



Control of Risk-Taking in Mutual Fund Investing Decisions

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Abstract. Mutual funds are the most popular way to invest on the capital market, even though there are other options. Most of the time, investors use their analytical and math skills to decide what to invest in. But many studies on behavioral finance have shown that investors tend to act irrationally when making investment decisions, which is directly related to the way investors act when they take risks. This study investigates the variables affecting Indonesian mutual fund investors' risktaking behavior and its relation to investment decision. There are 178 mutual fund investors as respondents. The SPSS software version 22 is used in this study's multiple linear regression tests. Results revealed that while herding and familiarity bias have a considerable impact on investors' risktaking behavior, heuristics and prospects have no impact. This research enables investors who must construct and place themselves in a healthy investing environment with the knowledge they need to make a sound investment decision with valuable insight.

Keywords: Risk-taking behavior · Mutual fund · Behavioral finance

1 Introduction

The act of placing assets where they are anticipated to generate income or increase in value is referred to as investing [1]. Investments in physical assets like gold and real estate as well as investments in intangible assets like stocks and mutual funds are the most common means for people to hold wealth. Differences in market risk assessment appear to be driven by the perception of tangible assets as being more permanent than intangible assets, according to [2] When presented as an intangible asset, respondents evaluated the identical asset as riskier.

Investors typically conduct the analysis first while investing. Learning about traditional finance theory, which makes the assumption that investors are logical beings who always take into account all relevant information when making investment decisions [3]. Fundamental and technical analysis are the two forms of analysis that investors in stocks must perform, as is common knowledge. [4] claim that since this research shows that stock information across the U.S., Japanese, and Indonesian markets is integrated with one another, information about a country's stock market must also be taken into account when completing the analysis. Even stock returns can be predicted, based on [5], which yields the Exponential Generalized Autoregressive Conditional Heteroscedastic

(EGARCH) that appears to be the most ideal for displaying stock prices and return volatility.

Examining how different product features and disclosure documents affect consumers' financial decision-making is crucial when it comes to mutual funds [6]. The findings of the [7] study continue to raise doubts about the efficient market hypothesis's prediction that institutions will be willing to address mispricing and cast doubt on the widely held belief that household financial decision-making is best handled by sophisticated Bayesian agents.

Investors are divided into four categories by [8], they are cautious investors, methodical investors, individualistic investors, and spontaneous investors. Cautious investors are those who are too careful so they tend to overanalyze investment opportunities, most avoid risk and have a strong desire for financial security so that they focus on investments that have the least potential for losses, then methodical investors are those who have a high level of financial literacy and intermediate arithmetic skills so that their investment decisions are based on experience and do not imitate the behavior of other investors but tend to be more conservative, individualistic investors are those who are more or less the same as methodical investors except that the individualistic investor type has a higher level of risk tolerance (medium), then lastly are spontaneous investors who make decisions based on instinct and have low arithmetic and financial literacy skills so that their decisions are easy to change. This is strongly related to behavioral finance which uses the psychological and cognitive components of an individual in the process of making financial decisions [8].

The actual issue in investing and making decisions is tied to risk-taking. Many investor profiles are risk averse and remain involved in the wealth generation process. [10] behavioral bias can enhance or reduce the amount of risk tolerance of investors and will alter their judgments. Herding factors are the behavioral tendency of investors to follow the movements or activities of other investors [9]. Heuristic factors are characterized as rules of thumb that can make the decision-making process in an uncertain scenario easier by lowering the complexity of assessing probability and anticipating values [10]. Prospect aspects refer to subjective decision-making that is influenced by the investor's appraisal system [11]. Familiarity bias refers to the tendency of investors to buy specific stocks which subsequently form an undiversified portfolio because the selection is made based on certain familiar categories [12]. Self-attribution bias refers to the behavior of investors who tend to admit that the profits obtained from investments come from the abilities and knowledge they have and vice versa, they will assume the investment losses they get are the fault of parties or external factors that are beyond their control [13].

This study intends to evaluate the influence of financial behavioral elements, especially herding, heuristics, prospect factors and familiarity bias on risk-taking behavior in investing decisions for mutual fund investors in Indonesia. Where this research adds to behavioral finance in decision making.

