DETERMINANTS OF MUTUAL FUNDS INVESTMENT BEHAVIOR

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Abstract

The purpose of this study is to examine the effects of demographic and social characteristics, investment criteria, perceptions and investors awareness of investment behavior on mutual funds in Indonesia. Analysis in this research using logistic regression or logit regression. The object of this study is investors and non-investors of mutual funds in Indonesia, as many as 126 people. Data processing uses SPSS PASW software version 18 for the Windows operating system. The results of this study show that demographic and social characteristics, investment criteria, and awareness of investors simultaneously have a significant effect on investment behavior on mutual funds in Indonesia.

Keywords: *demographic, social characteristics, investment criteria, perception, investor awareness, mutual funds.*

Abstract

Tujuan dari penelitian ini adalah untuk menguji pengaruh karakteristik demografi dan sosial, kriteria investasi, persepsi dan kesadaran investor terhadap perilaku investasi pada reksadana di Indonesia. Analisis dalam penelitian ini menggunakan regresi logistik atau regresi logit. Objek penelitian ini adalah investor dan non-investor reksa dana di Indonesia, sebanyak 126 orang. Pemrosesan data menggunakan perangkat lunak SPSS PASW versi 18 untuk sistem operasi Windows. Hasil penelitian ini menunjukkan bahwa karakteristik demografi dan sosial, kriteria investasi, dan kesadaran investor secara simultan memiliki pengaruh yang signifikan terhadap perilaku investasi pada reksadana di Indonesia.

Kata Kunci: *demografi, karakteristik sosial, kriteria investasi, persepsi, kesadaran investor, reksadana*
JEL: G4

1. Research Background

In these days, investment is a solution for capital owners in developing their assets. There are various types of investment alternatives that can be done, one of which is mutual funds. Mutual funds can be a solution for investors who want to invest in many assets but have limited funds. Besides, mutual funds is suitable for investor that have limited knowledge and information in conducting investment analysis, and do not have enough time to monitor and monitor the daily movements of stocks and bonds. Apart from the convenience and comfort provided, mutual funds are still not an investment alternative favored by investors, especially in

developing countries. In Indonesia as of December 30, 2016, it was noted that ownership of the mutual fund securities amounted to 11.85%. This figure is fairly small when compared to ownership in shares of 44.16% (www.ojk.go.id). The mutual fund industry in Indonesia is still moving slowly. AUM (asset under management) of mutual funds is still not comparable with the number of third-party funds (TPF) in banks since mutual fund products were first introduced in Indonesia in 1995. With the current number of deposits which is around Rp 4,809.30 trillion, it can be concluded that themanaged mutual fund has only reached 16.5%. With the current number of banking accounts that is Rp. 196.5 million, it means that mutual fund investor accounts have only reached 0.04%. (id.beritasatu.com). Not only that, the achievement of the mutual fund industry in Indonesia is still quite low when compared to neighboring countries. AUM (asset under management) of mutual funds in Indonesia which amounted to Rp 345.65 trillion (or USD $ 26.5 billion) with an AUM ratio of 2.84% of GDP (gross domestic product) is still far below the AUM worth of mutual fund industry in Thailand USD $ 131.49 billion (32.8% of GDP), Malaysia USD $ 155.21 billion (62.8% of GDP), and Singapore USD $ 1.72 trillion (793% of GDP).

The lack of interest of investors to invest in mutual funds makes it necessary for a better understanding of the factors that influence investors in investing in these investment alternatives. In investing in mutual funds, not only factors related to the mutual funds (such as performance, age, mutual fund size, etc.) that affect investors, but also the various personal characteristics that investors have. Gupta (1993) in Kaur and Kaushik (2016), Kumar and Rajkumar (2014), Prathap and Rajamohan (2013), Parihar et al. (2009) and Ranganathan (2006) state that the choice of investment in mutual funds is also determined by various personal characteristics possessed by investors.

