# Analysis the Effect of Expense Ratio, Turnover Ratio, and Cash Flow on the Performance of Equity Mutual Funds with Fund Size as a Moderation Variable

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Abstract:- The purpose of the study was to analyze the effect of expense ratio, turnover ratio, and cash flow on mutual fund performance by using fund size as moderation. The total population amounted to 3822 equity mutual funds with a sample selection method using the purposive sampling method, which obtained twenty stock mutual funds registered with the OJK. Data is based on the annual financial statements of equity mutual funds in the 2019-2022 period. The analysis technique used is multiple linear regression. The results concluded that expense ratio has a significant negative effect and turnover ratio has a significant positive effect while cash flow does not affect the performance of equity mutual funds. Fund size moderates the effect of expense ratio and turnover ratio on stock mutual fund performance but Fund size does not moderate the effect of cash flow on stock mutual fund performance.

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**Keywords:-** Mutual Fund Performance, Fund Size, Expense Ratio, Turnover Ratio, Cash Flow.

# I. INTRODUCTION

A guaranteed future is certainly everyone's desire and for that there are many ways that can be done to achieve these desires, one of which is by investing early. When deciding to invest, there are many types of investments that can be used as options, ranging from real ones in physical form such as houses, land, and gold to non-real in the financial sector. One of the instruments that includes investment in the capital market is mutual funds. According to the Capital Market Law No. 8 of 1995, article 1 paragraph (27) is defined that a mutual fund is a forum used to collect funds from the investor community to be subsequently invested in a securities portfolio by an investment manager.



Fig 1 Number of Mutual Fund Investors in Indonesia Source : dataindonesia.id Based on data obtained from data from the Indonesian Central Securities Depository (KSEI), the number of mutual fund investors in Indonesia reached 9.28 million people as of October 2022. This number increased by 35.7% compared to the end of last year which was 6.84 million people. This shows that this mutual fund financial instrument is one that is in demand by investors in the country. Mutual funds include the instruments of choice of people who are interested in diversifying investments. So that it can encourage people to invest in mutual funds. Each type of mutual fund has different performance and return depending on the type of mutual fund, the ability of the investment manager and current market conditions.

Each type of mutual fund has different performance and return depending on the type of mutual fund, the ability of the investment manager and current market conditions. Therefore to know whether mutual fund performance can beat or market or not, mutual funds need to analyze their performance as a basis for investment decisions for investors. To examine the performance of equity mutual funds, several indicators are needed that can be used as a benchmark to see the performance of the mutual fund. Some important indicators in choosing mutual fund products are Expense Ratio, Turnover Ratio, Cash Flow, and Fund Size. The four indicators illustrate the efficiency and professionalism of the investment manager's performance. In addition, things that affect mutual fund performance include external and inernal factors. External factors related to government policies in the monetary field have a direct impact on the yield of instruments included in the mutual fund portfolio. Internal factors include variables chosen as predictors of changes in mutual fund performance including Expense Ratio, Turnover Ratio, Cash Flow, and Fund Size. These indicators greatly affect the performance of a mutual fund and are needed for deeper analysis to determine the performance of investment managers who if good in management are convinced to provide good performance as well

Thus, the author will conduct a study entitled "Analysis of the effect of Expense Ratio, Turnover Ratio, and Cash Flow on the performance of stock mutual funds with Fund Size as a moderation variable.

# II. THEORETICAL REVIEW

# ➢ Signaling Theory

Signaling theory is an action taken by company management that gives investors clues about how management views the company's prospects. This theory provides an explanation of the reason why companies have the urge to convey or provide information related to the company's financial statements to external parties. The encouragement to submit or provide information related to financial statements to external parties is based on the existence of information asymmetries between company management and external parties[1].

# > Agency Theory

Agency theory is a design that explains the contextual relationship between principals and agents, namely between two or more people, a group or organization. The principal is the party who has the right to make a decision for the future of the company and give responsibility to other parties (agents) [2].

#### > Mutual Funds

Based on the Capital Market Law No. 8 Year (1995) article 1 paragraph 27, it is defined that mutual funds are used to collect funds from the investor community to be subsequently invested in securities portfolios by investment managers. There are three things related to the definition, namely: there are funds from the investor community that are invested in mutual funds, the funds invested can be in the form of investments in securities portfolios, and the funds invested will then be managed by investment managers.

