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The Influence of Heuristic and Herding Behavior on Investment Decisions through Fomo on Retail Investors in Indonesia

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ABSTRACT

Retail investors in Indonesia are often influenced by psychological biases in making investment decisions. These biases, including heuristic and herding behaviors, often create a fear of missing out on key moments (FoMO) that impact investment decisions. This study aims to analyze the influence of heuristic behavior (representativeness bias, availability bias, anchoring bias) and herding behavior on investment decisions with FoMO mediation. The research used a survey method with 109 retail investor respondents and data analysis using smartPLS. The results show that herding behavior significantly affects FoMO, and FoMO also has a significant impact on investment decisions. In contrast, heuristic behavior has no significant influence on FoMO. These findings reinforce FoMO's role in the investment decision-making process among retail investors. Based on the results of data analysis from the hypothesis test, it can be concluded that heuristic behavior (representativeness bias, availability bias, and anchoring bias) does not affect the FoMO of retail investors in Indonesia. So any change in heuristic behavior (representativeness bias, availability bias, and anchoring bias) does not affect the FoMO of retail investors in Indonesia.

Introduction

Investment decisions are one of the important aspects in the world of finance, where investors are faced with a variety of asset options to invest capital in the hope of making profits in the future. Globally, investment decision-making is often influenced by a variety of psychological factors, including heuristic behavior and herding behavior, which have been a concern in the study of financial behavior. The phenomenon of Fear of Missing Out (FoMO), which is also developing in the context of social media and digital information, further strengthens the effects of these two behaviors, especially among retail investors who generally have limited access to complete market information. (ul Abdin et al., 2017).

Global issues related to heuristic and herding behavior in investment decision-making have been discussed extensively in various literature. Heuristics, which are decision-making processes that use rules of thumb or shortcuts, often lead investors to irrational decisions. (Akbar et al., 2016). This phenomenon is further exacerbated by biases such as representativeness, availability, and anchoring bias. Representativeness bias occurs when investors make decisions based on stereotypes or experiences that are considered similar to the current situation, even though the fundamental data is not supportive. (Aisafitri & Yusriyah, 2021). Availability bias occurs when investors rely too much on the information that is most easily remembered or accessible, while anchoring bias occurs when investors place too much weight on the initial information received, regardless of the validity of the information. (Agustin & Mawardi, 2014).

In addition, herding behavior, where investors follow trends or decisions of other investors without conducting in-depth analysis, is also a global issue. Herding behavior is prevalent in the capital market, where investors often feel more comfortable following the majority, especially in situations of market uncertainty (Zahera & Bansal, 2018). Previous studies have shown that herding behavior can lead to a bubble or crash in the stock market, as irrational collective decisions can significantly affect asset prices. The main factor that triggers problems in investment decision-making among retail investors is the limited access to accurate and relevant information. Retail investors tend to rely on social media or easily accessible sources of information, which are often not based on fundamental analysis. (Wijaya, 2019). The influence of social media, especially through investment influencers, amplifies the FOMO effect, where investors are worried about missing out on lucrative investment opportunities if they do not act immediately on the information circulating. This FoMO phenomenon is increasingly relevant in the digital era, where the rapid and wide flow of information makes investors feel pressured to stay connected and follow market trends. (Areiqat et al., 2019).

According to (Al Ibrahim, 2018), psychological biases that affect irrational sufficiency are heuristic behavior and herding behavior. The effect of heuristic behavior on investors will affect investment decision-making. It is also mentioned that it is necessary to develop various instruments to evaluate and specifically measure the effects of heuristic behavior on investors. The concept of heuristics is very important to help cognitive efforts to be effective and efficient in the time and resources that investors have in the investment decision-making process. (Dangol & Manandhar, 2020).

