

Gender Differences in Investment Biases

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ABSTRACT

This research investigates differences in investment bias based on the gender perspective among investors in Indonesia. The investment biases analyzed were overconfidence and herding. These two investment biases were found in many individual investors and often led to suboptimal investment decisions. This research involved 35 male investors and 30 female investors in the Indonesian capital market as respondents. Mann-Whitney test, a non-parametric test, was employed to compare male and female investors' investment bias. The findings revealed that both female and male investors had reasonably high levels of overconfidence and herding. Hypothesis testing results indicated no significant difference in the level of overconfidence or herding between the two groups of investors because most of the participants were novice investors with limited investment knowledge and experience.

Keywords: Gender, Stock Investment, Overconfidence, Herding Bias.

1. INTRODUCTION

In mid-2020, the number of retail investors in the Indonesian capital market has increased by 8% compared to the end of 2019 [1]-[3]. This phenomenon occurred due to the increasing number of issuers on the capital market, which also raised potential investment re-turns.

Investors decisions in the capital market are highly influenced by the amount of information and the ease of access to that information. In fact, it is difficult for investors to make rational decisions if there is limited information, insufficient time, and limited cognitive [4]. These limitations cause investors to take a shortcut by adopting a simple model path in the decision-making process. Limited cognitive ability also causes cognitive bias, which leads to irrational decision-making and suboptimal investment returns [5].

Research in various countries found that most individual investors showed behavioral bias in investing, such as overconfidence and herding [6]. Overconfidence is excessive self-confidence. This investment bias is familiar to many investors and often leads to mistakes in investment decisions [7]. Overconfidence makes investors overestimate their abilities, knowledge and underestimate the predictions [8]. Rational investors will attempt to get the most out of profits and minimize the

risks taken. On the contrary, investors with high overconfidence are more willing to bear high risks in investment decisions [9].

Herding in financial markets refers to following the actions of other investors [10]. Herding behavior can lead to irrational actions regarding stock prices that are difficult to explain [11]. Herding behavior in the capital market was also studied by reference [12], who found that an investor's decision could affect other investors in selling, buying, and choosing stocks, duration, and investment volume.

The relationship between gender, herding overconfidence, and its impact on investment decisions has been extensively studied. As in reference [13] stated that there was a relationship between herding bias and gender. Research conducted by reference [14] specifically found that the level of herding bias in female investors was higher than male investors. On the other hand, reference [15] did not find a relationship between herding and gender.

The results of previous research on the relationship between gender and overconfidence also showed inconsistencies. Reference [16] and [17] found that female investors were more over-confident than male investors. Meanwhile, reference [18] found that male

investors were more overconfident than female investors. On the contrary, reference [19] did not find differences in bias confidence between groups of investors with different genders.

This research investigates the differences in investment bias based on a gender perspective among investors in Indonesia. In particular, this research analyzed the differences in overconfidence and herding among male and female investors in Indonesia.

2. METHODS

The research variables consisted of gender and investment bias, which included overconfidence and herding. Herding is indicated by (1) investment decisions based on recommendations from friends/relatives, (2) investment decisions based on following other investors' investment choices, and (3) investment decisions based on market information. Meanwhile, overconfidence is measured by (1) the level of confidence in the ability to make the right decision, (2) the level of confidence to predict future trends, and (3) the level of confidence to have the knowledge and skills to read market trends.

Sixty-five investors consisted of 35 male investors (54%), and 30 female investors (46%) were purposively selected using random sampling. The majority of respondents were 21-30 years old (50%) and had investment experience of less than one year (44%)

Data was collected using a questionnaire with closed questions consisting of 6 (six) question items and distributed using the Google Form application. This research employed descriptive analysis and verification techniques. The research hypothesis testing was conducted using the Independent Sample T-Test with the Mann-Whitney U Test approach.

3. RESULTS AND DISCUSSION

In general, the research findings indicated a relatively high level of herding bias and overconfidence in both male and female investors.