#### ➢ Expense Ratio

Expense Ratio is the total costs incurred for the company's operational activities consisting of administrative and management costs to support mutual fund operations [3]. Mutual fund expense ratio is the result of a comparison of operational costs to mutual fund NAV [4].

#### > Turnover Ratio

Portfolio Turnover is a comparison between the value of portfolio purchases or sales in one period with the average net asset value in one year. Portfolio turnover is also a measure of how often assets in a fund are bought and sold by managers. Measurements are typically reported for a twelvemonth time period [5].

# ➤ Cash Flow

Cash flow is an analysis of all changes affecting cash in the operating, investing, and financial categories [6].

#### ➤ Fund Size

The size of the mutual fund is calculated based on the size of the total net assets (TNA) Mutual funds with a large size will be more profitable than a small size[7].

#### ➤ Frame Work and Hypothesis



Fig 2 Frame Work

- H1 : Expense Ratio has a significant negative effect on the performance of equity mutual funds
- H2 : Turnover Ratio has a significant positive effect on the performance of equity mutual funds
- H3 : Cash Flow has a significant positive effect on the performance of equity mutual funds
- H4 : Fund Size moderates the effect of Expense Ratio on Equity Mutual Fund Performance
- H5 : Fund Size moderates the effect of Turnover Ratio on Equity Mutual Fund Performance
- H6 : Fund Size moderates the effect of Cash Flow on Equity Mutual Fund Performance

# III. RESEARCH METHODOLOGY

# > Population and Sample

The population used in this study is all stock mutual funds registered and published by the Financial Services Authority (OJK) totaling 3822 equity mutual funds and 20 stock mutual funds that are sampled in this study.

Table 1 Research Sample

|    | -                                                |
|----|--------------------------------------------------|
| No | Equity Mutual Funds                              |
| 1  | Reksadana Manulife Dana Ekuitas Utama            |
| 2  | Reksadana Schroder 90 Plus Equity Fund           |
| 3  | Reksadana Ashmore Dana Ekuitas Nusantara         |
| 4  | Reksadana Batavia Dana Saham                     |
| 5  | Reksadana Bnp Paribas Ekuitas                    |
| 6  | Reksadana Mandiri Investa Atraktif               |
| 7  | Reksadana Panin Dana Maksima                     |
| 8  | Reksadana Manulife Dana Saham                    |
| 9  | Reksadana Sucorinvest Equity Fund                |
| 10 | Reksadana Bahana Dana Ekuitas Andalan            |
| 11 | Reksadana TRAM Consumption Plus                  |
| 12 | Reksadana Tram Infrastructure Plus               |
| 13 | Reksadana Panin dana Prima                       |
| 14 | Reksadana Danareksa Mawar                        |
| 15 | Reksadana Batavia Dana Saham Optimal             |
| 16 | Reksadana Eastspring Investments Value Discovery |
| 17 | Reksadana Eastspring Investments Alpha Navigator |
| 18 | Ashmore Dana Progresif Nusantara                 |
| 19 | Reksadana Sequis Equity Indonesia                |
| 20 | Reksadana Fwd Asset Dividend Yield Equity Fund   |

# > Collecting Data Method

In this study, the data used were secondary data. The published financial statement data is obtained by accessing from the website www.ojk.go.id. and www.pasardana.id.

# > Analysis Data Method

This study used multiple linear regression using the help of SPSS Statistic 25 by passing the classical assumption test then Moderated Regression Analysis (MRA) and finally the hypothesis test using Statistical Test T, Statistical Test F and Test Coefficient of Determination ( $R^2$ ).

# IV. RESULT AND DISCUSSION

- A. Uji Asumsi Klasik
- ➢ Uji Normalitas

| Table 2 Uji Normalitas |  | Table | 2 | Uji | Norma | litas |
|------------------------|--|-------|---|-----|-------|-------|
|------------------------|--|-------|---|-----|-------|-------|

| One-Sample Kolmogorov-Smirnov Test     |                      |                     |  |  |  |
|----------------------------------------|----------------------|---------------------|--|--|--|
|                                        |                      | Unstandardize       |  |  |  |
|                                        |                      | d Residual          |  |  |  |
| N                                      |                      | 80                  |  |  |  |
| Normal Parameters <sup>a,b</sup>       | Mean                 | .0000000            |  |  |  |
|                                        | Std. Deviation       | 1.06129603          |  |  |  |
| Most Extreme Differences               | Absolute             | .088                |  |  |  |
|                                        | Positive             | .088                |  |  |  |
|                                        | Negative             | 065                 |  |  |  |
| Test Statistic                         |                      | .088                |  |  |  |
| Asymp. Sig. (2-tailed)                 |                      | .200 <sup>c,d</sup> |  |  |  |
| a. Test distribution is Normal         |                      |                     |  |  |  |
| b. Calculated from data.               |                      |                     |  |  |  |
| c. Lilliefors Significance Correction. |                      |                     |  |  |  |
| d. This is a lower bound of th         | e true significance. |                     |  |  |  |
| Source : Analyz                        | zed Data SPSS 2      | 25.0                |  |  |  |

