BEHAVIORAL BIAS (AVAILABILITY, REPRESENTATIVENESS, ANCHORING, AND CONFIRMATION) TOWARD INVESTMENT DECISION-MAKING

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ABSTRACT

When making investment decisions, retail investors tend to rely on shortcuts in thinking to process the information and data they get. This creates illogical thinking based on emotions or momentary judgments that can result in less-than-optimal investment performance and even losses. This research investigates the relationship between behavioral financial biases (like availability, representativeness, anchoring, and confirmation) and investment decision-making. This study method uses purposive sampling with certain characteristics. Data was collected from 130 retail investors for 3 months in 2024 and analyzed with SPSS Statistics. The research results show that confirmation bias and representativeness bias positively affect investment decision-making. However, anchoring bias and availability bias do not significantly affect investment decision-making. In addition, confirmation bias, representativeness bias, anchoring bias, and availability bias simultaneously positively affect investment decision-making. Financial behavioral biases that can influence investors are confirmation bias and representativeness bias, where retail investors tend to look for information according to their views and similarities based on certain stereotypes, which can reduce or cause losses in stock investments.

Keywords: *Anchoring Bias; Availability Bias; Confirmation Bias; Representativeness Bias; Investment Decision-Making*

Received : 25-07-2024
Revised : 10-02-2025
Approved : 26-02-2025
Published : 01-03-2025

INTRODUCTION

Information and news play important roles in the investor decisions making process. Investors try all means to get maximum results/profit from the investments they make. Many factors make an investor choose to invest in the capital market. A particular reason because the capital market is safer and generates high profits (Chandra, 2020). Many investors use logic and illogical methods to investigate stocks in the capital market. They tend to look for various information, news, and sometimes based on investors' assumptions to create an important role in every decision making (Asri, 2015). For instance, they use rationality assumptions where investors make decisions based on basic assumptions from behavioral factors which are often disputed by practitioners because they often deviate from financial theory (Chandra, 2020). However, the use of basic assumptions is still practiced by investors today and this can explain the behavior of investors and investment financial managers regarding deviation phenomena in the investment world.

The development of financial technology (fintech) jointly with the rapid growth of financial influencers on social media such as TikTok, Instagram, and YouTube platforms has encouraged people to become retail investors. Retail investors who have just entered the world of investment tend to trust recommendations from investment news and recommendations from financial influencers where the news or information is not necessarily proven to be true (Mardiana., et al., 2023). In the investment sphere, retail investors often use rational judgment to analyze stocks, occasionally there is an interference from the investor's psychology (personal condition), such as emotions, psychology, and investor personality in making investment decisions (Bouteska & Regaieg, 2019). For example, when making investment decisions in the capital market, it is also important to consider the risks and uncertainties that occur due to market anomalies, where the market reacts differently compared to rational human behavior because several cognitive biases prevent some individuals from thinking rationally (Madaan & Singh , 2019).

In the capital market, there is a massive increase in the quantity of Indonesian investors (Shah et al., 2018). The growth of investors is in line with the growth of investment applications such as mutual fund applications, securities, trading, and so on. Based on data from the Indonesian Central Securities Depository (KSEI), there is an increase in the number of capital market investors by 37.6% from 2021-2022, while in 2022-2023 there is an increase of 3.03% with a total of 26.5 million retail investors in June 2023. Compared to financial managers, retail investors are more vulnerable to stock market fluctuations and retail investors often tend to choose investments based on their confidence (bias) in the stock information they receive. Especially during the Covid-19 pandemic, the world stock market was volatile and fell to its lowest point, especially the Composite Stock Price Index (IHSG) fell to a level of 3,900 from the previous 6,300 for 3 months at the beginning of 2020 (www.bi.go.id).

