The Effect Of Family Size And Fund Longevity On Performance OF Mutual Funds In The Company Equity Mutual Funds In Indonesia

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Abstract

The purpose of this research is to analyze the effect of family size and fund longevity on mutual fund performance. This research was conducted on equity mutual fund companies registered with the Financial Services Authority for the 2019-2021 period. This study used purposive sampling with a sample size that met the criteria of 60 companies. The type of data used is quantitative data and the data source is historical data from mutual fund prospectus reports. The analytical tools used are descriptive statistics and panel data regression. The results of this study indicate: (1) Family Size has a negative and insignificant effect on Mutual Fund Performance. (2) Fund Longevity has a negative and significant effect on Mutual Fund Performance.

Keywords: Equity Funds, Family Size, Fund Longevity, Mutual Fund Performance.

1. Introduction

Various investment products such as stocks, bonds, and mutual funds are available in the capital market so that investors can choose according to their investment goals. It is intended for novice investors who have limited time, limited capital, or limited capital market knowledge but want to invest in the capital market, mutual funds are the right choice (Nursyabani & Mahfud, 2016). Mutual funds are a type of investment that is still less popular among the public because of the lack of information and knowledge about investment so that people have difficulty in determining and assessing the types of mutual funds that tend to provide good performance and maximum returns. Therefore, to obtain maximum returns on mutual fund investment requires consideration as seen from the performance of mutual funds (Ayu et al., 2017).

Performance is one of the benchmarks for the development or failure of a company. The importance of mutual fund performance is for investors to know in order to choose and compare mutual funds that can provide optimal returns. The performance of investment managers of each mutual fund company will be different because investment managers have their own strategies and policies in managing mutual funds Bitomo & Muharam (2016). In measuring the performance of mutual funds. Generally, the performance of mutual funds is determined by the return generated on investments or known as Net Asset Value (NAV). Changes in the NAV value are one of the indicators of the investment performance of a mutual fund that can be considered by investors in choosing the type of mutual fund.

In this study, equity mutual funds became an interesting choice for the authors to study. This is because most of these mutual funds have portfolios invested in volatile stocks and provide greater investment value growth potential, as well as risk. The growth in the composition of mutual fund types has experienced a dynamic development in some types of mutual funds has decreased, such as the type of equity mutual funds which experienced a decrease in NAV of 22.28%. In contrast to several other types of mutual funds such as fixed income mutual funds which experienced an increase in NAV of 27.12%.

In measuring the performance of mutual funds, it can be influenced by several factors including family size and fund longevity. family size is a mutual fund that is managed and marketed by the same company and includes several types of mutual funds so that the mutual fund can be managed as a whole (Chen et al., 2021). Family size also plays an important role and can influence investment managers' decisions so that it has an impact on the performance of a fund (Suppa-Aim, 2010). According to Khorana et al. (2005), large family funds are superior to small family funds in terms of increasing economies of scale in operations, because they can share resources from the whole family.

fund longevity or age in mutual funds that indicts when a mutual fund begins to be traded in the capital market or commonly referred to as the age of the mutual fund which is calculated from the effective date the mutual fund begins trading (Kaur, 2018). The age of a mutual fund reflects the investment manager's based experience in managing the mutual fund. The longer the life of a mutual fund, the more experienced the investment manager is in managing a portfolio when compared to using a younger mutual fund (Sukmaningrum & Mahfud, 2016).

Objectives

To analyze and determine the effect of family size and fund longevity on performance mutual funds in equity mutual fund companies in Indonesia.

2. Literature Review

Investment portfolio theory

Portfolio theory is a theory developed by Markowit et al (2011). A modern theory in uncertain situations whose goal is to select the optimal combination of stocks held (effective portfolio), In the sense of providing maximum portfolio returns and minimizing any risk results it poses. The performance of mutual funds is an important factor for investors to know before deciding to invest their capital, because at any time the performance of a securities portfolio may decline due to market conditions.

Nursyabani & Mahfud (2016) stated that portfolio performance can be assessed by two methods, namely (1) direct comparison method or original performance. This method compares the performance of mutual fund portfolios with different portfolios with almost the same risk. (2) performance evaluation method with certain parameters, this method uses special performance metrics related to the level of risk, namely Treynor Ratio, Sharpe Ratio, and Jensen Ratio.