The impact of the above factors is the increase in irrational investment decisions among retail investors. Heuristic and herding behavior, reinforced by FoMO, leads to investment behaviors that are based on emotions rather than rational analysis. As a result, investors are more vulnerable to the risk of large losses, especially in situations where the market experiences sharp fluctuations. Investors who make decisions based on heuristic biases tend to overestimate potential profits or underestimate existing risks (Caldwell & Dolvin, 2012). On the other hand, investors who behave herding are often caught up in a cycle of unstable market trends, which is a big risk in the long run. Furthermore, heuristic behavior, which includes representativeness bias, availability bias, and anchoring bias, is

a complex phenomenon in financial psychology (Dale, 2015). Representativeness bias, for example, describes an investor's tendency to make decisions based on stereotypes or past experiences that are considered similar, even though they may not be relevant to the current situation. Availability bias describes an investor's reliance on the most memorable or recent information while anchoring bias reflects a tendency to rely too much on initial information obtained, regardless of whether the information is accurate or not. On the other hand, herding behavior, both intentional and unintentional, reflects a phenomenon in which investors follow the collective actions of other market participants, without paying attention to relevant fundamental information.

(Azhari & Damingun, 2021), the Influence of Heuristics and Herding Behavior on Residential Property Investment Decision-making. Journal of Indonesia Economics and Business, 15(1), 101-115".

This study focuses on the influence of heuristic and herding behavior in property investment decision-making in Surabaya. The main findings show that representativeness bias and anchoring bias influence investment decisions while herding does not have a significant influence. However, this study did not examine the role of FoMO as a mediating variable.

(Addinpujoartanto & Darmawan, 2020). The Effect of Overconfidence, Regret Aversion, Loss Aversion, and Herding Bias on Investment Decisions in Indonesia. Journal of Economic and Business Research",

This study explores behavioral biases such as overconfidence, regret aversion, loss aversion, and herding bias in the context of investment decisions in Indonesia. The results show that all of these biases significantly influence investment decisions, but FoMO is not part of the variables studied. The urgency of this research is increasingly relevant in the digital information era, where the rapid and massive flow of information can significantly affect investor behavior. Many retail investors do not fully understand how psychological biases such as heuristics and herding can affect their investment decisions. This research is expected to provide a deeper understanding of this phenomenon so that it can help retail investors make more rational and informed decisions. On the other hand, with the increasing use of social media in the world of investment, understanding the role of FoMO in the investment decision-making process is becoming increasingly important.

This study has several novelty elements that distinguish it from previous studies:

1. Geographical and Demographic Context: Unlike previous studies that focused heavily on other countries (such as India), this study focuses on retail investors in Indonesia. Market conditions, investment culture, and social dynamics in Indonesia provide a unique context that has not been studied in depth.
2. FoMO as a Mediating Variable: Previous research, such as those conducted by Gupta & Shrivastava (2021), has examined the role of FoMO, but it is mostly limited to the stock market or a specific market. This study examines how FoMO mediates the influence of heuristics and herding in the context of retail investment, expanding the application of this theory in Indonesia.

3. Combining Heuristics and Herding with FoMO: Most previous studies have separated between heuristic and herding studies, or focused on one or the other. This research makes a new contribution by studying the interaction between heuristic, herding, and FoMO behaviors simultaneously, something that has not been widely done in Indonesia's literature.
4. Focus on Social Media Behavior and Psychological Influence: With the growing use of social media by retail investors, this study is becoming relevant by looking at how social media-driven FoMO can influence investment decisions. This is a new area in investment studies in Indonesia that has not been explored much.

This study aims to analyze the influence of heuristic behavior (representativeness bias, availability bias, and anchoring bias) on FoMO, analyze the influence of herding behavior on FoMO, and analyze the influence of FoMO on the investment decisions of retail investors in Indonesia. By using the smartPLS analysis method, this study is expected to provide empirical evidence regarding the relationship between these variables, as well as enrich the literature on investment decision-making among retail investors.

The benefits of this research are divided into two, namely academic benefits and practical benefits. Academically, this research contributes to the development of financial psychology theories, especially related to heuristic bias, herding behavior, and the FoMO phenomenon in the context of investment decision-making. Practically, the results of this study are expected to help retail investors in Indonesia to better understand the factors that affect their investment decisions, so that they can make more rational decisions and avoid adverse psychological biases.

Method

This study is quantitative research with a causal design that aims to analyze the relationship between Heuristic Behavior, Herding Behavior, FoMO (Fear of Missing Out), and Investment Decisions. The focus of this research is on retail investors in Indonesia, to understand how these psychological behaviors affect investment decisions. The methodology used in this study is designed in detail and structured to answer the research objectives and ensure the accuracy and reliability of the results obtained.