Tversky and Kahneman (1974) explain that the term heuristic can also occur when individuals face a new event that they have not experienced, such as a financial crisis or novice investors who are just learning about stocks. Thus, in heuristic terms, the individual does not have sufficient information and rational methods for decision making. One of the heuristic behaviors is availability bias and representativeness bias (Asri, 2015). Availability bias occurs when a stock or company A receives a lot of media coverage because it's a well-known technology company (Rahim et al, 2022). At the same time, a stock or company B is also a technology company that is rarely covered by the media because the company is not as well known as company A. As a result, individuals

will subconsciously prefer stock A rather than stock B which is more famous in the media. However, in reality, and based on financial reports, stock A does not necessarily have profitable business prospects for the future compared to Stock B. The pattern of making decisions based on newly available information, or that the individual has just heard or remembered is a form of availability bias (Asri, 2015).

Besides that, representativeness heuristic behavior can provide conclusions about a group based on several group representatives, not as a whole (Tversky and Kahneman, 1974). For example, someone assesses company employees who graduated from University T as individuals who have a higher quality of work than other universities, which is not yet an absolute truth. Representativeness bias can make individuals overestimate a problem/phenomenon based on their ability to predict an existing problem (Asri, 2015).

In forecasting stock prices, investors and financial analysts make decisions rationally and irrationally which can create abnormal market volatility and make the market inefficient (Bouteska and Regaieg, 2019). This can come from information recommendations obtained by investors and there is an anchoring behavior bias that makes retail investors and financial analysts inclined toward choosing the last price they remember (Mardiana et al., 2023). Anchoring bias makes retail investors and financial analysts fixate on the values they have set without making the latest adjustments to existing market conditions.

Besides that, there is bias caused by excessive trust in one piece of information and underestimating other information. For example, one possible explanation for the disposition effect and stock price speculation is confirmation bias. Confirmation bias is a term that describes a person's reluctance to change their initial beliefs (Fonseca et al., 2020). People will be more willing to see and accept new information that is consistent with what they already believe (Cheng, 2019). Several phenomena are included in confirmation bias, such as those that exist in everyday life, where consciously or unconsciously, a person often rejects certain information that contradicts his personal opinion or spontaneously supports other people's statements because it resembles that person's moral beliefs (Fonseca et al., 2020).

Previous research states that anchoring bias and representativeness bias influence investment decisions in Indonesia (Kartini and Nahda, 2021). Chen (2019) also argues that investors are significantly more likely to read articles that support their decisions than articles that oppose their investment choices. This indicates that investors selectively seek information that is consistent with their beliefs and can serve as a source of confirmation bias. Shanta and Ram (2019) stated that availability bias influences cognitive dissonance (the condition of investors who tend to be in a dilemma when making decisions involving risk and uncertainty) of FMCG investors in Hyderabad City, India. Soraya, et al. (2023) also state that representativeness bias has a significant influence on investment decisions, directly and indirectly moderated by risk tolerance. Besides that, availability bias also has a positive impact on investor decision making in the South Asian Stock Market during the Covid-19 pandemic (Rahim et al., 2022).

Then, research conducted by Othman, et al. (2023) states that anchoring bias and herding influence the decision making of retail investors in Malaysia. Meanwhile, a study by Mardiana et al (2023) finds that anchoring bias does not affect investment decisions during the Covid-19 pandemic. This study is particularly interesting because it was conducted after the end of the economic recovery period in Indonesia and around the world due to the COVID-19 pandemic. The extreme volatility and market crash during the COVID-19 pandemic should be analyzed through the lens of behavioral distortions and

related cognitive errors (Bansal, 2020). These biases and factors related to financial behavior can have negative effects, such as reducing the amount of assets in the portfolios of retail investors in the short and long term. Moreover, researchers want to investigate the influence of economic behavioral biases in the form of availability, representativeness, anchoring, and confirmation bias on the decision making of Indonesian retail investors.

