

INVESTMENT BEHAVIOR IN THE MILLENNIAL GENERATION IN INDONESIA DURING THE COVID-19 PANDEMIC

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Abstrak: Penelitian ini dilakukan pada saat pandemic, peneliti tertarik untuk mengetahui apakah financial financial distress pada generasi milenial di Indonesia di pengaruhi oleh overconfidence bias, self-attribution bias dan confirmation. Sampel penelitian ini 247 responden dengan teknis non probability sampling dengan jenis purposive sampling dengan teknis analisis SEM (Structural Equation Modeling) dengan menggunakan program LISREL. Hasil Penelitian ini memunjukkan bahwa financial distress dipengaruhi oleh overconfidence bias, selfattribution bias dan confirmation bias . Perilaku Investasinya tidak didasari oleh literasi keuangan yang baik sehingga berinvestasi tidak rasional

Kata kunci: Confirmation Bias, Financial Distress , overconfidence Bias, Self-attribution Bias

Abstract: This research was conducted during a pandemic, the researchers were interested in knowing whether financial distress in the millennial generation in Indonesia was influenced by overconfidence bias, self-attribution bias and confirmation. The sample of this study was 247 respondents using non-probability sampling technique using purposive sampling using SEM (Structural Equation Modeling) analysis technique using the LISREL program. The results of this study show that financial distress is influenced by overconfidence bias, self-attribution bias and confirmation bias. Their investment behavior is not based on good financial literacy so that investing is irrational

Keywords : Confirmation Bias, Financial Distress, overconfidence Bias, Self-attribution bias

Introduction

The Covid-19 pandemic has not only affected public health, but has also hit various sectors. Indonesia's economy in 2020 will be negative, unemployment and poverty rates will also increase (Purwanto, 2021). This event has resulted in many people experiencing financial difficulties, especially the millennial generation.

The millennial generation is currently faced with challenges that include limited finances but the cost of living needs continues to increase, making it difficult to fulfill (Lajuni et al., 2018). Due to the Covid-19 pandemic, not a few workers have been laid off from their jobs, decreased income, and difficulty finding jobs are the causes of financial problems in the millennial generation. Not a few of the millennial generation have fallen into financial problems because they are unable to manage finances. While healthy finances are goals to be achieved so as to achieve financial freedom in the future. The millennial generation is very consumptive and self-confident and sticks to their stance with what they are doing at the moment, so it is difficult to manage their finances and also the millennial generation is not good at managing finances so they become wasteful (Fuad, 2021). Therefore, the millennial generation is more easily exposed to stress due to financial problems because they cannot manage their personal finances wisely, so they experience financial distress.

Financial distress is mental and physical pressure that often occurs and results in excessive worry and stress regarding financial problems. The causes of stress that occur in financial distress are late when paying bills, paying bills that are past due so that they get a warning from creditors, and worrying about living expenses (Ware, 2015). These concerns can affect various social aspects such as family relationships, social health, and productivity in the workplace. One of the causes of financial distress is because there is financial behavior in a person when making decisions. Behavioral finance has a goal in understanding the implications of a person's behavior regarding financial decision making based on psychological aspects. Irrational individuals are usually guided by instinct alone, unable to analyze in depth and detail the situations and conditions to be chosen. The psychological aspect of financial decisions will also affect the quality of financial management. This psychological aspect is more often referred to as the concept of behavioral finance. In behavioral finance theory, it usually discusses someone's irrational behavior or behavioral bias.

Literature

Behavioral finance is the result of a person's decision being bad due to cognitive errors in making financial decisions. Cognitive errors or cognitive biases can change rationality by influencing a person's way of thinking with what that person is seeing. Cognitive bias, namely irrationality that occurs in decision making that is not in accordance with facts or information. This research will discuss the cognitive bias overconfidence bias, self-attribution bias and confirmation bias, due to the Covid-19 Pandemic many people stay at home so that it increases the investment trend for millennials. People try to keep earning even if they are just at home, for the millennial generation this is a new habit that changes lifestyle. Millennials also prefer risk, as long as they like and have big profits, millennials will still do it even though

the risks are also big. Even though the number of millennial investors is increasing, there is a problem, namely the level of financial literacy is still low, so that most of the millennial generation do not understand financial planning (Sunday, 2021).