According to Bhatt and Bhatt (2012), Ranganathan (2006), Rathnamani (2013) and Subramanya and Murthy (2013) there is a positive influence of the level of education on investors' perceptions and awareness of mutual funds. Ajaz and Gupta (2012) who conducted research on investment decisions in retail investors in the mutual fund industry using demographic factors. Education level which is one of the socioeconomic demographic characteristics had a significant influence on the decision of an investor to invest in mutual funds. The same thing happens in gender variables . Based on research conducted by Kaur and Kaushik (2016), it was found that gender variables had a significant influence on an investor's decision to invest in mutual funds. Meanwhile, Kaur and Kaushik (2016) and Ajaz and Gupta (2012) state that age and marital status gives a significant influence on an investor's decision to invest in mutual funds.

This study will discuss the factors that influence investor behavior in making decisions to invest in mutual funds as has been done by Kaur and Kaushik (2016). However, this study focuses more on mutual fund investors who invest in Indonesia, so that the results of this study can be seen whether there are influences from factors such as demographic and socioeconomic characteristics, investment criteria, perceptions and awareness of an investor on his investment behavior in mutual funds in Indonesia. Based on the background of the problem, the hypothesis proposed is as follows: There are influences from factors such as demographic and socioeconomic characteristics, investment criteria, perceptions and awareness of an investor on his investment behavior in mutual funds in Indonesia.

2. Research Method

Based on the analysis method and research hypothesis, the variables used in this study can be divided into 1 dependent variable and 5 independent variables. The dependent variable in this study is the investment behavior of investors in mutual funds, while the independent variables in this study are demographic and social economic characteristics, investment criteria, return perception, risk perception and awareness . The type of data used in this study is the primary data obtained from the questionnaire. The questionnaire was distributed directly to

respondents, where the respondents in this study were mutual fund investors and non mutual fund investors in Indonesia. The target population in this study are investors and non-mutual fund investors in Indonesia. The characteristics of the expected respondents are aged minimum of 17 years and have basic knowledge of investment. The minimum number of samples used in this study used 100 samples. The sampling technique is non-probability sampling and the type of sampling uses purposive sampling.

3. Result and Discussion

All data from 126 respondents were analyzed through 2 stages of testing. In the first stage, the data consisting of two categories of respondents (mutual fund investors and non-investor mutual funds) tested the response differences using 3 types of tests, namely *Independent Sample T-test* for data with ratio measurement level, *Pe arson ψ²-test* for data with measurement level nominal and interval as well as *Wilcoxon-Mann-Whitney test*for measurement-level data interval.

Table 1. *Independent Sample T-Test* Test Results on Respondent's Investment Portfolio

No.	Variable (alternative investment)	*t-test*	*p*
1.	Bank Fixed Deposit	4,557 *	0,000
2.	Housing / Property	5,354 *	0,000
3.	Gold / Silver / Metal	3,463 *	0.001
4.	Mutual Funds	-10,078 *	0,000
5.	Insurance	-0,971	0.333
6.	Stock Exchange / Stock	-9,347 *	0,000
7.	Bonds and Debt	-4,298 *	0,000
8.	Cash and Savings	3,146 *	0.002
9.	Others	-1,938 ***	0.055

Note: * Sig at α = 1%; ** Sig at α = 5%; *** Sig at α = 10%;

Source: data processed

In the *Independent Sample T-test* which tests the data with the ratio measurement level, all indicators in the respondent's investment portfolio are significant at level 1 and 10%, except for the indicator of insurance. Based on these results, it can be concluded that the investment portfolio has differences average investment between investors and non-mutual fund investors, except for insurance investment alternatives.

Table 2. *Pearson's* ψ² Test Results in Variable *Demographic and Socioeconomic Characteristics*

No.	Variable	*Pearson's ψ²*	p	*Fisher Test Statistics*
1.	*Gender*	0.361 *	0,000	0,000 *
2.	*Age*	0.385 *	0,000	0,000 *
3.	*Marital Status*	0.080	0.367	0.471
4.	*Education*	0,489 *	0,000	0,000 *
5.	*Professional Educati on*	0.466 *	0,000	0,000 *
6.	*Income*	0,468 *	0,000	0,000 *
7.	*Savings*	0.507 *	0,000	0,000 *

Source: data processed

In *Pearson ψ²-test,* all indicators on *demographic and socioeconomic* variables that are aligned with nominal and ordinal measurements are significant at level 1% except for the indicator of *marital status* . Based on these results, it can be concluded that the *demographic* variables *and Socioeconomic characteristics* expected frequency

differences between investors and non-investors of mutual funds, except for *marital status* indicator.