LITERATURE REVIEW, RESEARCH FRAMEWORK, AND HYPOTHESES

Asri (2015) states that investors and financial managers make investment decisions that are usually based on many logical considerations and analyses using complete methods and data. In reality, most investors and financial managers often use limited analysis and data, sources that have not been proven to be true, and also the investors and financial managers feel they have experience in dealing with market turmoil. The behavior carried out by investors is a heuristic behavior where individuals use existing information (availability bias) or feel that the information is sufficient, and are reluctant to seek additional information to strengthen the analysis (Bansal, 2020). Furthermore, Tversky and Kahneman (1974) stated that another hauristic behavior that often occurs among capital market investors is representative bias which provides final conclusions about a concept/group that comes from assessments based on representatives (only a few) which are not sufficient to explain the overall characteristics. of that concept/group.

Confirmation bias refers to the tendency of investors to selectively remember or collect information that supports their own opinions or assumptions while ignoring information that contradicts or confuses what they believe (Lee et al., 2022). Furthermore, the basis of confirmation bias lies in human nature, where a person tends to defend his own decisions and focuses on evidence that supports his decisions and views while ignoring evidence that contradicts his beliefs (Pompian, 2012). The presence of confirmation bias can make individual judgments focus more on initial activities or views rather than the objective views of other people (Gallimore, 1996).

Anchoring bias is the condition of a person who tends to use the initial value as an anchor in making investment purchase price decisions and in making estimates of future investment performance, where these estimates give different results to what is expected which has been estimated previously (Tversky & Kahneman, 1974; Habbe, 2006). However, when a person gets new information that is contrary to their anchor, the individual is more conservative or underreacts, and even though the individual tends to adjust the initial benchmark value as an anchor with the latest data or information but with limited adjustments (Habbe, 2006). Anchoring bias is often related to biased information received and can cause bias when making investment decisions (Asri, 2015).

Many have proposed theories of investment decision making with the aim of saving money and providing returns to meet future needs (Shah et al., 2018). When someone starts investing, that person will be faced with various choices of investment means. So, this then gives rise to theories about which investment decisions to make to reduce mistakes that might occur when investing. In making investment decisions, individuals are influenced by financial knowledge, complete information, and experience of profits or losses to make rational decisions (Merton, 1987). Achieving their investment goals depends on the decisions they make because these decisions will have an impact on the results obtained by investors. In the decision making process, individuals can change decision making from rational to irrational with the addition of the individual's thoughts and feelings (Baker & Nofsiner, 2002). Making irrational decisions without balancing it with data or knowledge and proper analysis causes bias in an individual's behavior.

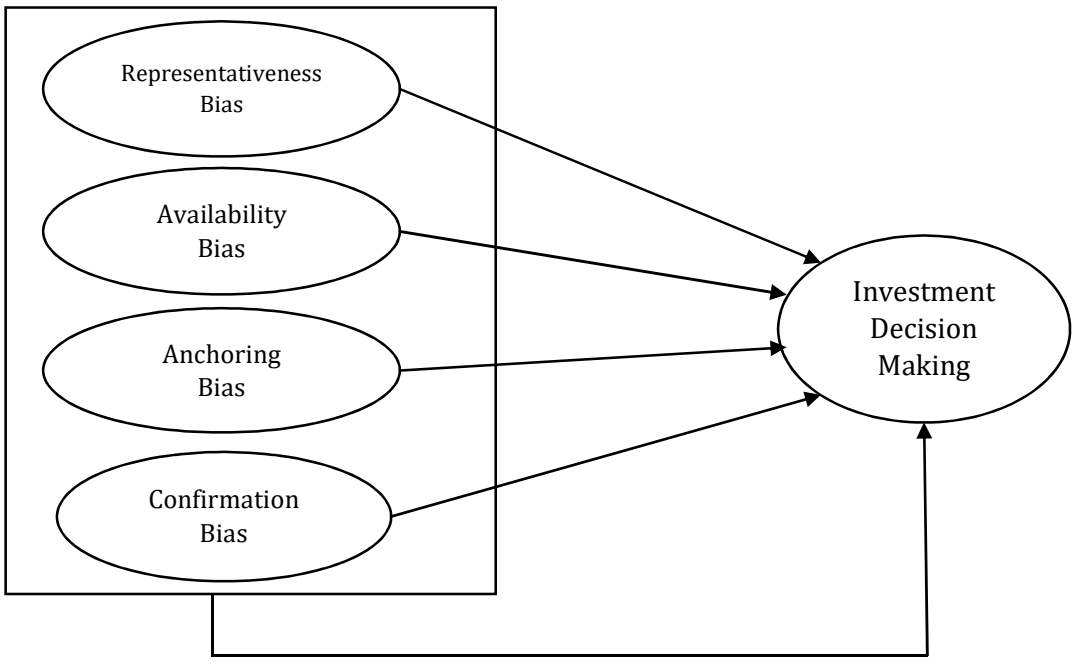
This study examines the existence of behavioral finance theory which influences investment decisions in the Indonesian capital market. Experienced investors and financial managers may indirectly use relatively limited data or information. This provides a tendency for heuristic bias behavior. Availability bias and representativeness bias are the scope of heuristic bias (Asri, 2015). Several studies such as Soraya et al (2023) state that representativeness bias significantly influences investment decisions, directly and indirectly, moderated by risk tolerance. Besides that, availability bias also positively impacts investor decision making in the South Asian Stock Market during the Covid-19 pandemic (Rahim et al, 2022).