Location and Time of Research

This research was conducted in Indonesia, with the main target of retail investors who actively use social media and are involved in investment activities. The data collection was carried out for three months, which provided enough time to collect responses from various regions in Indonesia. This timeframe ensures that the research captures investment behavior that takes place in real-time, which is influenced by market dynamics and trends that are developing on social media.

Population and Sample

The population in this study includes retail investors in Indonesia, i.e. individuals who make investment decisions on their behalf without institutional support. The research sample consisted of 109 respondents, who were selected using the purposive sampling

technique. This technique was chosen so that the research participants met certain criteria: (1) they were over 17 years old, (2) they were active in using social media, and (3) they had experience in making investment decisions. These criteria are important for the focus of research on FoMO, which is often triggered by activity on social media. The sample size of 109 respondents was considered adequate to meet the statistical requirements in the analysis of this study.

Data Collection Methods

The main instrument used in data collection is a structured questionnaire distributed through Google Forms. This questionnaire is designed to gain insight into the psychological behavior of retail investors, especially as it relates to Heuristic Behavior and Herding Behavior, as well as how these behaviors contribute to investment decisions mediated by FoMO. The questionnaire was divided into several sections, each focusing on a specific variable in the study. To ensure clarity and reliability, this questionnaire has been tested first on a small group of respondents to identify ambiguities or errors in the questions asked.

Research Instruments

The main instrument in this study is a questionnaire with a Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). This scale was chosen because of its simplicity and effectiveness in capturing the attitudes and opinions of respondents. The questionnaire includes items designed to measure Heuristic Behavior, Herding Behavior, FoMO, and Investment Decisions. These items are adapted from scales that have been validated in previous studies to ensure that these measurements are valid and reliable.

Data Analysis Techniques

The data obtained from the questionnaire was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS software. PLS-SEM was chosen because of its ability to handle complex models as well as its relatively small sample size. This analysis is divided into two main stages: the measurement model (outer model) and the structural model (inner model).

Evaluation of the Measurement Model (Outer Model): At this stage, the validity of convergence and discrimination is tested. The validity of convergence is measured by looking at the factor loading value of each item, with a value of > 0.7 indicating good validity. Meanwhile, the validity of discrimination was measured using the Average Variance Extracted (AVE) method, where a > value of 0.5 was considered adequate. In addition, the reliability of the composite is calculated to ensure the internal consistency of the scale used.

Structural Model Evaluation (Inner Model): The structural model tests the causal relationship between latent variables (Heuristic Behavior, Herding Behavior, FoMO, and Investment Decisions). The strength and significance of this relationship were measured using path coefficients, t-statistics, and p-values. The p-value < 0.05 is considered significant, which indicates that the independent variable has a significant influence on the dependent variable.

Variables and Operational Definitions

Heuristic Behavior: Refers to quick decision-making based on cognitive biases or mental shortcuts that investors use in situations of uncertainty. In this study, heuristic behavior includes representativeness bias, availability bias, and anchoring bias. Each is measured through statements that assess how investors use limited information or experience in making decisions.

Herding Behavior: Describes an investor's tendency to follow the actions of others without conducting independent analysis. This variable is measured through statements that assess how often investors follow other people's investment decisions.

FoMO (Fear of Missing Out): This variable measures the psychological pressure that investors feel when they feel left behind from the investment opportunities that others are making. The statements that measure FoMO focus on investors' emotional reactions to social media content related to investment opportunities.

Investment Decision: This is an outcome variable that reflects the investor's final decision regarding their investment. Statements that measure investment decisions focus on how informed and confident investors are in making investment decisions.

Results and Discussion

Respondents by Age Type

Based on the data collected, 4 respondents did not meet the criteria, and 150 respondents met the criteria from 154 receptors. Below is a diagram of respondents by age.