Table 3. *Wilcoxon-Mann-Whitney* Test Results on Respondents Against Various Investment Alternatives

No.	Alternative Investment		*Wilcoxon-Mann-Whitney Test Statistics*	p
		Risk-Return Perception variable		
1.	Fixed Deposit Bank	*Return*	-3,959 *	0,000
		Risk	-3,000 *	0.003
2.	Housing/ Property	*Return*	-2,109 **	0.035
		Risk	-1,754 ***	0.079
3.	Gold / Silver / Metal	*Return*	-2,909 *	0.004
		Risk	-2,330 **	0.020
4.	Mutual Funds	*Return*	-4,689 *	0,000
		Risk	-5,882 *	0,000
5.	Insurance	*Return*	-0,759	0.448
		Risk	-0,396	0.692
6.	Stock Exchange / Stock	*Return*	-5,903 *	0,000
		Risk	-5,724 *	0,000
7.	Bond / Letter Debt	*Return*	-4,232 *	0,000
		Risk	-5,565 *	0,000
		Investment Criteria Variable		
1.	Return		-5,089 *	0,000
2.	Liquidity		-1,905 ***	0.057
3.	Ease of Investment		-1,759 ***	0.079
4.	Transaction Fees		-1,706 ***	0.088
5.	Tax Considerations		-1,856 ***	0.063
		Awareness Variable		
1.	Mutual funds are investment facilities such as banks and insurance		-5,089	0.582
2.	Mutual funds provide more benefits than investing directly in the stock market		-6,135 *	0,000
3.	Mutual funds provide a definite advantage		-7,120 *	0,000
4.	Monitoring investment through mutual funds is easier		-9,863 *	0,000
5.	Compared to bank savings, mutual funds are less profitable		-4,100 *	0,000
6.	Investing through mutual funds is easy		-9,727 *	0,000
7.	Investing in mutual funds is safe		-6,124 *	0,000
8.	Investment in mutual funds cannot be disbursed as easily as deposits		-9,908 *	0,000
9.	Only large amounts of money can be invested in mutual funds		-1,946 **	0.052
10.	Managers fund acting for their own sake		-9,690 *	0,000
11.	Mutual funds provide benefits tax		-9,981 *	0,000
12.	Mutual funds consider the risks associated with the stock market		-9,888 *	0,000
13.	Only experts can invest in mutual funds		-6,557 *	0,000

Source: data processed

Last, in the *Wilcoxon-Mann-Whitney test* which tested data with interval measurement

levels, it was found that in the *risk and return perception* variables all indicators except the insurance indicator were significant at levels 1, 5 and 10%. In the *investment criteria* variable, it was found that all indicators were significant at level 1 and 10%, while in the *awareness* variable it was found that all indicator except the first indicator was significant on level 1%. Based on these results, it can be concluded that the probability distribution between investors and non-mutual fund investors in the variable *risk and return perception, investment criteria*and *awareness* is different.

Table 4. Logistic Regression Results

Variable	*Coefficient (B)*	*Std. Error*	*Sig.*
Constant	-21,437 ***	18,834	0.096
Gender	-27,558 *	12,366	0.004
Age	3,438	11,805	0.674
Marital Status	-27,629 ***	14,842	0.089
Education	-9,353	8,215	0.248
Professional Education	-5,720	8,443	0.164
Income	22,290 *	10.364	0.001
Savings	-1,813	3,535	0.659
Investment Criteria	-3,862	5,298	0.156
Return Perception	10,609 *	5,222	0.004
Risk Perception	19,034 *	8,203	0.001
Awareness	52,709 *	9,351	0.001

Source: data processed

Table 4 or the logistic regression table describes the results of the test of the effect of independent variables separately on the dependent variables. Based on table 5 , it can be concluded that *gender* has a significant negative effect on investor investment behavior in mutual funds, *income, return perception, risk perception* and *awareness* positively and significantly influences investor investment behavior in mutual funds, and *age, marital status, education, professional education, savings* and *investment criteria have* no effect or significant effect on investor investment behavior in mutual funds.