2 Theoretical Framework

According to behavioral finance theory, when given a stimulus, investors often have psychological and emotional biases that lead them to make irrational decisions. In other words, this theory presupposes that the financial market is completely inefficient with

regard to information [16]. According to [3], traditional finance was widely accepted until the term “behavioral finance” was used in the money market in 1980 because financial economists initially rejected the behavioral concept originating from the field of psychology in terms of behavioral decision making (decision making behavior). [17] examined the impact of psychological bias on the choices made by investors and traders in the money market. According to [8] behavioral finance is a notion that aids in comprehending investment choices that have an impact on market pricing. This idea is connected to a person’s emotional and cognitive social bias. In contrast, [10] defines behavioral finance as the behavioral aspects that affect a person’s financial decision-making.

[14] defined risk-taking behavior as a person’s actions in uncertain situations when there is a high likelihood of loss. This risk-taking habit is a significant factor that directly affects investing choices in the world of investments. This is due to the fact that an investor’s risk-taking tendencies will dictate how much risk they are willing to face when investing in particular assets. An investment disclaimer was delivered randomly to about half of the participants in order to create a control environment for the investment in which the external factor of risk warning can cause a change in a person’s investment decision [15].

In a situation known as “herding,” rational investors often make erroneous decisions by copying the opinions of other people [16]. [3] found in their research that investors prefer to carefully evaluate information about other investors’ decisions before making investment decisions in the stock market, where herding factors have a large impact on investment decisions. [17], which claims that herding factors are one of the primary reasons investors make investment decisions, is another source of evidence that supports this conclusion. [11] also discovered in his research that investors’ choices to make investments on the Ho Chi Minh Stock Exchange are significantly influenced by herding factors, which are among the key things they own. [16] also shown that there is a considerable impact of herding on financial decisions in the cryptocurrency market. The following research hypotheses are put out in light of the findings of these earlier studies:

H_{a1}: The influence of herding factors on risk-taking behavior.

According to [10], heuristic factors are rules of thumb that can facilitate decision-making in ambiguous circumstances by simplifying the assessment of probability and value prediction [22]. [3]) earlier research shown that heuristic considerations have a major impact on investment choices. This indicates that rather than relying on information from distant sources, investors prefer to rely on information from friends, family, or local sources. [16], who researched the impact of behavioral finance on cryptocurrencies, discovered a similar claim. Heuristics have a big impact on investment choices in the bitcoin market, according to this study. These facts support the following proposed study hypothesis:

H_{a2}: The influence of heuristics factors on risk-taking behavior.

Prospect factors are investors’ tendencies to frequently substitute experience or intuition for their logical judgements when they are unable to make decisions in accordance with rational hypotheses or theories [18]. [3] earlier study has demonstrated that prospect considerations have a major impact on investment decisions. This suggests that after

suffering losses, investors will be more cautious when making investment selections or may steer clear of the risk associated with stock market trading. Similar findings were also discovered in studies by [16] and [11], which concluded that investor investment decisions are significantly influenced by prospect considerations. The following study theories are put forth based on the numerous prior studies:

H_{a3}: The influence of prospect factors on risk-taking behavior.

The term “familiarity bias” describes an investor’s propensity to select companies based on a set of well-known categories, leading to an undiversified portfolio [12]. [3] earlier research shown that familiarity bias does not significantly influence investment decisions, where this point denotes that investors do not take familiarity into account while making investment decisions. According to a number of research in the same area conducted by [19], familiarity bias had a favorable and significant impact on the investment choices of accounting students in Malang. The findings of this study are in contrast to those of other studies. Furthermore, [20] assert that the familiarity effect affects investors’ investment decisions significantly and manifests in both uptrend and downturn markets. These facts support the following proposed study hypothesis:

H_{a4}: The influence of familiarity bias on risk-taking behavior.

3 Data and Method

This study used primary data and the data collected are numerical and will be utilized for statistical analysis and hypothesis testing, it employs a quantitative research methodology. Using a non-probability sampling approach and the judgment sampling method, the study’s target population is made up of Indonesian-domiciled mutual fund investors who have recently transacted on the mutual fund platform. The indicators employed in this study are based on a Likert scale with points 1–5, as utilized by [3]. Numbers 1 and 5 denote “highly agree” and “strongly disagree,” respectively. Multiple linear regression analysis with SPSS version 22 was employed for the investigation. This study first did a pre-test for validity and reliability before examining the hypothesis.