A study conducted by Bouteska and Regaieg (2019) shows that anchoring bias influences investment decisions made by financial analysts on the Tunisian stock exchange, and they tend not to make adjustments after the announcement of company results (performance). Then, a study by Fonseca et al (2020) states that most financial managers and accountants have confirmation bias in making managerial decisions on the Brazilian stock exchange. Then, this study's hypothesis is as follows:

H1: Confirmation bias has a significant effect on investment decision
H2: Anchoring bias has a significant effect on investment decision
H3: Representativeness bias has a significant effect on investment decision
H4: Availability bias has a significant effect on investment decision
H5: Availability bias, representativeness bias, anchoring bias, and confirmation bias simultaneously have a significant effect on investment decisions.

Based on the study background and previous studies, the model of this study can be outlined as follows:

Figure 1
Research Framework



Source : Processed by researchers, 2024

METHOD

This study focuses on individual investors with investment experience in the Indonesian capital market. This research implemented purposive sampling using non-probability sampling. Neuman (2014) states that the sample using the purposive sampling method is used to adapt research objectives to certain characteristics. Therefore, the criteria for this study are individual investors who are Indonesian citizens (holding a residence registration card / KTP), have invested or traded stocks in the Indonesian capital market, and have a minimum of 6 months of investment experience. Investment experience is needed to know that the investor has frequently purchased shares and understands the capital market.

To calculate the number of respondents, the researcher used a combination of sample determination from Cohen (1992) which explains that the researcher used correlation analysis (Mult R) also called multiple regression with a significance of 5%. Furthermore, the number of independent variables in this research is four (4Kb), and the multiple correlation effect size (ES) index is medium (0.15). Then, the recommendation from Cohen's table is 76 investors. However, researchers will use more than 100 respondents because it is assumed that the more respondents there are, the better the analysis results will be.

The data collection used in this study is a survey method by distributing questionnaires filled in by investors. Questionnaires will be distributed online via investor chat groups and privately via Telegram, Instagram, and WhatsApp. Apart from that, the questionnaire in this study has 6 sections, the first is for respondent identity data such as email, age, gender, education level, investment period, profession, investment capital, and financial/investment training. The second to sixth sections contain questions about availability, representativeness, anchoring, confirmation bias, and investment decision making. The measurement of this research questionnaire is based on a 1-5 Likert scale which describes a value of 1 which means strongly disagree to a value of 5 which means strongly agree.