Asymp value. Sig. (2-tailaed) of 0.200 > of 0.05, it can be concluded that the data is normally distributed, so that multiple linear regression analysis can be continued [8].

# ➢ Uji Multikolinearitas

| Table 3 | Uji | Multikolineritas |
|---------|-----|------------------|
|---------|-----|------------------|

| Coefficients <sup>a</sup>   |                |        |            |              |        |      |              |            |  |  |
|-----------------------------|----------------|--------|------------|--------------|--------|------|--------------|------------|--|--|
| Unstandardized Standardized |                |        |            |              |        |      |              |            |  |  |
|                             |                | Co     | efficients | Coefficients | t      | Sig. | Collinearity | Statistics |  |  |
| Model                       |                | В      | Std. Error | Beta         |        |      | Tolerance    | VIF        |  |  |
| 1                           | (Constant)     | 4.543  | .872       |              | 5.209  | .000 |              |            |  |  |
|                             | Expense Ratio  | 9.593  | 3.628      | .273         | 2.644  | .010 | .671         | 1.491      |  |  |
|                             | Turnover ratio | 231    | .041       | 571          | -5.638 | .000 | .696         | 1.438      |  |  |
|                             | Cashflow       | -9.060 | 4.460      | 201          | -2.031 | .046 | .729         | 1.372      |  |  |
|                             | Fund Size      | 183    | .031       | 579          | -5.818 | .000 | .721         | 1.388      |  |  |

a. Dependent Variable: Kinerja Reksadana

Source : Analyzed Data SPSS 25.0

All dependent variables have a Tolerance value of more than 0.1 and a VIF value of less than 10, so the Multicholinerity assumption has been met or no symptoms of multicholinerity have occurred.

# ➢ Uji Heteroskedastisitas

| ļ     | Coefficients <sup>a</sup> |         |                       |              |        |      |  |  |  |  |
|-------|---------------------------|---------|-----------------------|--------------|--------|------|--|--|--|--|
|       |                           |         |                       | Standardized |        |      |  |  |  |  |
|       |                           | Unstand | lardized Coefficients | Coefficients | T      | Sig. |  |  |  |  |
| Model |                           | В       | Std. Error            | Beta         |        |      |  |  |  |  |
| 1     | (Constant)                | .369    | .138                  |              | 2.667  | .009 |  |  |  |  |
|       | Expense Ratio             | 305     | .576                  | 072          | 529    | .598 |  |  |  |  |
|       | Turnover ratio            | .009    | .006                  | .176         | 1.317  | .192 |  |  |  |  |
|       | Cashflow                  | -1.112  | .708                  | 205          | -1.570 | .121 |  |  |  |  |
|       | Fund Size                 | 009     | .005                  | 224          | -1.703 | .093 |  |  |  |  |

a. Dependent Variable: ABS RES 2

Source : Analyzed Data SPSS 25.0

The significance value of the independent variable to the residual absolute value is above the predetermined significant level which is greater (>0.05), so the data can be said to be data regardless of heteroscedasticity.

# Uji Autokorelasi

| Table 5 Uji A | Autokorelasi |
|---------------|--------------|
|---------------|--------------|

|                              | Model Summary <sup>b</sup> |          |        |          |               |  |  |  |
|------------------------------|----------------------------|----------|--------|----------|---------------|--|--|--|
| Adjusted R Std. Error of the |                            |          |        |          |               |  |  |  |
| Model                        | R                          | R Square | Square | Estimate | Durbin-Watson |  |  |  |
| 1                            | .656ª                      | .430     | .22535 | 1.964    |               |  |  |  |

a. Predictors: (Constant), Fund Size, Turnover ratio, Cashflow, Expense Ratio

b. Dependent Variable: LN Y

Source : Analyzed Data SPSS 25.0

The number of independent variables K = 4 and the number of data N = 80 then found the value of DW 1.964 and seen from the DW table where dL Table: 1.5337 and dU Table: 1.7430 then 1.7430 < 1.964 < 4-1.7430 or 1.7430 < 1.964 < 2.257 Fulfill decisions not rejected where data does not occur autocorrelation.