Since respondents are free to invest in many mutual fund types, it can be deduced that equities mutual funds, which account for 49.7% of all investments or 84 respondents, are the most popular choice. A fixed income mutual fund, which was chosen by 65 respondents, or 38.5%, came in second. Money market mutual funds are in third place, with 64 respondents, or 37.9% of all respondents, placing them. The final option, chosen by 35 respondents, or 20.7% of all respondents, is a mixed mutual fund.

According to Table 1, the response is predominately female (57.30%), has 102 respondents who are between the ages of 18 and 24, and resides primarily on the island of Java (43.82%). This study was validated and reliable before moving on to the hypothesis test, and it passed the traditional assumption test (multicollinearity, heteroscedasticity and normality).

Table 1. Respondent' demographic

| Profile of Respondent | | Number | Percentage |
|-----------------------|----------------------|--------|------------|
| Gender | Male | 76 | 42,70% |
| | Female | 102 | 57,30% |
| Age | < 17 | 13 | 7,30% |
| | 18–24 | 102 | 57,30% |
| | 25–40 | 42 | 23,60% |
| | 41–56 | 15 | 8,43% |
| | > 57 | 6 | 3,37% |
| State | Jawa | 78 | 43,82% |
| | Sumatera | 61 | 34,27% |
| | Kalimantan | 8 | 4,49% |
| | Sulawesi | 8 | 4,49% |
| | Bali & Nusa Tenggara | 15 | 8,43% |
| | Maluku & Papua | 8 | 4,49% |

4 Result and Discussion

Before putting the hypothesis to the test, a number of factors must be taken into account, including the goodness of fit test, the coefficient of determination test, and the overall significant test. That must be taken into account while analyzing the coefficient of determination is that the independent variable's capacity to explain the dependent variable decreases as the coefficient of determination (R^2) decreases. Additionally, the ability of the independent variable to explain the dependent variable increases with the coefficient of determination.

According to Table 2, the adjusted R^2 value is 0.377, meaning that the study's independent variables (herding factors, heuristics factors, prospect factors, and familiarity bias) can explain 37.7 percent of the research dependent variable (risk-taking behavior), and the remaining 62.3% can be explained by external variables that were not used in the study. The F test result, which is greater than the number in F Table 4, is 27.821, and

Table 2. Goodness of Fit result

| | |
|------------------|--------|
| Ajusted R square | 0,377 |
| (S.E) | 0,302 |
| F | 27,821 |
| (sig.) | 0,000 |

Table 3. T-test result

| | Standardized coefficient | t | sig |
|-------------|---------------------------------|----------|------------|
| (costand) | | 7,505 | 0,000*** |
| Herding | 0,303 | 4,730 | 0,000*** |
| Heuristics | 0,180 | 1,966 | 0,051* |
| prospect | (0,014) | (0,158) | 0,875 |
| Familiarity | 0,320 | 3,121 | 0,002*** |

a significant value of 0.000, or less than 0.05, is also provided. This assertion implies that the research risk-taking behavior is simultaneously impacted by (herding factors, heuristics factors, prospect factors, and familiarity bias.

The herding factors variable’s t-value, which is 4.730 according to Table 3, is higher than the t-value with a significant value below 0.05, which is 0.000. The result that herding influences have an impact on risk-taking behavior means that the alternative hypothesis (Ha1) is accepted. Herding factors have a positive and statistically significant effect on the investment decision-related risk-taking behavior of investors, according to the results of regression analyses. This result is consistent with the findings of [3] and [21], who discovered that herding variables have a significant impact on risk-taking behavior in investing decisions. This occurs because individual investors prefer to evaluate information on the reactions, behavior, and decisions of other investors when investing, leading to a desire to emulate this behavior when making investments. This study contrasts the findings of [27], who discovered that herding had no substantial effect on investors’ investing decisions, as investors tend not to emulate one another while making decisions. This indicates that Indonesian investors in mutual funds have the attributes necessary to copy the conduct and judgments of other investors while making investment decisions. The greater an investor’s tendency to copy the judgment or behavior of other investors, the greater his or her willingness to accept risks with investment decisions. This is due to the fact that investors make judgments in an irrational manner, hence boosting their risk-taking behavior.