The millennial generation more often experiences overconfidence bias because they are too confident and use everyday funds to invest, hoping to get big profits without calculating the risks. When many stocks fall, the millennial generation is not ready to accept losses (Fuad, 2021). The millennial generation is also overly confident that their knowledge is better than others, if their financial decisions are successful they always feel that this is due to their intelligence, whereas if they fail to blame other people or circumstances, this causes people to carry out self-attribution bias. The millennial generation is also presented with a variety of information that can be obtained very easily, but this convenience causes people to not be able to take the time to be able to process each piece of information carefully in making decisions that do not cause bias, so this causes a person's tendency to carry out confirmation bias. . People who are confident will stick to their beliefs. The millennial generation also tends to protect self-esteem and is reluctant to look bad in front of other people. So when someone believes one thing and finds that belief to be incorrect, it will make it look bad. So that the millennial generation tends to look for various information that supports their beliefs to determine that their views are correct (Intani, 2021).

From this behavior, there are people who behave rationally in making financial decisions and there are also those who are biased or not behaving rationally in making financial decisions. So that individual behavior in managing and determining financial decisions can cause someone's financial distress.

For the millennial generation, financial management and decisions often experience financial distress because there are other influencing factors, namely biases in one's financial behavior. The information conveyed by this research to the millennial generation is that financial behavioral biases can cause financial management and decisions to become irrational which can ultimately lead to financial distress.

Overconfidence bias is an action when a person really trusts his own predictions when making a decision. Overconfidence behavior is a tendency to make unconscious decisions, to overestimate the information and knowledge one has so that they ignore the information available in the public. Individuals often show excessive confidence in their views, even though in reality they are not certain whether they are right or wrong.

Overconfidence behavior is a condition when a person has excessive confidence about his abilities (Fayyaz & Riaz, 2012). The implication in financial theory shows that overconfidence behavior results in bias in the financial decisions taken. This bias can occur when there is an error in estimating existing information as a potential target for financial decisions, then making management or financial decisions because they believe that the knowledge possessed is not owned by other people, then that person does not understand and does not analyze statistical data regarding the decisions made. taken then it tends to underestimate the risk (which causes a person to experience a loss), this is the same when taking a higher risk. Jika overconfidence

the greater one's bias, the greater one's financial distress, because someone who has overconfidence bias will tend to make financial decisions that are in accordance with his confidence and believe that his knowledge is better than others, even though someone who has this bias has not of course the decision is right and will increase the financial difficulties you have. So that this overconfidence bias can affect financial distress, because individuals who are too confident and ignore all information are vulnerable to the risks that occur in the millennial generation. The formulation of the hypothesis as follows:

H1: Overconfidence bias has a positive effect on financial distress in the millennial generation in Indonesia during the Covid-19 Pandemic.

: Self-attribution bias is a bias related to the tendency of individuals to think that their success is due to their skill or shrewdness in financial management, whereas if they fail to find a "scapegoat" or make other reasons beyond their control as a mistake when making financial decisions. This happens to individual behavior that is aggressive in making financial decisions (Hoffmann & Post, 2014). So that individuals who have self-attribution bias in making financial decisions will experience financial distress because people who have self-attribution bias will tend to be reluctant to introspect themselves, reluctant to realize their mistakes. Keep repeating the same wrong actions because you think the mistakes that occurred were not due to yourself but other factors. So that individuals will find it difficult to improve the pattern of good financial decisions and financial distress will arise. Therefore this self-attribution bias can affect financial distress, because individuals who are reluctant to realize their mistakes and try to find other factors in the mistakes that occur make them vulnerable to the risks that occur in the millennial generation. The formulation of the hypothesis as follows

H2: Self-attribution bias has a positive effect on financial distress in the millennial generation in Indonesia during the Covid-19 Pandemic.