This research used a data analysis method in the form of multiple linear regression analysis. The data source used by researchers comes from primary sources (questionnaires). In addition, the researchers used Microsoft Excel for data processing and descriptive analysis and data trend, while SPSS Statistics software was used to calculate or analyze the regressions of the research models.

RESULTS AND DISCUSSION

130 respondents of retail investors participated in this study. The research questionnaire was distributed from March 2024 to May 2024. The respondents were retail investors who had been investing in the capital market for at least 6 months. the study focuses on four independent variables namely anchoring bias, representativeness bias, availability bias, and confirmation bias, with one dependent variable namely investment decision making. The characteristics of the respondents in this study as follows:

Table 1
Respondent Characteristics

Sex	**Respondents**	**Percentage (%)**
Male	67	51,5
Female	63	48,5
Total	130	100,00
Age	**Respondents**	**Percentage (%)**
Under 20 years old	23	17,7
21 – 30 years old	74	56,9
31 – 40 years old	32	24,6
Above 41 years old	1	0,8
Total	130	100,00
Educational Background	**Respondents**	**Percentage (%)**
Primary School	1	0,8
Junior High School	2	1,5
Senior High School	34	26,2
Associate's Degree	2	1,5
Bachelor's Degree	53	40,8
Master's Degree	38	29,2
Total	130	100,00
Occupation	**Respondents**	**Percentage (%)**
Students/College Student	41	31,5
Private Employee	40	30,8
Entrepreneur	19	14,6
Civil Servants	18	13,8
Others	12	9,2
Total	130	100,00
Duration of the Investment Period?	**Respondents**	**Percentage (%)**
Under 1 year	39	30
1 – 2 years	42	32,3
Above 2 years	49	37,7
Total	130	100,00

Source : Primary data, 2024

Based on the data from Table 1, it is evident that out of 130 total respondents, 67 were men and 63 were women. Most of the respondents in this study are aged 21–30 years old (56.9%), followed by those aged 31–40 years old (24,6%), under 20 years old (17.7%), and lastly those aged above 40 years old (0.8% each). In terms of education level, the majority had college (40,8%), followed by master's degree (29.2%), senior high school (26.2%), associate's degree (1,5%), junior high school (1,5%), and primary school (0,8%).

In terms of occupation, most respondents are working as students or college students (31,5%), followed by private employees (30,8%), entrepreneurs (14,6%), civil servants (13,8%), and others (9,2%). Regarding the duration of the investment period, most respondents already invest for more than 2 years (37,7), then 1 – 2 years (32,3 %), and less than 1 year (30%). Besides that, all the respondents have invested in the Indonesian capital market for at least 6 months (100%).

Table 2
Validity Test

Variable	Items	r-count	Sig.	Info
Confrimation bias (X1)	X1.1	0,725	0,000	Valid
	X1.2	0,599	0,000	Valid
	X1.3	0,774	0,000	Valid
	X1.4	0,752	0,000	Valid
Anchoring bias (X2)	X2.1	0,838	0,000	Valid
	X2.2	0,800	0,000	Valid
	X2.3	0,847	0,000	Valid
	X2.3	0,714	0,000	Valid
Representativeness bias (X3)	X3.1	0,735	0,000	Valid
	X3.2	0,808	0,000	Valid
	X3.3	0,801	0,000	Valid
Availability bias (X4)	X4.1	0,806	0,000	Valid
	X4.2	0,807	0,000	Valid
	X4.3	0,796	0,000	Valid
Investment Decision Making (Y)	Y1	0,639	0,000	Valid
	Y2	0,706	0,000	Valid
	Y3	0.698	0,000	Valid
	Y4	0,780	0,000	Valid

Source : Primary data output of SPSS, 2024

Based on data from Table 2, it is known that all variables, namely confirmation bias, anchoring bias, availability bias, representativeness bias, and investment decision-making show that the r-count value is greater than the r-table value (0,172) and all this research items have a significance value of 0,00 which is smaller than 0,05. Furthermore, it can be concluded that all questions in this research questionnaire are valid.