B. Moderated Regression Analysis (MRA)

|   | Table 6 MRA               |               |                |                                  |        |      |  |  |  |  |
|---|---------------------------|---------------|----------------|----------------------------------|--------|------|--|--|--|--|
|   | Coefficients <sup>a</sup> |               |                |                                  |        |      |  |  |  |  |
|   |                           | Unstandardize | d Coefficients | <b>Standardized Coefficients</b> |        |      |  |  |  |  |
|   | Model                     | В             | Std. Error     | Beta                             | t      | Sig. |  |  |  |  |
| 1 | (Constant)                | .585          | .209           |                                  | 2.798  | .007 |  |  |  |  |
|   | Expense Ratio             | -11.268       | 4.307          | -1.598                           | -2.616 | .011 |  |  |  |  |
|   | Turnover ratio            | .301          | .070           | 3.720                            | 4.298  | .000 |  |  |  |  |
|   | Cashflow                  | -4.157        | 3.457          | 460                              | -1.202 | .233 |  |  |  |  |
|   | Fund Size                 | .046          | .008           | .723                             | 5.812  | .000 |  |  |  |  |
|   | ER*FZ                     | .371          | .184           | 1.282                            | 2.020  | .047 |  |  |  |  |
|   | TR*FZ                     | 010           | .003           | -3.176                           | -3.754 | .000 |  |  |  |  |
|   | CF*FZ                     | .199          | .136           | .437                             | 1.458  | .149 |  |  |  |  |
|   |                           |               | a. Dependent V | ariable: LN Y                    |        |      |  |  |  |  |

Source : Analyzed Data SPSS 25.0

> MRA Regression Equation Model :

 $Y = \alpha + \beta_1 ER + \beta_2 TR + \beta_3 CF + \beta_4 FZ + \beta_5 (ER * FZ) + \beta_6 (TR * FZ) + \beta_7 (CF * FZ) + \epsilon$ 

> The Results of Data Processing Obtained by the Equation are as follows:

 $LN_Y = 0.585 - 11.268 * ER + 0.301 * TR - 4.157CF + 0.46FZ + 0.371(ER * FZ) - 0.010(TR * FZ) + 0.199(CF * FZ) + \epsilon$ 

- The mutual fund performance disclosure variable has a positive constant value of 0.585.
- The value of the regression coefficient of the Expense Ratio variable is -11.268 with a significance value of 0.011. Thus, the value of the regression coefficient shows that if the Expense Ratio decreases by one unit, then the value of the Mutual Fund Performance will decrease by 11,268, while the others remain the same.
- The value of the regression coefficient of the variable Turnover ratio is 0.301 with a significance value of 0.000. Thus, the value of the regression coefficient shows that if

the turnover ratio increases by one unit, then the value of the Mutual Fund Performance will increase by 0.301, while the others remain the same.

- The value of the regression coefficient of the Cashflow variable is -4.157 with a significance value of 0.233. Thus, the value of the regression coefficient shows that if Cashflow decreases by one unit, then the value of Mutual Fund Performance will decrease by 4,157, while others remain the same.
- The value of the Regression coefficient of the Fund Size variable is 0.046 with a significance value of 0.000. Thus,

the value of the regression coefficient shows that if the Fund Size increases by one unit, then the value of the Mutual Fund Performance will increase by 0.046, while the others remain the same.