Confirmation bias makes a person more careful in responding to information. The information he receives is only based on his own beliefs without looking at the actual information (Supramono & Wandita, 2017). Because the millennial generation is presented with a variety of information in cyberspace that is very easy to access, individuals cannot sort all information properly and are prone to confirmation bias. Therefore individuals who have a confirmation bias in making financial decisions so that a person will experience financial distress because a person will tend to justify and be confident with the decisions taken, even though the decision is wrong, the person will continue to seek justification and information to support the decisions that have been made. So that in the end the decisions made will still be at risk because they are not in accordance with the truth. Therefore, it will be difficult for individuals to improve the pattern of good financial decisions and financial distress will arise. Therefore, this confirmation bias behavior can affect financial distress, because individuals who are too stubborn and always try to justify themselves are vulnerable to the risks that occur in the millennial generation. The formulation of the hypothesis as follows:

H3: *Confirmation bias has a positive effect on financial distress in the millennial generation in Indonesia during the Covid-19 Pandemic.*

Research Methodology

The design of this research is quantitative research, which emphasizes a descriptive approach. The independent variables in this study are overconfidence bias, self-attribution bias and confirmation bias. The dependent variable in this research is financial distress.

Research Sample

The millennial generation is the sample in this study, totaling 247 respondents. The determination of the sample is non-probability sampling using purposive sampling, where the technique is a sampling technique that has certain characteristics in a population and the sampling technique is carried out with certain considerations. The sample criteria are as follows:

1. 26-40 years old.
2. Have your own income.
3. Making financial management or decisions during the Covid-19 Pandemic.

The Structural Equation Modeling (SEM) that will be used in data analysis is a model that can test structural models. The statistical program used is the LISREL program. Linear Structural Relationship (LISREL) is a SEM program that can estimate SEM problems and is very informative in producing statistical tests

Independent variables consist of: Overconfidence bias, Self-attribution bias and Confirmation bias Overconfidence bias is someone who feels that he has more than the average ability to analyze the market (Ritika & Kishor, 2020). According to (Ritika & Kishor, 2020) and (Ising, 2007) this variable can be measured using the following indicators: 1) Confident can predict future finances better than anyone else, 2) Always feel optimistic in managing finances in the future, 3) Confident in his ability to make decisions and manage finances better than other people, 4) Confident that they have complete knowledge of financial management, and 5) Feeling that you have great control in managing finances.

b. Self-attribution bias Self-attribution bias usually believes that successful finance is due to the innate skills of these individuals, and assumes that their finances fail due to external factors (Hoffmann & Post, 2014). According to Ritika & Kishor (2020) and Ising (2007) the indicators of the variables are as follows :

1. After doing financial management and hearing news about potential negatives that will occur in the financial decisions that have just been made, but do not find out more about the negative news.
2. Feeling that financial difficulties are due to bad luck, not due to errors in predictions.
3. When you gain financially, you feel that this is happening because of the right financial management strategy, not because of luck.

c. Confirmation Bias Confirmation bias is a person who pays attention only to the ideas that approve of his beliefs and ignores those that contradict his beliefs. This bias leads to illusion of knowledge, overconfidence, and negative impact on financial performance (Ritika & Kishor, 2020). According to Ritika & Kishor (2020) and Ising (2007) variable indicators are as follows:

1. Be selective in collecting information about financial management carried out.
2. When the outcome of a financial decision is better than previously predicted, then they will just follow it without further exploring why the result is better than previously predicted.
3. When finances are not going well, try to find information that confirms that the decisions that have been taken are correct.
4. After making financial decisions and not paying much attention to information regarding future predictions.

The independent variable is financial distress, financial distress is a condition or situation in which a person is unable to meet his needs so he feels depressed, dissatisfied, worried, and afraid of his life caused by his inability to meet his needs (Prawitz et al., 2006) .

Variable indicators as follows:

1. Feeling stressed with the current financial situation.
2. Feeling dissatisfied with the current financial situation.
3. Feeling worried about the current financial situation.
4. Very afraid of meeting monthly needs normally.
5. Often feel like buying something or traveling but can't because of thinking about the current financial situation.
6. Often feel that financially can only survive from paycheck to paycheck.

Variable Measurement

the Likert scale is a method or way of measuring attitudes, opinions, and perceptions of a person or group of people about a social condition in society.