Table 3
Reliability Test

Variable	Cronbach Alpha	Alpha Value	Info
Confrimation bias (X1)	0,680	0,60	Reliable
Anchoring bias (X2)	0,809	0,60	Reliable
Representativeness bias (X3)	0,681	0,60	Reliable
Availability bias (X4)	0,722	0,60	Reliable
Investment Decision Making (Y)	0,660	0,60	Reliable

Source: Primary data output of SPSS, 2024

From the data in Table 3, it is known that the result of variables confirmation bias (0,680), anchoring bias (0,809), representative bias (0,681), availability bias (0,722), and investment decision making (0,660) show that Cronbach's alpha value is greater than the alpha value of 0.60. Furthermore, it can be concluded that all the items in this study are reliable.

Table 4
Normality Test

		Unstandardized Residual
N		130
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	1,60871076
Most Extreme Differences	Absolute	,049
	Positive	,043
	Negative	-,049
Test Statistic		,049
Asymp. Sig. (2-tailed)		,200[c,d]

Source : Primary data output of SPSS, 2024

The normality test results in Table 4 show that the Kolmogorov-Smirnov significance value of 0.200 is greater than 0.05. This research data said to be normally distributed if the Kolmogorov-Smirnov test value is greater than 0.05. It can be concluded that all items in this study are normally distributed.

Table 5
Multicollinearity Test

Model		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	6,401	2,033			
	Confrimation bias (X1)	,143	,063	,184	,936	1,068
	Anchoring bias (X2)	,031	,067	,038	,973	1,028
	Representativeness bias (X3)	,471	,098	,391	,938	1,066
	Availability bias (X4)	,023	,098	,019	,978	1,023

Source : Primary data output of SPSS, 2024

Based on the results of the multicollinearity test the table 5 states that the tolerance values for the variables confirmation bias, anchoring bias, representativeness bias, and availability bias are 0.936; 0.973; 0.938; and 0.978. All tolerance values for the independent variables are greater than 0.10 and the VIF values for all independent variables are less than 10.00. It can be concluded that the model in this study does not have multicollinearity problems.

Table 6
Heteroscedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,884	1,224		1,539	,126
	Confrimation bias (X1)	-,021	,038	-,050	-,546	,586
	Anchoring bias (X2)	-,028	,040	-,062	-,690	,492
	Representativeness bias (X3)	,031	,059	,048	,525	,600
	Availability bias (X4)	-,019	,059	-,029	-,326	,745

a. Dependent Variable: Abs_RES2
Source : Primary data output of SPSS, 2024

Based on the results of the heteroscedasticity test in the table 6, it was claimed that the significance value of the variable confirmation bias, anchor bias, representativeness bias, and availability bias are 0.586; 0.492; 0.600; and 0.745. All the significance values of the independent variables are greater than 0.05. It can be concluded that the model of the present study does not contain heteroskedasticity.

Hypothesis Test Result

This study uses multiple linear regression analysis to test Hypotheses 1, Hypotheses 2, Hypotheses 3, Hypotheses 4, and Hypotheses 5. The researchers also conducted coefficient determination tests, f-significance tests, and t-significance tests as follows:

Table 7
Determination Coefficient Test

R Value	,466
R Square Value	,217

Predictors: (Constant), Confirmation Bias (X1), Anchoring Bias (X2), Representativeness Bias (X3), Availability Bias (X4)
Source : Primary data output of SPSS, 2024

Based on the table of Determination Coefficient Test results shows that the R-square value is 0.217, which means that confirmation bias, anchoring bias, representativeness bias, and availability bias together influence investment decision-making by 21.7% and the rest is influenced by other factors that are not entered into the regression model.