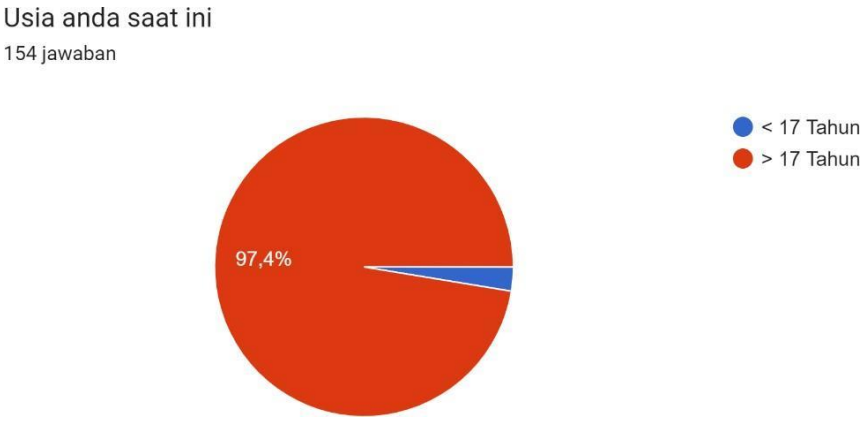

Figure 1 Diagram Based on Respondent Age

Respondents Who Have Social Media.

Based on data collected from 154 respondents, all of them have social media. Below is a diagram of respondents who have social media.

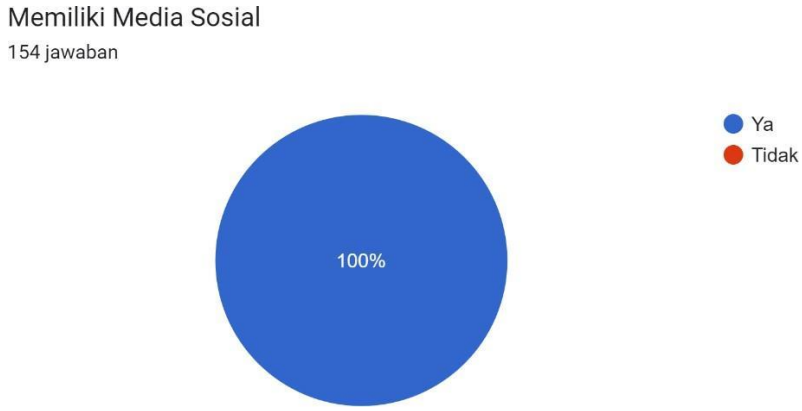

Figure 2 Diagram that Has Social Media

Respondents Who Have Invested

Based on the data collected, 45 respondents had never invested and 109 respondents had invested out of the 154 respondents. Below is a diagram of respondents based on who has invested and who has never invested.

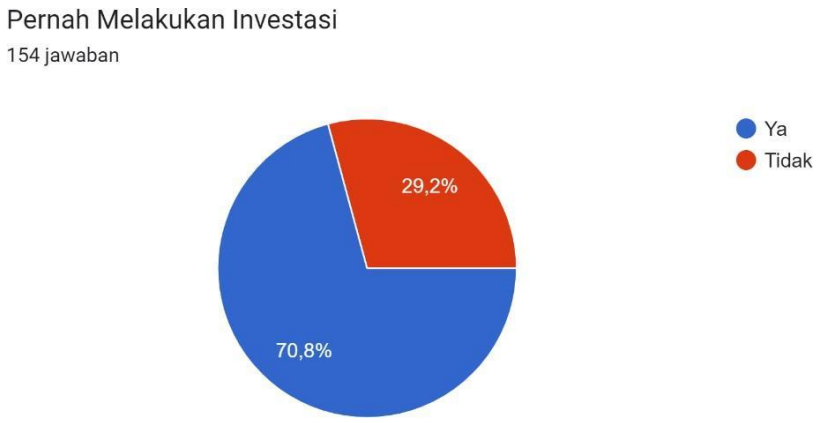

Figure 3 Diagram of Respondents Who Have Invested

Measurement Model or Outer Model.

1. Convergent Validity.

To test convergent validity, the value of outer loading or loading factor is used. An indicator is declared to meet convergent validity in the good category if the outer loading value > 0.6 according to Chin in Ghozali (2014). The following are the outer loading values of each indicator on the research variables:

Table 1 Loading Factor Phase I

Instruments	Outer Loadings	Information
RB1 <- Representativness	0.743	Valid
RB2 <- Representativness	0.763	Valid
RB3 <- Representativness	0.643	Valid