Mutual Fund Performance

The performance of a mutual fund is defined as the results obtained from a mutual fund and its development can be known. The proceeds from these mutual funds are used to assess performance and make future investment decisions. The importance of mutual fund performance is known by investors because the performance of mutual funds affects investors' decisions when investing and is considered to have good performance if since the launch of the mutual fund above the performance of the JCI. The performance of mutual funds is generally determined by the return generated on investments or known as Net Asset Value (NAV) (Ayu et al., 2017).

Several ways to measure the performance of mutual funds are by making direct comparisons and using ratio calculations such as the Sharpe Ratio. So in this study to measure the performance of mutual funds using the Sharpe Ratio method which is calculated based on the concept of capital market lines (CML) by dividing the portfolio risk premium by standard deviation (Sharpe, 1992).

Family Size

Family Size is defined as a mutual fund that is managed and marketed by the same company or called a family fund that includes several types of mutual funds so that the mutual fund can be managed as a whole (Chen et al., 2021). Family size also plays an important role and can influence investment managers' decisions so that it has an impact on the performance of a fund (Suppa-Aim, 2010). Large family funds outperform small family funds in

terms of economies of scale and increased transaction volume, because resources can be shared throughout the family (Khorana et al., 2005).

The family size measurement method in this study is to use the ratio of the total net asset value (TNAs) of mutual funds at the beginning of the year divided by the total net asset value of the investment manager company at the beginning of the year.

Fund Longevity

Fund longevity (age) is defined as the age of a mutual fund calculated from the effective date the mutual fund begins trading (Kaur, 2018). Fund longevity has an impact on mutual fund performance because the age of mutual funds reflects the experience of investment managers in managing mutual funds (Rachmah & Juniar, 2018). According to Suppa-Aim (2010), funds usually experience higher portfolios at the beginning because they have fewer connections and larger initial expenses. So we can assume that funds that are longer in age will outperform funds that are shorter in age. To measure fund longevity in this study using the ratio of the research period minus the effective date the mutual fund began trading (Ferreira et al., 2013).

Conceptual Framework

The framework of thought in the research model as the basis for the formulation of the hypothesis is presented in the following figure:

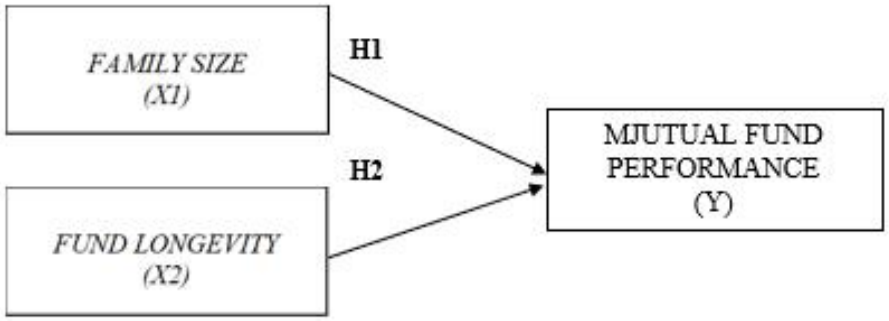

Figure 1. Conceptual Framework

Based on the theoretical foundation and also the framework of the research concept above, the hypothesis In this study are as follows:

H1: Family size has a positive and significant effect on mutual fund performance.
H2: Fund longevity has a negative and significant effect on mutual fund performance.

3. Methods

This research consists of 2 (two) variables used, namely dependent variables and independent variables. The dependent variables discussed in this study are Mutual Fund Performance and independent variables consist of Family Size and Fund Longevity.

This study uses equity mutual fund companies registered with the Indonesian Financial Services Authority in 2019-2021.