Table 8
Hypothesis Test Results (H1, H2, H3, and H4)

No	Variable	t-test Value	Significance Value	Hypothesis
1	Confrimation Bias (X1)	2,251	,026	H1 Accepted
2	Anchoring Bias (X2)	0,473	,637	H2 Rejected
3	Representativeness Bias (X3)	4,781	,000	H3 Accepted
4	Availability Bias (X4)	0,235	,814	H4 Rejected

Dependent Variable: Investment Decision Making (Y)
Source : Primary data output of SPSS, 2024

Based on Table 8 states that the t-test value for the confirmation bias variable is 2,251 which is greater than the t-table value (1,979). Meanwhile, the significance value of the t-test results for the confirmation bias variable is 0.026, which is smaller than 0.05. Thus, it can be concluded to accept H1, which means that the confirmation bias variable (X1) significantly influences the investment decision-making variable (Y).

Meanwhile, the t-test value for the anchoring bias variable is 0,473 which is smaller than the t-table value (1,979). Also, the significance value of the t-test results for the anchoring bias variable is 0,637 greater than 0.05. It can be concluded to accept H2, which means that the anchoring bias variable (X2) does not significantly influence the investment decision-making variable (Y).

Then, the t-test value for the representativeness bias variable is 4,781 which is greater than the t-table value (1,979). Meanwhile, the significance value of the t-test results for the representativeness bias variable is 0.000, which is smaller than 0.05. Thus, it can be concluded to accept H3, which means that the representativeness bias variable (X3) significantly influences the investment decision-making variable (Y).

Besides that, the t-test value for the availability bias variable is 0,235 which is smaller than the t-table value (1,979) and the significance value of the t-test results for the variable of availability bias is 0,637 greater than 0.05. It can be concluded to accept H4, which means that the anchoring bias variable (X4) does not significantly influence the investment decision-making variable (Y).

Table 9
Hypothesis 5 Results

F Value	8,670
Significance	,000

Dependent Variable: Investment Decision Making (Y)
Predictors: (Constant), Confirmation Bias (X1), Anchoring Bias (X2), Representative Bias (X3), Availability Bias (X4)
Source : Primary data output of SPSS, 2024

According to Table 9, the test values for all independent variables are 8.670 greater than the f-value value of 2.44. Also, the significance value of the f-test result is 0.000, which is less than 0.05. It can be concluded that hypothesis 5 is accepted, which states that the variables of confirmation bias (X1), anchoring bias (X2), representativeness bias (X3), and availability bias (X4) simultaneously have a significant impact on investment decision-making variable (Y).

The effect of Confirmation Bias on Investment Decision-Making

The results of this study align with the findings of researchers from Mohanty et al (2023) state that confirmation bias has a statistically significant impact and negative impact on behavioral development in financial decision-making during COVID-19 in India. In making investment decisions today, investors tend to look for the latest information based on their beliefs and ignore conflicting information. As a result, many retail investors ignore other information, preferring to believe stock news similar to their valuation, which is not accurate and falls into confirmation bias. Besides that, the majority of respondents in this study are male, and this effect is stronger for men or the impact is more pronounced for men in making financial decisions (Nelson, 2014). Besides that, a study from Armansyah (2022) states that confirmation bias significantly affects the investment decision-making of Indonesian investors. The study's findings diverge from those presented by Kurniawan and Murhadi (2018). Their research concluded that confirmation bias does not influence investment decisions. This discrepancy may be attributable to several factors such as regional demographic variations that could exist between the two studies' samples and advancements in technology and communication might have engendered differences in how information is disseminated, potentially affecting investor behavior.

The effect of Anchoring Bias on Investment Decision-Making

Research from Mardiana et al (2023) states that the anchoring bias variable does not affect investment decision making in Indonesia. Judging from the unstable stock market conditions during the COVID-19 pandemic, retail investors in this research sample do not have an anchoring bias or do not look at the graphic or past history of the company when making investment decisions to buy or sell shares, then, respondents may not have or have a low anchoring bias (Mardiana et al, 2023). After the pandemic, most investors underreacted because they were worried about a sharp decline or increase in stock prices. Hence, they changed their investment strategy from aggressive to conservative by

diversifying such as mutual funds, bonds, or other shares with certain risks. In contrast, research by Dangol and Manandhar (2020) states that anchoring and adjustment biases do have a significant influence on the degree of irrationality in investment decision making in Nepal where investors rely more on heuristics than critical analysis when selecting shares.

