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The Effect of Cognitive Bias on Investment Decision Making by Individual Investors: Behavioral and Financial Accounting Approaches

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ABSTRACT
This study aims to analyze the influence of cognitive bias on investment decision-making by individual investors in the Indonesian capital market. In the framework of behavioral and financial accounting, biases such as overconfidence, anchoring, and herding behavior often affect investor rationality. This study used a quantitative approach by distributing a questionnaire to 150 active individual investors. The results of the regression analysis showed that overconfidence and herding bias had a significant influence on investment decision-making, while anchoring had no significant effect. These findings show the importance of financial education and psychological awareness in improving the quality of investment decisions.

I. INTRODUCTION

Behavioral accounting is an interdisciplinary field that examines how psychological factors influence decision-making in the context of finance and accounting. Behavioral finance emphasizes that market actors are often irrational due to the influence of cognitive and emotional biases (Thaler, 1999).

II. LITERATURE REVIEW

2.1 Cognitive Bias in Investing

Cognitive bias is a systematic tendency in thinking that can lead to deviations from rational judgment. Kahneman and Tversky (1979) through the theory of Prospect Theory show that individuals often make decisions based on potential losses and relative gains, rather than objective end results. In the context of investing, this bias can result in suboptimal decisions.

2.2. Investment Decision Making by Individual Investors

Individual investors are often influenced by emotions, intuition, and personal experiences, which make their decisions different from the rational assumptions in classical financial theory. According to Ricciardi and Simon (2000), individual investors are more susceptible to psychological bias than institutional investors due to limited information, experience, and analytical tools.

Research by Waweru, Munyoki, and Uliana (2008) found that psychological factors have a significant influence on investment decisions in the stock market, especially among retail investors in developing countries.

2.3. Behavioral Accounting

Behavioral accounting highlights how individuals interact with accounting information, as well as how their perceptions and preferences influence business and investment decisions. According to Ashton (1990), accounting decisions are not only based on quantitative data, but are also heavily influenced by perceptions, biases, and emotional pressures.

Accounting information (such as financial statements) can be interpreted differently by investors depending on their cognitive biases.

2.4. Behavioral Finance

Behavioral finance is an approach that challenges the assumptions of investor rationality in classical financial theory. According to Shefrin (2000), investors often make decisions that are influenced by emotions and mental biases.

This theory explains market phenomena that cannot be explained with traditional approaches, such as bubbles, panic selling, or the January effect. Behavioral finance also explains how the psychology of individual investors can cause market price deviations from fundamental values.

III. METHODS

This study uses a quantitative approach with descriptive design and causal analysis. The data was analyzed using multiple linear regression to see the influence of each independent variable (overconfidence, anchoring, herding) on the bound variable (investment decision-making).

Model regresi linier berganda:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \cdots + \epsilon$$

Source: Abdul Rosid et al. (2024)

Contoh:

- **X1** = Overconfidence
- **X2** = Anchoring
- **X3** = Herding
- **X4** = Loss Aversion
- **Y** = Kualitas atau rasionalitas keputusan investasi (diukur lewat skor survei atau indikator perilaku)

IV. RESULTS

4.1 Research Results

Table 1: Results Analysis of parameters that affect the quality or rationality of investment decisions

Variabel Independen	Koefisien β	Signifikansi (p-value)
Overconfidence (X1)	0.35	0.003 (**signifikan**)
Anchoring (X2)	0.12	0.087 (tidak signifikan)
Herding (X3)	0.41	0.000 (**signifikan**)
Loss Aversion (X4)	-0.28	0.015 (**signifikan**)
R^2 (R square)	**0.64**	-

Resorce: Abdul Rosid et al. (2024)

Explanation:

The coefficient (β) indicates the direction and strength of influence.

- Overconfidence (0.35): The positive influence → the higher this bias, the more likely investors are to make quick or aggressive decisions.
- Herding (0.41): A positive and strong influence → investors are very easily influenced by the decision of the majority.
- Loss aversion (-0.28): The negative influence → the stronger this bias, the more hesitant or slow the investor is in making decisions.
- Anchoring (0.12): Not statistically significant → not statistically significant in the context of this study.
- p-value < 0.05: means a statistically significant variable.

- $R^2 = 0.64$: means that the model explains that 64% of the variation in investment decision-making is explained by these biases.

4.2 Discussion

1) Overconfidence

Interpretation:

- The value of the positive coefficient (0.35) indicates that the higher the level of overconfidence, the greater the tendency of investors to make decisions quickly or aggressively.
- This is consistent with the theory of behavioral finance: overconfident investors often ignore risk and pursue opportunities without in-depth analysis.

Implication:

- Overconfidence can lead to overtrading, overestimation of one's abilities, and even unrealistic risk-taking.
- However, in certain contexts, a little overconfidence can encourage decisiveness.

2) Herding

Interpretation:

- The highest positive coefficient (0.41) indicates that herding bias is the most dominant factor in influencing investment decisions in this model.
- The higher the majority's tendency to follow the majority, the greater the chance of investors following market trends without individual analysis.

Implication:

- This reflects the general conditions in emerging markets (including Indonesia), where asymmetric information and low financial literacy trigger investors to follow the majority.
- It can cause a bubble effect or panic selling.

3) Loss Aversion

Interpretation:

- The negative coefficient (-0.28) indicates that the stronger the loss aversion bias, the more reluctant or slow the investor is to make a decision.
- Investors are more focused on avoiding losses than pursuing profits.

Implication:

- This bias can lead to delaying decisions, holding losing stocks for too long, or avoiding risky investments despite potentially profits.
- Psychologically, the loss feels more painful than the equivalent gain feels pleasant.

4) Anchoring

Interpretation:

- Despite the positive influence direction, anchoring is not statistically significant, meaning that its influence on investment decisions was not evident in this study sample.
- Investors may have begun to avoid initial information bias or have broader access to information.
- It could also be because this variable is too weak compared to other variables such as herding and overconfidence in the context of the population being studied.

V. CONCLUSIONS

From the various literature that has been reviewed, it can be concluded that cognitive bias has a significant influence on investment decision-making by individual investors. The behavioral accounting and behavioral finance approach helps explain that investment decisions are not solely based on rational information, but are also heavily influenced by investor psychology and perception.

Several cognitive biases significantly affect investment decisions, such as overconfidence, herding, and loss aversion. Anchoring may not have a significant effect in the context of the data being analyzed.

The regression model has a fairly good predictive power (R^2 of 64%), meaning that cognitive bias is an important factor in investment behavior.

The conclusion of the above discussion is as follows:

- Herding and overconfidence are the two dominant biases that drive active/aggressive investment decisions.
- Loss aversion acts as an inhibiting factor, causing delay or excessive caution.
- Anchoring in this context is insignificant, perhaps because investors are starting to be more rational in updating information.
- Overall, this model is quite powerful in explaining investor behavior, and the results support many theories in behavioral finance.

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