The t-value for the second hypothesis, the heuristic factors variable, is 1.966. This result is less than the positive t-table value, here we use significant level at 5% and the significant value placing the second hypothesis in the two-tailed rejection area with a significant value over 0.05, which is 0.051. It follows from this that the alternative hypothesis (Ha2) is disproved and that heuristic variables have no bearing on risk-taking behavior. It is stated that heuristics considerations have no effect on risk-taking behavior. This result is consistent with the findings of [27], who discovered that heuristic considerations have no substantial impact on the risk-taking behavior of investment decision-makers. This is because investors view information from relatives, friends, family, and other objective sources as complex, so they rely more on their own judgment. This conclusion contradicts (Almansour & Arabyat, 2017);(Sattar et al., 2020); and [16] findings that heuristics variables have a substantial impact on investment decisions. This

indicates that Indonesian investors in mutual funds are more reliant on objective and accurate information when making investment decisions.

The third hypothesis, the prospect factors variable, has a t value of -0.158 , which is greater than the negative value of the t -table and less than the positive value of the t -table. As a result, the prospect factors variable is in the two-tailed rejection area and has a significant value above 0.05 , or 0.875 . The result that prospect factors have no impact on risk-taking behavior means that the alternative hypothesis (H_{a3}) is rejected. It is stated that prospect considerations have little effect on risk-taking behavior. This finding is consistent with the findings of [29], who discovered that prospect considerations had no effect on the risk-taking behavior of investors while making investment decisions. This is due to the fact that regardless of whether the condition is profitable or unprofitable, investors' ability to withstand losses (risk) remains constant, hence it does not influence their risk-taking behavior when making investment selections. This result contradicts the findings of [11], which indicate that prospect considerations have a substantial impact on investment decisions. This indicates that Indonesian investors in mutual funds are more reliant on rational theory when making investment decisions.

The familiarity bias variable, which makes up the fourth hypothesis, has a t value of 3.121 , which is higher than the positive value of the t -table with a significant value below 0.05 , which is 0.002 . This suggests that the alternative hypothesis (H_{a4}), which states that familiarity bias affects risktaking behavior, is accepted. It is believed that familiarity bias has a substantial impact on risk-taking behavior. This result is consistent with [20] and [30] findings that familiarity bias has a substantial impact on investing decisions. It might be claimed that when investing, particularly in terms of risktaking behavior, investors only evaluate familiar mutual fund types. This study contrasts the findings of [3], who showed that familiarity bias had no significant effect on investing risktaking behavior. This indicates that investors prefer to invest in mutual funds that they are already familiar with, which makes them more risk-tolerant investors. This is due to the fact that investors tend not to be open to other options, hence increasing their risky investing behavior.

5 Conclusion

Typically, the first step in investing is analysis. There are two sorts of analysis that investors must conduct: fundamental and technical. Unlike traditional finance, which is objective since it relies solely on analysis and calculation, behavioral finance utilizes the psychological and cognitive components of an individual while making financial decisions. Herdging and Familiarity biases had a considerably strong effect on risktaking behavior, whereas heuristics and prospect factors had no significant effect on risk-taking.

This research contributes to the understanding that investors with herding behavior prefer to copy the activities and reactions of other investors. So that the knowledge gained can decrease investment risk, investors with these traits must be in a good and healthy investment environment.

Consequently, investors can join a variety of investor forums that provide unbiased investment-related information. Private investors must actively expand the information and knowledge they have independently gathered by reading a great deal of news and watching market movements, in addition to joining the community of mutual fund investors, which may help construct a strong and healthy investment environment. By actively acquiring this knowledge, investors are expected to be more objective when making investment decisions and more receptive to alternative investment opportunities so as to limit potential losses. It is hoped that management would be more proactive in promoting and investment managers will invest investor funds with greater care.

This survey included only 178 investors who invested in mutual funds as respondents. It is advised that it can also be done more specifically per domicile region, so that respondents can be represented more precisely based on their domicile and disparities between areas can be observed. In order to explain the dependent variable to a greater extent, future researchers may include more financial behavioral bias elements as research independent variables.

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