AB1 <- Availability	0.774	Valid
AB2 <- Availability	-0.147	Invalid
AB3 <- Availability	0.694	Valid
AB4 <- Availability	0.779	Valid
AB5 <- Availability	0.750	Valid
ACB1 <- Anchoring	0.720	Valid
ACB2 <- Anchoring	0.696	Valid
ACB3 <- Anchoring	0.826	Valid
FOMO1 <- FoMO	0.713	Valid
FOMO2 <- FoMO	0.809	Valid
FOMO3 <- FoMO	0.762	Valid
FOMO4 <- FoMO	0.673	Valid
HB1 <- Herding Behavior	0.876	Valid
HB2 <- Herding Behavior	0.875	Valid
HB3 <- Herding Behavior	0.771	Valid
HB4 <- Herding Behavior	0.790	Valid
KI1 <- Investment Decision	0.785	Valid
KI2 <- Investment Decision	0.826	Valid
KI3 <- Investment Decision	0.821	Valid
KI4 <- Investment Decision	0.752	Valid

Of the indicators used, some are invalid or the value is < 0.60 so invalid indicators are deleted and continued with repeated tests.

Table 2 Loading Factor Phase II

Instruments	Outer Loadings	Information
RB1 <- Representativness	0.743	Valid
RB2 <- Representativness	0.763	Valid
RB3 <- Representativness	0.643	Valid
AB1 <- Availability	0.774	Valid
AB3 <- Availability	0.694	Valid
AB4 <- Availability	0.778	Valid
AB5 <- Availability	0.750	Valid
ACB1 <- Anchoring	0.720	Valid
ACB2 <- Anchoring	0.696	Valid
ACB3 <- Anchoring	0.826	Valid
FOMO1 <- FoMO	0.713	Valid
FOMO2 <- FoMO	0.809	Valid
FOMO3 <- FoMO	0.762	Valid
FOMO4 <- FoMO	0.673	Valid
HB1 <- Herding Behavior	0.876	Valid

HB2 <- Herding Behavior	0.875	Valid
HB3 <- Herding Behavior	0.771	Valid
HB4 <- Herding Behavior	0.790	Valid
KI1 <- Investment Decision	0.785	Valid
KI2 <- Investment Decision	0.826	Valid
KI3 <- Investment Decision	0.821	Valid
KI4 <- Investment Decision	0.752	Valid

Based on the loading factor phase II, all indicators used have values that are by *the outer loading*, which is above 0.60 so that they are considered to meet the requirements *of convergent validity* (Gozhali, 2014) so that the indicators are declared feasible or valid to be used for research and can be used for further analysis.

2. Discriminant Validity.

In this section, the results of the discriminant validity test will be described. The discriminant validity test uses a cross-loading value. An indicator is declared to meet the discriminant validity if the cross-loading value of the indicator on the variable is the largest compared to other variables. The following is presented with a cross-loading table:

Table 3 Cross Loading

Variabel	**Anchoring**	**Availability**	**FoMO**	**Herding Behavior**	**Keputusan Investasi**	**Representativeness**
RB1	0.460	0.544	0.265	0.339	0.563	**0.743**
RB2	0.476	0.511	0.298	0.447	0.242	**0.763**
RB3	0.319	0.293	0.251	0.079	0.405	**0.643**
AB1	0.552	**0.774**	0.337	0.435	0.492	0.588
AB3	0.569	**0.694**	0.247	0.454	0.389	0.407
AB4	0.389	**0.778**	0.240	0.378	0.598	0.449
AB5	0.563	**0.750**	0.239	0.292	0.565	0.412
ACB1	**0.720**	0.428	0.295	0.123	0.333	0.291
ACB2	**0.696**	0.674	0.327	0.465	0.553	0.583
ACB3	**0.826**	0.437	0.298	0.354	0.183	0.424
FOMO1	0.327	0.270	**0.713**	0.523	0.101	0.276
FOMO2	0.368	0.353	**0.809**	0.526	0.198	0.407
FOMO3	0.352	0.284	**0.762**	0.474	0.385	0.294
FOMO4	0.109	0.119	**0.673**	0.314	0.236	0.079
HB1	0.421	0.540	0.557	**0.876**	0.269	0.368

HB2	0.311	0.427	0.531	**0.875**	0.192	0.328
HB3	0.442	0.482	0.480	**0.771**	0.237	0.329
HB4	0.251	0.294	0.528	**0.790**	0.225	0.349
KI1	0.355	0.448	0.283	0.212	**0.785**	0.347
KI2	0.385	0.612	0.260	0.234	**0.826**	0.408
KI3	0.406	0.612	0.196	0.279	**0.821**	0.578
KI4	0.409	0.504	0.244	0.171	**0.752**	0.466