The population used in this research is all equity mutual fund companies registered with the Indonesian Financial Services Authority (OJK) for the 2019-2021 period with a total of 252 companies. The sample used is based on certain criteria (purposive sampling) with a total of 60 companies. The type of data used in this research is quantitative data. While the data source used in this study is secondary data from the website www.pasardana.id. In this study, the data needed is in the form of historical data from mutual fund prospectus reports. Then for the measurement of variables, namely as follows:

Table 1. Variable Measurement

No.	Variable	VariableMeasurement	Source
1.	Dependent Variables : Mutual Fund Performance (Y)	$S_{RD} = \frac{R_{RD} - R_{RF}}{\sigma_{RD}}$ S_{RD} : Sharpe Ratio Index Fund R_{RD} : Average return of mutual funds over the period t R_{RF} : risk-free return over period t σ_{RD} : standard deviation of mutual fund returns	(Suppa-Aim, 2010)
2.	Independent Variable : *Family Size* (X1)	$\frac{TNA_{RD,t}}{TNA_{MI,t}} \times 100\%$ *Family Size* : All funds managed by company managers $TNA_{RD,t}$: Total asset value of mutual fund type in period t $TNA_{MI,t}$: Total value of assets of the fund manager in period t	(Suppa-Aim, 2010)
3.	*Fund Longevity* (X2)	*Age* = Research Period – effective date	(Suppa-Aim, 2010)

4. Data Collection

There are two analytical tools used in this study, namely descriptive statistics and panel data regression. Hypothesis testing is carried out using statistical test F and statistical test T. Statistical test F explains whether all independent variables have a synchronous influence on dependent variables. In the statistical test t explains in general the influence of independent variables on dependents where independent variables are considered constant. Before testing the hypothesis, the previous Classical Assumptions test was carried out, where there was a Multicholinearity Test, Autocorrelation Test, and Heteroskedasticity Test.

5. Results and Discussion

Descriptive Statistics

Table 2. Descriptive Statistics

	FS	**FL**	**COV**	**KRD**
Mean	0.079286	10.38333	0.666667	-0.337739
Median	0.031875	9.000000	1.000000	-0.373000
Maximum	0.904213	25.00000	1.000000	1.113000
Minimum	0.000814	1.000000	0.000000	-1.479000
Std. Dev.	0.129120	5.878923	0.472719	0.343862
Observations	180	180	180	180

Descriptive statistics are used to see an overview of the data used in the form of the amount of data, maximum values, minimum values, average values and standard deviations of each variable. The results of descriptive statistics show that the FL and COV variables have mean values above the standard deviation values. As for the FS and KRD variables, they have mean values that are below the standard deviation value.

Classic assumption test

The classic assumption test in this study used the multicollinearity test, heteroscedasticity test and autocorrelation test.

Table 3. Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.003808	5.715030	NA
FS	0.042295	1.451474	1.052432
FL	2.07E-05	4.408109	1.065564
COV	0.003060	3.061552	1.020517

Table 4. Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.447404	Prob. F(3,176)	0.7194
Obs*R-squared	1.362326	Prob. Chi-Square(3)	0.7144
Scaled explained SS	2.977890	Prob. Chi-Square(3)	0.3950

In the multicollinearity test with the VIF value of each variable, namely FS of 1.052432 and FL of 1.065564, each variable has a VIF value of <10 so that the panel data model in this study does not have multicollinearity problems.

There was also no heteroscedasticity in this study where the probability value of Osb*R-squared was 1.7144, which means it was greater than 0.05. Furthermore, in the autocorrelation test the DW value is 1.994782 which then refers to the Durbin-Watson benchmark, the test results show that the DW value is 1.994782 at DU < DW < 4 – DU where there is no negative and positive autocorrelation.

Panel Data Regression

Table 5. Results of Panel Data Regression Analysis on Family Size (FS) and Fund Longevity (FL) Variables

Bound variables	Free Variables	Regression Coefficient	t-count	Prob.	direction	Desc.
KRD	Konstanta	-0.300821	-25.59397	0.0000		
	FS	-0.046473	-0.241107	0.8099	(-)	insignificant
	FL	-0.002112	-2.458141	0.0154	(-)	Significant
R-Square			0.668068			
Adjust R-square			0.492172			
F-Statistics			3.798095			
F significant			0.000000			

In the FEM model, the coefficient of determination (R^2) is 0.668068. meaning that the dependent variable (KRD) can be influenced by 66.80 percent by the independent variables (FS and FL), while the remaining 33 percent is explained by other variables not included in this research model.