The effect of Representativeness Bias on Investment Decision-Making

The study by Dangol and Manandhal (2020) states that representativeness bias has a significant effect on investment decision-making in Nepal. This is in line with the results of this study where the representativeness bias was found to be significant. Price recovery in the Indonesian stock market after the COVID-19 pandemic around 2021 makes stock prices tend to increase significantly, especially shares in health, mining, banking, telecommunication, and so on. Thus, it makes retail investors tend to buy stocks and behold stock market opportunities as extremely lucrative investments and are trapped in representativeness bias. In contrast, research from Mahmood et al (2024) states that representativeness bias does not have a statistically significant influence on investment decision-making during the Covid-19 pandemic in Pakistan. Also, research by Kurniawati and Sutrisno (2019) states that the representation bias variable has no effect on investment decision-making during the IPO process for investors in Yogyakarta.

The effect of availability bias on investment decision making.

Furthermore, Kurniawati and Sutrisno (2019) stated that availability bias was found to be insignificant in investor investment decision-making in Yogyakarta in the IPO (initial public offering) process. Researchers also found that availability bias was not significant. Investors look for information on investing not only based on what they can receive, but retail investors analyze the information they receive in-depth so that they can minimize the possibility of investment risks that will occur. Investors in Yogyakarta also determine investment choices for IPO companies based on various alternative information obtained accurately and reliably so that they can support investors' success in making investment decisions (Kurniawati and Sutrisno, 2019). This is in contrast to the study conducted by Dangol and Manandhal (2020) stated that availability bias was significantly found in investment decision-making in Nepal.

CONCLUSION AND SUGGESTION

In making decisions, investors often take shortcuts based on rational and irrational considerations. Sometimes investors are influenced by biases in financial behavior that can harm investors such as anchoring bias, representativeness bias, availability bias, and confirmation bias. Based on the results of data analysis from 130 retail investors in Indonesia, the following can be concluded. The results of hypothesis 1 testing stated that confirmation bias influences investment decision-making. Investors seek information in buying shares based on data they believe to be true and ignore data that contradicts their beliefs. This can be caused by the psychology of investors who are Fear of Missing Out (FOMO) when investing in stocks. This can be prevented by searching for full information about a stock structurally, not taking shortcuts, and diversifying the stock portfolio to minimize risk.

The results of hypothesis 2 testing stated that anchoring bias does not affect investment decision-making. The fluctuating stock market conditions since the COVID-19 pandemic mean that investors tend not to look at or set reference prices for selling or buying shares, but they prefer to analyze share prices based on company and market conditions. Furthermore, the study results of the hypothesis 3 test state that

representativeness bias significantly affects investment decision making. In general, shares during the Covid-19 pandemic experienced a drastic decline and after a significant increase in share prices after the Covid-19 pandemic, retail investors overestimated share prices without considering existing risk factors. As a result, retail investors experience representativeness bias that makes them overestimate current events.

Then the results of hypothesis 4 testing state that availability bias does not affect investment decision making. This indicates that investors are looking for relevant information about shares and ensuring that the information data is accurate so that they do not experience availability bias in making investment decisions. Finally, hypothesis 5 states that all dependent variables (anchoring bias, representativeness bias, availability bias, and confirmation bias) jointly influence investment decision making.

Furthermore, there are limitations in this research, such as time conditions, number of respondents, and different research objects, so the research results will also be different. It is hoped that future research can increase the sample of respondents to make it larger and add moderating variables such as risk tolerance, mental health, and financial literacy.

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