Based on Table 3, it can be interpreted as follows:

1. Each measurement indicator of the representativity bias variable (RB1, RB2, and RB3) has a high correlation compared to the correlation of other variables
2. Each measurement indicator of the availability bias variable (AB1, AB3, AB4, and AB5) has a higher correlation compared to the correlation of other variables.
3. Each measurement indicator of the anchoring bias variable (ACB1, ACB2, and ACB3) had a higher correlation compared to the correlation of other variables.
4. Each measurement indicator of the FoMO variable (FOMO1, FOMO2, FOMO3, and FOMO4) had a higher correlation compared to the correlation of other variables.
5. Each measurement indicator of the herding behavior variable (HB1, HB2, HB3, and HB4) had a higher correlation compared to the correlation of other variables.
6. Each measurement indicator of the investment decision variables (KI1, KI2, KI3, and KI4) has a higher correlation compared to the correlation of other variables.

Based on the results obtained, it can be stated that the indicators used in this study have good discriminant validity in compiling their respective variables.

In addition to observing the cross-loading value, discriminant validity can also be known through other methods, namely by looking at the average variant extracted (AVE) value for each indicator, the value must be > 0.5 for a good model (Gozhali, 2014).

Table 4 *Average Variant Extracted* (AVE)

Variable	AVE
Anchoring	0.562
Availability	0.562
FoMO	0.549
Herding Behavior	0.688
Investment Decision	0.634
Representativeness	0.515

Based on Table 4 of the AVE values from the variables anchoring bias, availability bias, FoMO, herding behavior, representativeness bias, and investment decisions, the measurement items used have a value of ≥0.50, so the conditions for good discriminant validity are met.

3. Composite Reliability.

Composite Reliability is the part used to test the reliability value of indicators on a variable. A variable can be declared to meet composite reliability if it has a composite

reliability value > 0.6. (Gozhali, 2014). The following is the composite reliability value of each variable used in this study:

Table 5 *Composite Reliability*

Variabel	*Composite Reliability*
Anchoring	0.793
Availability	0.837
FoMO	0.829
Herding Behavior	0.898
Investment Decision	0.874
Representativness	0.760

Based on Table 5, the overall composite reliability, namely the variables anchoring bias, availability bias, FoMO, herding behavior, investment decisions, and representativeness bias have an acceptable level of reliability or each measurement indicator that measures overall is consistent or reliable.

Structural Model or Inner Model

1. Model Goodness and Fit Evaluation

Based on data processing in the PLS4.0 Program, r-square was obtained as follows:

Table 6 *R-Square*

Variable	R-square
FoMO	0.439
Investment Decision	0.099

From the results of Table 6, the influence of anchoring bias, availability bias, representativeness bias, and herding behavior variables on the FoMO variable was 43.9%, including moderate influence (Gozhali, 2014).

In addition, there is an f-square used in the evaluation of the goodness and fit of the model, the f-square is used to test the influence of variables at the structural level. F-square (0.02 low), (0.15 moderate), (0.35 high).

Table 7 *F-Square*

Variable	FoMO	Investment Decision
Representativenes s	0.014	
Anchoring	0.036	
Availability	0.018	
Herding Behavior	0.425	
FoMO		0.110

Based on Table 7, the influence of anchoring bias variables, representativity bias, and availability bias on FoMO variables is included in the low influence. Meanwhile, the herding behavior variable has a high influence on the FoMO variable because it has a value of 0.425 and the influence of the FoMO variable on the investment decision variable is included in the low to moderate influence because it has a value of 0.110. In addition, the model match table is presented in the following table:

Tabel 8 Kecocokan Model (Model Fit)

	Perkiraan model
SUMMER	0.165
d_ULS	6.907
d_G	1.504
Chi-square	798.330
NFI	0.452

Based on the table above, the SRMR value is 0.165 > 0.10 is good because the indigo is greater than 0.10. So that the goodness of fit is good. The proposed model matches or is close to the empirical data. The estimated results of the model correlation matrix are close to the empirical data correlation matrix.