Based on the results of testing that has been done, it is shown that *gender* has a significant negative effect on investor investment behavior on mutual funds. From the result, it can be concluded that individuals or female investors tend to have greater opportunities to invest mutual funds as much as 27,588 times compared to male investors. According to the *United Nations Department of Economic and Social Affairs, Population Division* in Regan & Partridge (2013), women generally live longer than 7 years on average compared to men. Yao and Hanna (2005) revealed that even in previous studies stated that women are less tolerant of risk compared to men, women must be able to tolerate higher financial risks to gather sufficient resources for funding their longer lives than men. Not only that, in Indonesia there are still gaps between labor force participation rates (TPAK) based on type sex in February 2017, which is dominated by men (BPS) . Based on these facts, it can be seen that women generally have more free time than men working. The free time that women have can be used to learn and add insight related to investment, including wrong only mutual fund. The breadth of insight and high awareness of mutual fund investment alternatives will affect their investment behavior.

Based on the results, it was found that age does not effect investors' investment behavior in mutual funds. The results of this study are in line with the research of Bailey *et al* . (2011) who also did not find a significant relationship between *age* with investor investment behavior in mutual funds. According to Rathnamani (2013), a person's age does

not affect the level of risk that investors are willing to take when they will invest in mutual funds. This is also supported by the results of the study conducted by Bajtelsmit and Bernasek (1997) in Kannadhasan (2015) which states that the age of a person has no effect linearly to the level of risk he wants to take when he will make an investment. An investor may want to invest on investment alternatives that are low risk at a certain age, however switch to higher-risk investment alternatives when older or vice versa.

From the tests had been done, it can be seen that *marital status* variable *does not* have a significant effect on investment behavior investors in mutual funds. The results of this study are consistent with the research of Bailey *et al* . (2011) the also found no significant relationship between *marital status* with investor investment behavior in mutual funds. Puspitasari (2014), in his research, stated that there were none significant influence between marital status and taking investment decisions on mutual funds. A person's marital status will not affect the sense of security and comfort in investing (Kristanti, 2012). Besides, marriage status will also not influence the factors that someone considers when going make investment decisions (Kusumawati, 2013).

The results show that *education* does not have an effect towards investor investment behavior in mutual funds. This finding is consistent with research made by Kaur and Kaushik (2016) who also expressed that *education* does not affect the investment behavior of investors in mutual funds. Nowadays, there are various kinds of knowledge as well skills can be easily accessed by various people from any educational background, including knowledge and skills various investment alternatives . Currently, internet can be accessed very easily even through mobile phones, so people can easily connect with various facilities in the digital world. No exception for investors and potential investors who can also easily access information about investing on the internet, exchanging experience with other investors through investment groups in the media social and others. These facts support the results of the research states that *education* variables have no effect towards investor investment behavior mutual funds.

Based on the results, it was found that *professional education* variable does not influence investors' investment behavior in mutual funds. This invention is parallel with the results of the research conducted by Kaur and Kaushik (2016) which states that *professional education* does not affect the investment behavior of investors on mutual funds. *Professional education* (formal education) have an insignificant effect on investor investment behavior in mutual funds because now everyone who have taken professional education or who have not / have not been is able to access information easily and learn internal skills invest through non-formal and internet education.

Based on the results of testing, it was found that *income* had a positive effect on investor investment behavior in mutual funds. This finding is consistent with the results of the research that has been conducted by Bailey *et al.* (2011) and Ajaz and Gupta (2012) who found that *income* had a significant positive effect on behavior of investors in mutual fund investments. A person's high income will direct him to the level better savings and increase its ability to explore various investment alternatives (Kaur and Kaushik, 2016). A person with high income will also be followed by high the person's awareness of various types of investment alternatives, no except mutual funds. Tallo *et al.* (2015) stated that generally individuals will be interested in investing when they have income which is high or in other words already has a large *free cash flow* . He will allocate a portion of his income to investment to increase his wealth (Kannadhasan, 2015). Individual with higher income also tends to have higher risk tolerance than individuals with lower income (Maccrimon and Wehrung, 1986 in Kannadhasan, 2015). In other words, higher risk tolerance will make individuals more daring to allocate funds to various investment alternatives, including mutual funds.