- The regression coefficient value of the Expense Ratio variable with Fund Size is 0.371 with a significance value of 0.047. Thus, the value of the regression coefficient shows that if the Expense Ratio with Fund Size increases by one unit, then the value of the Mutual Fund Performance will increase by 0.371, while the others remain the same. Based on the moderation variable test, it is known that the Expense Ratio to Disclosure of mutual fund performance is 0.011 which means it has a significant effect while the probability of interaction between Expense Ratio and Fund Size is 0.047 which means it has a significant effect. Thus, it can be concluded that the fund size variable is pseudomoderation or worthy of being used as a moderation variable[9].
- The value of the regression coefficient of the Turnover ratio variable with Fund Size is -0.010 with a significance value of 0.000. Thus, the value of the regression coefficient shows that if the Turnover ratio with Fund Size decreases by one unit, then the value of the Mutual Fund Performance will decrease by 0.010 while the others remain the same. Based on the moderation variable test, it is known that the turnover ratio to mutual fund performance disclosure is 0.000 which means it has a significant effect while the probability of interaction turnover ratio with Fund Size is 0.000 which means it has a significant effect. Thus, it can be concluded that the fund size variable is pseudo-moderation or worthy of being used as a moderation variable.
- The value of the regression coefficient of the Cashflow variable with Fund Size is 0.199 with a significance value of 0.199. Thus, the value of the regression coefficient shows that if the Cash Flow with Fund Size increases by one unit, then the value of the Mutual Fund Performance will increase by 0.199 while the others remain the same. Based on the moderation variable test, it is known that Cash flow against mutual fund performance disclosure is 0.233 which means it has no significant effect while the probability of cash flow interaction with Fund Size is 0.149 which means it has no significant effect. Thus, it can be concluded that fund size is not worthy of being used as a moderation variable or can be classified as a moderation homologiser.

# C. Uji Hipotesis

# ≻ Uji T

The value of the Expenses ratio (X1) regression coefficient is -11.268 with a significance value of 0.011 < 0.05, thus the Expenses ratio has a significant negative effect on mutual fund performance. As it is concluded that based on the results of hypothesis research (H1) Expenses Ratio has a significant negative effect on mutual fund performance, the H1 hypothesis is declared **accepted**.

The value of the regression coefficient of Turnover ratio (X2) is 0.301 with a significance value of 0.000 < 0.05, thus the Turnover ratio has a significant positive effect on mutual fund performance. As it was concluded that based on the results of hypothesis research (H2) Turnover ratio has a significant positive effect on mutual fund performance, the H2 hypothesis is declared **accepted**.

The value of the Cash Flow regression coefficient (X3) is -4.157 with a significance value of 0.233 > 0.05, thus Cash Flow has no effect on mutual fund performance. As it was concluded that based on the results of the study, the hypothesis (H3) Cash Flow had a significant positive effect on mutual fund performance, the H3 hypothesis was declared **rejected**.

The significance value of multiplication between the Fund Size moderation variable and the independent variable Expense Ratio is 0.47 which is smaller than 0.05, so it means that there is an influence of the Fund Size variable in moderating the Expense Ratio on mutual fund performance so that the H4 hypothesis is **accepted**.

The significance value of multiplication between the Fund Size moderation variable and the independent variable Turnover ratio is 0.00 which is smaller than 0.05, so it means that there is an influence of the Fund Size variable in moderating the Turnover ratio on mutual fund performance so that the H5 hypothesis is **accepted**.

The significance value of multiplication between the Fund Size moderation variable and the Cash Flow independent variable is 0.149 which is greater than 0.05, which means that there is no influence of the Fund Size variable in moderating Cash Flow on mutual fund performance so that the H4 hypothesis is **rejected**.

# ≻ Uji F

| Table | 7 | Uji | F |
|-------|---|-----|---|
|-------|---|-----|---|

| ANOVAª                                     |                  |                     |               |                   |               |        |  |  |  |  |
|--------------------------------------------|------------------|---------------------|---------------|-------------------|---------------|--------|--|--|--|--|
| Model Sum of Squares df Mean Square F Sig. |                  |                     |               |                   |               |        |  |  |  |  |
| 1                                          | Regression       | 3.620               | 7             | .517              | 12.175        | .000b  |  |  |  |  |
|                                            | Residual         | 3.059               | 72            | .042              |               |        |  |  |  |  |
| Total 6.679 79                             |                  |                     |               |                   |               |        |  |  |  |  |
| a. Dependent Variable: LN_Y                |                  |                     |               |                   |               |        |  |  |  |  |
| b. Pred                                    | ictors: (Constan | t), CF*FZ, Turnover | ratio. Fund S | Size, Expense Rat | io. Cashflow. | ER*FZ. |  |  |  |  |

b. Predictors: (Constant), CF\*FZ, Turnover ratio, Fund Size, Expense Ratio, Cashflow, ER\*FZ, TR\*FZ

# Source : Analyzed Data SPSS 25.0

The table above is the result of model feasibility testing with ANOVA with a signification level used of 0.05 or 5%, and the variables used as much as k = 8 with the amount of data n = 80 so that F table F (7; 72) = 2.140 obtained a calculated F value of 12.175 greater than the table F value of F(7; 72) = 2.140 and the probability of Sig. 0.000 is much smaller than 0.05. That is, all independent or independent

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variables together have a significant effect on Mutual Fund Performance. Thus, it can be concluded that this multiple regression model is feasible to use and independent variables which include Expense Ratio, Turnover ratio, Cash Flow and Fund Size variables as moderation variables have a simultaneous influence on the dependent variable of mutual fund performance.