2. Uji Hipotesis

Based on the data processing that has been carried out, the results can be used to answer the hypothesis in this study. The hypothesis test in this study was carried out by looking at t-statistics and p-values. The research hypothesis can be declared acceptable if the p-values < 0.05 (Yamin and Heri, 2011). The following are the results of the hypothesis test obtained in this study through the inner model.

Tabel 9 Pengujian Hipotesis

Variabel	Koefisien	T statistik	P values
Representativness -> FoMO	0.120	0.853	0.394
Anchoring -> FoMO	0.205	1.644	0.100
Availability -> FoMO	-0.160	1.301	0.193
Herding Behavior -> FoMO	0.580	6.445	0.000
FoMO ->Keputusan Investasi	0.315	3.766	0.000

Based on the test results in Table 4.9, it can be interpreted that:

1. The representativeness bias does not affect FoMO by (0.120) with t-statistic (0.858 < 1.96) or p-value (0.394 > 0.05), so any change in representativeness bias does not affect FoMO.
2. Achoring bias did not affect FoMO by (0.205) with t-statistic (1.664 < 1.96) or p-value (0.100 > 0.05). So any change in anchoring bias does not influence FoMO.
3. Availability bias does not affect FoMO by (-0.160) with t-statistic (0.301 < 1.96) or p-value (0.193 > 0.05) so any change in availability bias does not affect FoMO.
4. Herding behavior has a significant effect on FoMO of (0.580) with t-statistic (6.445 > 1.96) or p-value (0.000 < 0.05) so every change in herding behavior affects FoMO.
5. FoMO has a significant influence on investment decisions of (0.315) with t-statistic (3.766 > 1.96) or p-value (0.000 < 0.05) so every change in FoMO influences investment decisions.

Table 10 Results of Hypothesis Test Analysis

Hypotheses	P Values	Information
H1a: *Representativeness bias* affects the FoMo of retail investors in Indonesia	0.394	Rejected
H1b: *Availability bias* affects FoMO retail investors in Indonesia	0.100	Rejected
H1c: *Anchoring bias* affects FoMO retail investors in Indonesia	0.193	Rejected
H2: Herding behavior affects FoMO retail investors in Indonesia.	0.000	Accepted
H3: FoMO influences the investment decisions of retail investors in Indonesia.	0.000	Accepted

Heuristic

Heuristic explains that the human cognitive system basically has a limited capacity, so to reduce the work of the cognitive system unconsciously, individuals use shortcut rules to simplify the information-processing process (Vitmiasih et al., 2021). In making a decision, heuristic behavior is usually used to make it easier for investors to make decisions, but investors who experience FoMO have a lot of information that they receive through social media (Pratiwi, 2020) so the process of simplifying information does not apply to investors who experience FoMO so that it can be concluded that heuristic behavior (*representativeness bias*, *availability bias*, and *anchoring bias*) does not affect FoMO, a retail investor in Indonesia. Some of the heuristic biases used in this study are as follows:

The influence of Representativeness bias on FoMo retail investors in Indonesia.

The results of the data analysis of the research on representativeness bias do not affect FoMO (0.394 > 0.05), based on these results, H1a is rejected because any change in representativeness bias does not affect the FoMO of retail investors in Indonesia. According to Pompian (2006), representativeness bias shows that humans tend to be based on decisions about similarities or stereotypes. Retail investors in Indonesia tend not to make decisions based on the existence of equations so what is on social media makes investors not affected quickly. Some investors have the belief that success in investing in the present tends to continue in the future, a tendency like this is known as a stereotype (Sherfin, 2020). Investors who have a stereotype like this will find it very difficult to be influenced by information found on social media because investors have a strong stance not to be fast and not afraid of missing out on information that is trending on social media.

Most of the investors in this study chose to agree that they made investment decisions based on the past and made in the present and the future, so that trending news or widely circulated on social media does not affect investment decisions. This is because of the pattern of events that occur repeatedly that investors believe can happen again, but this expectation is unreasonable because it is not balanced with maximum technical analysis efforts (Vitmiasih et al., 2021).

The influence of *Availability bias* affects FoMO retail investors in Indonesia.