Based on the results of testing that has been done, it was found that *savings* does

not affect investment behavior in mutual funds. These results indicate that the *savings* variable does not affect the investment behavior of investors in mutual funds. According to Keynes (2007) in the theory of *liquidity preference* , revealed that there are three motives or reasons for individuals in mastering money in a liquid form, namely the motive of the transaction, the motive on guard, and the motive of speculation. All three motives certainly varies between one individual and the individual others. This is what causes large or small income saved by each individual is different between one another, because each individual has different motives and needs, so that it can be concluded that savings do not affect investment behavior of an investor, especially in mutual funds.

After doing the test, it was found that *investment criteria* does not affect investment behavior in mutual funds. The *investment criteria* in this study consist of criteria of *return* / *return* , liquidity, ease of investment, transaction costs and tax considerations. Investors in Indonesia are generally not consider or pay attention to the five investment criteria simultaneously in carrying out investment activities, especially on mutual funds. This can happen because there are still many investors in Indonesia who invest without sufficient knowledge regarding investment and making investment decisions based solely on rumors, joining in or just guessing.

Seen from the test result, *return perception* effect positively on investors' investment behavior on mutual funds. The variable *return perception* in this study is a preference investors to various types of investment alternatives with consider the profit or *return* , which consists of investment stock exchanges / stocks, mutual funds and bonds / debt securities. According to Kaur and Kaushik (2016), stock exchange / stock investment alternatives, mutual funds and bonds / debt securities categorized as an alternative high-risk investment . High risk investments have the potential to provide high *returns* or profits, too. so that it can be concluded that investors in Indonesia expect a high *return* or return from an investment. It will have a greater opportunity to invest in mutual funds.

The results revealed that *risk perception* effect positively significant on investor investment behavior on mutual funds. *Risk perception* variables in this study are preferences investors to various types of investment alternatives with consider its risk, which consists of stock investment securities / shares, mutual funds and bonds / debt securities. Alternative stock exchange / stock investments, mutual funds and bonds / debt securities are categorized as alternative high-risk investments (Kaur and Kaushik, 2016), so that investors in Indonesia who are tolerant of investment risks high will have greater opportunities to invest in mutual funds.

Based on the test results, it was found that *awareness* had positive effect on investor investment behavior in mutual funds. This result is consistent with the findings of Kaur and Kaushik (2016) which also states that *awareness* variable have significant effect on investor investment behavior on mutual funds. Awareness will allow investors to make better investment decisions, understanding rights and obligations or his responsibility as an investor, able to understand and manage risk better (Bhattacharjee and Singh, 2017).

4. Conclusion

Based on the results of the tests discussed earlier, it can be seen that *gender* variables have a significant negative effect on investors' investment behavior in mutual funds, while *income, return perception, risk perception*and *awareness* variables have a significant positive effect on investors' investment behavior in mutual funds. These results indicate that being female investors, investor who have high income, have a positive perception of *return* and *risk* on alternative investment mutual funds, stocks and / or bonds and have sufficient awareness of mutual funds have a greater probability of investing in mutual funds. Other independent variables such as *age, marital status, education, professional education* , *savings* and *investment criteria* are known not to have a significant effect on

investor investment behavior in mutual funds.

There are recommendations for the next research. This study can add factors that influence investors in investing in mutual funds in Indonesia. These factors include *socioeconomic and demographic characteristics* (*gender, age, marital status, education, professional education, income* and *savings*), *investment criteria, return perception, risk perception* and *awareness* . The limitation in this study is the number of respondents tends to be smaller and there is data inequality between several sub-categories; for example in the *professional education* category , respondents who have never taken professional education tend to be far more than those who have taken professional education. In addition, because the questionnaire was disseminated through *online* media , there were the possibility of several questions and statements that were not understood by the respondents. For further research, it is expected that the data or respondents can be collected more and equally between sub-categories. In data processing, it is expected that variables which have many factors can be processed or extracted into several final variables, not just one variable. In addition, it is also expected that before the questionnaire is disseminated through *online* media , the next researcher can first distribute the questionnaire manually or *face-* to *-face* to the respondents, so that they can assess whether the respondent understands the questions and statements stated on questionnaire.

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