Indicators and scores as follows:

- 1 . Answers strongly agree (SS): Score 5
2. Answers agree (S): Score 4
3. Neutral answer (N): Score 3
- 4.: Disagree answer (TS): Score 2
5. Answers strongly disagree (STS): Score 1

Types and Sources of Data The type of data used in this study uses quantitative data. The data source for this study uses primary data sources obtained by researchers from original sources, with the intention that data is obtained directly from informants or answers from questionnaires filled out by respondents. Primary data is based on information obtained directly (Sekaran & Bougie, 2017). The data presented was obtained from the results of scoring the respondents' answers to the questionnaire items

Results

Data Normality Test Results

the univariate normality of each indicator can be said to produce an abnormal distribution of 0.000, because the P-value on skewness and kurtosis < 0.05 . So to see the overall results to find out normal or not normal, it can be seen in the next test, namely the multivariate normality test. The results of the multivariate normality test from this study can be said that

the P-value obtained is 0.000, so <0.05 . However, this study has used the robust maximum likelihood estimation method by activating the covariance matrix and the asymptotic covariance matrix so that this normality test assumed to be normal.

Table 1
Validity Test Results'

'Variabel'	" Measurement	't-value'	'Cut off value'	Information
'Overconfidence Bias (O)	O1	0,00	-	Acuan
	O2	13,80	'>1,96	'Valid'
	O3	15,26	'>1,96	'Valid'
	O4	13,28	'>1,96	'Valid'
	O5	10,26	'>1,96	'Valid'
'Self-attribution Bias (SA)	SA1	0,00	-	'Acuan'
	SA2	5,68	>1,96	'Valid'
	SA3	3,85	>1,96	'Valid'
'Confirmation Bias (C)	C1	0,00	-	Acuan
	C2	6,28	>1,96	'Valid'
	C3	5,88	>1,96	'Valid'
	C4	4,52	>1,96	'Valid'
'Financial Distress (FD)	FD1	0,00	-	'Acuan'
	FD2	11,17	>1,96	'Valid'
	FD3	14,28	>1,96	'Valid'

Source: Processed data

Table 2
Reliability Test Results

'Variabel'	'CR'	'Keterangan'
Overconfidence Bias	'0,85	'Reliabel'
Self-attribution Bias	'0,59	'Reliabel'
Confirmation Bias	'0,65	'Reliabel'

Source: Processed data

Table 3
Goodness of Fit

GoF Size	Target Match	Result	Remarks
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'Minimum Fit Function Chi Square'	$P\text{-Value} > 0,05$	467,86 (P = 0,0)	'Good Fit'
'RMSEA'	$< 0,05$	0,00	'Close Fit'
'NFI'	$\geq 0,9$	0,91	'Good Fit'
'NNFI'	$\geq 0,9$	0,93	'Good Fit'
'CFI'	$\geq 0,9$	0,94	'Good Fit'
'IFI'	$\geq 0,9$	0,94	'Good Fit'
'RFI'	$\geq 0,9$	0,90	'Good Fit'
'RM'R	$\leq 0,10$	0,091	'Good Fit'
'Standardized RMR'	$\leq 0,10$	0,068	'Good Fit'
'GFI'	$\geq 0,9$	0,84	'Marginal Fit'
'AGFI'	$0,80 \leq \text{AGFI} < 0,90$	0,79	'Fit'

Source: Processed data

Table 4
Hypothesis Test Results'

Hipotesis	Connection variable	'Loading Factor'	't-value'	'Cut Off'	
H1	O → FD	0,70	8,04	>1,96	'Signifikan'
H2	SA → FD	0,38	3,58	>1,96	'Signifikan'
H3	C → FD	0,32	3,25	>1,96	'Signifikan'

Source: Processed data

1. Based on Table 1 that:

1. Overconfidence Bias has a significant effect on Financial Distress. This influence can be seen from the loading factor value of 0.70

with a t-value of 9.04. Thus stating that H1 is accepted because overconfidence bias has a significant positive effect on financial distress in the millennial generation in Indonesia during the Covid-19 Pandemic.