It is believed that herding behavior helps investors to obtain useful and reliable information for making investment decisions [20]. Market information is more widely followed because it is more accessible and accurate. The findings also indicated that female investors had a higher level of herding bias than male investors. The influence of market information and recommendations from other investors on investment decisions was more significant for female investors than for male investors.

The high level of herding bias in female investors is related to the agreeableness personality that is generally found in women [21]. Women generally have high social adaptability. Thus, they tend to be more easily accept

opinions from others. This personality also allows them to follow other investors' investment decisions, especially if the information needed is not accessible.

Table 1 shows a description of each research variable.

Table 1. Description of Variables

No.	Variable /Indicator	Man n=35 (Mean)	Female n=65 (Mean)
	Total Bias	3.54	3.59
A	<i>Herding</i>	3.17	3.40
1	I'm going to invest in stocks that a friend recommends	2.69	3.17
2	I'll choose the same investment as a friend has	2.86	2.60
3	I will follow market information to make transactions	3.97	4.43
B	<i>Overconfidence</i>	3.91	3.79
4	I am confident that I can make the right investment decisions.	4.23	3.90
5	I am confident that I have high investment knowledge and skills	4.11	3.83
6	I think market trends are often consistent with my perspective.	3.40	3.63

In terms of overconfidence behavior, the findings revealed that participants had a high level of overconfidence bias. A high level of uncertainty in the model market causes investors to be overconfident in making decisions. A high level of overconfidence indicates that they have overestimated their ability to make investment decisions. High overconfidence also leads to greater acceptance of taking risks, which eventually lead to suboptimal investment decisions [9].

The results showed that the level of overconfidence of the male investor group was higher than female investors. Male investors had more confidence in their ability to make correct investments and their knowledge and skills [22].

Male investors had a higher level of overconfidence because they are considered more competent than female investors [23]. Previous research had shown that men generally have a personality of Conscientiousness that refers to a person who is obedient, controlled, organized, and ambitious, focuses on achievement and self-discipline. This personality encourages men to have higher overconfidence [24]. Table 2 shows the result of the Independent Sample T-Test using the Mann-Whitney U Test approach.

Table 2. Summary of t-Test Difference

No	Variable	Asymp sig (2-tailed) value	Prob.	Conclusion
1	<i>Herding</i>	0.448	0.05	Ho accepted
2	<i>Overconfidence</i>	0.627	0.05	Ho accepted

The findings showed that the asymp sig (2-tailed) value of the Herding bias was $0.448 > 0.05$, which indicated no significant difference between the herding bias of male investors and female investors. Furthermore, the asymp sig (2-tailed) value of the overconfidence bias was $0.627 > 0.05$, indicating that there was no significant difference between overconfidence bias in male investors and female investors.

The research findings revealed there was no significant difference between the herding bias in male and female investors. This difference was not found since most participants were novice investors, so that their investment experience was still low, and their investment knowledge was still limited. This situation caused herding behavior to become more robust since they have limitations in processing information. The easiest way to make decisions is to follow the suggestions or decisions of other people who are considered more capable of making better investment decisions. This is in line with research conducted in reference [25], [26], who also had the similar character of respondents with this research, namely novice investors.

This research also found that there were no significant differences between overconfidence bias in male and female investors. This research's findings are in line with [19] findings but are opposing to research conducted in reference [27]. The results are thought to be related to the low investment experience of these two groups of investors. The frequency of investment is also thought to be related to investment decisions. Investors who are new to investing tend to consider all factors related to their investment decisions. Meanwhile, for the experienced investor, there are fewer factors to consider, so that more investment decisions are based on experience. This is in line with reference [28], which found that investor confidence increases when they gain more experience.

4. CONCLUSIONS

This research aimed at investigating differences in overconfidence and herding among male and female investors in Indonesia. The findings revealed that both female and male investors had reasonably high levels of overconfidence and herding due to their low experience and knowledge in investing. In this research, there were no significant differences in overconfidence and herding between male and female investors. The development of educational programs for novice investors will impact increasing the ability of investors to make optimal investment decisions.

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