# $\succ$ Uji $R^2$

Table 8 Uji R<sup>2</sup>

| Model Summary                                                        |       |          |            |                   |
|----------------------------------------------------------------------|-------|----------|------------|-------------------|
|                                                                      |       |          | Adjusted R | Std. Error of the |
| Model                                                                | R     | R Square | Square     | Estimate          |
| 1                                                                    | .736ª | .542     | .498       | .20611            |
| a. Predictors: (Constant), CF*FZ, Turnover ratio, Fund Size, Expense |       |          |            |                   |

Ratio, Cashflow, ER\*FZ, TR\*FZ

Source : Analyzed Data SPSS 25.

From the results of the SPSS output in the table above, it can be seen that the magnitude of the coefficient of determination (R2) of the regression model with moderation is 0.542 or 54.2% where the Expense Ratio, Turnover ratio, and Cash Flow as independent variables and Fund Size as a moderation variable have a significant effect and are positively correlated with each independent variable of 54.2% on the performance of equity mutual funds. While the rest (100% - 54.2% = 45.8%) are influenced by other variables outside this regression equation or variables that are not studied.

From the results of the data processing above, then the discussion of the research results will be explained in accordance with previous theories and research that became the basis of this research. The results of data processing there are two variables that affect mutual fund performance, namely Expense Ratio and Turnover Ratio. And other variables that do not affect the performance of cash flow mutual funds.

# The Effect of Expense Ratio on Mutual Fund Performance The results of the hypothesis research obtained that the Expense Ratio has a significant negative effect on the performance of equity mutual funds, then the H1 hypothesis in this study is accepted.

This ratio shows that the higher the expense ratio, the lower the return of a stock mutual fund. Another factor that can have a significant negative impact on the expense ratio is that when the expense ratio increases, the yield of stock mutual funds will decrease. This can result in the costs incurred by the investment manager are quite large, so that it can reduce the profits given to investors, because it has been used to cover the costs incurred. If the investment manager conducts stock buying and selling trading activities, the costs incurred by the investment manager in supporting the trading activities of buying and selling stock mutual funds will be large. This is in line with research conducted by Miles Livingstona, Ping Yaob, Lei Zhouc (2019) Mutual funds with higher expense ratios have greater performance volatility and lower average performance. Thus, mutual funds with more active management, will increase the expense ratio higher but most of the performance of mutual funds sometimes cannot be maximized in providing good mutual fund performance.

This research is also in line with previous research by Arlians Rolank Habba Lagu, (2020) Expense ratio has a significant negative effect because the greater the expense ratio, it will reduce the rate of return from the investment. This also affects the level of low efficiency, which can affect the return received by investors.

➤ The Effect of Turnover Ratio on Mutual Fund Performance

The results of the hypothesis research obtained that the Turnover Ratio has a significant positive effect on the performance of equity mutual funds, then the H2 hypothesis in this study is accepted.

This ratio shows that the higher the turnover rate, the better the performance of a stock mutual fund. Portfolio turnover describes how actively the issuing company manages a mutual fund. A high portfolio turnover rate illustrates that the company is able to overcome market turmoil and knows the turnover of its investment portfolio well, which can certainly improve the performance of equity mutual funds. Turnover rate can be used to measure activity. The turnover rate can be used to measure the activity of mutual fund issuing companies in buying or selling assets, and describes changes in the contents of a portfolio to predict market changes. The greater the value of the mutual fund portfolio turnover rate, the greater the mutual fund portfolio turnover rate.

This research is in line with previous research Dharmastuti, B. (2016) turnover ratio positively significantly affects the performance of equity mutual funds as measured using the Sharpe Ratio.

# > Effect of Cash Flow on Mutual Fund Performance

The results of the hypothesis research obtained that Cash Flow has no effect on the performance of equity mutual funds, then the H3 hypothesis in this study is rejected.