Availability bias has no effect on FoMO with a p-value (0.193 > 0.05), based on these results, H1b is rejected, because any change in availability bias does not affect FoMO retail investors in Indonesia. Availability bias is characterized by quick and easy information-based decision-making, while FoMO is characterized by fear because of not knowing information or events and a desire to continue to connect with what others are doing (Przybylski et al, 2013). The desire to continue to connect with others through social media can provide easy information. The information obtained too quickly and easily can make investors unable to choose the appropriate investment opportunity so they can make a mistake in judgment cause a loss of potential profits and reduce market efficiency (Shah et al, 2018). Meanwhile, in this study, investors choose to agree that in making investment decisions, investors will choose the type or product they are familiar with even though on social media there are many investment product recommendations from influencers or experienced investors. In this case, investors do not consider or pay attention to the available information in making investment decisions and do not take advantage of all available information (Anggia et al., 2022).

The effect of anchoring bias on FoMO retail investors in Indonesia

Anchoring bias did not affect FoMO with p-values (0.100 > 0.05). Based on these results, H1c is rejected because any change in heuristic behavior (anchoring bias) does not affect FoMO retail investors in Indonesia. Anchoring bias is characterized by the attitude of investors who have determined the value of an investment based on the results of the last observation of the purchase price (Vijaya, 2014). The set purchase price will not change even if something good or bad happens in the price change of any investment product, so the form of anxiety or fear has no effect because from the beginning the value that will be used to both buy and sell investment products has been determined. When there is new information obtained from social media, it will further complicate decision-making (Pompian, 2006). Anchoring bias has the behavior to be more confident in the first information obtained (Liangga, 2022). If there is a lot of information on social media that discusses investment products, investors who experience anchoring bias are not easily influenced because most of the investors in this study agree that they will stick to the investment profit target that has been set, even though there is a lot of information circulating on social media.

FoMO's influence on retail investors' investment decisions in Indonesia

FoMO has a significant influence on the investment decision of retail inverters in Indonesia with a p-value (0.000 < 0.05) based on these results, H3 is accepted because every change in FoMO influences the investment decision of retail investors in Indonesia. This happens because the presence of FoMO in retail investors makes them very vulnerable in making investment decisions. Social media is a medium to be able to obtain as much information as possible so investors who have anxiety and fear of missing out on information will open social media to obtain as much information as possible so that they are always up to date with the surrounding situation. Excessive fear can have an impact on the low psychological well-being of investors and make investors unable to control the environment and are unable to establish positive social interaction relationships with others (Savitri, 2019). FoMO can increase the intensity of social media use and this increase indicates the occurrence of social media addiction that always wants

to connect with other people so that the desire to make investment decisions on investment products always arises due to often seeing influencers or people around them who often discuss investment products (Fathadhika, 2019).

Investment decisions made by investors are driven by the feelings of FoMO investors because they often look at social media so that investors are psychologically encouraged to follow investors who have more abilities such as influencers who have a large following on social media. This opinion is in line with the research of (Addinpujoartanto & Darmawan, 2020) This means that a person tends to make investment decisions based on actions taken by others. This is because they consider other people or other investors to have more abilities (Gupta & Ahmed, 2016). This assumption can be obtained through social media because social media helps investors get very wide information in making investment decisions (Pratiwi, 2020). So it can be concluded that investors who experience FoMO have complete information, if investors can filter the information obtained properly then investors can make more appropriate investment decisions and in the context of investment, FoMO can have a good influence on investors.

Conclusion

Based on the results of data analysis from the hypothesis test, it can be concluded that heuristic behavior (representativeness bias, availability bias, and anchoring bias) does not affect the FoMO of retail investors in Indonesia. So any change in heuristic behavior (representativeness bias, availability bias, and anchoring bias) does not affect the FoMO of retail investors in Indonesia. Investors who experience FoMO have a lot of information about investment products because they often look at social media and this is not in line with heuristic behavior that has a mindset to simplify the information received to make investment decisions. Herding's behavior has a significant influence on the FoMO of retail investors in Indonesia so any change in herding behavior influences the FoMO of retail investors in Indonesia. Investors who behave herding will tend to look for more relationships, so the investor tends to find out what others are doing or does not want to miss information. FoMO has a significant influence on the investment decisions of retail investors in Indonesia so any changes to FoMO influence the investment decisions of retail investors in Indonesia. Investors who experience FoMO are investors who have a lot of information so that the information obtained can make the right investment decisions.

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