of the value of the smallest purchase or sale (Dahlquist et al., 2000). This ratio is used to measure the trading activity of a mutual fund portfolio (Grinblatt & Titman, 1994) . Turnover ratio has no significant effect because this ratio is a sales comparison or the smallest purchase made by investment managers in carrying out operations, while what affects the performance of mutual funds is market timing when making the purchase or sale (Lidyah, 2017) . Market timing ability is the ability of the Investment Manager to adjust the asset portfolio of investment instruments by buying or selling shares in a timely manner to anticipate changes in market prices that can cause losses or gains for the mutual funds they manage.So it can be concluded that influencing the performance of mutual funds is the ability of the Investment Manager to adjust the portfolio of investment instrument assets, which in this case is called market timing ability, not the turnover ratio related to sales volume.

IV. CONCLUSION.

Based on the results of the analysis carried out, there are several conclusions that can be drawn in this study, including the following:

1. Fund cash flow has a significant positive effect on the performance of equity mutual funds
2. Fund size has no significant effect on the performance of equity funds
3. Expense ratio has no significant effect on the performance of equity mutual funds
4. Turnover ratio has no significant effect on the performance of equity mutual funds

REFERENCES

[1] Agung, J. dw. M. S., & Wirasedana, I. W. P. (2014). *Analisis Kinerja Reksa Dana Saham di Indonesia* (Vol. 1).

[2] Ahmad, Y., Khidmat, W. bin, & Sun, G. (2017). Fund-specific Determinants of Performance: An Empirical Study of Islamic and Conventional Mutual Funds of Pakistan. ***International Journal of Economics and Financial Issues***, *7*(5), 359–370.

[3] Bitomo, H., & Muharam, H. (2016). Analisis Faktor-Faktor yang Mempengaruhi Kinerja Reksa Dana Di Indonesia (Studi Empiris Pada Reksa Dana Konvensional di Indonesia Periode 2012-2014). *DIPONEGORO **Journal Of Management***, *5*(2), 1–14.

[4] Dahlquist, Magnus, Engstrom, Stefan, & Soderlind, P. (2000). Performance and Characteristics of Swedish Mutual Fund. ***Journal of Finance and Quantitative Analysis***, *32*.

[5] Dana K, D. C. (2016). Karakteristik Reksa Dana dan Kinerja Reksa Dana Saham di Indonesia. Jurnal Manajemen**.** ***Jurnal Manajemen***, *13*(1), 94–116.

[6] Grinblatt, M., & Titman, S. (1994). A Study Of Monthly Fund Returns And Performance Techniques. ***Journal of Financial and Quantitative Analysis*.**

[7] Hermawan, D. , L. N., & Wiagustini, P. (2016). Pengaruh Inflasi, Suku Bunga, Ukuran Reksa Dana, dan Umur Reksa dana Terhadap Kinerja Reksa Dana. ***E-Jurnal Manajemen Unud***, *5*(5), 3106–3133.

[8] Lidyah, R. (2017). Pengaruh Total Aset, Expense Ratio Dan Portofolio Turnover Terhadap Kinerja Reksa dana Saham Di Indonesia. *UIN Raden Fatah*.

[9] Manurung, A. H. (2007). Panduan Lengkap Reksa Dana Investasiku. *Kompas*.

[10] Nursyabani, P. A. (2016). Analisis Pengaruh Cash Flow , Fund Size , Family Size , Expense Ratio , Stock Selection Ability Dan Load Fee Terhadap Kinerja Reksa dana Saham Periode 2012-2014. *DIPONEGORO* ***Journal Of Management***, *5*, 1–15.

[11] Pambudi, Y. S. (2016). *Analisis Pengaruh Total Asset, Fund Age, Expense Ratio, dan Portfolio Turnover Terhadap Kinerja Reksa Dana (Studi Kasus: Reksa Dana Konvensional Berbasis KIK Tahun 2012-2014)*. Universitas Diponegoro.

[12] Sukmaningrum, G. , & M. M. K. (2016). *). Analisis Pengaruh Fund Cash Flow , Fund Size , Fund Longevity , Expense Ratio Dan Turnover Ratio Terhadap Kinerja Reksa Dana (Studi Kasus : Reksa Dana Pendapatan Tetap Periode Tahun 2011-2015)*. *5*(8).

[13] Supomo, B., & Indriantoro, N. (2002). *Metodologi Penelitian Bisnis* (2nd ed.). BFEE UGM.

[14] Undang – Undang Pasar Modal No. 8 Tahun 1995, Pasal 1 ayat (27) Undang No. 24 Tahun 2002 Tentang Surat Utang Negara.