2. Self-attribution Bias has a significant effect on Financial Distress. This influence can be seen from the loading factor value of 0.38 with a t-value of 3.58. So it states that H2 is accepted because self-attribution bias has a significant positive effect on financial distress in the millennial generation in Indonesia during the Covid-19 Pandemic.

3. Confirmation Bias has a significant effect on Financial Distress. This influence can be seen from the loading factor value of 0.32 with a t-value of 3.25. Thus stating that H3 is accepted because the confirmation bias has a significant positive effect on financial distress in the millennial generation in Indonesia during the Covid-19 Pandemic

Discussion

The results of the hypothesis test are accepted that overconfidence bias has a significant effect on financial distress in the millennial generation in Indonesia during the Covid-19 pandemic. The overconfidence bias towards financial distress shows that increasing overconfidence bias will also increase financial distress in the millennial generation in Indonesia during the Covid-19 pandemic, which means that when someone has a high overconfidence bias in themselves when making financial management or decisions, this will make a person is increasingly experiencing financial distress due to financial management or decisions made irrationally.

Personal financial behavior can also affect psychology, emotion and cognition which can affect decision-making behavior. In the midst of today's global economic development, every individual must be able to become a smart financial actor to be able to manage his personal finances by making financial plans that lead to healthy financial behavior. According to Lubis et al (2013) that self-control is a very useful financial behavior if it is understood and can be applied in everyday life. Overconfidence bias is an action when a person really believes in his own predictions which biases the results taken and causes financial distress.

The results of the hypothesis test are accepted that self-attribution bias has a significant effect on financial distress in the millennial generation in Indonesia during the Covid-19 pandemic. The self-attribution bias towards financial distress shows that increasing self-attribution bias will also increase financial distress in the millennial generation in Indonesia during the Covid-19 pandemic, which means that when a person has a high self-attribution bias when making management or decisions financially, this will make a person experience more financial distress due to financial management or decisions made irrationally. It can be seen that personal financial behavior can influence individuals in behaving when faced with making financial decisions. Personal financial behavior can also affect psychology, emotion and cognition, namely self-attribution bias which can affect decision-making behavior due to past experiences when successful and make individuals think that if there is success it is due to their own efforts. Controlling yourself to understand the factors of success and failure is a wise act of self-control. If this bias gets worse, a person is not aware of the mistakes he has made and will then repeat the same mistakes, maybe even worse (Ritika & Kishor, 2020). So that with a higher self-attribution bias, it can also have a bigger impact on the financial distress of the millennial generation in Indonesia during the Covid-19 pandemic.

The results of hypothesis testing are accepted that confirmation bias has a significant effect on financial distress. The confirmation bias towards financial distress shows that an increase in confirmation bias will also increase financial distress in the millennial generation in Indonesia during the Covid-19 pandemic, which means that when a person has a high confirmation bias in himself when making financial management or decisions, this will make a person is increasingly experiencing financial distress because management or financial decisions are made irrationally and shows that personal financial behavior can affect individuals in behaving when making financial management and decisions. Personal

financial behavior affects cognitive psychological confirmation bias which can affect individual behavior in decision making (Park et al., 2012). With the development of advanced technology, each individual must be able to adjust himself in digesting any available information and become a good financial actor so that he can manage his financial planning. Confirmation bias makes a person selective about the information he gets and is reluctant to accept information that doesn't suit him (Supramono & Wandita, 2017). So that with a higher confirmation bias, it can also have a bigger impact on the financial distress of the millennial generation in Indonesia during the Covid-19 pandemic.

Conclusion

Based on the results of the research that has been discussed, the conclusions drawn from this study are that the behavior of overconfidence bias, self-attribution bias and high confirmation bias in financial management or decisions has proven to be able to make the millennial generation during the Covid-19 Pandemic experience more financial distress, because with the behavior of overconfidence bias, self-attribution bias and confirmation bias make a person behave irrationally, overconfidence bias makes a person too sure of himself even though he is not necessarily right. Thus making him experience financial distress. Meanwhile, self-attribution bias makes a person reluctant to realize the mistakes that have been made and tends to blame other circumstances. So that makes it keep repeating the same mistakes and increasingly experiencing financial distress. Then the confirmation bias makes a person too selective in seeking information that is only in accordance with his beliefs and is reluctant to broaden his views with other information that is different from his beliefs. Even though his belief is not necessarily true, therefore it makes him experience financial distress.