The results of the panel data regression test showed that the statistical F value was 3.798095, with the same significance value (significant F) of 0.000000 which is less than 0.05 (0.000000 < 0.05). The results explain that two independent variables, namely FS and FL, jointly or simultaneously affect the KRD in OJK sample stock mutual funds for the 2019-2021 period and have shown a feasible model.

In the t test, the FS variable (X1) has a calculated t value of -0.241107 and a probability level of 0.8099 > 0.05 which means that it partially has an insignificant negative effect on KRD. The variable FL (X2) has a calculated t value of -2.458141 with a probability value of 0.0154 > 0.05 which means that partial has a significant negative effect on KRD.

The Effect of Family Size on Mutual Fund Performance

Family Size shows negative and insignificant results on the performance of mutual funds in equity mutual fund companies in Indonesia. The results of this study are different from the hypothesis that family size has a positive and significant effect on mutual fund performance. These results are different from the research of Suppa-Aim (2010), Klein (2005), and Ferreira et al. (2013) which stated that family size has a positive and significant effect on mutual fund performance.

The results of this study are not significant because the size or size of the funds managed in an investment manager can provide good mutual fund performance, but both can also reduce the performance of mutual funds. As in the BNP Paribas Pesona mutual fund in 2020 with an FS value of 0.08939974 experienced a decrease in KRD of -0.363, in the same year the Manulife Saham Andalan mutual fund with an FS value of 0.021613089 experienced an increase in KRD of 0.014. This shows that the size or size of the family size has little influence on the performance of mutual funds and is contrary to the theory used in this study.

Based on this research, the size or size of the family size or funds managed by investment managers in mutual funds should be used properly so that they can be used as a reference for investors when investing in and make investors believe that the funds they plant in mutual funds will generate high returns and better performance.

The Effect of Fund Longevity on Mutual Fund Performance

Fund longevity has a negative and significant effect on the performance of mutual funds in equity mutual fund companies in Indonesia. The results of this study are inversely proportional to research conducted by Sukmaningrum & Mahfud (2016), Babalos et al., (2007) and Rachmah & Juniar (2018) which states that fund longevity has a positive and insignificant effect on mutual fund performance.

This study shows that fund longevity will reduce mutual fund performance significantly and also does not conform to the theory used in this study. This is because mutual funds that have a younger age will compete with mutual funds that are older because they have investment managers who are able to allocate their assets appropriately. Meanwhile, mutual funds that are older but investment managers who do not have the ability and are wrong in allocating their assets will produce low returns, so that it will significantly reduce the performance of mutual funds.

Based on the results of this study, old mutual funds should be able to describe the performance of mutual funds better. Similarly, investment managers have strategies and policies and considerations in managing the mutual fund products they sell. So that the longer equity mutual funds are traded, the more it affects the performance of equity mutual funds, as well as improving the way investment managers make decisions and the ability to manage mutual fund portfolios in older stock mutual funds. Because a good investment manager also plays an important role and is able to predict the expected profit and understand when is the right time to sell or buy, so that investors' goals in investing in mutual funds can be achieved.

6. Conclusion

Family Size shows negative and insignificant results on the performance of mutual funds in equity mutual fund companies in Indonesia. The results of this study reject hypothesis 1, because the size or size of the family size or the size of the funds managed in an investment manager can provide good mutual fund performance, but both can also reduce the performance of mutual funds. This shows that the size or size of the family size has little effect on the performance of mutual funds.

Fund longevity has a negative and significant effect on the performance of mutual funds in equity mutual fund companies in Indonesia. The results of this study accept hypothesis 2, because fund longevity that experiences

an increase, the performance of mutual funds will be significantly reduced. This is because mutual funds that have a younger age will compete with mutual funds that are older because they have investment managers who are able to allocate their assets appropriately.

The advice in this study so that it can be used as information and input for consideration in decision making, namely from the way investment managers manage funds in mutual funds should be used properly so that it can be used as a reference for investors when investing in and make investors believe that the funds they plant in mutual funds will produce high returns and better performance. So that
the longer equity mutual funds are traded, the more it will affect the performance of equity mutual funds, as well as improve the way investment managers make decisions and the ability to manage mutual fund portfolios in equity mutual funds. So that investors' goals in investing in mutual funds can be achieved.

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