In mutual funds, what is meant by fund cash flow is net cash flow, or the difference between cash inflows and cash outflows of mutual fund companies. Cash flow in mutual funds is assumed to be money other than returns and money managed to obtain those returns. More cash flow indicates an excess of idle funds, but fund managers do not use them to rotate for profit. The average year-end cash position when viewed from data from 2019-2022 which is separated from assets owned by equity mutual fund products ranges from less than 3% so that idle funds are not optimized to be used for working capital so that. This is what causes cash flow to have no impact on mutual fund performance.

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This research is in line with the results of research by Annuridya Rosyidta and Mutiara Eka (2016) and Galuh (2016) fund cash flow is not proven to have a significant effect on mutual fund performance.

#### The Effect of Expense Ratio on Mutual Fund Performance with Fund Size as a Momoderation Variable

Based on the results of the study, it shows that Fund Size moderates the Expense Ratio to the performance of mutual funds with fund size is pseudo-moderation so that H4 in this study is accepted.

The size of a stock mutual fund means an asset owned by an investment manager company where the larger the assets owned will make it easier for investment managers to trade shares to achieve maximum profits so that it can make the cost burden of stock mutual funds even greater. The greater the profit from the trading results will make the performance of the mutual fund more maximal. Larger fund sizes can help mutual funds to achieve economies of scale [10]. The achievement of economies of scale will be able to reduce the costs incurred in managing mutual funds [11]. The reduction in costs that are indirectly charged to mutual fund investors in the context of mutual fund management will have a positive impact on the performance of the mutual funds generated [10].

This research is in line with the results of previous research by Putu Yunita Wijayanti, Agus Wahyudi Salasa Gama and Ni Putu Yeni Astiti (2023) which showed that Fund Size is able to strengthen or moderate the Expense Ratio to mutual fund performance.

# The Effect of Turnover Ratio on Mutual Fund Performance with Fund Size as a Moderation Variable

Based on the results of the study showed that Fund Size is able to affect the relationship of Turnover ratio to mutual fund performance with fund size is pseudo-moderation, then H5 in this study is accepted.

The larger the size of the mutual fund where the assets of the mutual fund are also getting bigger so that the turnover of funds used to carry out trading activities is greater so that to get greater mutual fund performance will also be maximized. The size of the Fund size indicates that investor confidence in the mutual fund is getting higher. Mutual funds with large Fund Size have better performance[10]. The flexibility generated by mutual funds through turnover will improve the performance of the mutual fund. This flexibility arises because the size of the managed fund makes it easier for investment managers to choose a portfolio with the expected amount.

This research is in line with the results of previous research by Tuti Suharti (2013) where portfolio turnover moderated by Fund Size has a negative and significant effect on mutual fund performance. ➤ The Effect of Cash Flow on Mutual Fund Performance with Fund Size as a Momoderation Variable

Fund Size is not able to affect the relationship of Cash Flow to mutual fund performance with Cash Flow and also does not deserve to be used as a moderation variable or referred to as a Homologizer Moderator, so the H6 hypothesis in this study is rejected.

In this case, the difference between cash inflows and cash outflows makes the cash an idle fund or an asset that is not optimized in increasing mutual fund performance so that it does not affect mutual fund performance. The amount of cash an investment manager company has depends on the level of cash flow it has. If cash inflows are greater than cash outflows, then the net cash flow owned by the company is positive. Positive net cash flow leads to an increase in the amount of cash available in the company. Free cash flow is the excess or remaining cash owned by the company to buy, pay off debts and pay dividends for investors with funds that are not used for working capital[10].

Mutual funds with smaller sizes can show better performance. A smaller mutual fund size will be better able to manage its portfolio and liquidity well because mutual funds are influenced by portfolio theory. Mutual funds with a large size when there is a massive cash flow or cash flow withdrawals by investors will be taken from liquid funds. Thus, so as not to cause a decrease or increase in its performance.

The results of this study are supported by research conducted by Galuh Sukmaningrum (2016) and Manurung (2023) that does not show a statistically significant relationship between Fund Size and the performance of equity fund mutual funds.

# V. CONCLUSIONS

Based on the analysis and discussion, it can be concluded that the Expense Ratio has a significant negative effect and the Turnover Ratio has a significant positive effect on the performance of equity mutual funds, while Cash Flow does not affect the performance of mutual funds. Fund Size moderates by strengthening the effect of Expense Ratio and Turnover Ratio on Equity Mutual Fund Performance while Fund Size does not moderate Cash Flow on stock mutual fund performance.

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