Recommendations

Suggestions for the millennial generation should not be too overconfident, because if overconfidence is too high it will cause overconfidence bias and cause all irrational decisions, to be able to reduce the level of financial distress one should be able to control one's behavior so as not to be overconfident, so as not to cause management or decision making wrong finances and increasingly falling into financial distress, as well as for the development of theories about behavioral finance, especially on overconfidence bias, self-attribution bias, and confirmation bias. It is better to be able to form and develop various other biased behavior variables and different indicators

Bibliography

Fayyaz, M., & Riaz, K. (2012). Overconfidence bias, trading volume and returns volatility: Evidence from Pakistan. *World Applied Sciences Journal*, 18(12), 1737–1748. <https://doi.org/10.5829/idosi.wasj.2012.18.12.1200>

Fuad, H. (2021). Dear Milenial, Awas Jangan Utang Buat Beli Saham. *Sindonews.Com*. https://ekbis.sindonews.com/read/304588/178/dear-milenial-awas-jangan-utang-buat-beli-saham-1610892105#google_vignette

Hoffmann, A. O. I., & Post, T. (2014). Self-attribution bias in consumer financial decision-making: How investment returns affect individuals' belief in skill. *Journal of*

Behavioral and Experimental Economics , 52, 23–28.
<https://doi.org/10.1016/j.socec.2014.05.005>

Intani, D. W. (2021). Mengenal Bias Konfirmasi, Kecenderungan Melihat Hal secara Subjektif. *Idntimes.Com*. <https://www.idntimes.com/health/fitness/dwi-wahyu-intani/bias-konfirmasi-kecenderungan-melihat-hal-secara-subjektif-c1c2/5>

Lajuni, N., Bujang, I., Karia, A. A., & Yacob, Y. (2018). Religiosity, Financial Knowledge, and Financial Behavior Influence on Personal Financial Distress Among Millennial Generation. *Jurnal Manajemen Dan Kewirausahaan*, 20(2), 92–98.
<https://doi.org/10.9744/jmk.20.2.92-98>

Park, J., Konana, P., Gu, B., Kumar, A., & Raghunathan, R. (2012). Confirmation Bias, Overconfidence, and Investment Performance: Evidence from Stock Message Boards. In *SSRN Electronic Journal* (Issue October). <https://doi.org/10.2139/ssrn.1639470>

Purwanto, A. (2021). Kemiskinan pada Masa Pandemi Covid-19: Konsep, Potret dan Strategi Pengentasan. *Kompas Pedia*. <https://kompaspedia.kompas.id/baca/paparan-topik/kemiskinan-pada-masa-pandemi-covid-19-konsep-potret-dan-strategi-pengentasan>

Ritika, & Kishor, N. (2020). Development and validation of behavioral biases scale: a SEM approach. *Review of Behavioral Finance*. <https://doi.org/10.1108/RBF-05-2020-0087>

Supramono, S., & Wandita, M. (2017). Confirmation Bias, Self-Attribution Bias, Dan Overconfidence Dalam Transaksi Saham. *Jurnal Keuangan Dan Perbankan*, 21(1), 25–36.
<https://doi.org/10.26905/jkdp.v21i1.1224>

Ware, S. J. (2015). Debt, Poverty, and Personal Financial Distress. *American BankruptcyLaw Journal*, 89(3), 493–510.

Cheryta, A., Moeljadi, M., & Indrawati, N. K. (2018). Leverage, asymmetric information, firm value, and cash holdings in Indonesia. *Jurnal Keuangan dan Perbankan*, 22(1), 83–93.
<https://doi.org/10.26905/jkdp.v22i1.1334>

Fu, X., Lin, Y., & Molyneux, P. (2014). Bank competition and financial stability in Asia Pacific. *Journal of Banking & Finance*, 38, 64–77.
<https://doi.org/10.1016/j.jbankfin.2013.09.012>